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College Students' Plans for Graduate or Professional School: a Comparison of Different Racial and Ethnic Groups

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UNIVERSITY OF MIAMI

COLLEGE STUDENTS' PLANS FOR GRADUATE OR PROFESSIONAL SCHOOL:
A COMPARISON OF DIFFERENT RACIAL AND ETHNIC GROUPS

By

Lei Gong

A THESIS

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Master of Arts

Coral Gables, Florida

June 2012

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College Students' Plans for Graduate or
Professional School: A Comparison of
Different Racial and Ethnic Groups

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Most research on educational plans has focused on high school students' plans for college. Few studies have examined graduate or professional school plans among college students. This thesis uses the National Longitudinal Survey of Freshmen (NLSF) to examine: (1) racial and ethnic variations in graduate or professional school plans; and (2) the effect of race-ethnicity on graduate or professional school plans relative to other factors such as sex, SES, college type, parents' aspirations, peer aspirations and students' evaluation of college experiences. It also provides detailed analyses of the graduate or professional school plans of the Asian subgroups. Results indicate that race is not a significant predictor of college students' plans for graduate or professional school. Peer aspirations negatively influence college students' plans for graduate or professional school, and students' evaluation of college experiences positively influences their plans. Analyses of the Asian subgroups indicate that there are no statistically significant differences between the subgroups. The results imply that faculty, student affairs personnel, graduate school administrators and all relevant departments should make joint efforts to enhance students' self-esteem and their college experiences.

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Chapter 1: Introduction

Graduate or professional school training plays an increasingly important role in today's society. A master's, Ph.D. or professional degree is often required for many desirable positions in both the corporate world and academia. Individuals holding advanced degrees are more likely to secure better paying jobs and enjoy a higher standard of living (Garg et al. 2002). According to a U.S. Census population report on educational attainment and earnings (Day and Newburger 2002), the average earnings for college graduates were much lower than the average for those who held advanced degrees. From 1997 to 1999, the annual salary for college graduates was \$45,400 in 1999 dollars while the annual salaries for those with master's degrees, doctoral degrees or professional degrees were \$54,500, \$81,400 and \$99,300 in 1999 dollars respectively.

Higher education is also related to higher job security. Another US census report (Ryan and Siebens 2012) indicated that the unemployment rate for those with highest educational degrees was the lowest in any month from January 2008 to December 2010. Compared to an unemployment rate of thirteen percent for those with less than a high school diploma in August 2010, the unemployment rate for those who had advanced degrees was at a much lower rate of four percent. The unemployment rate for those with less than high school education increased from nine to eighteen percent from January 2008 to February 2010. However, unemployment for those with advanced degrees stayed under 5 percent throughout.

In light of the many advantages of advanced degrees, it is not surprising that more and more students are now choosing to go to graduate or professional school rather than directly joining the workforce after getting their bachelor's degrees. A report by the

Council of Graduate Schools indicated that the majority of American freshmen who participated in a survey in 2009 planned to get a graduate or professional degree at some point of their life. Forty-two percent of the respondents indicated that their expected highest degree would be a master's and eighteen percent said that they desired a doctorate degree. Another fifteen percent planned to obtain a professional degree. The percentage of freshmen who planned to get a master's degree increased from thirty percent in 1974 to forty two percent in 2009 and the percentage of those who planned to get a doctorate degree increased from eleven percent to eighteen percent (Bell 2010).

Big gaps exist in the educational attainments of different racial groups. According to the 2009 Report on Educational Attainment in the United States published by the U.S. Census Bureau, Asians reported having the highest percentage of advanced degrees. The percentages of Hispanic and Blacks having advanced degrees were much lower than those of non-Hispanic Whites and Asians (Ryan and Siebens 2012). There is the stereotype that all Asians are equally well educated. In fact, similar to the racial variations in educational attainment, there are obvious ethnic variations in educational attainment between the Asian subgroups. Educational statistics showed that among the Asian ethnic subgroups, Cambodians, Hmong or Laotians had the lowest educational attainments. Only 9.2 percent of Cambodians, Hmong or Laotians had college degrees, compared to 64.4 percent of Asian Indians, 46.3 percent of Chinese, 42.8 percent of Filipinos, 40.8 percent of Japanese and 43.6 percent of Koreans. Vietnamese also had relatively lower educational attainment-only 13.8 percent held college degrees. The percentage of Cambodians, Hmong or Laotians having advance degrees was 0.4 and that of Vietnamese was 2.5, while the percentages of Asian Indians, Chinese, Filipinos,

Japanese and Koreans having advanced degrees were 12.5, 8.5, 4.3, 4.6 and 5.6 respectively(Le 2012).

Researchers have shown that educational aspirations and educational attainment are closely related and educational aspiration is one of the best predictors of educational attainment (Buriel and Cardoza 1988; Kao and Tienda 1995). Studies focusing on the graduate or professional school aspirations of college students showed that undergraduates who aspired for graduate or professional school are more likely to apply than those who did not (Bell 2010). In light of the racial and ethnic variations in advanced educational attainment, researchers might expect that Blacks and Hispanics are less likely to plan for graduate or professional school than Whites and Asians. Similarly one might expect that Southeast Asians are less likely than South Asians and East Asians to plan for graduate or professional school. Thus it is quite important for researchers to examine variations in graduate or professional school plans among different racial and ethnic groups and determine what factors may explain observed racial and ethnic variations in educational plans.

