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Changing Friendship Networks and Access to Academic Capital: The Transitions of Middle School Students

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Changing Friendship Networks and Access to Academic Capital: 
The Transitions of Middle School Students

A dissertation submitted in partial satisfaction of the requirements for the degree 
Doctor of Education

in

Teaching and Learning

by

Samantha Brooke Greenstein

Committee in Charge:
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2013
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Chair

University of California, San Diego

2013
DEDICATION

This dissertation is dedicated to my mom, Barbara Greenstein. Thank you for being better than any mom I could ever wish for.
EPIGRAPH

Some who support [more] coercive strategies assume that children will run wild if they are not controlled. However, the children for whom this is true typically turn out to be those accustomed to being controlled—those who are not trusted, given explanations, encouraged to think for themselves, helped to develop and internalize good values, and so on. Control breeds the need for more control, which is used to justify the use of control.

Alfie Kohn
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ABSTRACT OF THE DISSERTATION

Changing Friendship Networks and Access to Academic Capital: The Transitions of Middle School Students

by

Samantha Brooke Greenstein

Doctorate of Education in Teaching and Learning

University of California, San Diego, 2013

Paula Levin, Chair

Academic tracking is a ubiquitous feature of American high schools (Argys, Rees, Brewer, 1996). Academic tracking is the process in which students are placed into levels of classes based on how school personnel perceive their abilities. Less is known about how students are placed into classes when they first encounter tracking, which is typically at the beginning of middle school. Middle school is the transitional period between elementary school, where academic tracking is less institutionalized, and high school, where tracking is widespread. Academic tracking has scholastic as well as social implications for students. Research shows that academic tracking occurs along ethnic lines and has social implications (Carter, 2005; Flores-González, 2002). This study attempted to understand how friendship networks change when middle school students first experience academic tracking and how knowledge about educational opportunities is embedded within different friendship groups.
The research question guiding this study was: how do institutional practices and friendship networks interact to constrain or facilitate the access to academic capital among middle school students? Nine eighth-grade students who had been members of interethnic friendship networks in elementary school were interviewed about their former and current friendship networks. School documents including student class schedules were analyzed to determine how students’ friendship networks had changed, how students accounted for these changes, and about students’ access to academic capital.

Data analysis produced three main findings. First, the ethnic distribution of students in academic tracks did not match the ethnic distribution of the overall school population. Second, course tracking affects existing friendship networks and the development of new friendship networks. Third, students rely on both peers and adults they trust for information about college, and if people they trust have limited academic capital, there are consequences for these students’ own academic capital formation. There are important implications of these findings: secondary school personnel need to examine more closely the school policies and practices that influence course enrollments and how the unintended social consequences of course enrollments affect friendship networks and the access students have to academic capital.
CHAPTER I: INTRODUCTION

It is lunchtime on your first day of middle school. Do you remember it? You are standing in the middle of the quad carrying your backpack. You scan the crowd. Who are you looking for?

If you were anything like the students at Beach Street Middle School\(^1\), you were nervous and looking for a familiar face from elementary school. Within a few minutes, you see a friend who was in your class last year. You sit down to eat lunch together and talk about middle school life so far.

The lunch area at the beginning of the first school year at Beach Street Middle School looks very different than it does on the last day of middle school two years later. On the first day, seventh grade students are huddled together with their friends from elementary school. These are friends they used to sit with in their classroom, share a table with at lunch, or play basketball with during recess. Some of these groups of students include both white and Latina/o students. However, by the end of eighth grade, the groups of students at Beach Street Middle School have changed. Now, students sit with the people with whom they take the same classes. The groups of students that were once ethnically heterogeneous have become far less diverse. White students sit in groups together while Latina/o students sit in other groups. What are the dynamics of such changes in the two years of middle school?

The Changing Friendships of Middle School Students

Five years ago, I began teaching at Beach Street Middle School, a school serving seventh and eighth grade students in the same district in which I attended

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\(^1\) Pseudonyms have been used for all of the names of schools, students, and communities in this paper.
school. During this time, I have seen the friendships of my students shift from the time they enter middle school until they are promoted to high school. For this study, I interviewed nine students who were members of ethnically mixed friendship networks in elementary school. Each student I interviewed described how her or his group of friends had changed over the two years of being in middle school. The stories were not identical, but the results were similar. The friends that students had in middle school were more ethnically and socioeconomically similar to themselves than the friends they had made in elementary school.

For example, Michelle, a white student, had considered a Latina student named Elizabeth to be one of her best friends in elementary school. Meanwhile, Celia, who is Latina, had a close relationship with Louisa, a white student. By the end of eighth grade, Michelle and Louisa had become inseparable, but no longer spent any time with Celia or Elizabeth. Elizabeth and Celia, however, had become very close friends. Similarly, Daniel, Eduardo, Anthony, and Nathan had spent every recess in sixth grade playing sports together. After leaving middle school, Daniel and Eduardo, who are both Latino, still spent a significant amount of time with each other playing football and video games, but neither of them considered their former white friends Anthony and Nathan to be their friends anymore.

Clearly, a change has occurred in the friendships of all of these students. What is not as obvious is the process by which these changes transpired.
My Experience with Changing Friendships

The observations that I have made as a teacher at Beach Street Middle School bring back memories of my own youth. Growing up in the 1980s and 90s, my brother and I were inseparable from our best friends and next-door neighbors, Louie and Jessica. Throughout elementary school, we spent as much time together as possible. After school we would rush through our homework so we could play baseball until sunset on the dirt road in front our houses. We spent weekends exploring a nearby canyon. On summer nights, we would camp out in our backyards. But when we left elementary school, for reasons I do not recall, our groups of friends changed. Louie and Jessica, children of working-class Mexican immigrants, still lived next door to my white, middle-class family, but we rarely saw each other. Perhaps we stopped spending time with each other because we were now taking different classes and pursuing different interests after school. Regardless, as a middle school student, I began to spend time with students who were more like me, in ethnicity and social class. My friendship network no longer included Louie or Jessica.

During middle school and high school, my brother and I were enrolled in honors and advanced placement classes. Louie’s mother had to convince school personnel to remove him from English Language Learner classes even though English was his first language. While my brother and I both attended college, Jessica and Louie did not. Clearly, when we entered middle school, we began spending time with peers who were engaged in our same academic tracks. Our friendships may have contributed to our differing access to academic opportunities. While I thought I was
choosing my friends throughout my school career, I was not aware that institutional factors might have played a role in the networks of friends that I had developed.

**A Widespread Issue**

Youth believe they have the freedom to choose their friends. However, there may be factors outside of their awareness that influence the people with whom they choose to spend their time. My experiences both as a student and as a teacher in middle school have led me to question the factors that influence students’ friendships. In addition, these experiences have led me to wonder how a person’s friendships in middle school may have a lasting impact on their later academic opportunities.

The research on tracking of classes in high schools reveals that course enrollments follow along ethnic, racial, and socioeconomic lines (Argys, Rees, Brewer, 1996). Since tracking results in high school students spending more time at school with students who are ethnically similar to them, students develop ethnically homogeneous friendship networks (Carter, 2005; Flores-González, 2002). Tyson (2011) has reported that high school students retrospectively identify their important friendships as having started in middle school. However, there is a gap in research about tracking in middle school.

To better understand how tracked classes affect middle school students’ friendship networks, this research study was conducted. Eighth grade students were asked to describe both their current friendship networks and those they recalled from elementary school. Students were encouraged to describe the rationale for their friendships: how friends were made, kept, and lost. And finally, students talked about
the adults that they thought would be helpful sources of information about college.

Through an analysis of these middle school students’ representation of their social and academic world, the study attempted to determine if and how institutional factors influence whom students choose as their friends and whether these choices in friendships have an important impact on students’ academic capital formation.
CHAPTER II: LITERATURE REVIEW

Friendship Networks: The Social Life in Middle School

Moolenaar and Sleegers (2010) define a “friendship network” as a network that encompasses confidential discussions and social support. In this paper, “friendship networks” are defined as groups of students who exchange important and privileged information with each other. In addition, a group of students is a “friendship network” if they spend time with each other when they are not required to, such as during the school’s lunch or passing periods, after school, or on weekends.

Middle school is an especially critical time to examine how friendship networks form. As Allan (1998) found, youth select their friends, but their “choice” is configured by the social, cultural, and economic conditions around them. In over ten years of ethnographic research, Tyson (2011) shows that curriculum tracking separates high school students along racial, ethnic, and socioeconomic lines. She found that since students are influenced by factors outside of their own control, such as the institutional practice of tracking, they do not have equal access to all other students as friends. Tyson further reports that social and cultural conditions, such as language fluency and knowledge about a school’s class registration process, result in high school students of different ethnicities being placed in different academic tracks. The different academic tracks of students influence how students choose their friends.

When students spend most of their time with people who are like them, they then lack relationships with people who have different experiences, understandings, and social connections. According to Eckert (1996), when compared to elementary
school, middle school students are more likely to be in the academic classes and extracurricular activities as their peers who share their ethnicity. Students tend to become friends with students who share academic classes and extracurricular activities, so groups of friends tend to be relatively ethnically homogeneous (Cotterell, 1996). According to Ito’s (2010) research on the social networks of youth, most tend toward building friendships with others of a similar age that share their interests and values.

Through his extensive research on how adolescents develop their social networks, Ito (2010) found that groups of friends exchange cultural knowledge and information about school. Even though the developmental period of adolescence is marked by emotional volatility and angst, Ito acknowledges that this time period also provides a powerful peer-based learning environment where youth are constructing and picking up social norms, tastes, knowledge, and culture from those around them. As Tyson (2011) found in her research on tracking in high schools, middle schools are places where students gain and embody cultural ways of acting and communicating that stay with them in high school and beyond. Researchers need to study differences in group access to information about post-secondary educational opportunities so that policy makers and practitioners can have the necessary information when making decisions regarding school policies and practices.

While it is well documented that institutional practices such as within school tracking, organize students, less is known about how friendship networks develop. In addition, not much is known about the meaning of these groups and how information
is exchanged among and between groups from the perspectives of middle school students. By understanding how students make friends and exchange information with their friends, policy makers and practitioners can be better informed regarding the effect that the institutional organization of students has on their experiences and understandings of their future educational opportunities.

**The Ecocultural Contexts of Schools: The Meaning of Institutional Organization**

Weisner’s (2002) extensive research on children in different cultural communities points to different schemas that people learn which guide individual behaviors and daily routines. Ogbu and Simons (1998) looked at schools and the students they serve through a similar cultural-ecological lens. They found that internalized cultural schemas played an important role in how students interact with each other and become friends with peers. By viewing schools through an ecocultural lens, it might be assumed that different friendship networks are distinct cultural communities that have different norms and values.

Flores-González (2002) argued that different students experience the routines, practices, and interactions that constitute the everyday ecology of a school differently. Although students may attend the same school, they are not necessarily having the same experiences. Flores-González illustrated the differing experiences of students by contrasting two students who attended the same school. While one student in her study developed teacher and peer support networks of people to help her in school and in the college application process, another student developed networks of friends primarily consisting of peers who did not graduate from high school. The first student went on
to graduate from high school and attend college, while the other student dropped out of school despite her desire to be educated. While both students attended the same school, they experienced different eco-cultural contexts in which there were differences in access to the educational opportunities that were provided. One reason students have different experiences within schools is because they take different academic classes, often because they are tracked into different academic programs. Thus, one consequence of the practice of tracking can be that students become part of different ecological niches within the same school.

**Tracking and Segregation: The Different Ecological Niches within Schools**

Throughout the history of the United States, schools have been segregated by race, ethnicity, and socioeconomic status. Before Brown v. Board of Education in 1954, segregation occurred by sending students to different schools based on their “race”. Even though the practice barring students from schools based on their race was judged to be unconstitutional, students do not have equal access to educational opportunities in the American public school system.

**Tracking Along Racial, Ethnic, and Socioeconomic Lines**

There are four well-documented findings concerning tracking in secondary schools. First, academic tracking occurs along racial, ethnic, and socioeconomic lines. The institutional practice of tracking students based on their test scores, performance, and interests has been effective at creating segregated learning experiences. According to Ansalone’s (2006) research on tracking in high school, students of color and white students are less likely to share core academic classes than if tracking were not
occurring. In addition, Rees, Argys, and Brewer (1996) found that tracking occurs along ethnic and socioeconomic lines as well with white and higher socioeconomic students more likely to be in honors, advanced placement, or advanced classes. Tracking results in students to be placed in ethnically and socioeconomically homogeneous classes that may not represent the diversity of a school.

**Tracking in Extracurricular Activities**

Second, the tracking within academic classes also affects participation patterns of students in high school extracurricular activities. In their study of high school students, Warikoo and Carter (2009) found that students in different academic tracks and programs were more likely to participate in different extracurricular activities, making these activities more homogeneous than the overall school population. In effect, by tracking, schools structure the educational experiences of students and provide them with different opportunities. School practices result in students from the same school being in different ecological settings.

Schools can both purposely and unintentionally segregate students. Flores-González (2002) found instances of school policies preventing equal access to school activities and other cases of schools inadvertently prohibiting certain students from participating in school-sponsored programs. She found that students were prevented from playing on the school athletic teams because they did not have a 2.0 grade point average, a school policy that prohibited students from participating. At the schools in which Flores-González conducted her research, underrepresented minority students were more likely than white and Asian students to have a grade point average that was
below 2.0. However, other students simply did not think to try out because they had less access to the necessary equipment or they did not have information about participation. Limited access to information and the cost of equipment are school practices that do not directly prevent students from participating, but result in students not having the same opportunity as other students. School policies in high schools lead to underrepresented minority students and students from low socioeconomic backgrounds having different access to not just academic classes but also extracurricular activities.

Tracking and Homogeneous Friendship Groups

Third, high school students develop homogeneous groups that primarily consist of students from their academic classes and extracurricular activities. Quiroz, Flores- González, and Frank (1996) found that, typically the people high school students consider their friends to be are students in the same academic tracks and programs. Tyson (2011) describes high school students’ retrospective reports that they tend to make friends with the students in their middle school academic classes and that these friendships persist throughout high school and beyond. Beyond these recollections, there is no research data about what middle school students experience in their groups of friends when they first encounter academic tracking.

Tracking and Stereotypes

Finally, high school students themselves identify certain stereotyped notions of students in different academic tracks. When schools place labels, such as honors or remedial, on students based on their prior achievement and perceived abilities,
stereotypes are reinforced. In Brantlinger’s (2003) research involving middle class families and how their views and actions in schools reproduce the social-class structure, she found that students come to hold certain beliefs about their group of friends and groups of other students at their school. She found that middle-class Americans presume that their own superiority accounts for their school success and the life chances that successful schooling brings. Carter’s (2005) study of low-income urban Latino and African-American youth refutes the assumption that minority students do not have the desire to do well in school. However, she did find that students identify honors, advanced placement, and college-prep courses as white and Asian students and technical and remedial courses with black and Latino students. The research evidence is strong that high school students hold stereotyped notions about what kinds of students belongs in the different academic tracks. It is not clear, however, if these stereotypes exist when students are in middle school and how these ideas might affect the friendships of middle school students.

**Tracking in Middle School**

The research on tracking and its effect on friendships have primarily been conducted at the high school level, after students have been participating in a tracked system for a number of years. As Tyson (2011) found, the practice of tracking students into different levels of academic classes begins in middle school. As a middle school teacher, I have seen that the practice of academic tracking result in students spending time outside of class (at lunch, after school) with more homogeneous groups of students. For example, students who participate in skate or surf PE classes need
transportation to the skate-park or beach. It is not the school’s policy to exclude students from enrolling in classes based on their access to a car and an adult who can transport them during the school day, but its effect is that students whose parents have flexible work schedules and transportation are able to enroll in the specialized PE classes. Students in surf and skate PE spend a large amount of social time together and often become friends with the other students in these classes.

**Capital: Information and Resources within Friendship Networks**

The theory of capital is a promising theoretical lens through which to examine the effects of tracking on students’ access to postsecondary educational opportunities. The information students exchange with their friends can assist them in accessing post-secondary educational opportunities, so it is important to understand what youth talk about with their friends. While all people have capital, different types of capital are valued in different contexts by different people. According to Bourdieu (1986), capital is the accumulation of material and embodied resources that are inherited from the past and are continuously created. These resources enable people to appropriate social status. Throughout a person’s life, that person builds relationships with people, accumulates material possessions, and gains knowledge from their different experiences. Middle school students have built relationships with both peers and adults who they can go to for advice or support. They have acquired possessions that can help their social status with peers (the latest video game console, for example) or help them academically (a personal device that helps them access the internet, for example). Middle school students have also, through their different experiences,
gained knowledge about the world and the opportunities that exist for them in the future (college or job opportunities).

