

THE EFFECT OF ADULT AND PEER SUPPORT ON EDUCATIONAL AND CAREER
PLANS OF HIGH SCHOOL STUDENTS

A Thesis

Presented to

The Faculty of the Department

of Sociology

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In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

By

Nan Li

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THE EFFECT OF ADULT AND PEER SUPPORT ON EDUCATIONAL AND CAREER
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ABSTRACT

This research compares the effects of adult support and peer support on educational and occupational aspirations of high school students across various racial groups using data from Aldine Independent School District: Students Survey (AISD). The results reveal that the impact to which social support predicts students' educational and occupational aspirations depends on race and ethnicity. More specifically, peer support and teacher support have stronger effects on educational aspirations for African American and non-Hispanic White students than for Hispanic students; the effects of parental communications are a stronger for non-Hispanic White students than for Hispanic and African American students; parental expectations are more important for African American students in determining their educational aspirations than for Hispanic students. As for occupational aspirations, the findings suggest that peer support is more effective for African American students than for Asian students. Teacher support has a stronger effect on non-Hispanic White students' occupational aspirations than do Hispanic and African American students.

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Chapter 1

Introduction

The earnings and rates of enrollment in post-secondary education of African American and Hispanic young people, on average, are lower than of non-Hispanic Whites and Asians (National Center for Education Statistics 2014). Various explanations have been presented to account for this social phenomenon. One overall approach relies on the often used framework of the Wisconsin model of socio-economic attainment (Sewell et al. 1969). According to this model, students' educational aspirations and occupational aspirations play a key role in determining their eventual educational attainment and occupational attainment (Sewell et al. 1969). Substantial empirical research has verified the framework. Morgan and his colleagues (2012), for example, find that students with fixed plans about the educational requirements of their expected jobs are more likely to enter colleges than those without certain beliefs. On the contrary, young people without certain occupational aspirations earn significantly lower wages than those with more certain occupational aspirations because lack of occupational plans may lead them to have lower school commitment and motivation to study (Staff et al. 2010). Nevertheless, one of the most consistent findings in educational research has been the higher educational aspirations and occupational aspirations of minority students than of non-Hispanic White students. Recent research points out that both Hispanic and African American students' educational aspirations are higher than those of non-Hispanic White students, when differences in family backgrounds are taken into account (Frost 2007; Goldsmith 2004; Kao and Tienda 1998). Moreover, African American students also have higher occupational expectations than do non-Hispanic White students (Ainsworth-Darnell and Downey 1998). Consequently, both African American and Hispanic students are supposed to have higher social standing than their non-Hispanic White

counterparts. But minorities are still the economic disadvantaged groups in the United States. On the one hand, the dominant group sets a job ceiling which limits minority range of occupational choices (Ogbu 1983); on the other hand, minority students do not set up their goals based on their ability and reality. To understand the high educational and occupational aspirations across racial groups, it is necessary to explore how students' aspirations are shaped by significant others and reference groups.

In this research, I proposed to explore the levels of adult and peer support in determining educational aspirations and career plans of high school students by extending status attainment models. The results indicate that peer, parent, and teacher support differentiates students in terms of their plans to pursue post-secondary education or training and the kind of occupations they seek to enter. This thesis is tested with statistical analyses of high school students' career aspirations, educational aspirations, and social support. This is a secondary analysis of data without individual student personal identifiers. All data have been collected under protocol #14273-02 "The Attitudinal Climate in the Aldine Independent School District: Students Survey (AISD)" in 2013 by A.G. Dworkin.

Chapter 2

Literature Review

Racial Disparities of Educational and Occupational Aspirations

Starting with Sewell et al. (1969, 1970) and their seminal analyses of Wisconsin high school seniors, students' educational aspirations and occupational aspirations have been linked parents' socioeconomic status to students' educational attainment and occupational attainment. According to the original model, students of low socioeconomic status have lower academic achievement than those of high socioeconomic status because of lower social support from significant others. Educational performance will influence the perceptions of their parents, their teachers, and their friends, which in turn influence students' educational aspirations and occupational aspirations. Apparently, students' aspirations are not straightforward given heterogeneous influence of their backgrounds, academic performance, and significant others.

A substantial body of research has confirmed that there is a disparity of educational aspirations across ethnic groups (Goyette 2008; Kao and Tienda 1998; Reynolds and Pemberton 2001). More specifically, Asian American students have the highest educational aspirations, followed by African American students, non-Hispanic White students, and Hispanic students after controlling for socioeconomic background and family structure (Cheng and Starks 2002; Qian and Blair 1999). Scholars have devoted considerable energy to explore the relationships among socioeconomic background, academic achievement and educational aspirations and occupational aspirations of students (Goyette 2008; Hauser and Anderson 1991; Kao and Tienda 1998; Qian and Blair 1999). Goyette and Xie (1999) find that socioeconomic and demographic background, parental expectations, and tested academic ability contribute to higher levels of educational expectations than do non-Hispanic White students in some Asian ethnic groups.

With the exception of the disparity of educational and occupational aspirations across ethnic and racial groups, the differences also exist in different generations and in different timing of life for a student. Recent research pays massive attention to the classic Wisconsin models by examining them from longitudinal and life course angles.

Students' educational and occupational aspirations have been increasing over the decades. High school seniors have become more ambitious in educational and occupational plans since 1976 (Reynolds et al. 2006). Important variations in the changing process of educational aspirations are also observed for race and ethnicity. Educational aspirations of non-Hispanic White students increased at a faster pace than of African American students between 1980 and 1992 (Hauser and Anderson 1991; Morgan 1996). According to the original Wisconsin model, the secular trend of raising aspirations should parallel with the effect of parents, whereas the role of parents on students' aspirations becomes less impacted. Parents' average education, family income family resources, family structure, and community contexts still have significant and positive effects on the probability of expecting a college degree, but all of them have diminished in size (Goyette 2008; Reynolds and Pemberton 2001). The declining effect of parents on students' educational aspirations suggests that material resources play a less important role in shaping students' educational aspirations than do other factors. What factors account for the growth of aspirations if the effects of material resources provided by parents decline?

Three interpretations are presented by scholars to account for the change of educational aspirations from structural functionalist perspective. First, students see community college as an educational stepping stone for advanced degrees and professional jobs, so they believe that they can achieve their goals regardless of their academic achievement and the influence of significant others (Reynolds et al. 2006). Second, the deteriorating job prospects for individuals with only

high school credentials or less may also lead high school seniors to expect completing a college degree (Reynolds and Pemberton 2001). Third, the college-for-all ethos suggest that time spent attaining a four-year college degree is perceived to be part of the life course of all young people regardless of social backgrounds and occupational plans (Goyette 2008; Rosenbaum 2001). These interpretations indicate that students' aspirations are shaped and influenced by the society. Social norms and economic conditions matter for the increasing aspirations, but they fail to account for the disparity of students' aspirations by ethnicity and race. Students should respond to the structural change diversely in terms of their race and ethnicity. Therefore, we have to go back to the original Wisconsin model to see how psychological resources offered by significant others exert diverse influence on students' aspirations.

Another line of research investigates how students maintain and modify their educational aspirations from a life course perspective (Kao and Tienda 1998). Bozick and his colleagues (2010) find that students with middle- and low- SES backgrounds are more likely to change and adjust their educational aspirations in terms of socialization influences. The change of educational aspirations is a dynamic process rather than a static entity. Students whose parents have decent-paying jobs, who have performed well in school all the time, and who receive consistent encouragement from social support networks do not have to adjust their educational and career plans, for their initial aspirations are always reinforced in the school process (Bozick et al. 2010). The change of SES background may reconstruct forms and styles of interaction between parents and children and social environment. Divorce, for example, primarily accounts for the deteriorating SES background, especially among African Americans. For children in single-parent families, parents may reduce the time spending on their children, since the parents have to struggle to survive and make end meets. Under serve economic condition, parents may

be less likely to be involved with school activities, provide encouragement to their children, and discuss educational and career plans. Reducing the parental influence may lead to the decrease of students' academic achievement, which in turn results in the decline of students' aspirations. Additionally, students may not be able to set appropriate goals without sufficient information from their parents so their educational and career plans may be set up unrealistically. Meanwhile, economically disadvantaged students are more likely to enroll in segregated schools and schools with lower quality teachers and fewer educational resources. Consequently, students may encounter totally different information through their interactions with teachers and peers by comparing those in competitive schools. Regardless of the reasons proffered for the increase in high school students' educational and occupational aspirations, the explanations suggest that educational and occupational aspirations are formed within the context of social interaction between students and their parents, teachers, and peers. The formation of students' attitudes depends on processing information which requires interaction and communication with significant others. But only by exchanging information with their parents, their teachers, and their peers can high school students form, develop, and maintain their attitudes towards their plans. Therefore, attitude, emotion, and behavior of parents, teachers, and cohorts shape students' educational and occupational plans.

In sum, previous research has shown that educational and occupational aspirations of students vary by race and ethnicity. One consistent finding is that the impact of material resources offered by parents on shaping students' aspirations has declined, whereas students' aspirations are increasing gradually. Community college as a step stone for university, educational requirement of occupation, and the college for all ethos are able to interpret the increased aspirations, but it fails to explain the distinction of change by race and ethnicity.

Therefore, social support of significant others can be used to fill this void. Morgan (1996) find that for the class of 1982, significant others' support is the least important for African American male students and about the same for African American female and non-Hispanic White male and female students in educational expectations; for the class of 1992, significant others' support was less important for non-Hispanic White male and female students than their African American counterparts. The levels of social support perceived by students in students' educational and occupational aspirations are different across ethnic groups. In the next section, I discuss the different effects of social support of significant others on educational and occupational aspirations of students.

Differential Effects of Significant Others

Parental Influence

The preceding discussion summarizes the extant research in terms of racial differences in the degree of students' educational aspirations. Qian and Blair (1999) report that human capital and financial capital offered by parents have a stronger effect on educational aspirations for non-Hispanic White students than for minority students. Non-Hispanic White students are supposed to have higher levels of educational aspirations than racial minority students in light of stronger effect of human and financial capital than minority groups. Except Hispanic students, however, both Asian American and African American students have higher levels of educational aspirations than non-Hispanic White students. Thus, psychological resources, such as parent support, may be another source that enhances levels of educational and occupational aspirations of students.