Schools are a critical place where young people exchange capital with each other. Carter (2006) found that high school students share and transmit various types of capital primarily with the students in their academic classes. She argued that, in higher track classrooms, students are exposed to more information that will help better prepare them to enroll in college than students in lower track classrooms. Lareau (2003) compared the child rearing of several middle class and lower income families. She found that both parents and children of middle class families were more aware of the school structures, were more likely to advocate for placement in higher academic tracks, and took better advantage of opportunities offered by the school. Lareau’s findings indicate that the people who have access to cultural capital that is valued by schools are better able to negotiate the school’s cultural environment. As Bourdieu and Passerson (1977) theorized, capital provides people with access to certain opportunities and information that enable entry to high status groups. They went on to speculate that students with the capital valued by their school have a better chance of economic success later in their lives. People have access to other forms of capital, such as the ability for young children to care for their siblings or complete household chores without assistance (Carter, 2003), but this capital is not the capital that is typically valued by schools (Warikoo & Carter, 2009).
The different types of capital (academic, cultural, social, and economic) may all contribute to success in accessing post-secondary educational opportunities. The contributions of these different types of capital are explained in more detail below.

**Academic Capital**

According to Bourdieu (1979), academic capital is an individual’s extent of education and other academic experience that can be used to gain a place in society. Much like other forms of capital, (social, economic, cultural), academic capital does not depend on one factor. Academic capital depends on the measured duration of schooling, the status of the academic institutions attended, and the experiences one has when attending the academic institution. The formation of academic capital is supported and limited by a person’s access to cultural capital, social capital, and economic capital.

**Cultural Capital**

Cultural capital exists in three forms, according to Bourdieu (1986). Cultural capital can be embodied when a person has appreciation and understanding for certain music, art, literature, or sports. For example, students who know about the sport of tennis and have experience discussing current events in a social setting may feel more comfortable than students who know about skateboarding and do not feel confident giving their opinions on topical events when interacting with college admissions officers, alumni, or current students. Embodied cultural capital, defined by Bourdieu as the cultural capital a person has that influence the way they act, is gained through socialization. People gain embodied cultural capital by interacting with others.
important to them. Bourdieu (1986) discusses how cultural capital can be objectified in the form of cultural goods such as books, art, and technology and yields specialized cultural knowledge. Students who have books or computers at home have objectified cultural capital that is valued by most educational institutions. People who use their imagination to create elaborate and engaging stories valued in storytelling traditions do not have the equivalent objectified cultural capital that is valued by schools. Finally, cultural capital can be institutionalized in the forms of educational qualifications (Bourdieu, 1986). If students are qualified for postsecondary educational opportunities and take advantage of them, their cultural capital becomes institutionalized. If students have cultural capital that is institutionalized in higher education, they are more likely to feel comfortable pursuing a postsecondary education which leads to the development of academic capital.

Educational institutions value some cultural capital more than other cultural capital. Students with the cultural capital that is associated with middle class white students typically have styles of speaking and interacting that are valued by colleges and universities. Carter (2005) found that students who use Standard English and know about topics such as politics that are valued in white, middle-class culture are more likely to be knowledgeable about interacting with teachers, applying to competitive colleges, and participating in extracurricular opportunities. Lewis (2003) discusses that low income and ethnic minority students are at a disadvantage because they have less access to cultural capital that is valued by schools and less experience with the college admission process. In addition, Wells and Serna (1996) discovered
that because families with school-valued cultural capital know the schools system better, they are often able to enroll their children in prestigious academic tracks. Embodying school-valued cultural capital requires socialization with people who have access to it. So, if students are not friends with students who have cultural capital that is valued by schools, they are less likely to have exposure to experiences that will make them better equipped for the college admissions process. If students do not attend college, they limit their ability gain academic capital.

**Social Capital**

According to Bourdieu (1986), social capital consists of an individual’s social connections. He asserts that a person can have a different degree of social capital depending on the size of their network of connections. The amount of social capital a person has also depends on the amount of economic capital and the type of cultural capital possessed by the people with which he or she is connected.

The interactions that students have at school contribute to the social capital that they exchange with other students. Valenzuela (1999) took an in-depth look at the social relationships of students at a high school in Texas that served a majority of first and second-generation Mexican immigrant students. She found that social relations at school allow for the accumulation of social capital that can be converted into good grades, degrees, or information that can lead to educational opportunities. Social capital also fosters trusting relationships between students who have the same goals. Valenzuela (1999) found that types of relationships can lead to exchanges that can
make students more successful such as shared homework, belonging to a study group, or using each other’s technological resources.

Students are more likely to gain academic capital if they have relationships with people who have school-valued social capital. Students increase their chances of learning about college if they are surrounded by people who are well versed in the ways to access post-secondary opportunities. If students do not know which classes to take to be college-eligible or when to register for standardized tests, their access to academic capital is limited to what the institution can provide. In addition, students who are lacking resources such as a device that can access the Internet to assist with homework can benefit from having social capital. If students have social capital in the form of a friend who can lend them an internet-capable device, then they will be more likely to gain academic capital. In addition, there may be institutional support offered to students, such as after-school tutoring, but students need to form trusting relationships with people who will inform them about these opportunities and encourage them to participate in them.

**Economic Capital**

Academic capital is strongly tied to earning potential. For instance, individuals with an undergraduate degree earn, on average, $20,000 more annually than individuals with only a high school diploma (United States Department of Labor, 2004). Economic capital, which Bourdieu (1986) defines as being immediately and directly convertible into money, increases with a person’s academic capital. Economic capital can be used to gain social and cultural capital, and can be gained from these
other types of capital. For example, one can gain access to certain groups through membership fees or ownership of necessary items, increasing their social capital. Even in dire economic times, people with a postsecondary education are more likely to be financially stable than those who do not have an education beyond high school.

If families have money, youth are more likely to participate in extra-curricular activities such as athletic teams, tutors, and academic competitions. At Beach Street Middle School, for example, students are told that financial assistance is available for those students who cannot afford to participate in any extracurricular activity. However, students rarely access these resources, perhaps because they are still not aware of them or because they feel there is a stigma associated with using such opportunities. Last year, for example, one of my students did not attend the eighth grade amusement park trip because he did not have the financial resources. When I asked him why he was not going, he said that he was not aware that scholarship funds were available. After I told him about these funds, he said that he did not feel comfortable asking for the money, and he missed the trip. While the trip may not have directly led to this student gaining academic capital, this anecdote indicates that, regardless of financial support that is available, low-income students may be less likely to participate in school activities that require financial resources. So, economic capital helps students gain access to opportunities that may increase their chance at accessing future academic capital.
Academic Capital Formation

As defined by St. John (2010), “academic capital formation” is the process that prepares students for college and is an underlying set of social processes enabling students to develop patterns of educational success. Individuals must have the information needed to gain academic experiences they can use to improve their place in society. A student’s access to school-valued cultural, social, and economic capital increases their ability to form academic capital (Figure 1).

![Diagram of Academic, Social, Cultural, and Economic Capital](image)

Figure 1: How Academic, Social, Cultural, and Economic Capital Contribute to the Formation of Other Forms of Capital

Academic capital formation relies heavily on students’ other types of capital. If students have cultural capital, they may have the ability to ask school counselors and
teachers for help in learning about college or may have access to community organizations that can help them graduate from high school and attend college. In addition, if students have social capital, they may form relationships with peers who can share information about opportunities at school that will help them in the college admissions process. Finally, if students have economic capital they can use their financial resources to take college admissions test-prep courses or to become involved in extracurricular activities.

**Summary**

According to Cabrera et al. (2001), the academic tracks and extracurricular activities in which students begin to participate in middle school affect their high school careers and college eligibility. Cabrera noted that high school students who had been engaged in extracurricular or co-curricular activities in middle school were more likely to participate in the high-school version of these programs than their peers who were not involved in them in middle school. The Science Olympiad, Math Club, and athletic teams all have relationships with similar activities at the high school so that students are prepared for them. In addition, students can take advantage of higher-tracked classes that feed into honors and advanced placement classes in high school. In reality, however, as Cotterell (1996) found, access to high-level courses is not the same for all students, which affects the extracurricular activities in which students take part.

When people are able to form academic capital, they will have more educational opportunities after high school. If we, as a society, are committed to equal
opportunities for all, we need to ensure that all people are able to access academic capital. Carter (2009) claims that further education provides people with significant social and cultural capital and well-connected social networks that may give them cultural insight and knowledge about how America’s social, academic, economic, and political institutions operate. Flores- González (2002) found that social capital provides opportunities for people to transform their cultural capital into economic capital. If we better understand the role of middle school friendship networks in academic capital formation, we will be better able to ensure that all students are able to gain academic capital.

**Research Problem**

Middle school students are in schools where they begin to encounter tracked classes and extracurricular activities where they can gain access to different forms of capital. Students develop academic capital by gaining cultural and social capital from their families, school institutions, and their peers. However, students still have differential ability to form academic capital because some students have more access to institutional and social resources than other students. Because of tracking, students may not have the same opportunities to form academic capital. Tracking is actually highly influenced by institutional practices. Looking closely at how groups of students form and reform during middle school and looking at how academic capital is formed within and between different friendship networks will enable researchers to understand the interventions that can be put into place to ensure equal access to postsecondary opportunities for all students.
CHAPTER III: RESEARCH METHODOLOGY

This study investigated how middle school students’ friendship networks changed from elementary school to middle school and how these changes affect their academic capital formation. The lens of capital provided a conceptual framework for analyzing the type of information that students exchanged. Social network theory provided an analytical framework to look at how relationships of students changed. The constructs of capital and social network theory informed the research questions and methods used to examine the friendship networks of middle school students.

Research Questions

How do institutional practices and friendship networks interact to constrain or facilitate the access to academic capital among middle school students?

Sub-questions

a. How do middle school policies and practices socially organize middle school students?

b. How do students’ friendship networks change from elementary to middle school, and how do students account for these changes?

c. How are opportunities to access academic capital embedded within middle school friendship networks?

Social Network Theory

A promising analytical lens through which to examine the data generated through a study of these research questions is social network theory.
History

Social network theory focuses on the relationships between people or organizations. While social networks have been analyzed since the 1930’s, social network theory was not developed until the 1970’s (Freeman, 2004). Social network analysis consists of understanding the web of relationships in which people are embedded and has been used as a form of analysis since Moreno (1934) used systematic recordings and analysis of social interaction in small groups in both classrooms and work places.

Social network theory was started to develop at the time of studies like those done by Granovetter (1978), who found that people within a given social network tend to have more homogeneous opinions. Having similar opinions was often a reason that members of a social network were attracted to one another. For example, Fowler and Christakis (2008) found that people within a social network were more likely to be happy if other members of the social network were also happy. In addition, the happiness of a person increased if other social networks of their friends included mostly happy people. Since these groups of people had similar ideas and opinions, the people who were most able to find new information and insights were those who looked beyond one social network and developed friends and acquaintances in other networks.

Borgatti and Ofem (2010) report that the relationships within social networks can both constrain and provide opportunities for the people or organizations involved. As Fowler and Christakis (2008) found, people’s happiness can be constrained when
they are in a network of unhappy people or the perception of happiness increases if
people believe they are involved in a social network consisting of happy people.
Borgatti and Ofem also reported that when looking at individual achievement, network
theorists look at both the attributes of the individual as well as the relationships that
have provided opportunities for achievement or constrained their choices and actions.

**Ego Network Analysis**

Ego network analysis is an encouraging technique through which to understand
how individuals account for their social networks. Ego network analysis occurs when
the researcher selects a sample of respondents from a population. Each respondent,
referred to as “ego”, gives her or his own perspective regarding supportive network
members, called “alters”, that exist in their lives. Egos also discuss the ties between
the different “alters” that they mention. Traditionally, ego network analysis is used to
answer research questions regarding the phenomena of how individual people are
affected across different settings (Halgin & DeJordy, 2008). Ego network analysis
allows researchers to view the ethnographic interview data they collect through a
network analysis lens.

Ego network analysis typically combines quantitative and qualitative data
Researchers can collect quantitative data by counting the number of ties that
participants have. In addition, quantitative data can be collected when participants
complete surveys in which they rate the people in their network based on how often
they see them. Quantitative ego network analysis techniques include analyzing the
network size, network strength, the reciprocity of relationships in the network, and by analyzing the composition, heterogeneity, and homophily, or the tendency of individuals to associate and bond with similar others, of the network. To collect qualitative data, researchers can ask subjects about the various dimensions of their relationship to each alter and about the attributes of each alter. Researchers can also collect data to be analyzed qualitatively by observing participants as they interact with the people who are in their social network. Qualitative ego network analysis focuses on the quality of a person’s network and the information a person receives from being a part of her or his network. By using both quantitative and qualitative approaches in ego network analysis, researchers can gain a better perspective on what social networks look like and the information that is exchanged within these networks.

Ego network analysis has been used extensively in the research of social networks and the exchange of capital (Ávila de Lima, 2010). In such a study, people can discuss the information that flows between them and the alters in their lives. Because the exchange of information is discussed, ego network analysis may also be helpful in determining how different forms of capital are traded in various networks. In his examination of social networks and social capital, Burt (2000) found that people who have more connections in their social network have a competitive advantage in pursuing their goals than those with fewer connections. A person’s social network helps determine their likelihood for economic and social success.

Social networks are not only important for the exchange of information, but can also be used in creating new knowledge. McFadyen, Semadeni, and Cannella
(2009) reviewed 11 years of publication histories of over 7,000 scientific journals. They found that a research scientist’s professional network and knowledge creation depend on both the density and the strength of ties in their ego networks. A dense network is one in which the people a person is tied to also have direct ties to each other. The strength of ties in an ego network is determined by the frequency of interactions between an ego and her or his alters. So, when a person interacts frequently with people who also interact regularly with each other, new ideas are more likely to form.

The ego network analysis technique has also been used in educational research. Anderson (2010) used ego network analysis as both a quantitative and qualitative tool while researching teacher’s support networks and the construction of school-community social capital. Anderson used quantitative data collection methods such as surveys and document collection to decide what ties existed for participants, the number of interactions participants had with people in their networks, and the type and amount of information that was exchanged through the ties. In addition, Anderson used qualitative data collection methods such as participant observations and interviews to determine what the social interactions of participants looked like and how each participant accounted for the social ties that existed in her or his school. Anderson concluded that supportive school-based and beyond-school ties could serve as resources for the construction of social capital. Anderson’s study indicates that strong network ties in school communities result in the building of social capital.
The networks ties that students have at school can also result in the building of capital. Middle school students’ social relationships have consequences. The students themselves may be unaware of the connections in their social network and how their ties have a lasting effect on their lives. Some students are able to access school resources because they have the social and cultural capital needed to know about these resources and how to access them. For example, if a student needs extra help with their math homework, he or she may have a peer who can explain the concepts to them or may have friends who will accompany them to tutoring opportunities, making the experience less daunting. Other students, however, are not able to access these same resources because they lack relationships that can help them learn about opportunities and how to take advantage of them. A student, for instance, may need extra help with homework but does not have any friends who are able to help with the concept or who know about extra help offered by the school. By using ego network analysis, we can better understand how middle school students build their social networks. Using ego network analysis techniques can also illuminate how students’ social networks interact to assist the flow of information between students and the creation of new knowledge. Specifically, ego network analysis techniques can determine how students access the capital necessary to pursue postsecondary educational opportunities through their friendship networks.

Setting

Located in a small Southern California beach community, Beach Street Middle School opened its doors as a junior high school in the 1950s. Students from Beach
Street Middle School typically come from one of four distinct residential areas. One area consists of middle-class students who live walking distance to the school. These students usually attend the public elementary school, Pebble Lane Elementary School, which is located across the street from Beach Street Middle School. Another group of students, who also attend Pebble Lane Elementary School, live in an area called Perfect Meadows, which is located walking distance from Beach Street Middle School. The neighborhood of Perfect Meadows (also known as El Campo) is one of the oldest residential areas in the community. Perfect Meadows formed in the 1920s by Mexican farm workers who were hired by the owners of large ranches in the extremely wealthy area, which is just a few miles away. El Campo (the camp) formed because the farmers relocated their families close to where they worked. A land developer renamed the area Perfect Meadows as a marketing tool in the 1960s.

Some families who live in Perfect Meadows have lived there for generations while others, including most of the school’s English Language Learners are newcomers to the area. Beach Street Middle School also serves students from much higher socioeconomic backgrounds than these two groups of students. The students from high-income homes, who are typically bussed to the school, are either from the wealthy area where the Mexican farmers once worked or from a newer, master-planned community a few miles south of Beach Street Middle School. Table 1 compares the demographics of Pebble Lane Elementary School to Beach Street Middle School.
Spanish-speaking English Language Learners (ELL) make up 97% of Beach Street Middle School’s ELL population and 98% of Pebble Lane Elementary School’s ELL population, so these are the only ELL students represented in the Table 1. In general, ELL students at Beach Street Middle School and Pebble Lane Elementary School whose first language is not Spanish are from higher socioeconomic backgrounds and have parents with post-secondary degrees. Ninety-five percent of the students who qualify for free and reduced lunch at Beach Street Middle School are Latina/o. In addition, 80% of the Latina/o students at Beach Street Middle School qualify for free or reduced lunch. Since there is a connection between a Beach Street Middle School student’s ethnicity and socioeconomic status, these two factors will be discussed throughout this paper. As can be seen in Table 1, Pebble Lane Elementary School students have the chance to interact with more non-Hispanic and white students, fewer English Language Learners, and more students from higher socioeconomic backgrounds once they enter Beach Street Middle School.