In their discussion of racial differences in the effects of significant others on students' educational expectations, Chen and Starks (2002) contend that Asian and Hispanic American mothers and African American fathers have a less effect on their children's educational

expectations than their non-Hispanic White counterparts because the children of the formers may interact with the formers less frequently. For Asian and Hispanic students, they are more likely to live in a patriarchal structure family in which fathers are the dominate authority and play a definer role in children's education (Cohen 1987). For African American students, they are more likely to live with their mothers due to the high likelihood of divorce among African American adults. This research suggests that parent support is reflected in the form of interaction and communication with their children. Some other evidences also support this assumption. Astone and McLanahan (1991) find that children from single parent families report lower educational expectations than those from two-parent families, for students from non-intact families receive less monitoring of school work and supervision of social activities from their parents than do their counterparts from intact families. However, the effects of the interaction on shaping students' aspirations may differ across racial groups. Qian and Blair confirm (1999) that parental involvement has a more significant effect on educational aspirations among African American and Hispanic students than non-Hispanic White students.

Much research has confirmed that students' educational expectations are reinforced and parents' educational expectations are transmitted though the interaction between parents and their children. Hao and Bonstead-Bruns (1998) demonstrate that high levels of parent-child interactions increase parents' and children's expectations; agreement between parents and children on educational expectations improve children's academic achievement. In other words, students' educational expectations will be undermined if their parents reduce interaction with their children in learning activities, such as parental expectations, discussion of school topics between parent and students, parental school-based involvement, and parent-school academic contact (Glick and White 2004; Sandefur et al. 2006). The positive association between parental

encouragement and educational expectations is able to give students “confidence in their ability to achieve, so they tend to value education, and they see the process of educational attainment as more positive and rewarding” (Garg et al. 2007: 1018). Parents may believe that it is their responsibility to help and encourage their children to set up goals which motivate their children to success in school not only because they want their children to have good careers in the future, but also because parent success is partly mirrored by academic and career success of their children.

Few Asian parents are involved in school activities, but their children still have the higher educational aspirations than other racial groups (Hao and Bonstead-Bruns 1998; Qian and Blair 1999). The form of interaction with children among Asian American parents is parental expectations because Asian parents believe that education is the primary way to upward mobility and hope that their children will assimilate into the American mainstream of society with high levels of educational attainment. Goyette and Xie (1999) argue that parental expectations play a more important role in higher levels of educational expectations of Asian students than do non-Hispanic White students in the United States. It is often assumed that high levels of educational expectations help Asian students to perform well in schooling. Therefore, the effects of parental expectation in determining Asian students’ educational aspirations may be stronger than do African American, Hispanic, and non-Hispanic White students.

The different effects of parent support on students’ aspirations are also observed by gender. By comparing the impact of parental encouragement on higher education in 1972 and 1992, Reynolds and Burge (2008) find that girls’ perceptions of parental encouragement on higher education grew more rapidly than did boys’. In 1992, Asian American, non-Hispanic White, and African American girls perceive more encouragement from their parents than did

boys, whereas Hispanic boys still perceive more parent support than do Hispanic girls. One explanation for the gender difference of perceived parental encouragement is that there are two different types of interpersonal influence: models and definers (Cohen 1987). Parents were more likely to be viewed as definers for boys; however, girls are more likely to see their parents as models. As noted above, agreement between parent and children would contribute to students' academic achievement. Parents as definers imply that there is a tension between boys and parents, so boys would resist their parents' involvement and expectations. On the contrary, girls are more conformity than boys and they are more likely to accept their parental encouragement, which in turn lead parents to give girls more encouragement. Thus, the impact of social support on aspirations may be moderated by gender.

In sum, parent support, characterized by parental communications and parental expectations, exerts strong influence on students' educational and occupational aspirations. The effect of parent support on educational and occupational aspirations not only differs by race and ethnicity, but also by gender.

Teacher Influence and Peer Influence

Parents are not the only source for students to acquire support. Significant others also include teachers and peers. To some extent the impact of parents on students' aspirations is mediated by "teacher quality and interest, and peer influence" (Reynolds and Pemberton 2001). The importance of teacher and peer support may be stronger for working-class students than for middle-class students due to the fact that middle-class parents can provide more credible information and sufficient resources than working-class parents in facilitating children's plans in the future. Hallinan and Williams (1990) offer insight on how non-parent support exerts influence on students' aspirations by extending Parsons's conceptualization of the influence process.

According to Parsons, the individual can be influenced when the person needs information to act in a particular situation so he or she has to obtain this kind of requisite information from others. The precondition of the influence process is the willingness to accept the necessary information from others. The willingness to accept requisite information is determined by whether the individual trusts the outside source. The person will absorb the information when he or she trusts the provider of the information because the receiver perceives that it is not likely to be fooled. This relation includes solidarity, friendship, and two individuals who share the same goal. Friends may be one of the most important information providers for students so they are more vulnerable to the influence of friends than other adults because friends are more trustworthy and helpful in attaining the desired goals (Hallinan and Williams 1990). High school students need information about their educational and occupational prospects, for they are standing in the intersection of their lives. They need to know what they can do after graduating from high school. Their friends and cohorts are important sources of this kind of information according to Parsons' theory. In this case, students are more likely to trust peers within their racial groups because they are more likely to have friends with the same race.

Ogbu (1995) argued that the aspirations of African American students might be depressed by their friends, but peers might facilitate aspirations of Asian students. Asian Americans were defined as voluntary minorities who have "moved to the U.S. more or less voluntarily because they believe that this move will result in more economic well-being, better overall opportunities, and/or greater political freedom" (Ogbu 1995:202). Asian Americans believe that they need to behave like non-Hispanic White Americans at school to achieve the goals that they came to America. They share common goals with their inner racial people so they tend to help, support, and trust each other within racial groups. Asian Americans also share a common identity—

minority—with African Americans and Hispanics so they may easily establish relationship with other minority groups. Moreover, acting like non-Hispanic White students may also help Asian students build friendship with non-Hispanic White students. Flashman (2012) notes that students with similar educational achievement are more likely to become friends and the tie between friends will be altered with the changing of academic achievement. Taken together, friends of Asian students are either from inner group or from other racial groups with good academic performance. Therefore, peer support should facilitate aspirations of Asian students.

By contrast, African Americans were defined as involuntary minorities who “were originally brought into U.S. society more or less permanently against their will, through slavery, conquest, or colonization” (Ogbu 1995: 203). It is more difficult for involuntary minorities to cross cultural boundaries because of “symbolic affective reasons arising from an oppositional cultural frame of reference” (Ogbu 1995: 288). They perceive that their own culture and language, which are stigmatized, have to be replaced with mainstream non-Hispanic White culture and language. Individuals who act non-Hispanic Whites would be ridiculed and criticized by their inner group members. Therefore, African American students may respond negatively to their friends’ support on aspirations because higher levels of aspirations represent acting white which is ridiculed within their racial group.

In segregated school, however, the majority is African American and Hispanic students, whereas non-Hispanic White students are the minority. In American society, racial tension exists between non-Hispanic Whites and minorities. African Americans, Hispanics, and Asians are all included as minorities, so they are more likely to identify each other than w non-Hispanic White students. These societal minority students—African American, Hispanic, and Asian students—may project their dissatisfactions to those school minority—non-Hispanic White students. Peer

support may play a negative role in forming aspirations of non-Hispanic White students. Moreover, non-Hispanic White may distance themselves from minority students in order to maintain their privilege and priority.

In sum, peers may exert different influence on aspirations across racial groups.

Stanton-Salazar and Dornbusch (1995) define teachers and peers as institutional agents who “have the capacity and commitment to transmit directly or to negotiate the transmission of institutional resources and opportunities (such as information about school programs, academic tutoring and mentoring, college admission, and assistance with career decision making).” The success of minority and working-class youths in schooling can contribute to supportive relationships with institutional agents. Stanton-Salazar and Dornbusch (1995) argue that supportive ties with institutional agents play a key role in engagement and advancement in the schooling, which in turn influence youths’ success in the job market. Institutional agents of working-class and minority youths are usually outside family and make up of school and community based institutional agents. Family members may help their children develop supportive ties with institutional agents by instilling conformity to their children.

A healthy interpersonal bonding between students and teachers helps determine educational outcomes. Teachers who have the ability to help students solve problems, who are viewed as caring, and viewed as fair are typically have more positive relationships with their students (Crosnoe et al. 2004). Students with stronger student-teacher relationships often exhibit better academic performance than students with more negative views of their teachers. Teachers may adjust their teaching strategies in light of students’ academic achievement. Broadly speaking, Asian students and non-Hispanic White students usually perform better than Hispanic and African American students so teachers may treat students differently depending on students’

race or ethnicity. Moreover, Asian students are always viewed as “model” students and more emotionally stable and academically competent than their non-Hispanic counterparts and other minority groups (Wong 1980). Wong (1980) argued that students’ race and ethnicity strongly predicted teachers’ perceptions of the academic competence and emotional stability of their students. Consequently, teacher support may play a different role in educational and occupational aspirations of students in segregated minority schools.

With the exception of academic achievement, how teachers react and interact with social status attributes of their students is also influenced by teachers’ social status (Alexander et al. 1987). Teachers who feel a commitment to minority and disadvantaged students and who have positive attitudes toward their abilities are more successful in working with such students. On the contrary, high-status teachers and non-Hispanic White teachers are more likely to fail to work with such students since they lack common experience with such students and it is difficult to identify with them. They may perceive such students as “relatively lacking in the qualities of personal maturity that make for a ‘good student’, hold lower performance expectations of them, and evaluate the school climate much less favorably when working with such students” (Alexander et al. 1987). The point is that teacher support may have different effects on student’s aspirations across racial and ethnic groups.

Teacher and peer support are also differentiated by gender. Male students acquired more social support and information from adults than female students; whereas females were more likely to obtain social support from peers than their male counterparts (Saltiel 1985). In other words, peers are more likely to become information sources for girls than for boys, whereas boys think the suggestions of teachers more seriously than do girls.

The literature on racial differences in educational aspirations and occupational aspirations has consistently shown that parents, teachers, and peers exert influence on students' aspirations, but researchers still debate whether the levels of adult and peer support are uniformed. Therefore, I present two hypotheses in the individual level in segregated school where the majority of students are Hispanic and African American students. (1) The levels of social support are differentiated by ethnicity and race. I expect that (a) parental communication exerts more influence on non-Hispanic White students' aspirations than other three ethnicities; (b) parental expectations have a stronger effect on Asian students' aspirations than other ethnicities; (c) peer support promotes aspirations of Asian students, but impede aspirations of African American and non-Hispanic White students; (d) teacher support is more effective in shaping aspirations of Asian students than the other three racial groups. (2) Peer support is more effective in aspirations of girls than of boys, whereas adult support is more important for boys than for girls.

Students' Aspirations and Social Context

In addition to the individual-level factors, numerous studies have observed that school-level factors and beyond also influence educational and occupational aspirations of students. The differences between urban high schools and rural high schools, public high schools and private high schools, and native students and immigrant students have provided ample evidences to support the idea (Picou and Carter 1976; Raleigh and Kao 2010). The distribution of resources and composition of teachers and peers both affect students' educational and occupational aspirations. For example, Hispanic high school students in urban areas are more likely to have higher educational expectations than do their counterparts in rural areas (Qian and Blair 1999). One plausible explanation is that urban students who attend high schools where there is a climate of attending a four-year college, where teachers expect their students to apply to college and

support them in college applications, and where, the majority of students are preparing financial aid applications are more likely to expect, apply to, and be admitted into a four-year college which matches their qualifications (Roderick et al. 2011). Each school is a community in which individual activities may create kinds of social climate. Although the social environment is not visible or tangible, it affects individual attitude, belief, and activity within the community.

Examinations of immigrants' expectations have further confirmed that group-level factors matter students' educational expectations. Feliciano (2006) finds that group-level premigration educational status of the first generation has an effect on educational expectations of the second generation. Children's perceptions of their parents' aspirations were influenced by the social status of the entire immigrant group in their home country. The social status of the entire immigrant generation influences parents' educational expectations.

These studies imply that students are exposed to a large environment where social norms may influence their educational and occupational aspirations. The social norm is produced by the aggregated individual activity, such as parent, teacher, and peer support.

The effect of aggregated teacher influence on students' aspirations and expectations is uneven. Goldsmith (2004) demonstrates that educational and occupational aspirations of African American and Hispanic students are more optimistic in segregated-minority schools with many minority teachers. Goldsmith reasons that minority teachers are better at raising minority aspirations than non-Hispanic White teachers. He provides two possible explanations. First, minority teachers tend to provide political messages to their students and encourage their minority students to do better in order to cope with potential discrimination and disadvantage in the future. Second, minority teachers may contribute to reduce the unequal tracking system to affect students' attitudes. Alternately, Frost (2007) suggests that school racial composition of

teachers has no effect on students' educational expectations. Both Goldsmith and Frost concentrate on the racial composition of teachers, but they fail to investigate how teachers directly influence students. Their basic assumption is that non-Hispanic White teachers favor non-Hispanic White students. However, many non-Hispanic White teachers also have the same commitment to their students regardless of their students' race. A better understanding of school-level teacher effect on students' aspirations is through the aggregated teacher effect rather than merely counting racial composition of teachers. There may be a normative climate of teachers where they expect their students to obtain a post-secondary education, help students to prioritize and set goals, and solve problems. These concrete strategies are more likely to influence students' plans of education and career. Overall, aggregated teacher support appears to be positively related to students' educational and occupational aspirations.

A mounting body of studies have shown that a critical mass of peers exerts influences on academic achievement, educational expectations, and occupational expectations (Alvarado and Turley 2012; Lynch et al. 2013). Peers are more likely to group together than parents and teachers because of their more intimate relationships. They tend to share their information, goals, and beliefs within their groups. Cohorts, for most high school students, are the most crucial sources of information. The aggregated behaviors and beliefs of students form normative climate which "establish the acceptability of specific academic behaviors and attitudes and determines the tone of students' interactions and relationships" (Lynch et al. 2013:7). Although students may not directly contact the aggregated sentiments of students, the school climate may also influence their decisions, emotions, and beliefs. Frost (2007) finds that when similar schools are compared, proportions of minority students are positively related to expectations to attend a four-year college. Students' educational expectations and academic performance are misaligned (Qian

and Blair 1999). They may not perceive that their academic achievement is lower than students from private school. They may not know they are less competitive than students from schools with high quality. The reference group for them is their peers in the segregated school. They feel little competitive pressure outside, so they set their goals unrealistically. Davis (1966) calls this social phenomena “frog pond” which refers to “a tendency for students to evaluate their academic ability by comparison with their fellows on the same campus, not in terms of criteria which allow for school differences in ability level.”

Frost (2007) suggests that students are more likely to expect to obtain a bachelor’s degree in high schools composed of greater proportions of parents with college degrees because of the aggregated socio-economic effect and normative expectations. Parents with high level of educational attainment are more likely to attend school activities. A collective of parents may have more power to influence the quality of schools. The organization of parents provides educational feedback and suggestions to school to improve their children’s educational environment. Schools may improve academic courses, employ more professional counselors, and strengthen the communication between teachers and parents. The improvement of school environment may enhance students’ academic achievement, educational and occupational aspirations. Nonetheless, aggregated parents’ support may be weaker in high minority schools than in low minority schools. Minority schools containing large numbers of Hispanic and African American students usually have parents with low social standings. They are less likely to devote much energy and resources to their children’s school activities than do non-Hispanic White parents in private school. Consequently, it is less possible for working-class parents to organize to influence school activities. Therefore, I hypothesize that, in minority high schools,

the impact of aggregated parents' support is not related to educational and occupational aspirations of students.

Alwin and Otto (1977) find that school context factor do not statistically predict college and career plans. However, Qian and Blair (1999) contend that the impact of school characteristic on African American students' educational aspirations is stronger than other minorities. These explanations suggest a relatively concrete base for minorities' ambitious aspirations and suggest aggregated supports of parent, teacher, and peer are attributable to such aspirations. School climate may improve or undermine students' educational attitudes and career plans. Peer, parent, and teacher support differentiate students in terms of their plans to pursue post-secondary education or training and the kind of occupations they seek to enter in each school.

Summary and Research Questions

Under the Wisconsin status attainment models, the literature on racial and ethnic differences in students' educational and occupational aspirations has consistently shown that both individual-level and school-level of support serve to influence students' goals of education and career. However, little research has systematically explored the different effect of adult and peer support on educational and occupational aspirations of students in segregated high school. It also remains unclear whether the diversity of aspirations is attributable to school-level social support.

This proposed research investigates this question using recent data from a Texas metropolitan school district.

1. How do parental communication, parental expectation, teacher support, and peer support affect educational and occupational aspirations of students by race and gender?
2. Do aggregated social supports contribute to educational and occupational aspirations of students?

Chapter 3

Measurements

Dependent Variables

EDUCATIONAL ASPIRATIONS

The major dependent variable in the research is students' educational aspirations. Educational aspirations are assessed by asking: "how much education would you need to have for the job you said you WANT?" Original responses given were high school, two-year college, four-year college or university, and graduate school. Previous researchers have measured students' educational aspirations as either continuous or categorical variables (Goyette and Xie 1999; Cheng and Starks 2002). For my linear models, students' educational aspirations are coded as years of schooling, as follows: high school=12, two-year to four-year college=14, four-year college or university= 16; graduate school=18 (Goyette and Xie 1999).

OCCUPATIONAL ASPIRATIONS

Another primary dependent variable in the analyses is students' occupational aspirations. Career aspirations reflect a young people's future occupational plans. The indicators that most commonly used to measure occupation are Duncan's (1961) Socioeconomic Status Index (SEI). SEI is a composite of occupational prestige, income, and education. In this survey, students were asked "here are some jobs that people have. Please select the letter that best fits with the job you WANT." Ten categories which were classified with regard to educational requirement were listed. In the current analyses, I conduct a multiple regression analysis to test the degree of social support on occupational aspirations, so occupational aspirations are treated as continuous variables based on the levels of education required for the job. The level of career aspirations ranged from 12 (High school degree is required) to 18 (Graduate or professional school degree is

required). For example, it is necessary for a school principal or a corporate manager to hold a bachelor's degree. I code ten occupational options into four ordinal variables based on educational attainment. Original responses given as below:

- (1) Housing or construction worker, roofer, custodian, maintenance, landscaping, trash collector=12;
- (2) Hairdresser, cosmetologist, medical and dental records or billing clerks, nurses aid =12;
- (3) Machinery operators, bus or truck drivers, oil well worker=12;
- (4) Secretary, sales clerk, postal clerk, security guard=12;
- (5) Waiter/waitress, childcare worker, bartender, cook, housecleaner=12;
- (6) Nurse RN, physical therapist, teacher, police officer, firefighter, real estate agent, airplane pilot =14;
- (7) Medical or laboratory technician, paralegal, computing support, electrician, AC repair, mechanic, plumber, armed forces training, chef =14;
- (8) Actor, musician, artist, professional athlete =16;
- (9) School principal, corporate manager, accountant, politician, legislator=16;
- (10) Lawyer, doctor, dentist, pharmacist, architect, engineer, computer programmer, college professor, scientist=18.

Independent Variables

TEACHER SUPPORT

A factor composite of students' reports about their teacher support was formed by summing the responses from 10 items. Responses are categorized as four types, encompassing "Strongly Agrees=4," "Agrees=3," "Disagrees=2," and "Strongly Disagrees=1." The 10 items were

subjected to a factor analysis with varimax rotation. As Table 1 showed, all factor loadings were larger than 0.4. Only one factor emerged with an eigenvalue of 5.251 which explains 53 percent of the combined variance. The Cronbach's alpha is .892 which indicates that the index consisting of the 10 items is reliable.

Table 1 Factor Loadings for Teacher Support

| Item | Description | Component |
|------|--|-----------|
| 39. | My teachers tell me I am capable of going to college. | 0.653 |
| 45. | My teachers help me to learn how to prioritize and set goals for myself. | 0.678 |
| 52. | My teachers give students in their classes plenty of opportunity to learn. | 0.770 |
| 53. | My teachers are available to students who need help with their school work. | 0.747 |
| 59. | There is at least on teacher I can talk to about problems I have in my school. | 0.520 |
| 63. | My teachers let students know that homework is important. | 0.740 |
| 64. | My teachers provide feedback on my work. | 0.774 |
| 65. | My teachers expect each student to perform at his or her own highest level. | 0.747 |
| 66. | My teachers communicate the idea that all students can and will learn. | 0.823 |
| 68. | My teachers help me understand how what I learn now will help me later. | 0.749 |

PARENT SUPPORT

Parent support is made up of parental communication and parental expectation.