Table 1: Demographic Comparison Between Pebble Lane Elementary School and Beach Street Middle School

<table>
<thead>
<tr>
<th>School</th>
<th>White</th>
<th>Hispanic</th>
<th>Asian</th>
<th>Free/Reduced Lunch</th>
<th>Spanish Speaking English Language Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pebble Lane Elementary School</td>
<td>79%</td>
<td>16%</td>
<td>3%</td>
<td>14%</td>
<td>10%</td>
</tr>
<tr>
<td>(n = 474)</td>
<td>(474)</td>
<td>(75)</td>
<td>(14)</td>
<td>(66)</td>
<td>(47)</td>
</tr>
<tr>
<td>Beach Street Middle School</td>
<td>79%</td>
<td>11%</td>
<td>8%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>(n = 674)</td>
<td>(532)</td>
<td>(74)</td>
<td>(54)</td>
<td>(54)</td>
<td>(40)</td>
</tr>
</tbody>
</table>
Positionality

I have been teaching science at Beach Street Middle School for the past five years. My teaching experience, and growing up in a nearby community, has helped me develop an understanding for the school and local community. It has also given me the opportunity to take an insider’s perspective on the dynamics of the school. The students interviewed in this study were either no longer students in my class or had never been students in my class. I was aware that my role as the previous classroom teacher for some of these students could have affected their being open with me about their friendship networks and social lives. However, I believe that the rapport I build with students every year and my reputation on campus as a teacher who cares about her students actually resulted in students being more open and honest than they might have been if they had been talking with an unfamiliar adult. In order to reduce any bias I had when analyzing the interviews, I asked other graduate students and my graduate professors to listen to or read portions of the interview transcripts to see if we had similar interpretations of the data as they relate to the findings.

Data Collection

A case study was conducted to address the research questions where the unit of analysis was the individual middle school student. Through the analytical lens of social network theory (Borgatti and Ofem, 2010) and by using ego network analysis techniques, this study focused on the friendship networks of middle school students. Friendship networks were analyzed in the context of the demographics and enrollments in classes to see the nature of the connection between the classes in which
students enroll and their friendships. Through interviews with students, this study looked inside friendship networks for the opportunities students had to access academic capital.

The research questions were addressed with data collected through open-ended and audio-recorded interviews with students and teachers (Appendices A and B) and through a collection of school documents. Interviews with both teachers and students and the analysis of school documents provided multiple perspectives on how the friendship networks of middle school students develop. Table 2 summarizes the methods that were used to answer each research question.

Table 2: Research Questions and Data Collection Methods

<table>
<thead>
<tr>
<th></th>
<th>How do middle schools policies and practices organize middle school students?</th>
<th>How do students’ friendship networks change from elementary to middle school, and how do students account for these changes?</th>
<th>How are opportunities to access academic capital embedded within middle school friendship networks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Interviews</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Student Interviews</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Document Collection</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Teacher Interviews**

The purpose of interviewing the former sixth grade teachers of students was to determine which Beach Street Middle School students would be promising participants for this study. I used the teacher interviews to elicit a list of current Beach Street Middle School eighth graders that had been involved in inter-ethnic friendship
networks when they were in elementary school. Three out of the four teachers who taught sixth grade classes when the current Beach Street Middle School eighth graders were in sixth grade at Pebble Lane Elementary School were interviewed. The fourth teacher was no longer working at Pebble Lane Elementary School, but the other three teachers provided information about the friendship networks that existed in that class since there was a lot of interaction between the four classes.

The teachers were interviewed in a group using the Teacher Interview Questions (Appendix B). The hour-long interview took place one day after school during the second to last week of school in one of the teacher’s classrooms at Pebble Lane Elementary School. The interview began with teachers looking at the Pebble Lane Elementary School’s yearbook from two years ago. Teachers pointed to each student who was in their class and listed the friends they remembered that student having. The teachers also discussed the strength of the friendships that each student had. The other two teachers added information about a student who was not in their class if they remembered relationships that the student’s teacher did not mention. All three teachers had an opportunity to discuss each student in their class. Finally, the three teachers talked about the relationships among students that they remembered in the absent teacher’s sixth grade class.

Student Interviews

Based on the teachers’ interview, I made a list of those students involved in inter-ethnic friendship networks. There were 16 students on the final list. Of these 16 students, three were not enrolled at Beach Street Middle School in eighth grade; two
students indicated that they were interested in the study but did not return a parental consent form after being contacted multiple times; and one student indicated that he was not interested in the study. The remaining ten students were all interviewed.

I interviewed each student individually over the summer break and after the students had been promoted to high school. Each student was contacted by phone to arrange an interview time that worked for the student and was approved by a parent of the student. All interviews took place at the outdoor lunch tables on the middle school campus. The interviews lasted for about thirty minutes and were audiotaped. While school was not in session at the time of the interviews, there were several activities occurring on campus, so there were other people who were visible at the school. The other people who were on campus were not able to hear what was discussed during the interviews.

The students were interviewed individually using the Student Interview Questions (Appendix A). The interviews began with students writing the names of each of their friends on a magnet that had a dry-erase surface. After students had run out of friends to list, they looked through the Beach Street Middle School yearbook from when they were in eighth grade. Students then wrote down additional names of students who were their friends. Then, students wrote their own name on a magnet and put it in the center of a magnetic dry-erase board. Students arranged the names of their friends so that the people with whom they had the strongest relationships were closest to them. Students put friends with whom they were not as close further away from their name. In addition, students put their friends who were also friends with each
other close together and drew a circle around the group. Figure 2 shows a made-up example of such a graphic representation of friendship networks. After students created their eighth grade friendship network diagram, I asked them questions about each friendship. Students discussed how the friendship started and the types of things students did with each of their friends.

Figure 2: Sample Friendship Network Diagram

Students created a sixth grade friendship network diagram by repeating the process they went through in forming their eighth grade friendship network diagram. While creating their sixth grade friendship network diagram, students looked at Pebble Lane Elementary School’s yearbook from when they were in sixth grade. After creating their sixth grade friendship network diagram, students answered questions about each friendship. Students talked about how the friendships formed, what they remember doing with their friends from sixth grade, and their current relationship with each student on the diagram. If the student participant did not feel that they were still friends with a student, they explained why they felt the friendship ended. Additionally, students were asked to think about and explain whom they would go to if they had a question about college.
**School Documents**

I collected school documents that showed the ethnic composition of students in each class at Beach Street Middle School. For example, I calculated the ethnicities of students who were enrolled in the different tracks of math, English, elective, and PE classes. Documents were also collected that revealed which students “waived” into a math course that was higher than the course that was recommended for them. Also, I accessed copies of the seventh and eighth grade class schedules of every eighth grader at Beach Street Middle School. These schedules allowed me to see which, if any, seventh or eighth grade classes the student participants had with each member of their sixth and eighth grade friendship network diagrams.

**Data Analysis**

The student interview data were first transcribed and then analyzed through the ego network analysis technique used by Orley and Layard (1986). In ego network analysis, the researcher typically selects a sample of respondents from a population. In this study, the respondents consisted of students who were embedded in cross-class friendship networks in elementary school. Ego network analysis gave a clear picture of the development of friendships and the activities embedded in friendship networks. Ego network analysis help explain how students exchange capital and the types of capital they exchange.

During student interviews, respondents made a list of all of the people around their age that they know. Students then discussed the nature of their relationship with each person, how these relationships began, and the relationships between the different
people in friendship network. Participants were asked to use a “bounded approach” to social network analysis as opposed to an “open-ended approach” since they were limited to listing people who were around their age and went to their school.

An expected outcome of an ego network analysis is that respondents will not describe relationships the same way. Krackhardt (1990) explains that the most important information collected through ego network analysis is the perception the respondent had of the social world around her or him, not whether they identified the same relationships as other participants. In this study, I asked students to think back to their friends in elementary school and to talk about how these relationships had changed. With my assistance, students drew a diagram of how their current friends connected socially to them and to each other. Then they drew a separate diagram of their friends from elementary school. These diagrams were analyzed by comparing the number of cross-class or cross-ethnic relationships in each diagram. This analysis focused on the degree of heterogeneity in a student’s peer group and how the relationships of the student had changed since elementary school.

An analysis of school documents compared the distribution of students by ethnicity in different classes to the overall ethnic distribution of students at Beach Street Middle School. A list was compiled of students who “waived” into a math course other than that which was recommended to determine if the students on this list had common attributes. Finally, an analysis was conducted comparing the class schedules of students who were interviewed and all of their past and current friends.
The schedules of students revealed which students spent time together during the school year because they shared classes.

**Limitations of the Study**

Since this is a case study, data was collected at only one middle school and students from only one of the feeder elementary schools. In-depth interviews with a small population of students, however, can help researchers obtain an idea of issues that affect their friendship networks and their formation of academic capital. So, while this study may be limited in its generalizability, it allowed for a detailed understanding of how students experience middle school.

Because data were collected through one-time interviews and not ongoing observations, another possible concern about this study is that the findings do not address the enactment of friendship networks. However, this study focused on students’ perceptions of their friendships, not on those friendships in action. Thus, the findings do not describe actual interactions between students but rather their recollections and current thoughts about their changing friendships.
CHAPTER IV: THE POLICIES AND PRACTICES OF THE ORGANIZATION OF STUDENTS INTO CLASSES

For this study, a group of eighth grade students who had been friends with each other in elementary school were interviewed. These friendships were verified by interviews with the students’ sixth grade teachers. While not all of the students were close friends with every other person in the group, all of the interviewed students were in inter-ethnic relationships when they were in elementary school. After these students completed their sixth grade year, they began attending middle school. In addition to student interviews, an analysis was conducted using school documents to determine if and how the policies and practices at Beach Street Middle School may have affected the friendship networks of these students. The interviews also helped determine the impact that changing friendships had on students’ access to academic capital.

In order to understand how middle school policies and practices of distributing students into classes affect the friendship networks of students, it is important to understand what these policies and practices are. By understanding these policies and practices, one can have a better idea of how students are enrolled in their classes. The next section will give some background on these policies and practices and how they are enacted in practice.

Beach Street Middle School’s Policies and Practices

Beach Street Middle School students typically enroll in six classes during a school year. With few exceptions, eighth grade students enroll in an English course, a math class, United States history, physical science, physical education, and an elective
course. Table 3 shows the enrollment options that students have when they are registering for eighth grade.

Table 3: Eighth Grade Course Options

<table>
<thead>
<tr>
<th>Subject</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>College-Prep</td>
</tr>
<tr>
<td></td>
<td><em>Physical Science</em></td>
</tr>
<tr>
<td>History</td>
<td>College-Prep</td>
</tr>
<tr>
<td></td>
<td><em>United States History</em></td>
</tr>
<tr>
<td>Math</td>
<td>Honors</td>
</tr>
<tr>
<td></td>
<td><em>Geometry Honors</em></td>
</tr>
<tr>
<td></td>
<td><em>Algebra I Honors</em></td>
</tr>
<tr>
<td></td>
<td>College-Prep</td>
</tr>
<tr>
<td></td>
<td><em>Algebra I</em></td>
</tr>
<tr>
<td></td>
<td>Below-Grade-Level</td>
</tr>
<tr>
<td></td>
<td><em>Algebra IA</em></td>
</tr>
<tr>
<td></td>
<td><em>Algebra Readiness</em></td>
</tr>
<tr>
<td>English</td>
<td>Honors</td>
</tr>
<tr>
<td></td>
<td><em>English 8 Honors</em></td>
</tr>
<tr>
<td>PE</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td><em>Surf</em></td>
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<tr>
<td></td>
<td><em>Skate</em></td>
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<tr>
<td></td>
<td><em>Band</em></td>
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<tr>
<td></td>
<td><em>Independent Study PE</em></td>
</tr>
<tr>
<td></td>
<td><em>Adaptive PE</em></td>
</tr>
<tr>
<td>Elective</td>
<td>College-Prep</td>
</tr>
<tr>
<td></td>
<td><em>Spanish I</em></td>
</tr>
<tr>
<td></td>
<td><em>Spanish II</em></td>
</tr>
<tr>
<td></td>
<td>Arts</td>
</tr>
<tr>
<td></td>
<td><em>Studio Art</em></td>
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<tr>
<td></td>
<td><em>Digital Art</em></td>
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<tr>
<td></td>
<td><em>Guitar</em></td>
</tr>
<tr>
<td></td>
<td><em>Yearbook</em></td>
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<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td><em>Leadership</em></td>
</tr>
<tr>
<td></td>
<td>Support Classes</td>
</tr>
<tr>
<td></td>
<td><em>Reading</em></td>
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<tr>
<td></td>
<td><em>SPED</em></td>
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<tr>
<td></td>
<td><em>AVID</em></td>
</tr>
</tbody>
</table>

**Open Access**

**Policy.** The written district-wide policies of Beach Street Middle School state that all high school students will have access to all courses, which is known as the district’s “open access” policy. According to the registration documents given to families, Beach Street Middle School students have choices as to which classes they take. However, when examining the practices that take place at Beach Street Middle School, it becomes clear that class enrollment is not completely student or family choice.
Since middle school policy has implications for high school enrollment, it is important to understand the impact that middle school course selections have on a student’s future class enrollment options. After completing eighth grade at the middle school, Beach Street students typically attend one of the four traditional high schools in the district. As Sutton (2005) reported in a local newspaper, each of these high schools supports an “open access” policy for honors and advanced placement (A.P.) courses, which means that students do not have to be classified as “gifted” in order to enroll in honors or A.P. courses. The district started the open access policy in 2004. According to district documents, “all students who meet course prerequisites shall have equal access to Advanced Placement and honors courses” (Beach Street High School District, 2001). For example, a student who has passed ninth grade English may enroll in an honors English class in tenth grade. Similarly, if students have passed any Geometry course, they may enroll in an honors level Algebra II course.

It is not clear, however, if this open access policy exists at the middle school level. District documents do state, “to the extent possible, the Superintendent or designee shall collaborate with feeder middle schools in developing and implementing a preparation program” (Beach Street High School District, 2001). According to the policies that are in place, it would seem as though all students will have the opportunity to take honors and AP classes in high school. In practice, however, this is not the case.

Practice. While Beach Street Middle School does offer the courses students need in order to meet prerequisites required for honors or A.P. classes in high school,
not all students are enrolled in these prerequisite courses. When students are in sixth
grade, they and their families receive a course enrollment form stating all of the
options that are open to seventh grade students. However, the school principal and
school counselor do recommend that certain students enroll in particular courses,
primarily math and support electives. While only recommended and not required,
these suggestions made by school personnel have a strong influence on the course of
study students take. In 2011, of the 360 students in the incoming seventh grade class,
only 25 students chose to enroll in a class other than the one which was recommended
to them. Course recommendations are based primarily on the standardized test scores,
such as the California statewide STAR test that students take every year from second
to eleventh grade. In addition, in order for students to enroll in a class other than the
one that is recommended, a parent or guardian needs to contact the school counselor
and request a change to their child’s schedule.

Informational brochures provided to prospective high school students discuss
the open access policy. The open access policy is not mentioned in any of the middle
school brochures or registration documents. For this reason, parents may be unaware
of their right to enroll their students in a grade-level or honors math or English course
at the middle school despite the recommendations for enrollment in more basic
classes. As can be seen in Table 3, all eighth grade students are placed in the general
education United States History and Physical Science courses, regardless of previous
grades and test scores. On occasion, special education students waive out of one of
these classes in order to take an extra support class or elective. Students do have
options when enrolling in their math, English, elective, and PE course. Various factors influence the courses in which students enroll. Course enrollments have both academic and social consequences for students, so it is important to understand the policies and practices that influence the courses that students select. The registration process students go through in order to enroll in their courses of study is the focus of the next section.

**Math Courses of Study**

**Policy.** The most striking example of students not having equal access to all of a school’s classes relates to the placement of students into their math courses. The “Middle School Math Placement Philosophy and Policy” (2011) document included in the Beach Street Middle School registration packet given to families of students makes no mention of the open access policy. This document states that, “while most students will be enrolled in their grade level math course, some may choose to take an honors course instead.” It also notes that some students will be recommended for a below grade level math course. In May prior to entering middle school, parents receive a letter from the school counselor and the school principal stating which math course is recommended for that student. The recommendation is based on three criteria. In the year of this study, parents of students had been told that in order to enroll in pre-algebra honors, students must meet two of the following three criteria:

1. 34/45 on “Math Diagnostic Testing and Placement Algebra 1 Readiness Test.”