Parental communication is measured by asking "how often do you talk to your parents about your educational plans after high school?" Five frequencies are provided, including 1=daily, 2=weekly, 3=monthly, 4=a few times a year, and 5=almost never. These variables are recoded as 1=5, 2=4, 3=3, 4=2, and 5=1. The recoding indicates that the larger the value is, the more frequently the communication between parents and children is.

Students are asked "my parents expect me to graduate high school" and "my parents expect me to go to college." The original response is that "Yes" equals to 1 and "No" equals to 0. I employ Guttman scaling to give unique scores for each pattern. College is more important than high school, the scoring would be: No = 1; 3 = yes to high school; 5 = yes to college. Thus, 2=

no, no; 4= yes to high school and no to college; 6 (unlikely) is no to high school and yes to college; 8 = yes to both.

PEER SUPPORT

Four Likert-type questions were used to generate a peer support index. Responses were as follows: “Strongly Disagree=1” “Disagree=2” “Agree=3” “Strongly Agree=4.” Factor loadings based on varimax rotation were all larger than 0.4 (Table 2). The eigenvalue of 1.795 explains 45 percent of the combined variance. The Cronbach’s alpha is .587 which indicates that the index consisting of the 4 items is reliable.

Table 2 Factor Loadings for Peer Support

| Item | Description | Component |
|------|---|-----------|
| 40. | I participate in study groups | 0.706 |
| 49. | We have a peer program in my school | 0.701 |
| 50. | I work closely with other students for class activities | 0.685 |
| 62 | Students of different racial and ethnic groups get along at my school | 0.578 |

SCHOOL-LEVEL FACTORS

There may be a school ecology effect and thus I shall also use aggregated scores of the predictors. Their scores are the means for each campus in terms of peer, parent, and teacher support. Their campus means will be entered for each student enrolled in that campus. Thus, while the hypotheses suggest how individual perception of peer, parent, and teacher attitudes affect individual student educational and occupational aspiration. The aggregated measure seems to determine if the campus climate of peer, parent, and teacher attitude affect individual student attitude. School-level factors are made up of school-level peer support, school-level teacher support, school-level parental communication and expectation, school-level math and reading scores, and school-level educational and occupational aspirations.

Control Variables

STANDARDIZED TEST SCORES

Three reasons explain why academic achievement is needed to be controlled. First is that test ability is included in the Wisconsin model. Second, extant research has revealed that academic performance is positively related to students' post-high school aspirations, on the one hand; it also predicts their high school dropout and graduation rates, college attendance, and college completion rates, on the other hand (Berzin 2010; Leach and Williams 2007). Third, teachers may also label their students in terms of their academic achievement. Students with stronger student-teacher relationships have better academic performance than those with more negative views of their teachers via the ability to solve problem, caring about and fairness of teachers (Crosone et al. 2004). The academic achievement is measured by using the Texas Assessment of Knowledge and Skills (TAKS) which assesses students' reading, writing, math, science, and social studies skills. The TAKS is a Texas state-required standardized test. This study utilizes Mathematics and English Language Arts test scores. The range of ranking is from 1 to 776.

GRADE LEVEL

Both Grade 11 and Grade 12 students were included in this survey. The percentages of two groups are 50.4% and 48.6%. A dummy variable is employed in which Grade 11 is coded "0" and Grade 12 is coded "1".

RACE AND ETHNICITY

Ethnicity is self-identified. The sample consists of 2569 Hispanic or Latino students, 883 Black or African American students, 85 white students, 53 Asian students, and 39 others (those who choose Multi Race, Pacific Islander, or American Indian). I exclude students who identify themselves as multi race, Pacific Islander, and American Indian due to their small number and students whose races are not known. I code four ethnicities to four dummy variables. In the

current study, Hispanic students are treated as the reference group given they are the largest proportion in school.

GENDER

Gender is a dummy variable in which female is coded 1 and male is coded 0.

POVERTY

Poverty is measured by asking students if they have free lunch at school: Yes =1 and No=0.

ACADEMIC COMPETENCE

Academic competence refers to “skills and capabilities needed to succeed in school, which can be indicated by actual or perceived academic achievement or performance” (Ma et al. 2009: 864).

Waxman and his colleagues suggest that students who expect to attend college and university exhibit higher academic competence than those who only expect to graduate from high school (Waxman et al. 1997). Therefore, it is necessary to consider academic competence while studying educational aspirations.

Thirteen Likert-type questions were used to generate a peer support index. Responses were as follows: “Strongly Disagree=1” “Disagree=2” “Agree=3” “Strongly Agree=4.” The eigenvalue of 5.442 explains 42 percent of the combined variance. The Cronbach’s alpha is .878 which indicates that the index consisting of the 13 items is reliable.

Table 3 Factor Loadings for Academic Competence

| Item | Description | Component |
|------|---|-----------|
| 40. | I participate in study groups. | 0.490 |
| 41. | I have a system for organizing my class notes and work. | 0.661 |
| 42. | I take notes during class. | 0.715 |
| 43. | I review my notes regularly. | 0.664 |
| 44. | I know how to prioritize and set goals for myself. | 0.683 |
| 47. | I have learned how to research and write papers. | 0.473 |
| 48. | When I am presented with a difficult task I am determined to complete/solve it. | 0.687 |
| 49. | I work closely with other students for class activities. | 0.565 |
| 54. | I believe I am capable of getting a college degree. | 0.668 |
| 55. | I set aside time to do my homework and study. | 0.741 |
| 56. | If I need to study I don't go out with my friends. | 0.607 |
| 57. | Getting good grades in school is important to me. | 0.733 |
| 58. | I think that getting good grades depends on the amount of effort I put into a course. | 0.654 |

Chapter 4

Design and Sampling

This is a secondary analysis of anonymous individual student responses to a survey administered to high school students in 2013. The research utilizes previously student data collected under the aegis of Protocol #14273-02, which remains in effect until May 2015. All data have been collected under protocol #14273-02 “The Attitudinal Climate in the Aldine Independent School District: Students Survey (AISD)” in 2013 by A.G. Dworkin. The student samples were collected in the spring semester in 2013. All high school students in grades 11 and 12 were given a computer link to the on-line survey and all were encouraged to complete the survey. They were given two weeks to do so. About one-half of the 6,493 students responded. This is typical of high school surveys. Student logged on to the website and the district collected demographics from the log-ons. There are 8 high schools, including two that are special schools for at-risk students. The two special ones may not have had any respondents. In addition to students, a total of 51 principals and staff members also completed surveys. 413 parents were randomly chosen to be interviewed.

Items from the student survey will be subjected to statistical analysis to determine whether evidence of peer, parental, and teacher support differentiates students in terms of their plans to pursue post-secondary education or training and the kind of occupations they seek to enter. Regression models are to be tested to determine the relative effect size of various demographic, reference group, and support groups on the probability of the above-mentioned academic and career plans.

Chapter 5

Analysis Strategies

I first examined the racial differences of students' educational and occupational aspirations, students' characteristics, and adult and peer support by using descriptive statistics. Next, I conducted multiple regression analysis to investigate if adult and peer support and school-level factors contributed to students' educational and occupational aspirations. First, I regressed separately educational and occupational aspirations on students' characteristic, including academic achievement, gender, economic background, grade, and race/ethnicity. Second, adult and peer support were added to the first model. Finally, school-level variables were added to the second model.

Model 1= Math + Reading + Class Ranking + Poverty + Grade + Academic Competence
+ Asian + Black + White

Model 2= Math + Reading + Class Ranking + Poverty + Grade + Academic Competence
+ Asian + Black + White + Peer Support + Teacher Support + Parental Communication +
Parental Expectations

Model 3= Math + Reading + Class Ranking + Poverty + Grade + Academic Competence
+ Asian + Black + White + Peer Support + Teacher Support + Parent Communication + Parent
Expectations + School-Level Aspirations + School-Level Peer Support + School-Level Teacher
Support + School-Level Parental Communication + School-level Parental Expectations +
School-Level Math + School-Level Reading

The primary research goal concentrates on the racial differences of adult and peer support on students' educational and occupational aspirations, so interactions are appropriate to the current study due to the fact that interactions can be used to test "the effects of one variable

depends on the value of another variable” (Keith 2005). The interaction was created by multiplying two independent variables. The interaction was viewed as a new independent variable and added to a multiple regression. I compared social support of one ethnic group to another ethnic group separately despite there are four ethnic groups in the study. One new variable was created and named as Race_New. Race_New was a dummy variable and include six categories. The coding was listed below:

Table 4 Recoding Race

| | 0 | 1 |
|-----------------|--------------------|--------------------|
| Hispanic_ Black | African American | Hispanic |
| Hispanic_ White | White | Hispanic |
| Hispanic_ Asian | Asian | Hispanic |
| Black_ White | Non-Hispanic White | African American |
| Black_ Asian | Asian | African American |
| White_ Asian | Asian | Non-Hispanic White |

The interaction term was created by multiplying Race_New and Social Support, for example, Hispanic_ Black times peer support. Twenty four interactions were created and they were added to the model listed below:

Educational (Occupational) Aspirations= Math + Reading + Ranking + Gender + Poverty + Grade + Academic Competence + Peer Support + Teacher Support + Parent Communication + Parent Expectations + Race_New + Interactions

If an interaction term is statistically significant, it suggests that the effect of one type of social support on educational or occupational aspirations relies on race/ethnicity. If it is not statistically significant, it cannot reject the null hypotheses that this type of social support has the same effect for the two ethnic groups on educational or occupational aspirations. The same process is also carried out with regard to gender.

Chapter 6

Results

Descriptive Statistics

Table 5 Descriptive Statistics on Students' Demographic and Socioeconomic Characteristics and Aspirations, by Ethnicity

| | Total | Hispanic | Black | Asian | White |
|--------------------------|---------|----------|---------|---------|---------|
| Educational Aspirations | | | | | |
| High School (12) | 7.70 | 6.90 | 7.50 | 1.90 | 11.80 |
| Two-Year College (14) | 23.60 | 23.90 | 17.00 | 11.30 | 21.20 |
| Four-Year College (16) | 52.00 | 48.70 | 46.30 | 52.80 | 47.10 |
| Graduate School (18) | 16.60 | 13.50 | 20.00 | 30.20 | 11.80 |
| Missing | 7.50 | 7.00 | 9.20 | 3.80 | 8.20 |
| Mean* | 15.55 | 15.48 | 15.74 | 16.31 | 15.28 |
| SD | 1.63 | 1.59 | 1.70 | 1.41 | 1.74 |
| Occupational Aspirations | | | | | |
| High School (12) | 14.50 | 15.20 | 12.70 | 15.10 | 10.60 |
| Two-Year College (14) | 32.90 | 33.60 | 31.60 | 24.50 | 27.10 |
| Four-Year College (16) | 17.30 | 15.30 | 23.20 | 9.40 | 18.80 |
| Graduate School (18) | 29.00 | 29.70 | 25.20 | 47.20 | 35.10 |
| Missing | 6.40 | 6.10 | 7.30 | 3.80 | 8.20 |
| Mean* | 15.30 | 15.27 | 15.31 | 15.84 | 15.72 |
| SD | 2.15 | 2.18 | 2.04 | 2.36 | 2.13 |
| Parental Expectations* | 7.73 | 7.72 | 7.78 | 7.80 | 7.52 |
| SD | 1.03 | 1.05 | 0.94 | 1.00 | 1.30 |
| Parental Communication* | 3.45 | 3.33 | 3.81 | 3.31 | 3.55 |
| SD | 1.32 | 1.33 | 1.25 | 1.30 | 1.21 |
| Peer Support* | 0.00 | -0.01 | 0.05 | 0.01 | -0.10 |
| SD | 1.00 | 0.98 | 1.04 | 1.04 | 0.98 |
| Teacher Support* | 0.00 | -0.02 | 0.03 | 0.28 | 0.08 |
| SD | 1.00 | 0.97 | 1.08 | 0.80 | 1.01 |
| Math* | 2294.60 | 2308.26 | 2245.58 | 2433.85 | 2298.81 |
| SD | 160.45 | 161.01 | 140.54 | 220.41 | 162.72 |
| Reading* | 2273.24 | 2277.89 | 2255.86 | 2315.94 | 2283.46 |
| SD | 114.16 | 112.99 | 113.24 | 120.07 | 134.04 |
| Academic Competence* | 0.00 | -0.04 | 0.10 | 0.26 | -0.03 |
| SD | 1.00 | 0.98 | 1.07 | 0.87 | 1.00 |
| Rank | 293.00 | 300.00 | 295.00 | 116.00 | 228.00 |
| Female | 52.10 | 51.90 | 54.00 | 47.20 | 41.20 |
| Seniors | 47.00 | 45.40 | 50.30 | 49.10 | 57.60 |
| Free Lunch | 80.70 | 84.20 | 74.30 | 64.20 | 51.80 |
| Total | 3589.00 | 2569.00 | 882.00 | 53.00 | 85.00 |

Note: An asterisk (*) denotes means and rank is measured by median. The rest variables of the table are percentages.

Table 5 displays the descriptive statistics for dependent variables and independent variables by race and ethnicity. There are massive ethnic disparities in students' educational aspirations. Asian American students (16.31) have higher average educational aspirations than other three ethnic groups: 15.74 years for African American students, 15.48 years for Hispanic students and 15.28 for non-Hispanic White students. When we examine the proportion rows of educational aspirations, we can find the same results. Eighty-three percent of Asian American student want to graduate from a four-year college or university and beyond, followed by African American students with 66.3%, Hispanic students with 62.2% and non-Hispanic White students with 58.9%. These results are consistent with previous research in which they showed that non-Hispanic White students had lower educational aspirations than did Hispanic and African American students (Kao and Tienda 1998; Goldsmith 2004; Frost 2007). The sample is made up of eight public high schools. The high proportion of Hispanic students and African American students mirrors that students from poor family come to these schools. Therefore, non-Hispanic White students come from family with low social standing. It is not surprising that they have the lowest levels of educational aspirations.

The levels of occupational aspirations also vary by race and ethnicity, but the pattern is slightly different from educational aspirations. More Asian American students (56.6%) want jobs required at least four-year college degree than do non-Hispanic White students (53.9%). However, less than half of Hispanic students and African American students (45% and 48.4% respectively) want that kind of jobs. Non-Hispanic White students want more prestigious jobs than Hispanic and African American students despite their lower educational aspirations than the latter groups which indicate that non-Hispanic White students are more optimism to their career

prospects than their minority counterparts. Most of students want to enter fields that require a bachelor's degree. The majority of students want to have prestigious jobs which require at least a four-year university credentials, including lawyer, doctor, dentist, pharmacist, architect, engineer, computer programmer, college professor, and scientist (Appendix 1). Many students want to be blue collar workers, such as nurse RN, physical therapist, teacher, police officer, firefighter, real estate agent, and airplane pilot (Appendix 1). The disparity between educational aspirations and occupational aspirations indicates that high school students in the sample do not understand what the level of education required for their future jobs so they have higher educational aspirations than occupational aspirations.

As for parent support, two measurements have different patterns. Asian American and non-Hispanic White students perceive the highest and the lowest levels of parental expectations and African American and Hispanic students are between them. Social-economic background of those non-Hispanic White students may result in their low levels of parental expectations. The lowest levels of educational expectations perceived by non-Hispanic White students are not only because their parents expect their children to work after high school due to the limitation of financial resources, but also because they cannot afford their children to continue their post-secondary education. Not surprisingly, Asian American students communicate with their parents less frequently than the other three groups which are consistent with previous research (Hao and Bonstead-Bruns 1998; Qian and Blair 1999). African American students are more frequently talking to their parents about their educational plans after high school, following by non-Hispanic White students and Hispanic students.

Of particular interest was the pattern of peer support. Although the majority of students are Hispanic students, African American students perceive stronger peer support than do

Hispanic students. Asian American students also have higher levels of peer support than do Hispanic students, partly due to Asian students' better academic performance in school. Not surprisingly, non-Hispanic White students notice that their peers are not friend to them. Although it is difficult to definitively identify the cause of non-Hispanic White students with the lowest peer support in this study, there are two possible explanations. One explanation is that only 85 out of 3589 students are non-Hispanic White students and they are the "minority" group in the current scene. African American and Hispanic students are the groups who suffered discrimination in society, so they may project their dissatisfaction of their suffering to their non-Hispanic White peers in their schools by distancing from them. It may be also because non-Hispanic White students distance themselves from Hispanic and African American students in order to maintain their racial privilege.

The levels of teacher support vary greatly by ethnicity. Clearly, Asian American students perceive more teacher support than the other three groups. In teachers' eyes, Asian American students are still the model students given their better academic performance than other students. It is not surprising that teacher support perceived by non-Hispanic White students is higher than African American students and Hispanic students. It indicates that racial stereotype is still relevant to teachers' perceptions of their students.

On the standardized reading test, Asian American students score the highest (2315.94), followed by non-Hispanic White students (2283.46), Hispanic students (2277.89), and African American students (2255.64). Similarly, math scores also display substantial ethnic differences, with Asian American students and Hispanic students scoring the highest (2433.85 and 2308.26 respectively) and African American students (2245.58) falling behind the non-Hispanic White students (2298.81). The pattern of students' class rankings is consistent with their academic

achievement in which the median of class ranking for Asian students is the highest, following by non-Hispanic White students, African American students, and Hispanic students. A similar pattern also is observed for students' academic competence. Generally, Asian American students score higher than African American students and non-Hispanic and Hispanic students are falling behind.

It is evident that a greater proportion of Hispanic students (84.2%) have free lunch in school compared to African American students (74.3%). More Asian American students (64.2%) have free lunch than non-Hispanic White students (51.8%). The high percentages of students who have free lunch in school reflect students' low levels of social status.

Variations of students' educational and occupational aspirations are observed in segregated high school, on the one hand; adult and peer support perceived by high school students are so heterogeneous that they may lead to the disparity of educational and occupational aspirations. In the next section, I investigate these associations using multivariate linear regression models that control for other related variables to see the degree to which adult support and peer support can account for the racial disparity of educational aspirations and occupational aspirations.

Linear Regression

Social Support on Educational Aspirations

Table 6 Coefficients of Linear Regression Models Predicting Educational Aspirations, AISD, 2013

| | Model 1 | Model 2 | Model 3 |
|---------------------------------|-----------|-----------|-----------|
| (Constant) | 11.107*** | 9.321*** | -0.695 |
| Math | 0.001* | 0.000 | 0.000 |
| Reading | 0.001*** | 0.002*** | 0.002*** |
| Rank | -0.001*** | -0.001*** | -0.001*** |
| Gender | 0.489*** | 0.469*** | 0.457*** |
| Poverty | -0.124 | -0.108 | -0.095 |
| Grade | -0.159** | -0.196** | -0.181** |
| Academic Competence | 0.231*** | 0.134** | 0.126** |
| Asian | 0.541* | 0.540* | 0.484* |
| Black | 0.274*** | 0.239** | 0.220** |
| White | -0.154 | -0.187 | -0.192 |
| Peer Support | | -0.030 | -0.031 |
| Teacher Support | | 0.100* | 0.096* |
| Parental Communication | | 0.045* | 0.046* |
| Parental Expectations | | 0.194*** | 0.192*** |
| Average Educational Aspirations | | | 0.662 |
| Average Parental Communication | | | -0.746 |
| Average Parental Expectations | | | 1.356 |
| Average Teacher Support | | | 0.002 |
| Average Peer Support | | | -0.280 |
| Average Math | | | -0.003* |
| R ² | 0.136 | 0.154 | 0.155 |

Note: * P< .05, ** P< .01, *** P<.001. R² was adjusted.

Table 6 presents ordinary-least squares regression coefficients for three models on educational aspirations. We can see how adult support and peer support explain high school students' educational aspirations across racial groups. The first model includes academic achievement, gender, economic background, and race/ethnicity. We can see that both math and reading scores have positive, but modest effects on students' educational aspirations. Additionally, students with higher ranking also have higher educational aspirations than those who have lower ranking. This finding confirms the assumption of the classic Wisconsin model that academic achievement positively predicts students' educational aspirations.