   The “MDTP” is a multiple-choice test produced by a local university. Students take the test at their elementary school in the middle of sixth grade.
2. A score of “advanced” on the fifth grade Math STAR test
3. “B” or better in 1st semester/2nd trimester sixth grade Math

During the current academic year, families were informed that all three criteria must be met in order to enroll in pre-algebra honors.

Students are encouraged to take pre-algebra essentials, a below-grade level course, if they meet one of the following three criteria:

1. 19/45 or below on “Math Diagnostic Testing and Placement Algebra 1 Readiness Test”
2. A score of “below basic” or “far below basic” on the fifth grade Math STAR test, earned a 19 out of 45 or below on the MDTP test
3. “C” or below in 1st semester/2nd trimester sixth grade Math

All students not recommended for pre-algebra essentials or pre-algebra honors are encouraged to take the third option: a grade-level pre-algebra course.

The registration documents also include a “Math Pathway” document (Figure 3), which outlines the course sequence that students will follow after enrolling in their seventh grade math course. While the students have the possibility to enroll in different math tracks in subsequent grades, it is rare that a student changes tracks during middle school or high school, especially moving from a lower track into a higher track. For instance, there are students every year who take pre-algebra honors in seventh grade and, because they earn a C or below, move to college-prep algebra the next year. However, it is far less common for a student to move from pre-algebra essentials to college-prep algebra or from college-prep pre-algebra to honors algebra.
In order for students to move to a higher academic track, their grade in the lower math course must be a high “A,” they need to score advanced on the CST math test, and they need to discuss this change with their counselor.

In the registration documents, parents are given no information as to how they can “waive” their student into a class that is higher than recommended. They are told that “research and history show these criteria is a successful indicator to help students select the correct seventh grade Math course” (Middle School Math Placement Philosophy and Policy, 2011), but parents are not told the implications of enrolling their children in specific courses.

The Math Pathways figure (Figure 3) shows that the math course students take in seventh grade has implications for the rest of their middle and high school careers, and beyond. In the state of California, enrollment in the state university system can be very competitive. In order to attend a California State University (CSU) or a University of California (UC) school, students are required to have passed Algebra I (or Algebra IB), Geometry, and Algebra II. According the documents provided by the CSU and UC systems, students are recommended to have a fourth year of math beyond Algebra II (University of California, 2011). Students in the college-prep and honors math pathways can meet the four-year math requirement easily. Students in the below-grade-level course can just meet the required criteria and have no chance to take the recommended fourth year of math if they only enroll in one math class per year in high school.
Since five out of the 23 CSU schools (including one that is popular among students due to its nearby location) are impacted for all of their majors, these schools require students to exceed the minimum requirements for admission (California State Universities, 2012). In addition, since five out of the nine UC schools (including the nearby UC) have an acceptance rate of under 50%, it would be extremely unlikely if students who are not taking the four recommended math courses are admitted to schools in the UC system (University of California, 2011). So, students who start in the below-grade-level track in seventh grade have a reduced chance of being accepted into the UC college systems or many CSU schools upon graduation from high school.
**Practice.** As the policy states, students must score above a certain level on the two standardized math tests in order to be recommended for grade-level or honors math courses regardless of their performance in math in elementary school. Students who take a below-grade level math course in seventh grade do not take prerequisite courses for honors or A.P. classes until late in their high school career. So, while students may be allowed to enroll in any honors or A.P. math course for which they meet the prerequisite, it is not a given that all students will meet the prerequisites for these courses. With college admissions criteria becoming more rigorous and competitive, the specific placement of seventh graders into math courses can have a great impact on their future academic opportunities.

**English Courses of Study**

**Policy.** In order for students to enroll in an honors English course in the seventh grade, they must have scored in the advanced range on their fifth grade C.S.T. English test, they must have earned an “A” in their sixth grade English class, and they must indicate that they want to enroll in an honors English course on their registration documents. If students earn an “A” or a “B” in honors English in seventh grade, then they are automatically enrolled in the eighth grade honors English course.

**Practice.** As with the math course practices, there is no mention of the open access policy in regards to middle school honors English in the registration documents. The parents who register their children for honors English despite the recommendation to enroll in college-prep English know, through sources other than the registration documents, that they are allowed to override the recommendations
made by school personnel. Historically, parents who advocate for their children in regards to course placements tend to be college-educated (Coleman, 1988).

**Elective Courses**

**Policy.** Upon first consideration, it would appear that all students are able to choose among any of the electives in eighth grade. However, it is a bit more complicated than that. Students designated “special education” are typically required to enroll in a “support class” with their case manager, instead of enrolling in a traditional elective. This class gives students an opportunity to complete assignments for any of their academic classes and to work on the goals set forth in their Individualized Education Plan (I.E.P.). Students who scored in the Basic range or below on their most recent STAR test are encouraged to take an academic support class in place of an elective. Families of seventh and eighth grade students with low English scores are contacted by either the school counselor or school principal and are highly encouraged to enroll their child in a reading elective that uses the Read 180 software as the class curriculum. This program uses adaptive technology to individualize reading instruction for students and provide data for differentiation to teachers. Families of students who are not classified as special education but may benefit from extra support in their academic classes are encouraged by the school counselor or school principal to enroll their child in the AVID (a nation-wide college-readiness program) elective. Students can take other electives, like an art or leadership class, which helps them develop skills useful in such programs at the high school level. Finally, students may enroll in the Spanish elective, which, if they continue to
take Spanish in high school, counts as a year of language study required by most four-year colleges.

**Practice.** Students have the right, in theory, to choose any elective course in eighth grade. However, some students enroll in a support elective because that course has been recommended to them. It may not seem that the elective a student takes in middle school will have any effect on future course taking, but this may not be the case. Students who take a college-prep Spanish class in middle school are able to take up to six years of a language before college, making them more competitive in the college application process than those students who do not take Spanish in middle school.

Students who take an art or leadership elective in middle school may also be more competitive in applying for college than students who take a support elective. From my experience working with middle school students, those who enroll in art elective courses are the ones who are most likely to be involved in the art programs when they go to high school. Students who are involved in the art programs at the high school level often participate in art exhibitions and other art-related activities that they can highlight in their college applications. Similarly, students who take leadership in middle school are, in my experience, typically the only students who apply to be in the leadership program in high school. Taking on leadership positions in high school may strengthen a college application. So, students who take an art or leadership elective in middle school may also have more competitive college applications than those who do not.
Physical Education Courses

**Policy.** Physical Education (PE) would seem to be the course in which students have the most choice since there are no prerequisites or test scores determining into which classes students are placed. However, there are constraints that affect enrollment in PE classes as well.

Most students are enrolled in a general PE course, but all students have the opportunity to choose a PE elective (Table 4). The adaptive PE course is designed for students who are physically or mentally challenged or for students who wish to serve as an aide to the students enrolled in the class. In order to be an aide for the adaptive PE course, students need to submit an application stating why they want to join the class. Students can also enroll in the band class instead of taking general PE. Students can enroll in band even if they do not own a musical instrument. In such cases, the school provides an instrument for them to play during the year. Parents of students who select the Surf or Skate PE elective are responsible for transporting students to and from the beach or skate park two afternoons a week (drop-off at noon and pick-up at 2:15). Students who do not have an adult available to transport them are not permitted to register for these classes. Finally, students may also take Independent Study PE (ISPE). ISPE is intended for students who are competitive athletes in a year-round sport such as tennis, golf, horseback riding, surfing, or gymnastics. In order to receive course credit for ISPE, students need to arrange for and pay a professional coach who acts as their teacher.
Table 4: Percent of 8th Graders Enrolled in PE Courses

<table>
<thead>
<tr>
<th>PE Class</th>
<th>Adaptive</th>
<th>Band</th>
<th>Surf PE</th>
<th>Skate PE</th>
<th>ISPE</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>6</td>
<td>8</td>
<td>20</td>
<td>8</td>
<td>11</td>
<td>47</td>
</tr>
</tbody>
</table>

**Practice.** In practice, student choice is constrained in selecting their PE class at Beach Street Middle School. Since the Surf and Skate PE electives require adult transportation, students cannot take these courses if they do not have reliable mid-day transportation. Similarly, ISPE students not only need reliable transportation to their classes, but also need to hire a coach, which can entail a significant cost to families. During my years as a teacher at Beach Street Middle School, I have noticed that most students who take band have at least some experience playing musical instruments, again a cost to families. It is more likely that students in the band class have more access to musical instruments and lessons than students in the general PE class. Finally, students need to fill out an application in order to be an aide for the adaptive PE class, so almost all of these students are academically successful and are not enrolled in the other below-grade-level courses.

**Summary**

At Beach Street Middle School, school policies do not seem to restrict students from enrolling in any particular classes. However, the practices of the school discourage some students from enrolling in certain courses. Despite an “open access” policy, the recommendations made to students by school personnel have a serious impact on the classes in which students enroll.

The practices of distributing students among different levels of academic classes are a complicated enactment of the policies of open access and choice. There is
a policy of open enrollment at the high school level, but middle school families are not
informed about the open access policy. Since middle school families are not told about
their right to enroll their children in any level of class, most enroll their children in the
class for which their children were recommended. Some students are enrolled in
classes that make it difficult for them to take advantage of the open access policy at
the high school level. Since not all students are enrolled in classes at the middle school
that will meet the prerequisite for high school level courses, not all students will in
fact be able to take advantage of the open access policy in high school. Students
placed in lower-level courses in middle school have limited opportunities to take high
school classes that could help them be competitive in the college admissions process.
In effect, the policies and practices of middle school course registration have
unintended consequences for academic capital formation.

The next chapters focus on the findings of this study: how middle school
policies and practices affect the distribution of students into classes; how the
distribution of students affects the friends that students keep and develop; and how
class placements and friendship networks affect students’ academic capital formation.
CHAPTER V: DISTRIBUTION OF STUDENTS INTO CLASSES

It would not surprising to find that the distribution of students by ethnicity into different academic levels of classes is not the same as the overall distribution of the school’s population. This phenomenon has been extensively reported in literature about tracking and segregation within schools (Carter, 2005; Tyson, 2011). The research about tracking and ethnic distribution of students, however, has focused on high school students. The data collected and analyzed in this study suggest that courses are actually ethnically and socioeconomically imbalanced even earlier in students’ school careers than was previously reported, even in a school with an “open access” policy. The fact that the ethnic and socioeconomic distribution of students into different tracks of classes are not the same as the overall ethnic and socioeconomic distribution of students at the school shows that school policies such as tracking lead to the separation of students who have different ethnic and socioeconomic backgrounds. This organization of students has an impact on their ability to form academic capital in middle school.

The first research question of this study is: how do middle school policies and practices socially organize middle school students? Analysis of school documents and interviews with students led to the several answers to this question. The findings discussed in this chapter focus on how recommendations and familial choice in course selection result in a distribution into courses that can be predicted by a student’s ethnicity and socioeconomic background.
The Ethnic and Socioeconomic Distribution of Students

Beach Street Middle School offers different tracks of math and English classes so students enroll in versions of those classes in seventh and eighth grade. There are two factors that influence the math and English course in which a student enrolls. First, most students take the math and English classes that were recommended to them by school personnel based on the students’ standardized test scores. Second, families can choose to enroll their child in a math or English course other than the one that was recommended. Further, recommendations and choice play a role in the elective or PE class in which students enroll. Some students take an elective because it was recommended to them and some students do not take an elective PE course because they do not have the resources necessary to do so. Course recommendations and family choice both affect the distribution of students into classes.

A comparison of the two largest ethnic groups of students best illustrates the dynamics of how different students are distributed into classes. For this reason, Latina/o and white students are the focus of attention in this study both in reporting the school-wide data and in interviews with students. In addition, this study focuses on the socioeconomic backgrounds of students enrolled in different classes. Since 80% Latina/o students at Beach Street Middle School come from families of low socioeconomic status and most white students come from middle-class families, if a class is comprised of many Latina/o students, it also has many students who live in low income families. The overall eighth grade population of Beach Street Middle School at the time of this study was 75% white and 16% Latina/o. If there were no
tracking by ethnicity, one would expect that each class would be made up of approximately the same ratio.

The distribution of Latina/o and white students into the different academic tracks of classes at Beach Street Middle School is not the same as the ethnic distribution of the overall population of students. Figure 4 shows the expected school-wide distribution and the actual distribution of the 316 Latina/o and white 8th graders in the different tracks of math classes. Of the 154 students enrolled in a college-prep math class, 125 are white and 20 are Latina/o. If the allocation of students by ethnicity into courses was the same as that of the overall school’s population, one would expect 109 white and 36 Latina/o students in a college-prep math course. Comparing the numbers of the actual and expected ethnicities of students in college-prep algebra shows that the enrollment demographics are relatively similar.

However, the discrepancies in enrollment by ethnicity in different tracks of classes are clearer when looking at the below-grade-level math classes. Of the 66 white and Latina/o students enrolled in the below-grade-level math classes, a representative distribution would predict that there would be 50 white students and 16 Latina/o students enrolled. According to school documents, there are 36 white students and 30 Latina/o students in the classes. In all below-grade-level math classes, Latino/a students are overrepresented and white students underrepresented, while white students are overrepresented and Latina/o students underrepresented in all honors math classes at Beach Street Middle School. Latina/o students are also underrepresented in college-prep math classes, but their representation in that course
more closely matches the demographics of the overall school population than in honors or below-grade-level math classes.

![Figure 4: Expected and Actual Enrollment in Tracked Math Classes by Student Ethnicity](image)

Similar to the math courses, the distribution of students into the different academic level English classes is not the same as the distribution of the general population of students. Figure 5 shows the expected and actual class enrollment for the 303 Latina/o and white 8th graders in the different tracks of English classes. Students who are in the special education English fundamentals class are not included in Figure 5. According to the demographics of Beach Street Middle School, if the class distribution matched the school-wide one, the expected enrollment in college-prep English would be of 105 white and 22 Latina/o students. College-prep English courses, which have a total enrollment of 140 students, actually have 93 white and 37
Latina/o students enrolled in them. Honors English courses, which have a total enrollment of 195 students, would be expected to have 146 white and 31 Latina/o students. The honors English courses actually have 159 white and 19 Latina/o students enrolled in them. As can be seen by these numbers, honors English courses have more white students and college-prep English courses have more Latina/o students than would be expected by looking at the demographics of the entire school.

![Bar chart showing expected and actual enrollment in tracked English classes by student ethnicity](chart.png)

**Figure 5: Expected and Actual Enrollment in Tracked English Classes by Student Ethnicity**

**Course Recommendations**

One process that influences course selection is the results of standardized test scores. As a result of these two processes, Latina/o students are overrepresented in below-grade-level classes and underrepresented in honors and college-prep classes. This outcome is clearly visible at Beach Street Middle School.
The course recommendations that are based on standardized tests lead to a higher representation of Latina/o students in below-grade-level math and college-prep English than in honors math and honors English. Since underrepresented minority students are historically likely to perform lower than their peers on standardized tests (Kao and Thompson, 2003), it could be predicted that Latina/o students at Beach Street Middle School are more likely to be encouraged to take below-grade-level courses. Students who earned “Below Basic” or “Far Below Basic” on their fifth grade STAR test are recommended to take a below-grade-level math class in seventh grade. Out of all of the seventh graders at Beach Street Middle School, 6% of them earned math scores of “Below Basic” or “Far Below Basic.” Looking at the ethnicity of the students who scored in this range indicates which students would be recommended to take a below-grade-level math course. Three percent of white students and 18% of Latina/o students scored “Below Basic” or “Far Below Basic.” Latina/o students at Beach Street Middle School are much more likely to score lower on the state standardized math test and, in effect, will be more likely to be recommended to take a below-grade-level math class.

**The Open Access Policy and Familial Choice**

The course recommendations based on standardized test results might account for the imbalance in the distribution of students by ethnicity into tracked classes. Another possible factor might relate to the “open access” policy that is in place at Beach Street Middle School. Since parental choice is permitted in the middle school registration process, not all students who are encouraged to be in a below-grade-level
math class enroll in such a course. Based on the research literatures (Brantlinger, 2003; Carter and Wilson, 1997), the parents who advocate for higher-level placement for their children are more likely to be white, middle-class parents who have experience in the American school system and know that they can influence the class schedule of their child. How does ethnicity predict which parents are more likely to register their children for a class that is considered to be academically more rigorous than the course the school counselor recommended they take?