As expected, girls have higher levels of educational aspirations than do boys. Students in the 12th grade have lower educational aspirations than those in the 11th grade. One reason is that seniors are more mature than sophomores, so seniors are more realistic and more likely to set their goals based on their academic achievement and ability. Poverty is not statistically related to students' educational aspirations. It confirms that free lunch is not a reliable tool to measure students' social background. Academic competence positively predicts educational aspirations. We can also see that Asian American students and African American students have higher levels of educational aspirations than Hispanic students, which is consistent with my descriptive statistics, whereas the observed gap of non-Hispanic White students and Hispanic students is not statistically significant. In other words, Hispanic and non-Hispanic White students have the same level of educational aspirations.

In the second model, I add peer support, teacher support, parental expectations, and parental communication to explore the extent to which these variables can account for racial differences in educational aspirations. The results in the third column suggest that the differential effects of adult support and peer support on students' educational aspirations are not straightforward across ethnic groups. The coefficients for teacher support, parent communication, and parent expectations show that as adult supports increase so does the level of educational aspirations. As expected, once these factors are added in the model, the difference of educational aspirations among African American students and Hispanic students declines, but the influence of ethnicity on educational aspirations is still significant. Moreover, the net difference in educational aspirations between Asian American students and Hispanic students also decreases slightly after controlling for adult and peer support. The declining coefficients suggest that adult

support account for racial differences of educational aspirations. However, peer support plays no role in explaining the differences.

The fourth column of Table 6 reports the coefficients after adding six school-level variables: average educational aspirations, average peer support, average teacher support, average parent communication, average parent expectations, and average math scores. The school-level reading scores were excluded while running SPSS. All school-level variables are not statistically significant except the average math scores. There is a negative relationship between school-level math scores and educational aspirations. We should also notice that the coefficients of Asian American students and African American students decreased after adding those school level variables. It implies that racial differences of educational aspirations can be partly explained by school-level math scores.

In sum, there is a statistically significant difference of educational aspirations among Hispanic, African American, and Asian students. Teacher support, parental expectations, parental communications, and school-level math account for the racial differences in educational aspirations. School climate plays no role in shaping educational aspirations of students.

Social Support on Occupational Aspirations

Table 7 Coefficients of Linear Regression Models Predicting Occupational Aspirations, AISD, 2013

| | Model 1 | Model 2 | Model 3 |
|----------------------------------|-----------|----------|----------|
| (Constant) | 9.270*** | 8.400*** | 0.413 |
| Math | 0.001** | 0.001** | 0.001** |
| Reading | 0.002*** | 0.002*** | 0.002*** |
| Rank | -0.001*** | 0.001*** | 0.001*** |
| Gender | -0.693*** | 0.721*** | 0.736*** |
| Poverty | -0.162** | -0.164** | -0.142* |
| Grade | -0.207** | -0.229** | -0.201** |
| Academic Competence | 0.277*** | 0.294*** | 0.300*** |
| Asian | 0.084 | 0.044 | -0.027 |
| Black | 0.097 | 0.062 | 0.026 |
| White | 0.046 | 0.434 | 0.432 |
| Peer Support | | -0.103 | -0.121* |
| Teacher Support | | -0.011 | -0.024 |
| Parental Communication | | 0.047 | 0.046 |
| Parental Expectations | | 0.130** | 0.128** |
| Average Occupational Aspirations | | | 0.442 |
| Average Parental Communication | | | -0.199 |
| Average Parental Expectations | | | 0.961 |
| Average Teacher Support | | | 0.348 |
| Average Peer Support | | | -0.227 |
| Average Math | | | -0.002 |
| R ² | 0.108 | 0.109 | 0.111 |

Note: * P< .05, ** P< .01, *** P<.001. R² was adjusted.

With regard to the estimates for students' occupational aspirations, Table 7 shows that there is no statistically significant difference among racial groups in occupational aspirations after controlling for academic performance, gender, poverty, and grade. Consistent with the pattern of educational aspirations, students' reading and math scores positively predict their occupational aspirations and class ranking and grade levels are negatively related to their occupational aspirations. Academic competence matters for occupational aspirations. However, concerning the effects of gender on students' occupational aspirations, I find that girls have statistically lower levels of occupational aspirations than do boys. This finding is consistent with the types of

jobs girl choose. Moreover, students do not determine their occupational prospects in terms of their economic status.

According to Model 2, social supports are added. Except parental expectations, peer support, teacher support, and parental communication are not statistically significant. The higher parental expectations are, the higher level of occupational aspirations students have.

In model 3, I added variables that measured school level factors, but none of them statistically contribute to occupational aspirations. I can conclude that school climate is not related to students' occupational aspirations.

Taken together, my results suggest that students' educational aspirations vary by race and ethnicity. Specifically, Asian American students have the highest educational aspirations, following African American students and Hispanic students even when controlling for their academic achievement, gender and economic status. Teacher support and parent support account for their racial differences in educational aspirations. Nonetheless, there is no statistically difference between Hispanic students and non-Hispanic White students in educational aspirations. The mean of math scores for each school is negatively related to educational aspirations. As for occupational aspirations, no statistically racial differences are found in the models, but parental expectations may mediate occupational aspirations of students. I now turn to the effects of significant others' social support in educational and occupational aspirations.

Interactions

Race/Ethnicity and the Relationship between Social Support and Educational Aspirations

Table 8 Test of the Interaction between Ethnicity and Social Support in Their Effects on Educational Aspirations, AISD, 2013

| | Hispanic_ Black | Hispanic_ White | Hispanic_ Asian | Black_ White | Black_ Asian | White_ Asian |
|-------------------------------|--------------------|--------------------|--------------------|-----------------|-----------------|-----------------|
| Peer Support * Race | -0.162* | -0.361* | 0.057 | -0.202 | 0.177 | 0.435 |
| Teacher Support * Race | -0.181** | -0.385* | -0.060 | -0.191 | 0.101 | 0.351 |
| Parental Communication * Race | -0.036 | -0.400* | -0.131 | -0.371* | -0.131 | 0.246 |
| Parental Expectations * Race | -0.197** | -0.227 | -0.286 | -0.039 | -0.148 | -0.243 |

Note: *P<0.05, ** P<0.01. Other independent variables include Math, Reading, Ranking, Gender, Poverty, Grade, Academic Competence, Peer Support, Teacher Support, Parental Communication, Parental Expectations, and Race_New.

Table 9 Separate Regressions of Social Support on Educational Aspirations by Ethnicity, AIDS, 2013

| | Asian | Black | Hispanic | White |
|------------------------|---------|----------|-----------|---------|
| (Constant) | -4.508 | 7.254*** | 10.269*** | 4.153 |
| Math | 0.005** | 0.001 | 0.000 | 0.002 |
| Reading | 0.001 | 0.001* | 0.002*** | 0.001 |
| Rank | 0.002 | -0.001 | -0.001*** | 0.000 |
| Gender | -0.561 | 0.493*** | 0.449*** | 1.230** |
| Poverty | 0.199 | 0.047 | -0.197 | 0.175 |
| Grade | -0.365 | -0.210 | -0.179** | -0.395 |
| Academic Competence | 0.090 | 0.120 | 0.139 | -0.254 |
| Peer Support | -0.303 | 0.027 | -0.050 | 0.390 |
| Teacher Support | 0.283 | 0.198* | 0.057 | 0.243 |
| Parental Communication | 0.417* | 0.041 | 0.039 | 0.469 |
| Parental Expectations | 0.844* | 0.340*** | 0.157*** | 0.286 |
| R ² | 0.469 | 0.188 | 0.136 | 0.515 |

Note: * P< .05, ** P< .01, *** P<.001. R² was adjusted.

Table 8 exhibits coefficients of cross-product terms which are created through social support multiplying race. It is evident that five interactions are significant at α 0.05 level and only two is statistically significant at α 0.01 level. These significant interactions indicate that the effects of peer and adult support on students' educational aspirations depend on race and ethnicity. More specifically, peer support and teachers support have different effects on educational aspirations among Hispanic, African American, and non-Hispanic White students. This pattern also holds for parental communication on educational plans among Hispanic, non-Hispanic White, and African American students. Parental expectations are also differentially effective relying on whether the student is Hispanic or African American student. We can examine how the effects of social support on educational aspirations vary by race and ethnicity by comparing coefficients of social support for each racial group in Table 9.

The more peer support Hispanic students have, the lower levels of educational aspirations they have than African American students. Additionally, peer support is more useful in shaping non-Hispanic White students' educational aspirations than Hispanic students. However, Table 6 has showed that peer support does not account for the racial variety of educational aspirations. Therefore, I can conclude that perceived peer support exerts stronger influence for African American and non-Hispanic White students than for Hispanic students, but this disparity does not help to explain racial differences of educational aspirations.

The effects of teacher support on educational aspirations also depend on race/ethnicity. For African American students, teacher support has a stronger effect on educational aspirations than does Hispanic students. This causal effect is also true among Hispanic students and non-Hispanic students. Teacher support has more impact on educational aspirations of non-Hispanic White students than does Hispanic students. As noted above, teacher support contributes to racial

differences of educational aspirations among Hispanic, African American, and Asian students, except non-Hispanic White students. Thus, stronger impact of teacher support on educational aspirations for African American students than for Hispanic students, partly results in higher levels of educational aspirations of African American students than of Hispanic students. Although more teacher support leads to higher levels of educational aspirations of non-Hispanic White students than of Hispanic students, there are no statistically significant differences in educational aspirations between these two groups. The second row in Table 8 presents that the interaction terms - Teacher by Hispanic_Asian, by African American_non-Hispanic White, by African American_Asian and by non-Hispanic White_Asian – do not help explain educational aspirations beyond the explanation provided by race/ethnicity and teacher support.

It appears that parental communication exerts more influence on educational aspirations of non-Hispanic White students than of Hispanic students. The more frequently non-Hispanic White students discuss their educational plans with their parents, the higher educational aspirations they have than do African American students. Parental communication has the same magnitude of effect on educational aspirations of Hispanic and African American, Hispanic and Asian, African American and Asian, non-Hispanic White and Asian.