Based on an analysis of school documents, an “open access” policy results in a higher representation of white students in honors classes because Latino/a families are less likely than white families to override the recommendations for course placements made by school personnel. During the year of this study, there were 15 seventh grade students who were recommended to enroll in college-prep pre-algebra, but waived into pre-algebra honors. All were white. Similarly, nine of the ten seventh-grade students waived into college-prep pre-algebra after having the pre-algebra essentials class recommended to them were self-identified as white. By contrast, the analysis of school documents reveals that Latina/o students take the classes for which they were recommended. While 24 white students took a course other than that which was recommended, only one Latina/o student did so. In summary, it is much more common for white students to take a class above that which was recommended by school personnel. Since white students “waive” into higher courses, parental choice contributes to the ethnic and socioeconomic imbalance of students into tracked courses.
Without the waiver process, the ethnic allocation of students in all of the levels of math classes would be closer to the overall ethnic distribution of Beach Street Middle School. If no students had waived out of pre-algebra essentials, there would have been 44 students enrolled in that class. Of those 44 students, the predicted distribution of students would have been 25 (57% of the class) white students and 20 (45% of the class) Latina/o students. Since ten students, nine of whom were white, enrolled in college-prep pre-algebra instead of pre-algebra essential, the demographics of the pre-algebra essentials class are even more imbalanced. According to school documents, thirty-four seventh graders were enrolled in pre-algebra essentials. Fifteen (44%) of the students in pre-algebra essentials were white and 19 (56%) were Latina/o. If no students had “waived” out of pre-algebra essentials, the number of white students in the class would be predicted to be 18% lower than the overall school population. However, since some students did not follow the recommendations made by school personnel, the composition of the pre-algebra essentials class had 31% fewer white students than the overall school population. With the waiver process, below-grade-level math classes have a higher percentage of Latina/o students in them than they would without the waiver process.

A similar phenomenon seems to occur in tracked English classes. Since parents who request that their child be enrolled in an honors English class are not required to sign a waiver, it is more difficult to tell how many students are taking the English course for which they were recommended. However, since white students are similarly over-represented in the honors English classes, it is likely that there is a comparable
trend for that course with white parents being more likely to enroll their children in honors English even though it was not recommended to them. With a waiver process in place, white students are even more likely to be enrolled in an honors course than Latina/o students.

**Distribution of Students in Elective and PE Classes**

In middle school, school recommendations and parental involvement influence students’ enrollment in tracked English and math classes. By contrast, student choice might be expected to be the sole determinant of a student’s enrollment in elective and PE classes, because test scores and prior grades do not seem to influence a student’s registration for such courses. However, even in electives and PE classes, the distribution of students by ethnicity and income does not match the overall school distribution at Beach Street Middle School.

Figure 6 shows the expected versus actual enrollment of students by ethnicity in support electives and PE classes. If the classes matched the school demographic distribution, of the 29 students enrolled in a support elective, 22 could be predicted to be white and 5 could be predicted to be Latina/o. Based on school documents, six students in a support elective were white while 18 were Latina/o. Of the 149 students enrolled in a PE elective, if the distribution of students into classes matched the overall school’s ethnic allocation, 112 students could be predicted to be white and 23 could be predicted to be Latina/o. According to school documents, 128 were white and 13 were Latina/o. Even though test scores and previous grades do not seem to influence the electives that students take, there is the same type of over and under representation of
students in elective and PE classes. Latino/a students are underrepresented in all elective PE courses and overrepresented in the support elective classes, while white students are overrepresented in elective PE classes and underrepresented in support electives.

![Bar graph showing expected and actual enrollment in elective classes by student ethnicity.]

Figure 6: Expected and Actual Enrollment in Elective Classes by Student Ethnicity

The policies and practices put in place at Beach Street Middle School are likely the reason why there is an uneven distribution of students by ethnicity in elective and PE classes. Students who enroll in surf or skate PE are required to have transportation to their class two afternoons per week. Thus, to enroll in the class, students must have access to an adult who can either leave work or does not need to work and has a reliable form of transportation. In order to participate in these sports requires owning expensive equipment. According to records at Beach Street Middle School, 90% of the students who come from low-income families are Latina/o. Students living in families
with limited economic resources are at a serious disadvantage in acquiring the
equipment necessary to enroll in surf or skate PE.

In addition to financial resources, other factors affect the choice of electives
that students take. Students who take a support elective are typically students who
scored below basic or far below basic on the state’s standardized English test. Just as
standardized testing affects placement in math and English courses, it also affects the
placement of students into support electives. Looking at the test scores for students at
Beach Street Middle School indicates that Latina/o students score lower than their
white peers on the state standardized English test. Twenty-two percent of Latina/o and
8% of white students at Beach Street Middle School scored below “Proficient” on
their fifth grade English test. If recommendations are based on standardized test
scores, then it’s likely that Latina/o students would be more encouraged to take a
support elective such as reading or AVID instead of art, leadership, or Spanish. While
personal choice may be a component of students’ selection of elective and PE courses,
the imbalance by ethnicity and income suggests other factors at work as well.

How Students Explain their Course Enrollments

Looking at class enrollment statistics does not give the whole picture as to how
students choose to enroll in their academic classes. It is helpful to look beyond the
percentage of students enrolled in each course based on their ethnicity and income and
delve deeper into how individual students experience and make sense of their course
enrollments.
The information given by students during interviews will be used to better understand how middle school students personally experienced enrolling in their courses. In order to gain students’ perspectives on how they enrolled in their classes, ten students were individually interviewed. The analysis in this section focuses on the five Latina/o and four white students who were interviewed. The tenth student was neither white nor Latina/o, so is not included in this discussion.

Figure 7 and Figure 8 show the math and elective classes taken by these nine students. All of the Latina/o students interviewed qualified for free and reduced lunch, which means that they come from low-income families. None of the white students interviewed was on the eligibility list for free or reduced lunch, so one can assume that they lived in higher income families. The data for these students matched the overall student population in terms of course enrollments. The three white students interviewed were enrolled in honors classes and the Spanish elective. Of the Latino/a students interviewed, four out of five were enrolled in a below-grade-level math class while none of the Latina/o students were enrolled in an honors math class.
The Latina/o students enroll in below-grade-level classes and the AVID and reading elective courses. Similarly, all of the Latina/o students interviewed were in a “support” elective where they worked on reading and study skills. None of the four white students was enrolled in a “support” elective.
An analysis of student interviews indicates that white families are more likely to question and override the recommendations made by school personnel than Latina/o families. When asked, “Why are you taking the math class you are in?” all of the Latina/o students said that they were taking it because it was listed on their schedule. Daniel said, “the paper just said to go to readiness (algebra readiness is the name of the course), so I went there. It was probably because I was in essentials last year (algebra essentials is the name of the seventh grade below-grade-level math course), but I was just in that because I’m not very good at math.” None of the Latina/o students mentioned that they or their families had discussed the courses that they could take. In contrast, when the white students were asked the same question, two of the students in the honors track said that they wanted to be “challenged.” Michelle,
another white student, explained during her interview how she and her parents decided together which math class she should take in eighth grade. She said:

(my parents and I) thought about me taking algebra instead of readiness this year, but I told them that I thought it would be too hard. I’m going to (a high school that offers a 4x4 schedule allowing students to take a year-long course in a semester) next year so I can do two years of math in one year and get caught up.

While Michelle did not choose to enroll in a course that was higher than was recommended to her, she did not have a conversation with her parents about the class in which she enrolled. Latina/o students did not mention talking with their family about course placements.

Louisa, another white student interviewed for this study, changed her academic track between seventh and eighth grade with the help of her parents. Louisa explained the process she went through in moving from a college-prep English class in seventh grade to a higher level of English in eighth grade. Louisa was born in Europe and did not speak English until she came to the United States with her parents and her younger brother when she was in fourth grade. Louisa was asked, “Why did you take honors English in 8th grade?” In response, she said, “well, my English teacher in seventh grade said that I was doing really well and asked if I wanted to take honors next year…she emailed my mom and I told my mom I would do it and then my mom called the school (counselor).” After Louisa’s mother called the school counselor, Louisa was placed in an eighth grade honors class.

While it is possible for a student to change academic tracks, the process requires coordinated efforts on the part of many people. In this Louisa’s case, five
different adults needed to advocate for the student’s enrollment in a higher academically tracked class. One possible factor that may inhibit Latino students from moving to higher academic tracks is that few teachers are bilingual in Spanish and English, and the school counselor at Beach Street Middle School is not fluent in Spanish. Since more than half (55%) of Latina/o students come from a Spanish-speaking household, it would be less likely for their parents to engage in conversations with their child’s teacher. In addition, parents who are not fluent in English might not be able to inquire about academic track placement with Beach Street Middle School’s counselor.

Another factor that may prevent a student from “waiving” into a higher-level course is that the registration information given to parents does not make any mention of the “open access” policy. Since some white parents “waive” their children into higher-level courses even though they are not told about the “open access” policy, it seems that this study supports findings of other studies that have looked at families who advocate for their children’s class enrollments. For example, after shadowing and interviewing several middle class and lower income families, Lareau (2003) found that both parents and children of white middle class families were more aware of the school structures and more likely to advocate for placement in academic tracks and take advantage of opportunities offered by the school. If an “open access” policy were more prominent in the middle school registration documents, perhaps more Latina/o families would petition to enroll their children in higher-level courses than school personnel had recommended.
The experiences of the students interviewed support the finding that Latina/o families are less likely to question recommendations given by school personnel regarding course placement recommendations. White families are more likely to question the course recommendations given to their children and are also more likely to register their child in a class that is considered to be more challenging than what was recommended.

The People with Whom Students Interact

Students interact with the people in their classes. The students who are in below-grade-level math and a support elective spend more time in a school day with students who are Latina/o and from low socioeconomic backgrounds. Students who are in honors math and an elective PE class spend more time in a school day with students who are white and from middle to high socioeconomic backgrounds. Although the school may seem to be ethnically diverse, students are interacting with a less diverse group of students in most, if not all, of their classes. For example, Leticia, a Latina student, was enrolled in algebra essentials, college-prep English, AVID, and general PE. About 55% of the students in these classes were Latina/o. On a daily basis, over half of the students Leticia is interacting with in these four classes are Latina/o, far more than the average number of Latina/o students (16%) who make up the eighth grade population of Beach Street Middle School. By comparison, one of the white students, Anthony, was enrolled in honors algebra, honors English, Spanish, and ISPE. About 85% of the students in these classes were white. Anthony regularly
interacts in classes with 10% more white students than he would be if tracking did not result in the overrepresentation of white students in these higher tracked courses.

**Discussion**

Even if they attend the same school, no two students have the same middle school experience. A person’s attributes such as their gender, maturity, and their interests may affect their interactions and their experiences. Students who enroll in different courses also experience school differently. Weisner’s (2002) research on how children in unlike cultural communities develop dissimilar schemas and scripts that guide their individual behaviors and daily routines can be applied to the tracking of students into classes. The different experiences, however, are not just individual. Since students in different tracks are more likely to be from certain ethnic and socioeconomic backgrounds, the diverse experiences of students are organized by ethnicity and income. Based on an analysis of the data in this study, low-income Latina/o students are more likely to be in below-grade-level classes and support electives, while white middle-class students are more likely to be in honors classes and elective PE classes. Unlike their lives in elementary school, these two groups of students have increasingly different experiences in middle school, even though they all are in the same physical plant.

The results that come from a school’s implementation of an “open access” policy may not match the intentions behind creating such policies. A school might have an “open access” policy in regards to class enrollments in order to increase the number of underrepresented minority students in honors and A.P. classes. The
intention of an “open access” policy might be to ensure that students are not tracked based on a certain criteria like standardized test scores in which there are ongoing findings of group differences. In Tyson’s (2011) research, there was no open access policy, such as the one that existed in the Beach Street Union High School District. Tyson’s research shows that tracking by ethnicity occurs without an “open access” policy. However, having an “open access” policy, such as the one at Beach Street Middle School, actually leads to a higher percentage of Latina/o students in below-grade-level classes than would occur without an “open access” policy. In this study, it appears that having an “open access” policy has caused intra-school version a “white flight” of students to higher-level tracked classes.

Class enrollments have social as well as academic consequences. Researchers have focused their work on math and English placements because these subjects have important consequences for the types of classes that students are eligible to take in high school. However, PE classes and most elective classes allow for more opportunities to work in groups and interact with peers than traditional academic classes, so these classes have a social importance that may not be as apparent in math and English classes. Since, in this study, elective and PE classes also have over and underrepresentation of students by ethnicity, there are social ramifications for all students, who are in classes that are more homogeneous than the overall school population.

School policies such as tracked classes have an impact on the social as well as academic lives of students. In this study, students moved from an ethnically
heterogeneous classroom setting in elementary school to middle school classes that are ethnically more homogeneous. Such classrooms predominate at the middle school level because tracking occurs even when there is an “open access” policy. Since students are more likely to become friends with the people in their classes, school policies play a role in the friendship networks that students make. Institutional practices that unintentionally lead to enrollment imbalances in classes have an impact on the social lives of students, as well as their academic lives. The next chapter examines the relationship between course enrollments and friendship networks.
CHAPTER VI: COURSE ENROLLMENTS AND FRIENDSHIP NETWORKS

The course enrollments of middle school students are important because they have implications for high school course selection and later post-secondary opportunities. The purpose of an “open access” course enrollment policy is to ensure that the district’s tracking practices do not limit students’ course choices. However, the classes in which students are enrolled are not only important for influencing a student’s future course enrollments in middle school and beyond. There are also social implications of course selection. Students’ classes are also important in terms of the social groups to which students belong. Not surprisingly, students become friends with the people in their classes. As the interviews with the nine target students in this study revealed, intra-ethnic and intra-socioeconomic status friendships solidify in middle school. I argue that more ethnically homogeneous friendship networks likely develop because students are in classes overrepresented by students who share their ethnic identification. The course enrollment policies and practices at Beach Street Middle School have unintentionally resulted in ethnically imbalanced class enrollments. The data presented in this chapter suggests that being together in such classes leads students to develop friendship networks primarily with people of their same ethnicity and social class.

When the ethnic and socioeconomic distribution of students into classes does not match the ethnic and socioeconomic distribution of the overall school population, students interact with people who are more ethnically and socioeconomically similar to themselves than the overall school population. In middle school, students spend
most of their school day in classes. The students in these classes typically remain the same for an entire school year. Thus, eighth grade students are spending a good deal of time with the same people throughout the year. When students see the same students every day, they have more opportunities to talk to them than they would if they did not have a class together. As people spend more time together, they develop more trust with each other and become more influential in each other’s social lives. According to Lin (2001), as people spend time together, they develop stronger ties because they have developed more norms in their relationship and have developed the trust to become more vulnerable with each other. Since, as Moolenaar and Sleegers (2010) define it, a “friendship network” is a network that encompasses confidential discussions and social support, it makes sense that students who are interacting on a daily basis in their classes are more likely to develop friendships with each other than they would if they did not have a class together.

The second research question of this study is: how do students’ friendship networks change from elementary to middle school, and how do students account for these changes? An analysis of school documents and interviews with students provides some answers to this question. This chapter discusses several findings: students make and stay friends with the people who are in their classes or after-school programs.

Students’ Friendship Networks

This study focused on students who had just completed eighth grade and were about to enter high school. When sixth graders at Pebble Lane Elementary School, the 123 sixth grade students were divided into four classes. Of these 123 children, 72% of
the parents of these students identified their child as being white, while 20% identified their child as Latina/o. The remaining 8% of students were identified as having other ethnic backgrounds. At Pebble Lane Elementary School, each of the sixth grade classes reflected that demographic.

In eighth grade, these same students attended Beach Street Middle School. Students from four other elementary schools, along with 54 intra-district transfer students, joined the students from Pebble Lane Elementary School at Beach Street Middle School where 75% of 352 students were white and 16% were Latina/o. While the overall school population did not differ much from the elementary school in ethnic diversity, the enrollment in many of the middle school classes were more ethnically homogeneous. As a result, when these students were in eighth grade, they enrolled in classes that were more ethnically homogeneous than their classes were in elementary school. In the most extreme cases, below-grade-level math classes were 45% Latina/o while elective PE courses were 92% white. It is important to understand how tracking affects social interactions, in order to understand that the ramifications of course tracking are not strictly academic.

In individual interviews, students had the chance to talk about the friends they had in both sixth and eighth grade, and their descriptions provide a greater understanding of how the friendships of middle school students changed since elementary school. Based on their accounts, two friendship network diagrams were constructed that included all of the student participants in this study. The sixth grade friendships that students described during their interviews were the first data set
analyzed to create the friendship network diagrams. In this part of the interview, students wrote on a magnet the names of each person with whom they were friends in sixth grade and then placed the magnet on their magnetic whiteboard. Students were instructed to place the magnets with the names of people they considered their closest friends near their own name and the people they were not as close with further away from their name. Then students were asked to place a circle around their magnets with the names of their friends who were also friends with each other. Using the students’ displays, I created an overall network of their friendship networks, using only mutual relationships among the students in the target interview group. The overall friendship network included only relationships that were considered to be reciprocal relationships. In a reciprocal relationship, both participants acknowledged the connections between the people. A second overall friendship network was created for the student participants based on their descriptions of their friends when they were in eighth grade. Figure 9 illustrates the process of creating the overall friendship network from the collection of individual student maps. In order to protect student privacy, displays fictional names, and does not show an actual friendship network diagrams of study participants. Female students are represented with an “F” and male students are represented with an “M”. A square symbolizes white students while a circle symbolizes Latina/o students.
Some of the mutual friendships that students had in sixth grade still existed in eighth grade while other friendships no longer existed. Figure 10 shows the sixth grade friendship network that existed at Pebble Lane Elementary School with the students who were interviewed and Figure 11 shows the eighth grade friendship networks that these same students claimed at the end of eighth grade. Student participants listed all of the friends they had in both sixth and eighth grade, but only the students who were interviewed are included in Figure 10 and Figure 11. If a student has no ties to other student, it does not mean that student did not have any
friendships. The number of ties a student has only represents the number of reciprocal friendships that student had that could be verified through interviews with both students.

![Figure 10: Sixth Grade Friendship Networks](image)

Figure 10 shows the overall sixth grade friendship network for student participants. The six students in the center of the sixth grade diagram all indicated that they were friends with each other. These students said they ate lunch together on most days and spent time together outside of school. This group included four Latina/o and two white students. The two male students on the right side of the diagram also spent time with two other male student participants. These four boys said that they spent recess and some lunches playing sports together and sometimes spent time together outside of school. One Latina student represented on the left side of the diagram was friends with a white girl who also claimed her as a friend. None of the other students in the diagram said they had been friends with her in elementary school. These two
female students were in the same fifth and sixth grade classes and spent time outside
of school together.

Figure 11: Eighth Grade Friendship Networks

The diagram of the eighth grade friendship network shows that, while some
friendships that existed in sixth grade were still present, some had changed. The left
side of Figure 11 shows that the white student participants were no longer friends with
any of the Latina/o students. The two white and female students who were friends in
eighth grade did not have a reciprocal friendship in sixth grade. The two white male
students who were in the sixth grade friendship network diagram had built entirely
new friendships. All of the Latina/o students who were in the sixth grade friendship
network diagram claimed each other as friends in eighth grade. The Latino student
who was not central to the sixth grade friendship network diagram was a central part
of it in eighth grade.
While all students in the sixth grade friendship networks diagram attended the same middle school, not all of them remained friends. The friendships went from being ethnically and socioeconomically heterogeneous in elementary school to being homogeneous in middle school. Although some students remained friends, they only did so if they had the same ethnic background.

**Analysis of Students’ Friendship Networks**

An analysis of students’ accounts for their own sixth and eighth grade friendship networks indicates that their friendships become more ethnically homogeneous after they leave elementary school. The overall friendship network that existed in elementary school for all of the interviewed students had been multiethnic. For example, the core group of students consisted of two white students and four Latina/o students. Another part of the friendship network consisted of two white students and two Latino students. In comparison, the eighth grade friendship networks were ethnically homogenous, with all of the Latino/a students being in a friendship network together and the white students creating new friendship networks with white students who were in their classes. Understanding why the friendship networks became more homogeneous by eighth grade requires an examination of how students talked in the interviews about their changing friendship networks.

**How Students Talk About Their Friendships**

Middle school students have no difficult talking about their friends. In the interviews, the middle school students talked easily about the friends they had in elementary school and the new friends they made in middle school. Students often
mentioned that the main characteristics of their friendships were that they talk to their friends and hang out with them outside of the classroom, either at school or off-campus. Students said that during school hours they “hang out,” “talk to,” and “eat lunch” with their friends. When discussing what they did after school with their friends, students mentioned, “walking to CVS,” “going to Jamba Juice,” “going to the beach,” and “having sleepovers.”

By contrast, middle school students found it difficult to account for specific reasons that the friendships they had in elementary school had ended. Students had little to say to explain why they no longer considered the people they had been friends with in sixth grade to be their friends. Students never mentioned a specific incident that occurred that caused a friendship to end. As Daniel said in reference to Nathan, “we didn’t have a fight or anything.” Louisa said in reference to Celia and Leticia that “there was no falling out.” Instead, students mentioned that they did not see their former friends anymore or that they did not know why the friendship ended. As Elizabeth stated when talking about Michelle, “I don’t know what happened (to that friendship).” Eduardo said, “I didn’t think he went here anymore because I never saw him and then I saw him one day and didn’t recognize him because he was so much taller” when he was talking about his former friendship with Anthony.

It would make sense that students did not see the former friends they mentioned very much because, according to their seventh and eighth grade class schedules, they were not enrolled in any of the same classes. Daniel and Nathan individually told me that their friendship didn’t end because they had a fight. But an
examination of school records shows that they were not enrolled in any of the same classes in either seventh or eighth grade. According to Louisa and Celia, they did not have a falling out but they were just no longer friends. School documents show they did not register for any mutual classes. While Elizabeth did not know what happened to her friendship with Michelle, a review of their class schedules show that they did not ever have a class together in middle school. And Eduardo probably did not notice that Anthony had grown taller because they were not in any seventh or eighth grade classes together. Middle school students seem to stop being friends with the people they no longer interact with on a regular basis.

How Students Establish Their Friendship Networks

Analysis of student schedules from seventh and eighth grades and student interviews indicated that a variety of factors influence students’ friendship networks. Students tended to remain friends with people with whom they shared classes or an after-school program. As well, students tended to make new friends with people with whom they shared classes. And finally, students stopped being friends with people who were not in their classes or after-school programs.

From their talk about how they made and kept friends, it is clear that students assume that their friends should come from the people who are in their classes. Students tend to believe that the friends they have come from classes they had or have together or school-related activities they do or did together. Nathan, a white student, had the idea that he becomes friends with people who are in his classes. During Nathan’s interview, he recalled that he made all new friends when he was in seventh
grade in his honors English course. He said, however, that when he was in eighth grade he lost touch with those friends because he was no longer in classes with any of them. As Nathan explains:

I met (a new group of friends) last year too and they're mostly just in a lot of my classes and stuff so that's how I know them…It was kind of funny because every single one of these people were in the same English class with me and then we would all be together and eat lunch together…I used to hang out with them (the English class friends) last year, but now we don’t have any classes together so I hang out more with them (his Latino friends from elementary school).

Nathan stopped spending time with the friends he no longer had classes with both in class and out of class. Of the nine students interviewed, Nathan had the fewest number of seventh and eighth grade classes with the people on his friendship network. Nathan also had the most varied friendships from year to year.

While Nathan said that he had recently started spending time with his old friends from elementary school, none of the students interviewed whom Nathan claimed to be his current friends named him as part of their eighth grade friendship network. Even so, Nathan makes an important point about the basis of friendship when he says that he is no longer friends with people because they are not in his classes. The lack of continuity of people who enrolled in the same classes as Nathan from year to year could explain why he had fewer reciprocal friends in his friendship network than any of the other students.

By contrast, most of the eighth grade students interviewed claimed to have become friends with students who share their academic track after-school program.
An analysis of their talk about friendships indicates that middle school students stay friends and make friends with the people in their classes and that they stop being friends with people who are not in their classes. If students no longer have common classes or activities with each other, they do not claim to continue to be friends. For example, Anthony, who is white, said he stayed friends with people with whom he was in contact and ended friendships with students with whom he was not in contact. Anthony was enrolled in honors English and math classes and independent study PE. He remained close with four of his friends from elementary school. All four of these students were also enrolled in honors English and math classes, and all four were also white. By eighth grade, Anthony said he was no longer friends with any of the Latino students he listed on his sixth grade friendship network. Anthony did not have any classes with his former Latino friends in either seventh or eighth grade. As Anthony explained, “I used to play basketball with those guys at recess and hang out but now we don’t have recess and we just never seem to hang out.” Anthony’s story is similar to the stories of other students who were interviewed and illustrates how students who are in different tracked classes will most likely stop being friends.

The friendship between Celia and Louisa is another example of students who were close friends in sixth grade and then stopped being friends in middle school. As Celia, the only Latina/o student in this study who is in college-prep algebra, explained:

Louisa is still here but she hangs out with other people and we haven't seen her since last year…I met her because she was new to my school and I started talking to her and I told her to meet my other friends and then we all got along…In the beginning of (seventh grade) she hung out with us a lot but then she moved on…We didn’t have a fight. She just said that she wanted to hang out with other people so we said ok,
go make new friends, and then she never came back, so we just see her around.

Louisa, a white student in honors classes, had a similar account of their friendship.

When I first got to Pebble Lane Elementary School, I went to Read 180 and Celia went there too because her first language is Spanish and that's kind of where I got to know her…In the beginning of seventh grade we would sit at lunch together because we didn't really know anyone yet and then I kind of started getting some new friends and stuff.

In other parts of her interview, Louisa talks about how she met her new friends in her math, English, and history classes. Louisa’s eighth grade friendship network consists entirely of people with whom she had classes with in either seventh or eighth grade. Louisa had no middle school classes with any of the people from her sixth grade friendship network. Louisa and Celia’s inability to maintain their friendship in middle school is evidence that middle school students tend to maintain and make friendships with people who are in their classes.

Students make friends with people who are in their classes, so they are more likely to develop friendships with people who are in their same academic track. As Figure 12 shows, the three interviewed students in honors classes claimed a total of 32 students as their friends. The students who were in honors classes had very few friends who were in the below-grade-level classes. In contrast, the five students in below-grade-level classes had very few friends who were in honor classes. The students in below-grade-level classes claimed a total of 44 students as their friends. Since just one student interviewed was in the college-prep track, the category of “Friends of Students in College-Prep Classes” is not included in Figure 12.
Academic track placement has an influence on students’ friendship networks, but it is not likely to be the only reason why students form new friendships. There are other opportunities that can limit or expand friendship networks, like participating in elective courses and attending after-school programs.

An analysis of student talk about their friends indicates that elective courses and after-school programs seem to make a difference in making and keeping friends. Students maintain friendships with people who are not in their academic track if they have an elective class or an after-school program together. For example, though she is enrolled in college-prep algebra, Celia describes having friends in below-grade-level classes. One possible explanation of this cross-academic track friendship is that Celia was also enrolled in the AVID elective with some of her friends from elementary.
school. Even though she was in a different mathematics track than her friends, she still shared an elective class with them. In addition, Celia’s new friends are all people who were in classes with Celia’s friends from Pebble Lane Elementary School. Wasserman & Faust (1998) found that people are likely to create new ties with friends of friends. So, even though Celia did not have classes with some of her new friends, her ties to her elementary school friends remained strong. One explanation for Celia making new friends is that she met them through her existing closest friends.

Enrolling in the same course does not ensure that students will become friends. Celia took classes with students who did not share her ethnicity, but she did not become friends with them. Celia identified her friends as being those who were also Latina and were either in her elective class or her after-school program. When asked about her friends in her classes, Celia said,

I don’t really have friends in my math class. I mean, I talk to people and everyone is nice, but none of my good friends are there. My friends are mainly in my other classes like science and PE and AVID. I just like those classes better because I can just be goofy and myself and stuff because I have friends in there and I know they don’t care. I just don’t know anyone in my math class.

Students who are in the AVID class and who attended an after-school program with Celia are predominantly in the below-grade-level track. Celia’s participation in AVID and an after-school program seem to have helped her remain friends with the Latina/o students she was close with in elementary school. Enrollment in the same academic class is not sufficient for the development of new friends in that class. Other activities such as after-school programs may provide students more opportunities to socialize with each other and build friendships.
Students make new friends in their elective and PE classes. In contrast to Celia, Michelle was the only white student interviewed for this study who enrolled in below-grade-level courses. Even though she took a lower-level math class, she said made most of her friends in her leadership class. She stated, “I don’t really have friends in math except for Grant. Most of my friends are from leadership and that’s where I mainly got to know Grant.” Michelle made her new friends through her involvement with the school’s leadership program and did not develop friends through her placement in a below-grade-level math class.

Sometimes students become friends with people who are not in their academic track because they have a PE class together. Daniel shows that students are friends with the people in their classes. When Daniel, who is Latino, was asked, “can you tell me about this group of boys (on his eighth grade friendship network diagram) whom you were not as close with in sixth grade?” Daniel responded:

I've always hung out with them because, you know, they're my Mexican buddies, but I think we hang out more because back then we didn't have as many things in common, but I think now we bond a lot and we just talk a lot about the same things and stuff.

Daniel was also in the below-grade-level track with all of his “Mexican buddies.” However, he also became friends with more students who were not in his academic classes than any of his elementary school friends did. When Daniel was asked about the group of six white friends who are in the college-prep or honors tracks on his eighth grade friendship network diagram he said, “we go to skate together and then after we go to Aaron or Harry’s house and skate some more or play Xbox 360.” All six of these white friends are also in Daniel’s skate PE class. Skate PE is a class that
Daniel and his new friends have been enrolled in for two years. Daniel is no longer friends with his former college-prep and honors track friends from elementary school. So, while Daniel’s new friends are not in his below-grade-level track classes, all of them are enrolled in the same PE elective as he is.

It should not be surprising that students have a tendency to make friends in their PE and elective classes and in their after school programs. After-school programs and PE and elective classes are typically more relaxed environments that academic classes. Students who participate in such programs and classes, thus, have more time to learn about the people who are in the class with them and to develop relationships with them. In PE classes, students engage in team sports with their peers. In elective classes such as art and leadership, students have ample time to talk with their classmates while completing class projects. After-school programs provide students the opportunity to work on homework together and socialize with each other during breaks. Since, according to Lin (2001), people who spend time together develop stronger ties, trust, and vulnerability with each other, students who participate in the same after-school program or are enrolled in the same PE or elective course are likely to also develop friendships. If students are in a PE or elective class or an after-school program with people from different academic tracks, they are likely to build cross-academic track friendships.

Ethnicity, Social Class, and the Stability of Friendship Networks

Middle school students vary in the stability of their friendship networks. The variance in stability of friendship networks seems to vary by ethnicity and social class.
Analysis of the interview transcripts seems to indicate a different dynamic operating in the friendship networks of white middle class students compared to those of low-income Latina/o students. White students were more likely to develop an entirely new set of white friends in middle school while Latina/o students stayed friends with their Latina/o friends with in elementary school. For example, all five of the Latina/o students listed all of their Latina/o friends from their sixth grade friendship network diagram on their eighth grade friendship network diagram. The only exceptions were of Latina/o students who moved to different schools between sixth and eighth grade. Of the four white students, Anthony was the only one who had the same friends on both his sixth grade and eighth grade friendship network diagram. Anthony maintained friendships with four white boys, all of whom he shared at least one class with in either seventh or eighth grade. While all of the 5 Latina/o students interviewed had steady friendships during their transition from elementary school to middle school, only one of the four white students described ongoing friendships.

One reason why Latina/o students may have more stability in their friendship network is that they are more likely to share multiple classes with individual students than white students are. The school policies and practices that exist at Beach Street Middle School in terms of the courses in which different students enroll may play a role in the stability of students’ friendship networks. Students taking the below-grade-level math are more likely to be in the same math class with each other since there are only three sections of below-grade-level math compared to five sections of college-prep and five sections of honors math. In addition, students in below-grade-level math
are also more likely to have multiple classes with each other. Students in below-grade-level math classes typically also enroll in a support elective, for which there are only two sections (AVID and reading). Students enrolled in below-grade-level math are rarely enrolled in a PE elective or in an honors English course, making it more likely for these students to be in the same English and PE classes as each other.

Of students interviewed, all five Latina/o students had at least one other class with every other interviewed Latina/o student. In the most overlapping schedule, Elizabeth and Eduardo shared four of six classes. Louisa and Michelle were the only white students interviewed who had a class together in all of middle school. Louisa and Michelle were also the only two white students who remained friends with each other. By sharing multiple classes with the same people, students are given more opportunities to interact with each other.

For students who come into a school with ethnically and socioeconomically diverse friendship networks, course enrollments seem to lead to these networks becoming less diverse. The decrease in ethnic diversity in friendship networks might be attributed to the lack of diversity in the classes in which students are enrolled, as their classes are less ethnically and socioeconomically diverse than the overall school population. So, in effect, school practices affect not just the new friends students make, but also the likelihood that students will maintain ties with people they were friends with when they entered middle school.
Discussion

Middle school students think they choose their friends. This study confirms the findings of other studies that contextual factors play a role in friendship development. In a meta-analysis of numerous sociological studies, Allan (1998) concluded that friendships are framed by the social and economic arrangements in which they occur. While Allan did not look at academic tracking specifically, his conclusions are supported in this study: friendship networks exist and are established in a larger social context. The findings in this study suggest that academic tracking and class placements have an impact on friendships middle school students develop and maintain.