As for parental expectations, only the interaction between Hispanic and African American students is statistically significant. There appears to be no differential effect for parental expectations on educational aspirations of Hispanic students as compared to Asian students. The same pattern also holds for African American and non-Hispanic White students, African American and Asian students, and Asian and non-Hispanic White students. Therefore, parental expectations play a more important role in determining African American students' educational aspirations than for Hispanic students.

These results suggest that 1) peer support has stronger effect for African American and non-Hispanic White students than for Hispanic students; 2) teacher support is more useful in enhancing African American and non-Hispanic students' educational aspirations than Hispanic students; 3) the effects of parental communications are stronger for non-Hispanic White students than for Hispanic and African American students; 4) parental expectations are more important for African American students than for Hispanic students.

Race/Ethnicity and the Relationship between Social Support and Occupational Aspirations

Table 10 Test of the interaction between ethnicity and social support in their effects on Occupational Aspirations, AISD, 2013

| | Hispanic _Black | Hispanic_ White | Hispanic _Asian | Black_ White | Black_ Asian | White_ Asian |
|-------------------------------|--------------------|--------------------|--------------------|-----------------|-----------------|-----------------|
| Peer Support * Race | -0.094 | -0.447 | 0.479 | -0.336 | 0.661* | 0.751 |
| Teacher Support * Race | 0.151 | -0.527* | -0.012 | -0.633* | -0.163 | 0.397 |
| Parental Communication * Race | -0.127 | -0.115 | -0.072 | -0.068 | 0.025 | -0.041 |
| Parental Expectations * Race | -0.064 | -0.029 | -0.012 | 0.078 | 0.003 | -0.213 |

Note: *P<0.05, ** P<0.01. Other independent variables include Math, Reading, Ranking, Gender, Poverty, Grade, Academic Competence, Peer Support, Teacher Support, Parent Communication, Parent Expectations, and Race_New.

Table 11 Separate Regressions of Social Support on Occupational Aspirations by Ethnicity, AIDS, 2013

| | Asian | Black | Hispanic | White |
|------------------------|--------|-----------|-----------|---------|
| (Constant) | 5.345 | 8.891*** | 8.031*** | 14.354* |
| Math | 0.003 | 0.001 | 0.001* | 0.002 |
| Reading | 0.002 | 0.002 | 0.002*** | -0.002 |
| Rank | -0.003 | -0.001* | -0.001*** | -0.002 |
| Gender | -0.561 | -0.638*** | -0.766*** | -0.294 |
| Poverty | -0.003 | -0.412* | -0.086 | 0.273 |
| Grade | 0.290 | -0.311* | -0.204* | -0.215 |
| Academic Competence | 0.564 | 0.127 | 0.337*** | 0.471 |
| Peer Support | -0.805 | 0.180 | -0.183** | 0.048 |
| Teacher Support | 0.045 | -0.209* | 0.050 | 0.248 |
| Parental Communication | 0.324 | 0.151* | 0.013 | 0.069 |
| Parental Expectations | -0.014 | 0.192* | 0.122** | 0.036 |
| R ² | 0.306 | 0.103 | 0.121 | 0.216 |

Note: * P< .05, ** P< .01, *** P<.001. R² was adjusted.

Table 10 tests if the effects of social support on students' occupational aspirations are mediated by race and ethnicity. Although no statistically significant difference of occupational aspirations across ethnic groups is observed in the current study, three significant interactions suggest that peer support and teacher support are differentially effective depending on race and ethnicity. Table 11 displays coefficients of social support on occupational aspirations by ethnicity.

For African American students, the slope of peer support in the regression was 0.18 (b=0.18, t [637] = 1.737, P=0.083). For Asian students the slope was negative (b = -0.805, t [31]

= -1.543, $P = 0.133$). The slopes of teacher support for Hispanic and non-Hispanic White students are 0.05 ($b = 0.05$, $t [2036] = 0.755$, $P = 0.45$) and 0.248 ($b = 0.248$, $t [56] = 0.640$, $P = 0.524$) respectively. The slopes of teacher support for African American and non-Hispanic White students are -0.209 ($b = -0.209$, $t [637] = -2.141$, $P = 0.033$) and 0.248 ($b = 0.248$, $t [56] = 0.640$, $P = 0.524$) respectively.

The results suggest that 1) peer support is more effective for African American students in determining their occupational aspirations than for Asian students; 2) teacher support has a stronger effect on non-Hispanic White students' occupational aspirations than do Hispanic and African American students.

Gender and the Relationship between Social Support and Educational Aspirations

Table 12 Test of the interaction between gender and social support in their effects on Educational Aspirations and Occupational Aspirations, AISD, 2013

| | Educational Aspirations | Occupational Aspirations |
|---------------------------------|-------------------------|--------------------------|
| Peer Support * Gender | -0.157** | 0.025 |
| Teacher Support * Gender | -0.180** | 0.049 |
| Parental Communication * Gender | 0.007 | -0.032 |
| Parental Expectations * Gender | -0.151* | -0.030 |

Note: *P<0.05, ** P<0.01. Other independent variables include Math, Reading, Ranking, Race, Gender, Poverty, Grade, Academic Competence, Peer Support, Teacher Support, Parent Communication, and Parental Expectations.

Table 13 Separate Regressions of Social Support on Educational and Occupational Aspirations by Gender, AIDS, 2013

| | Educational Aspirations | | Occupational Aspirations | |
|------------------------|-------------------------|----------|--------------------------|-----------|
| | Female | Male | Female | Male |
| (Constant) | 9.649*** | 9.786*** | 8.003*** | 8.521*** |
| Math | 0.001 | 0.000 | 0.001 | 0.001** |
| Reading | 0.002*** | 0.001** | 0.002*** | 0.001* |
| Rank | -0.001*** | -0.001** | -0.001** | -0.002*** |
| Poverty | -0.215* | 0.001 | -0.279* | -0.062 |
| Grade | -0.214** | -0.174* | -0.147 | -0.300** |
| Asian | 0.238 | 0.756* | 0.668 | -0.409 |
| Black | 0.287 | 0.199 | 0.050 | 0.069 |
| White | 0.154 | -0.384 | 0.681 | 0.260 |
| Academic Competence | 0.096 | 0.164* | 0.321*** | 0.264** |
| Peer Support | -0.048 | -0.010 | -0.099 | -0.087 |
| Teacher Support | 0.043 | 0.160** | 0.008 | -0.037 |
| Parental Communication | 0.071* | 0.024 | 0.025 | 0.070 |
| Parental Expectations | 0.094* | 0.239*** | 0.111 | 0.134** |
| R ² | 0.118 | 0.136 | 0.090 | 0.123 |

Note: * P< .05, ** P< .01, *** P<.001. R2 was adjusted.

The first column of table 12 presents that the effects of adult and peer support on educational aspirations are depending on gender. The coefficient of peer support for girls is -0.048 (b=0.048, t [1448] = -0.953, P=0.341) and -0.01 (b=-0.01, t [1311] = -.148, P=0.882) for boys. The slopes of teacher support are 0.043 (b=0.043, t [1448] = 0.844, P=0.399) for girls and 0.16 (b=0.16, t [1311] = 2.599, P=0.009) for boys. The slopes of parental expectation are 0.094 (b=0.094, t [1448] = 2.037, P=0.042) for girls and 0.239 (b=0.239, t [1311] = 6.228, P=0.000) for boys.

I can conclude that boys are more likely to benefit from adult and peer support in determining educational aspirations than girls. Peer support negatively predicts educational aspirations for girls. The more peer support girls have the lower educational aspirations for girls than for boys. Teacher support plays a stronger role in shaping boys' educational aspirations than do girls. The same pattern also holds for parental expectations.

The second column in table 12 displays that adult support and peer support have the same effect in occupational aspirations for boys and girls.

Chapter 7

Conclusion and Discussion

I first explore racial differences of educational and occupational aspirations. My results report that Asian students have the highest educational aspirations, followed by African American and Hispanic students, whereas no differences between non-Hispanic White and Hispanic students are observed after controlling for students' academic achievement, gender, grade, and social-economic background. Additionally, I find that adult support strongly and positively predicts educational aspirations, but peer support has no effect on educational aspirations. Neither does school-level academic achievement, adult and peer support contributes to educational aspirations except the average math scores.

As for occupational aspirations, there is no evidence to show racial difference after controlling for students' academic performance, gender, grade, and social-economic background. Only parental expectations are positively related to occupational aspirations. School-level factors are not attributable to occupational aspirations.

Table 14 Different Effects of Social Support on Educational and Occupational Aspirations by Race and Ethnicity

| | Peer Support | Teacher Support | Parental Communication | Parental Expectation |
|--------------------------|---|---|-------------------------------|-------------------------------|
| Educational Aspirations | Black>Hispanic White>Hispanic Male>Female | Black>Hispanic White>Hispanic Male>Female | White>Hispanic White>Black | Black>Hispanic Male>Female |
| Occupational Aspirations | Black>Asian | White>Hispanic White>Black | | |

The primary goal of present study is to investigate the effects of adult support and peer support in determining educational aspirations and career plans of students. Using linear multiple regression and interactions, my results indicate that social support exerts different influence on students' aspirations in terms of race and ethnicity (See Table 14).

Peer support has a stronger effect on educational aspirations of African American and non-Hispanic White students than of Hispanic students which is inconsistent with my hypothesis. Ogbu (1995) argue that oppositional cultural frame of reference of African American students lowers their educational aspirations because African American students who want to act like non-Hispanic White by helping others in education would be ridiculed. My results suggest that African American students need support from their friends and the support is more useful in shaping their educational aspirations than Hispanic students. One possible reason is that African American students are more likely to trust their friends than Hispanic students. I also assume that Asian would benefit more from their friends, but the results do not support this assumption. Moreover, non-Hispanic White students are assumed to suffer from the influence of peers, but my results also overturn this assumption. I cannot provide a credible explanation for the contradictory between my assumption and my results because I cannot test the racial composition of peer support. Further study needs to test if students get more peer support from their racial groups or other racial groups.