The friendship networks middle school students develop are important because they have been shown to last well beyond eighth grade. Tyson (2011) found that high school students identify that their important friendships typically started in middle school. Since high school students feel some of their strongest friendships started in middle school, student placement into tracked classes in middle school is significant. Since students in middle school are enrolled in classes that are more ethnically homogeneous than the overall school population, it would make sense that the friendships they develop are less diverse than they would be otherwise. If academic tracking at the middle school level leads to more homogeneous friendship networks, it seems likely that these homogeneous friendship networks will follow students into high school and beyond.
There are several alternate explanations for these findings that need to be addressed. Students seem to not become friends with each other in middle school simply because they share the same ethnic background. Ito (2010) argues that youth tend toward building friendships with others of a similar age who share their interests and values. Daniel’s story of his friendships shows ethnicity not to be the sole predictor of a student’s friendship network. Daniel is Latino and some of his closest friends are white. Daniel became friends with the boys in his Skate PE class because they shared the interest of skating and now he also engages in other activities with these friends, such as playing video games. Daniel shows that students are becoming friends with each other because they have classes together. It is possible for Latina/o and white students to be friends even if they are in different academic tracks. However, Daniel demonstrates that cross-academic track friendships are only possible when the school provides students of different ethnicities opportunities to interact with each other in a mutually enjoyable activity.

Another alternate explanation for the findings in this chapter is that middle school students make friends with those of the same ethnicity regardless of tracked classes. One might argue, for instance, analysis of Michelle and Celia’s interviews suggest that students will remain friends with students who share their ethnicity regardless of whether or not academic tracking occurs. However, the counter argument is that the practice of tracking causes stereotypes to begin to form and students begin to identify certain tracks of classes with certain types of students. In her study of low-income urban Latino and African-American youth, Carter (2005) found that high
school students identify honors, AP, and college-prep courses as classes for white and Asian students and technical and remedial courses with black and Latino students. It is possible that Michelle does not feel that she belongs in the below-grade-level math class because she is white and she associates that type of math class with students who are not white. Michelle identifies most of her friends as coming from the school’s leadership elective, a predominantly white class. If Michelle already believes the stereotypes that Carter talked about in her study, then it would make sense that she, perhaps unconsciously, dissociates herself from the people in her math class and identifies more with the students in her leadership class. Similarly, Celia may not feel she fits in the college-prep math class because she is Latina and has the stereotype that her math class is a class for white people. Michelle and Celia’s experiences may, in fact, be showing that these stereotypes have already begun to form by the time students are in eighth grade.

Finally, one might argue that the relationship between class enrollment and friendship is reversed. Could students be choosing to enroll in classes because they know that their friends will be taking the same class? However, in their interviews, students made no mention of choosing to take classes because of their friends. The tracking that occurs in schools is an enactment of the policies and practices of those schools. Students are more likely to be enrolled in courses with those of an ethnic background similar to their own, so it would make sense that the practice of tracking students has the consequence of students remaining and becoming friends with people
who share their ethnicity. So, while a school as a whole may be ethnically diverse, there can be, in fact, socially and ethnically homogeneous friendship networks.

Summary

The policies and practices of schools affect not only students’ academic lives through tracked classes, but also their social lives, with increasingly homogeneous friendship networks. The next section examines the implication of these networks beyond friendship.
CHAPTER VII: FRIENDSHIP NETWORKS AND ACCESS TO ACADEMIC CAPITAL

Individuals who graduate from college likely have a disposition to complete high school, a desire to attend post-secondary institutions, are able to complete the steps to achieve the goal of a college education, and the resources to attend once one is accepted. Without academic capital, it is difficult to prepare for and apply to college. In the United States, preparing for and applying to post-secondary institutions requires that people know about how to be academically qualified for college and that they know about the college application process.

Students can form academic capital in many ways. Students rely on their family members, friends of their family, teachers, and friends to help increase their academic capital. The focus of this chapter, however, will be on how friendship networks play a role in academic capital formation. The data analyzed for this chapter examines the people that middle school students say they would approach for information about college. In looking at who students would go to in order to find college information, the attributes that middle school students look for in adults who they would approach for this type of knowledge can be determined.

The third research question of this study is: how are opportunities to access academic capital embedded within middle school friendship networks? Analysis of school documents and interviews with students led to the finding that students whose parents went to college rely on their parents more than others as sources of academic
capital. Students whose parents did not go to college rely on other adults for such information, but only some of these adults have academic capital themselves.

**Academic Capital**

According to Bourdieu (1979), “academic capital is in fact the guaranteed product of the combined effects of cultural transmission by the family and cultural transmission by the school (the efficiency of which depends on the amount of cultural capital directly inherited from the family)” (p. 23). So, following from Bourdieu, an individual has two key ways to acquire academic capital. One way is that a person learns the cultural capital necessary to gain academic capital from her or his family. The second way a person obtains academic capital is from their life experiences that relate to education. For example, people could gain academic capital by attending schools, interacting with people who are knowledgeable about education, or from learning about education through literature or other forms of media. Schools are not predictable sources of academic capital, since the experiences that students have vary within these institutions. However, the longer students stay in school, the more academic capital they are able to form because they have more opportunities to receive cultural information from the people at the institution. So, students who attend college will have more academic capital, likely to help them gain more social and economic capital, than students who do not.

Middle school students are in the early stages of forming academic capital. Since middle school students are still over four years away from a post-secondary education, it is unlikely that they know detailed information about the college
admissions process or university life. From my experience as a middle school teacher, I have found that my students do not have very much information about college. For this reason, I did not ask students specific questions about post-secondary schools in the interviews for this study. Instead, in order to determine the sources students use to access information about higher education, students were asked, “Whom would you go to if you had a question about college?” In response, the nine interviewed students named various people. Students were encouraged to name all the people they would feel comfortable asking for information, whether these people are at home, at school or in the community.

**Students with College-Educated Parents**

An analysis of the interview data indicated that if a student’s parents went to college, that student describes accessing academic capital directly from someone in their household. In this study, all four white students had at least one parent who went to college. None of the five Latina/o students interviewed for this study had college-educated parents. Among this sample, the white middle class students had access to academic capital in their own homes through their college-educated parents while the low-income Latina/o students, whose parents were not college-educated, did not.

Among the interviewees, all of the white students whose parents were educated in the United States said they would approach a parent for college information before going to anyone else. The only white student who said she would not ask her parents for college information explained, “my parents went to college in Europe so they don’t really know what it’s like here. I think they would try to help but if I really wanted to
know about college, I would go to Lily or Emma or Marisa’s parents because they went to college (in the United States).” While her parents did go to college, she believes that adults who went to college in the United States have more appropriate academic capital than adults who attended university in another country. Students whose parents attended college in the United States said that they have a reliable source of academic capital right in their own home.

**Students without College-Educated Parents**

All of the five students whose parents did not attend college were Latina/o. They each identified adults other than their parents to whom they thought could go to for information about post-secondary education. Some of the adults were themselves college-educated; others were not.

In describing their sources of information about college, some of the students said that they would rely on people who they knew had gone to college in order to hear about information about post-high school schooling. Two Latina/o students said that they would approach another family member. However the family members those students mentioned were not people that they saw on a regular basis. Celia said, “I would ask my uncle because he is in college.” However, Celia said she only sees her uncle about twice a year. The other student, Eduardo, said, “My aunt graduated from Syracuse. It’s a college in New York, so I would ask her.” However, Eduardo said he has not spoken to his aunt in over a year. To summarize, the white students interviewed lived with adults who went to college while Latina/o students had less immediate access to family members who went to college.
Parents and family members are not the only sources of post-secondary academic information. One might expect to have teachers and other school personnel listed as sources of information. However, eight of the nine students made no mention of teachers, administrators, counselors, or any other school personnel as being someone they would ask about college. Thus, only one out of the nine students interviewed, Eduardo, said he would ask an adult associated with his school about college. As he said, “I would ask Gloria from an after-school program…she went to college and she is there every day so it’s easy to ask her stuff.” And even in this case, the relationship Eduardo and his family have with Gloria has a family-like quality. Gloria emails Eduardo’s teachers and translates information about Eduardo’s classes to his mother. Gloria also attended Eduardo’s annual special education meeting with Eduardo’s mother. Gloria seems to play an important familial role in Eduardo’s life, so it is not surprising that he would ask her about college.

Latina/o students who said they would not ask their own non-college educated parents about college indicated that they would ask the parent of one of their friends who were either college-educated or had college-educated friends. Of the three Latina/o students who would ask a parent of their friend for college information, one said he would ask the parent of a white friend and two would ask the parent of a Latino friend. One of the Latino students, Daniel, is enrolled in Skate PE, a class that has a lower representation of Latina/o students than the overall Beach Street Middle School population. As Daniel, said, “I would ask Aaron’s parents…they are rich so they probably know a lot about going to college.” The other student, Elizabeth, said
she would ask the father of a Latina friend because, even though he did not go to
college, he “earns a lot of money from managing (an upscale restaurant close to Beach
Street Middle School).” Elizabeth said that he knows about college because “a lot of
his friends that he met at the restaurant went to college.” Both Daniel and Elizabeth
seem to recognize the connection between socioeconomic status and academic capital
because they associate people with money as being knowledgeable about college. The
third student, Celia, said, “I would ask Eduardo’s mom about college…she’s my
godmother and cares about me a lot.” She said that her godmother “didn’t go to
college, but she finds out stuff for me whenever I need it.” The adults that Latina/o
students would ask about college have varying degrees of access to academic capitals
themselves. In this study, while the white students live with people who have
academic capital, the Latina/o students have less everyday contact with adults who
they say they would ask for information about college.

**Ethnicity and Access to Academic Capital**

White students are likely to have more everyday access to adults with
academic capital than Latina/o students. While having a college education is not the
sole determinant of whether or not a person knows about how to prepare for and apply
to college, it is reasonable to assume that it is a good indicator. A person who has a
college education has participated in the college admissions process and has
personally experienced college activities such as registering for classes, choosing a
class schedule, and meeting with professors. The more college-educated people
students have in their social networks, the more access students have to academic capital.

White students would approach more adults who are college-educated for information about college than Latina/o students would. The four white students listed a total of 12 adults who they would ask about college. All 12 of these adults were college-educated. The five Latina/o students listed six adults. Only four of these six adults had attended college. On average, white students have three college-educated adults who they said they would feel comfortable asking. Latina/o students, on the other hand, have an average of 1.2 adults they said they would approach for information and only an average of 0.8 college-educated adults.

Since the parents of the white students in this study all attended college, these students have more immediate familial access to academic capital. While all but one Latina/o students would feel comfortable asking an adult about college, not all of these students have regular access to academic capital. Two Latina/o students said that they would ask someone who did not go to college for college information. While the white students each identified several college-educated adults they could approach, three of the five? Latina/o students had one or fewer college-educated adults they felt comfortable asking.

The Importance of Trusting Relationships with Adults

The interviewed students were asked, “Why would you ask (the adult they mentioned) about college?” In response, they mentioned a variety of reasons. Celia, when talking about her godmother said, “she really cares about me.” When talking
about her parents Michelle said, “I know they would have good answers.” When Eduardo mentioned an aunt who he would go to he said, “Because I know she wouldn’t laugh at me and that we could really talk about it.” An analysis of the interview data indicate that, when students talked about the adults who they would ask for information about college, the qualities they included were that the adults care about them, would not ridicule them, and were knowledgeable about education after high school.

Trust appears to be an important characteristic of the relationship with the adults that students identified. The students who had people in their household, such as their parents, who were college-educated, said that they could readily ask these family members questions about postsecondary education. However, students who did not have people with academic capital in their immediate family needed to look elsewhere for information. But few students who did not have immediate family members who went to college mentioned adults associated with educational institutions to help them form academic capital, as Eduardo did with Gloria from his after-school program. Alternatively, students who had friends whose parents had attended college, as Daniel did with his Skate PE friends, may have opportunities to form academic capital through their relationships with their friends’ parents. Students who did not find adults at school or did not have friends whose parents go to college, are less likely to have access to academic capital, as is the case with Celia, Leticia, and Elizabeth.
**Schools with a High Population of Students with College-Educated Parents**

The parents and families of friends are, of course, not the only way in which middle school students gain academic capital. Students in fact spend much of their day with many possible sources of academic capital. Since teachers are all college educated, these adults should be a reliable source for information about college. In this study, however, not one of the nine students mentioned asking a teacher from their school as a source of information, despite seeing their teachers every school day. What is even more surprising is that students do not even mention teachers in programs that specifically target students whose parents did not go to college as a source of information about postsecondary education. Neither of the two students enrolled in the AVID program said they would approach an adult associated with the school even though the intent of the AVID program is to provide students with access to information that will help them enroll in college. One of the students, Celia, mentioned asking her godmother (Eduardo’s mom) about college and also said that she would ask her uncle. The other AVID student, Leticia, said, “I wouldn’t really ask anyone. Maybe next year, but I don’t really know right now.” Involvement in a school program that focuses on college-readiness does not guarantee that students in that program feel comfortable asking their teachers questions about college.

Schools that serve students whose parents have not, for the most part, attended college often implement programs that bring discussions about college into the classroom. Gándara and Bial (2001) present several elementary, middle, and high school college-outreach programs implemented at schools with a large population of
students with non college-educated parents in order to help increase the number of
underrepresented youth who pursue a postsecondary education. The authors talk about
schools that have each classroom “adopt-a-college” for the school year so that students
can research different colleges with their class before they apply to college. Some
schools invite college counselors speak to students about how to prepare for college
and arrange for college students come to the school to discuss their experiences as
college students. Other schools take their students on regular field trips to college
campuses to expose students to college life.

At this time of this study, Beach Street Middle School did not provide
programs with the sole purpose of informing students about college. Perhaps because
college-outreach programs do not occur on a regular basis at the school, students do
not mention teachers as people to ask for information regarding college. Beach Street
Middle School is a place where teachers can assume that a child's parents know about
college. Since college-readiness is not as pressing of an issue in middle school as it is
in high school, the teachers there may not see it as an important part of their role to
engage in college counseling. Schools that serve communities that have a large
proportion of students who come from low socioeconomic households may have more
outreach efforts because it is assumed that students do not have resources to acquire
college information at home. However, at a school like this one, with a small number
of families who have not had the opportunity to engage in post-secondary education,
there may be a double jeopardy for students whose parents did not go to college.
These students do not have access to college information either at home or at school.
Access to academic capital through friendship networks becomes even more important because academic capital formations activities are not occurring at the school site.

Students whose parents did not attend college have less familial access to college information than students who have parents who are college educated. In addition, if these same students are enrolled in below-grade-level math, support electives, general PE, and college-prep English, then they are interacting and building friendship more with students whose parents also did not attend college. Even with an “open access” policy, Beach Street Middle School’s class enrollment policies and practices seem to perpetuate ethnically homogeneous friendship networks through tracked classes. When ethnically homogeneous social groups form, students who do not have access to academic capital in their own homes are less likely to interact with other students who do.

**Discussion**

Most research on academic capital formation has focused on high school students. This study suggests that middle school students already have differential access to academic capital. Interviews with eighth grade students suggest that white middle-class students are able to rely on their immediate family members for information regarding college. Lower income Latina/o students, on the other hand, need to rely on less readily accessible adults for information about college.

Social, economic, and cultural capital all contribute to academic capital formation. An analysis of the data from interviews with students, suggests that these three forms of capital do not have an equal effect on a middle school student’s
growing academic capital. When asked the question, “What do you do with each of
the friends in your eighth grade diagram?” students did not use their social capital to
take about school related matters. For instance, students did not discuss doing
homework with their friends or exchanging information regarding their classes.

Two out of the nine students specifically mentioned economic capital in
connection to their friendships. A Latino student said he would rely on the “rich”
parents of his white friends, also enrolled in skate PE, to give him college information.
A Latina student said that she would ask a friend who earns a lot of money in his job
because he works with people who went to college. Students who come from families
with economic capital are likely to have college-educated parents. Thus, if students
become friends with their peers who have economic capital, they are likely to have
more interactions with the college-educated parents of these friends, possibly
increasing their access to academic capital.

Every student mentioned some sort of cultural capital when they talked about
the adults with whom they would ask about college. For example, students knew that
adults who would be most knowledgeable were those who were wealthy, went to
college, or knew how to find the information.

While all of the students in this study attended the same school, they did not all
have equal access to academic capital. If students are not able to find information
about how to prepare for and apply to college, they will be less likely to form
academic capital. In her work with high school students, Flores-González (2002)
found that the different routines, practices, perceptions, and interactions of students in
schools led to students having differing access to the educational opportunities that were provided by the school. The routines, practices, perceptions, and interactions that the middle school students interviewed for this study had in school were greatly influenced by the classes they took and by the people who were in those classes. Students in below-grade-level classes and support electives are in a different ecological niche than students in honors classes and PE electives. Interviews with students show that college information is more accessible for students enrolled in the honors/PE elective niche than for the students in the below-grade-level/support elective niche. Since the policies and practices in place at many schools result in groups of students being over and underrepresented in different courses, it is likely that Latina/o students have less access to academic capital than white students do through both through their family, through their friends, and through their classes.

Students’ academic capital formation has a likely impact college attendance. Capital formation occurs throughout a person’s life, so the capital that students gain through their social interactions in middle school is important. As Carter (2006) found, high school students share and transmit various types of capital primarily with the students in their academic classes. Carter also found that students in honors courses are exposed to more information regarding college than are students in lower-tracked classes. This study suggests that middle school students rely on adults who they trust for college information. Because not every trusted adult in a student’s social network has the same kind of academic experiences, the academic capital that students can acquire from them is not the same.
An analysis of the interview data indicates that in order to talk to an adult about college, they needed to trust that person. People who went to college have academic capital, so it is important for middle school students to build trusting relationships with people who did go to college. Students can build these trusting relationships with teachers, neighbors, siblings, or even parents of friends. Valenzuela’s (1999) study of social relationships among Latina/o high school students in Texas is relevant here. She found that students who have social relationships at school are likely to cultivate trusting relationships and develop the same goals. Since students build social relationships with people in their classes, they will likely have more access to academic capital if they have classes with students who have parents who went to college.

Students who have friends with parents who went to college are at an advantage when it comes to forming academic capital. Research has shown that the parents of a student’s friends are pivotal in that student’s probability of attending college. In a recent, large-scale study, Hua-Yu, Malarco, and Kao (2013), found that the parents of a student’s friends could have a significant impact on their educational attainment. More specifically, the authors found that having a best friend with a college-educated mother is correlated with higher rates of college completion. The authors hypothesized that, by modeling the behaviors necessary to achieve middle-class success in American society, college-educated mothers affect not only their own children’s behavior but also that of their children’s friends. Their study suggests that, students whose friends have college educated mothers will be more likely to be
exposed to knowledge about the benefits of college, about college options, and about information about how to apply to college.

Schools are important entities in assisting students in having access to adults with academic capital. Hua-Yu, Malarco, and Kao (2013) reiterate the importance of institutions creating opportunities for students who do not have college-educated parents to interact with students who do have college-educated parents. As the authors conclude, adolescent friendships are an under-recognized source of social capital. In addition, they found that the socioeconomically homogeneous friendship networks that exist prevent students who have low socioeconomic backgrounds from attaining information regarding college. As Hua-Yu, Malarco, and Kao (2013) conclude, ethnically homogeneous friendship networks may not be good sources of information for students who could most benefit from it. Hua-Yu, Malarco, and Kao’s findings are supported by this study: that middle school students’ friendship networks embed the possibility for access to academic capital, and that these friendship networks can create important opportunities for students whose parents did not go to college to form academic capital.

Summary

Middle school is a time when students are beginning to learn about postsecondary educational opportunities. When school have classes which are academically tracked, the courses in which middle school students are enrolled have consequences in regards to their course placements in high school. These course placements play a role in a student’s college eligibility. Getting the information about
different tracks of classes and knowing that the recommendations made by school personnel about course placements can be challenged is a form of academic capital. Similarly, being a part of a social network with easy access to college information is a form of academic capital. At schools where most students have college-educated parents, academic capital formation may seem unproblematic. However, there are students at these schools whose parents are not college-educated and who do not have peers in their friendship networks with college-educated parents. For these students, schools are a perfect place for them to be able to build relationships that will help them form academic capital.
CHAPTER VIII: CONCLUSION

Overview of the Research Study

This case study focused on the ways in which school policies and practices influence the friends that middle school students make and the implications for formation of academic capital that occurs within these friendships. The research questions for this study were:

How do institutional practices and friendship networks interact to constrain or facilitate the access to academic capital among middle school students?

Sub-questions

a. How do middle school policies and practices socially organize middle school students?

b. How do students’ friendship networks change from elementary to middle school, and how do students account for these changes?

c. How are opportunities to access academic capital embedded within middle school friendship networks?

Many factors influencing the people with whom middle school students choose to spend their time. The tracking of classes at the high school level occurs along ethnic, racial, and socioeconomic lines (Argys, Rees, Brewer, 1996) and has been shown to produce ethnically homogeneous friendship networks for students (Carter, 2005; Flores-González, 2002). While previous research shows that tracking results in segregation within high schools, much less is known about the origins and early development of these social groupings. Tyson (2011) has studied how high school
students feel that most of their important friendships started in middle school. This study was designed to find out more about the role of tracking in the development of friendship networks and the part played by these networks in the formation of academic capital in middle school.

This case study draws on the theory of capital (Bourdieu, 1986), as a lens through which to examine this issue. According to Bourdieu (1986), capital is the accumulation of resources that people either intellectually or physically acquire. These resources enable people to learn about and take advantage of opportunities that will help them be socially and economically successful in life. Bourdieu defines the different types of capital that exist: academic, cultural, social, and economic. Academic capital is an individual’s degree of education and other academic experience that can be used to help them acquire a career that will help them to be financially stable or profitable. Cultural capital is gained through socialization and influences the way people act in different situations. Without the relevant cultural capital, a person may act inappropriately or feel uncomfortable in certain social settings. Bordieu defined social capital as a person’s social connections. And finally, economic capital is considered to be one’s financial resources: one’s wealth in currency or assets. According to Bourdieu, students’ access to mainstream cultural, social, and economic capital increases their ability to form academic capital.

The participants of this study included nine students who had been identified by their former sixth grade teachers as having inter-ethnic friendships when they were in elementary school. The middle school student subjects discussed their friendships
and explained how their friendships formed and why friendships ended. School documents were analyzed to determine the relationship between class enrollments and friendship networks.

The data for this study were analyzed through a social network analytical lens. Borgatti and Ofem (2010) found that the relationships within social networks could both constrain and provide opportunities for the people or organizations involved in them. So, the people with whom students interact have an influence on the amount and type of opportunities to which they are exposed. By using a social network analytical lens, the interactions that students had with their peers that allowed or prevented them from exchanging information became apparent. Interviews with students further clarified how changing friendship networks affected their access to information, particularly information about college.

**Summary of Principal Findings**

In this study, an overall research question led to the development of three research sub-questions that were investigated. The overall research question was: How do institutional practices and friendship networks interact to constrain or facilitate the access to academic capital among middle school students? The principal findings show how school policies and practices affect middle school friendship networks and the access students have to academic capital.

The first research sub-question asked how do middle school policies and practices socially organize middle school students? Several findings relate to this question. First, the distribution of students by ethnicity in courses did not match the
overall ethnic distribution of students at the school. Two factors influenced the classes in which students enrolled: the recommendations made by school personnel and the choices made by family to accept these recommendations or not. Since course recommendations for math, English, and elective classes are based primarily on standardized test scores, and Latina/o students historically perform lower than their white peers on such tests, it is more likely that Latina/o students will be in below-grade-level math classes and support electives. Also, even in a school with an “open access” policy allowing any student to enroll in an honors-level course, an analysis of school documents shows that the parents of white students are much more likely to request their enrollment in a class above that which was recommended. Having an “open access” policy results in an even greater imbalance in lower-level classes than would be predicted by the course recommendations. Numerous research studies have already shown that secondary school honors classes have a higher representation of white students while remedial classes have a higher representation of Latina/o students. This study suggests that academic tracking along ethnic lines is more pronounced if there is an open policy, a result of different parental response to school recommendations. And finally, even in elective courses, class enrollments show an imbalance by ethnicity and family income in middle school.

The second research sub-question asked: how do students’ friendship networks change from elementary to middle school, and how do they account for these changes? An analysis of student interviews and school documents indicates that students remain friends with people who are enrolled in their classes or after-school programs. Since
the classes in which students are enrolled are more ethnically and socioeconomically homogeneous than the overall school population, students stay friends or become friends primarily with those who share their ethnicity. While it is not surprising that students become friends with the people in their classes, what is notable is that Latina/o students are more likely to build interethnic friendships if they are in classes that have a high percentage of white students.

Finally, the third sub-question asks: how are opportunities to access academic capital embedded within middle school friendship networks? Students whose parents attended college said they could rely on their parents for college information. Students whose parents did not attend college said that they relied on other adults to give them information regarding college. Among the students interviewed, if their friends had college-educated parents, they identified those adults as being sources of college information. Four of the five Latina/o students, whose parents did not have post-secondary education, also did not have friends with college-educated parents. As a result, they had less regular access to academic capital, in this case, information regarding college, than their white middle class peers.

In this middle school where most students have college-educated parents, only one of the students interviewed mentioned approaching teachers or other employees of the school for college information. It may be that the school personnel in these contexts rely on families to provide information concerning college. So, in middle schools that serve a small number of students whose parents do not attend college, access to academic capital through friendship networks may be even more important.
Implications for Policy and Practice

This study gives some insights into how institutional practices and adolescent friendship networks interact to constrain or facilitate the flow of academic capital among middle school students. This preliminary groundwork can allow for these practices to be looked at more critically. If policy makers and administrators better understand how middle school students deal with their early experiences with tracked classes, they can work to disrupt inequities that come to exist. Middle schools are an ideal setting for implementing programs to help all students engage in academic capital formation because they are typically smaller than high schools, allowing schools to develop programs that best fit their populations. Middle school is also an important time for academic capital formation to begin. This study suggests that students belong to ethnically and socioeconomically heterogeneous friendship networks in elementary school, but these networks change by the end of middle school. Since friendship networks appear to become more homogeneous during middle school, it is an important transitional period to examine in terms of addressing why friendships change so much during this time period.

Students do not become friends with each other only because they are in the same class. However, this study suggests that in order to help students build more diverse friendship networks, tracked classes seem to contribute to fewer opportunities to interact. Schools might want to consider making changes in their practices that would lead to the ethnic composition of a student’s classes being closer to the ethnic composition of the entire school’s population. In addition to making classes during the
school day more ethnically and socioeconomically heterogeneous, schools can implement after-school programs that serve diverse groups of students to promote interactions between students outside of normal school hours. Also, by ensuring that elective and PE course enrollments are the same as the ethnic distribution of the school, students will have more opportunities to become friends with people who are a different ethnicity. If students have the opportunity to interact and build relationships with students of different ethnic backgrounds in middle school, there is hope that academic capital can flow more readily between all students, regardless of their ethnic backgrounds.

The students interviewed for this study did not identify their teachers as resources to learn about college. As well, most of the students at the school have parents who attended college. Given this context, it may be that teachers assume that they do not need to talk to students about how to prepare for college. Since there are no school-wide programs at the school, students whose parents did not attend college are at a disadvantage because they are not being able to form as much academic capital as their peers at home or at school.

To ensure that all students are getting the information they need to be prepared for college, teachers could talk more openly about college to their students. At the beginning of the year, teachers could talk about the college they attended when they are introducing themselves to the class and tell students that they are always available to answer any questions concerning college that a student may have. Teachers can work to explicitly talk about experiences they had in their college classes throughout
the year so that students can understand how what they are learning now relates to what people learn about in college.

Students’ friendship networks can be used to disseminate information about college. Atkins, et al. (2008) found that information is disseminated throughout a social network by the influence of “key opinion leaders.” Since middle school students regularly interact with the people in their friendship networks, another strategy to increase the flow of academic capital between students on campus would be to find out who the most influential students or “opinion leaders” (Valente and Pumpuang, 2007) are and use those students to influence an entire friendship network. If teachers are able to inform students who are seen as leaders by their friends about college and these students talk about the information with their friends, more students may be able to form academic capital. It would be beneficial to start talking to “opinion leaders” about college information early in their education, perhaps in elementary school, so that student social groups can develop a “college-going” culture.

In addition, administrators and parent organizations can work to implement programs that will help develop a school-wide college-going culture such as the ones Gándara and Bial (2001) mention. Current college students could be available on campus on a regular basis to develop relationships with students and talk about their experienced applying for and going to college. Also, middle schools can work to recruit speakers from colleges to come on campus or to take students to college campuses in the area so that students are made more aware of the different college options that are available to them.
Many schools engage in practices that provide students opportunities to learn about college; however, schools in which most students have college-educated parents need to be particularly vigilant. Schools with a high population of students who are expected to be “college-bound” may be less likely to implement programs that raise college awareness among students, because it may seem as though all students are getting the information they need from home. However, as the findings in this study suggest, students whose parents did not attend college may not have as many opportunities to form academic capital. Students whose parents did not go to college benefit from being able to access information regarding college at their school, so it is important for all schools to support such students.

Implications for Future Research

While the findings of this study suggest that a school’s policies and practices influence a student’s friendship network and their access to academic capital, some questions remain. One question that still exists is how big a role academic tracking and course choice plays in decreasing heterogeneity of friendship networks. To answer this question, it would be valuable to implement a comparable study at an ethnically diverse middle school that has little to no academic tracking. If friendship networks still became more homogeneous despite the absence of tracking, then it would be clear that a more complicated relationship exists between school policies and procedures and friendship networks. Another question that remains is the persistence of middle school friendship networks. Longitudinal studies that followed students from elementary school to middle school and then to high school might help answer this
question. Such a study might determine the relative strength of factors that influence the changing friendship networks of students over time.

From talking with students for this study, it was apparent that middle school students do not have a very good understanding of their network of social resources. For instance, students did not mention teachers as people they could approach to get information about college. If students who have a better understanding of the ways they can form capital, they may have more academic success. If research were to show that a better perception of one’s social networks leads to a more successful academic career, it would suggest that middle school students could benefit from programs that support the development of a sense of their social field. To determine the importance of a student’s perception of their social network, more studies of middle school students, their social networks and their academic outcomes are needed.

**Final Thoughts**

This research study gives some insight into how students form friendship networks in middle school and how these friendships affect their access to academic capital. To really understand the formation of academic capital, it is important to look at how it is first acquired. Middle schools are places where students begin to have less adult supervision and more time to spend with their friends, so they have more opportunities to learn from their peers. If educators and policy-makers hope to increase the opportunities for all students to attend college, then all students must have more opportunities to learn about postsecondary educational opportunities. Since a student’s friendship networks play a role in their ability to form academic capital, it is
important that school policies and practices do not prevent students from having the opportunity to become friends with ethnically and socioeconomically diverse peers.
APPENDIX A: STUDENT INTERVIEW QUESTIONS

1. Thank you for agreeing to help me with my study about middle school students and their friends. Today, I am hoping to get an idea of the people who are your friends, how you met them, and what you do with your friends. To start out, let’s make a list of your friends.
2. Which of these do you consider your “best friends.”
3. Great! Now let’s talk about how you met each of these friends.
4. What are the kinds of things you do with these friends either at school or in your free time? In other words, when do you see your friends?
5. Now that we made a list of your friends, let’s try to think of anyone you left out. Can you think of anyone you consider being a friend from one of the activities you do with your other friends? Are there any activities you do that we haven’t talked about yet? Who do you usually do these with?
6. I’d like to work with you to make a chart of you and your friends, with you in the center and your friends connected to you. How are they connected to you? How are they connected to each other? What do you do together? When do you see each other?
7. Now let’s go back in time. Think about who you played with when you were in 6th grade? Let’s make a list of those people.
8. Which of these people did you consider to be your “best friends” in 6th grade?
9. Here is your yearbook from when you were in 6th grade at Pebble Lane. Take some time to look through the pictures in the yearbook. Tell me about your friends in 6th grade. Could you point out the people you mentioned?
10. Tell me about your friends in 6th grade who weren’t in these pictures.
11. Think about when you were in elementary school with these friends. How did you met the kids who were your friends?
12. What kinds of things did you so together? If students can’t remember: Did you mostly spend time with them in class or at recess? Did you go to each others’ birthday parties? Go to each other’s houses either in 6th grade or in the years before?
13. Think back further to when you were even younger. Tell me about the friends you remember from earlier in elementary school. I’d like to hear some stories about some of the most memorable experiences you had with friends during all of your time in elementary school.
14. Now I’d like to talk to you about what you think you would like to do after high school. Do you have any ideas?
15. What do you feel like you are doing in your life now to get you ready for your plans after high school?
16. Do you feel like any of your friends will be helpful in getting ready for your plans after high school? Which ones? Why?
17. Are there any friends who you think will not be helpful in getting you ready for your plans after high school? Which ones? Why?
APPENDIX B: TEACHER INTERVIEW QUESTIONS

Introduction: Thank you for agreeing to help me with my study. I’m interested in better understanding how students change their friendship groups when they leave elementary school and enter middle school. I am hoping to get an idea of the social dynamics among the students in the 6th grade class you taught two years ago.

1. I know that it was a long time ago and that it may be difficult to remember everything, but anything you do remember will be very helpful. I have a copy of the Pebble Lane yearbook from that year. I will give you a few minutes to look through the pictures of the 6th grade class and then you can tell me what you remember about how the students interacted with each other.

2. So, what do you remember now that you’ve looked back at those pictures again? Do you remember who were best friends? Which students spent time together at school?

3. Thanks! While you were talking, I wrote down the names of each student you mentioned and connected them with lines. Can you look at this and see if you feel it accurately represents what you remember? Are there any connections I am leaving out?

4. Finally, what are interactions among these students that you remember from when they were in 6th grade?

   a. A follow-up question if necessary: For example, were there any friendships that developed over the year, friendships that you remember ending, or friendships that surprised you?

5. What else would be helpful for me to know about this group of students?
REFERENCES