Teacher support is more useful in enhancing African American and non-Hispanic students' educational aspirations than Hispanic students. The results prove that teacher-student relationship is healthier among African American and non-Hispanic White students than Hispanic students. One reason is that proficient in English may constrain the communication between teachers and Hispanic students, which in turn makes Hispanic students hard to

understand help of their teachers. I assume that teachers would pay more attention to Asian students due to their better academic performance so the more teacher support Asian students perceive, the higher educational aspirations they have. But the results suggest the role of teacher support on educational aspirations is the same as other race and ethnicity. Accordingly, teachers view their students equally regardless of their race and ethnicity.

The effects of parental communications on educational aspirations are stronger for non-Hispanic White students than for Hispanic and African American students which is consistent with my hypothesis.

Parental expectations are more important for African American students to increase their educational aspirations than for Hispanic students. African American students are more likely to transfer their parental expectations to their own educational aspirations, but this pattern does not hold for Hispanic students. One reason is that most Hispanic students in my sample are the second generation and their parents are working-class. They may not expect to have prestigious jobs. What they want are achieving like their parents due to the limitation of language and structural limitations. Some of them may expect to come back to their original countries, so they do not value education even if their parents expect them to attend college and beyond. The result does not support my assumption in which parental expectations may play a more important role in educational aspirations of Asians than other groups. Their parents' socioeconomic background may contribute to the disparity.

As for occupational aspirations, my findings suggest that peer support is more effective for African American students in determining their occupational aspirations than for Asian students. It indicates that Asian students do not set their occupational goals in terms of other students' opinions. A synthetic perspective for understanding the social mobility process of

Asian Americans, called the “strategic adaptation perspective” (Xie and Goyette 1999). Asian Americans choose high status occupations because they can avert disadvantages as newcomers and succeed with marketable credentials. First, Asian Americans tend to choose occupations with higher average earnings and education. Second, Asian Americans are more likely to expect to enter college and choose major in fields that have high financial payoffs than whites. Educational expectation and occupational expectation contribute to the fact that Asians are more likely than whites to enroll in college and major in high earnings. Therefore, occupational choices of Asian students are determined by social climate rather than individual influence.

Another finding is that teacher support has a stronger effect on non-Hispanic White students’ occupational aspirations than do Hispanic and African American students. One reason is that non-Hispanic White students believe that teachers’ help will be useful for their career plans, whereas, Hispanic and African American students do not trust their teachers’ suggestions about their occupational plans. According to Ogbu (1983), the dominant group sets a job ceiling which limits minority range of occupational choices. Inequality structure and job the ceiling lead the dominant and minority groups to define and interpret reality differently. Caste like minorities, for example, interpret reality from an institutional discrimination perspective, so they believe that they cannot assimilate into the mainstream. Consequently, African American and Hispanic students do not believe the description of their teachers about their careers in the future; whereas non-Hispanic White students believe that will be true because they will not encounter structural barriers.

I can conclude that boys are more likely to benefit from adult and peer support in determining educational aspirations than girls. Peer support negatively predicts educational aspirations for girls. The more peer support girls have the lower educational aspirations for girls

than for boys. Teacher support plays a stronger role in shaping boys' educational aspirations than do girls. The same pattern also holds for parental expectations.

Because this study only includes eight high schools, I am unable to use hierarchical linear models to test school-level variables on individual aspirations. Further study needs to use a larger sample size to investigate whether and how aggregated social support influences students' aspirations. Another limitation of this study is that both adult and peer support were measured through perceptions of students rather than the actual attitudes of parents, teachers, and peers. It is highly possible that students may project their own attitudes to the perceived social support. For example, students who are not interested in studying may score low on adult support despite parents and teachers may try their best to encourage and help them.

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Appendix A

Proportions of Occupational Aspirations by Ethnicity, AIDS, 2013

| | Total | Hispanic | Black | Asian | White |
|---|-------|----------|-------|-------|-------|
| Actor, Musician, Artist, Professional Athlete | 13.5 | 10.5 | 19.1 | 5.7 | 16.5 |
| Housing or Construction Worker, Roofer, Custodian, Maintenance, Landscaping, Trash Collector | 2.7 | 2.9 | 1.8 | 0.0 | 0.0 |
| Nurse RN, Physical Therapist, Teacher, Police Officer, Firefighter, Real Estate Agent, Airplane Pilot | 25.3 | 23.7 | 24.6 | 22.6 | 14.1 |
| Hairdresser, Cosmetologist, Medical and Dental Records or Billing Clerks, Nurses Aid | 5.6 | 5.8 | 4.2 | 3.8 | 1.2 |
| Lawyer, Doctor, Dentist, Pharmacist, Architect, Engineer, Computer Programmer, College Professor, Scientist | 30.9 | 29.7 | 25.1 | 47.2 | 35.3 |
| Machinery Operators, Bus or Truck Drivers, Oil Well Worker | 3.3 | 3.3 | 2.4 | 3.8 | 3.5 |
| Medical or Laboratory Technician, EMT, Paralegal, Computing Support, Electrician, AC repair, Mechanic, Plumber, Armed Forces Training, Chef | 9.8 | 9.9 | 7.0 | 1.9 | 12.9 |
| Secretary, Sales Clerk, Postal Clerk, Security Guard | 1.2 | 0.9 | 1.6 | 3.8 | 1.2 |
| School Principal, Corporate Manager, Accountant, Politician, Legislator | 4.9 | 4.9 | 4.2 | 3.8 | 2.4 |
| Waiter/Waitress, Childcare Worker, Bartender, Cook, Housecleaner | 2.7 | 2.3 | 2.7 | 3.8 | 4.7 |

Appendix B

Bivariate Correlations of Dependent and Independent Variables, AIDS, 2013

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|----|
| 1 Math | — | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Reading | .574** | — | | | | | | | | | | | | | | | | | | | | | | | |
| 3 Rank | -.571** | -.540** | — | | | | | | | | | | | | | | | | | | | | | | |
| 4 Gender | -.023 | .115** | -.189** | — | | | | | | | | | | | | | | | | | | | | | |
| 5 Poverty | -.005 | -.009 | .041* | .042* | — | | | | | | | | | | | | | | | | | | | | |
| 6 Grad | .137** | .017 | -.051** | .005 | -.051** | — | | | | | | | | | | | | | | | | | | | |
| 7 Asian | .106** | .046** | -.094** | -.012 | -.051** | .005 | — | | | | | | | | | | | | | | | | | | |
| 8 Black | -.174** | -.086** | .003 | .022 | -.093** | .038* | -.070** | — | | | | | | | | | | | | | | | | | |
| 9 Hispanic | .136** | .065** | .031 | -.007 | .141** | -.049** | -.194** | -.906** | — | | | | | | | | | | | | | | | | |
| 10 White | .004 | .014 | -.027 | -.034* | -.114** | .033* | -.019 | -.089** | -.247** | — | | | | | | | | | | | | | | | |
| 11 Academic Competence | .063** | .093** | -.202** | .166** | -.010 | -.040* | .032 | .054** | -.059** | -.004 | — | | | | | | | | | | | | | | |
| 12 Peer Support | .002 | -.007 | -.074** | .055** | .021 | -.035* | .001 | .030 | -.024 | -.015 | .640** | — | | | | | | | | | | | | | |
| 13 Teacher Support | .051** | .047** | -.136** | .069** | -.007 | -.007 | .034 | .015 | -.027 | .012 | .647** | .617** | — | | | | | | | | | | | | |
| 14 Parental communication | -.016 | .009 | -.089** | .090** | -.028 | .082** | -.012 | .154** | -.148** | .012 | .268** | .179** | .164** | — | | | | | | | | | | | |
| 15 Parental Expectations | .063** | .072** | -.107** | .100** | .003 | -.012 | .009 | .028 | -.018 | -.031 | .163** | .103** | .111** | .180** | — | | | | | | | | | | |
| 16 Occupational Aspiration | .224** | .215** | -.222** | -.102** | -.046** | -.034* | .031 | .004 | -.022 | .030 | .144** | .058** | .083** | .063** | .100** | — | | | | | | | | | |
| 17 Educational Aspiration | .187** | .236** | -.282** | .207** | -.040* | -.040* | .059** | .066** | -.070** | -.026 | .216** | .122** | .153** | .122** | .187** | .271** | — | | | | | | | | |
| 18 Occupational Aspiration(mean) | .126** | .129** | -.191** | .066** | -.070** | -.085** | .064** | .088** | -.101** | .000 | .110** | .168** | .148** | .056** | .066** | .122** | .134** | — | | | | | | | |
| 19 Educational Aspiration(mean) | .130** | .134** | -.208** | .070** | -.085** | -.081** | .070** | .103** | -.120** | .009 | .110** | .166** | .138** | .057** | .067** | .119** | .136** | .978** | — | | | | | | |
| 20 Parental Communication(mean) | -.044** | -.009 | -.193** | .027 | -.150** | .071** | .010 | .341** | -.338** | .029 | .072** | .064** | .011 | .110** | .034* | .062** | .070** | .509** | .521** | — | | | | | |
| 21 Parental Expectation (mean) | .159** | .119** | -.107** | .073** | -.070** | -.006 | .027 | .022 | -.032 | .012 | .093** | .146** | .118** | .042* | .088** | .094** | .106** | .755** | .769** | .388** | — | | | | |
| 22 Teacher Support (mean) | .124** | .112** | -.089** | .070** | .024 | -.124** | .043** | -.085** | .072** | -.010 | .094** | .200** | .197** | .005 | .052** | .092** | .096** | .740** | .690** | .045** | .592** | — | | | |
| 23 Peer Support (mean) | .115** | .106** | -.151** | .069** | -.029 | -.089** | .027 | .024 | -.036* | .017 | .096** | .217** | .182** | .032 | .059** | .095** | .105** | .770** | .760** | .288** | .675** | .920** | — | | |
| 24 Reading (mean) | .231** | .206** | -.241** | .057** | .002 | -.089** | .056** | -.125** | .108** | -.010 | .032 | .113** | .110** | -.005 | .052** | .076** | .090** | .621** | .653** | -.043* | .593** | .547** | .518** | — | |
| 25 Math (mean) | .243** | .195** | -.161** | .051** | .019 | -.072** | .035* | -.181** | .167** | -.010 | .020 | .100** | .101** | -.021 | .058** | .063** | .073** | .516** | .533** | -.189** | .653** | .507** | .468** | .950** | — |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).