Although an extensive body of research has focused on identifying the determinants of college aspirations of high school students, relatively fewer studies have examined college students' graduate or professional school aspirations and their determinants. Since college students have many different characteristics than high school students and they are often more mature in thinking and know more clearly what they want to do in the future, it is quite reasonable to assume that the factors influencing high school students' educational plans may not necessarily have the same influences on college students. This thesis first provides a brief review of the existing literature on

educational aspirations, particularly on graduate school aspirations of college students. It then uses some of the most important variables suggested by previous theoretical and empirical literature and tests their effects on the outcome in different models. Since most of the studies on graduate school aspirations are dated, they may not be accurate representations of today's college students.

This study uses the National Longitudinal Survey of Freshmen (NLSF) data collected from more recent years from 1999 to 2003. Based on previous literature, the study chooses the most important variables and examines their effects on graduate school plans of a newer cohort of nationally representative college students. The study is significant in two ways. First, findings from a more recent dataset can better represent the graduate school plans of today's college students. Second, previous studies have focused mainly on examining differences of graduate school plans between Whites, Blacks and Hispanics. None of the studies have examined the graduate school plans of Asians and particularly Asian subgroups. The current study includes Asians and provides detailed analyses for three major Asian subgroups --East Asians, Southeast Asians and South Asians. The study also compares specific ethnic groups within the East Asian, Southeast Asian and South Asian subgroups.

The specific objectives of the thesis are (1) to describe the variations in graduate or professional school plans of students from different racial groups; (2) to understand the effect of race on graduate or professional school plans relative to other factors such as sex, SES, college type, parents' aspirations, peer aspirations and students' evaluations of college experiences; (3) to understand how all these factors affect the graduate or professional school plans of students from different racial groups; and (4) to examine the

graduate or professional school plans of East Asians, Southeast Asians and South Asians and compare the specific ethnic groups within the same subgroups.

Chapter 2 Literature Review

Theoretical Frameworks for the Study of Educational Aspirations

I begin my literature review with an overview of the theoretical frameworks for studying educational aspirations, followed by a description of the empirical literature on graduate school aspirations. The main foundation for the study of educational aspirations is the status attainment framework (Carter 2002). Blau and Duncan (1967) first proposed the status attainment model and their argument was that a father's education and occupation predict a child's education and first job and all the four predict a child's career occupational attainment. Educational aspirations were not included in Blau and Duncan's model but they were included in the status attainment models that followed (Carter 2002). Blau and Duncan's model was limited by the lack of a theoretical explanation of why a father's education determines a child's occupational attainment (Carter 2002). Sewell et al. (1969) later developed the social psychological model of status attainment, which is also called the "Wisconsin model", by considering social psychological factors (i.e., significant other's influences) as key intervening variables. The social psychological model of status attainment argues that student's socioeconomic status and academic ability influence the support students receive from their significant others such as their parents, teachers and peers, which in turn, influences students' educational aspirations and attainment (Sewell et al. 1969). Kerckhoff (1976) criticized the social psychological model for assuming individuals to have unconstrained social mobility, and proposed an alternative "social allocation" perspective by arguing that individuals are constrained by specific social structural barriers. The social psychological model assumes students can move upward only if they have the ability and motivation

while the social allocation model holds that individual are constrained by the environment and can only realize expectations that are considered as appropriate for them as members of particular social groups (Carter 2002).

Turner (1960), adopting a more macro-level perspective, classified the educational systems into two types: the contest mobility system and the sponsored mobility system. In a contest mobility system, students believe education will afford them the opportunity to move upward as long as they have the ability and motivation. Therefore, low SES students may still have high aspirations. In contrast, in a sponsored mobility system, students are taught to be realistic about their expectations as their achievements are mainly determined by their ascribed statuses into which they were born. The assumptions of the contest mobility systems are similar to those of the social psychological model and the assumptions of the sponsored mobility systems are similar to those of the social allocation model (Carter 2002).

Although the status attainment model generally explains well the educational and occupational attainments and aspirations for White males, it has been criticized for lacking the validity for minorities and White females (Carter 2002). Carter (2002) summarizes other major criticism of the status attainment framework as follows: (1) the assumption that America is a meritocratic country is sometimes not applicable; (2) the relevant literature is dated; (3) the status attainment model does not take institutional variables into consideration; (4) the social allocation perspective does not take into consideration that individuals may resist the controls imposed by the upper classes.

Carter (2002) argues that the higher educational aspirations of students from higher SES backgrounds are due to the fact that they have more cultural capital. Parents

with higher education may socialize and guide their children toward better educational institutions and more rewarding careers. Higher SES students are also more likely to have more information about school options, which may further influence their educational and occupation aspirations and attainments.

Kao and Tienda (1998) identified the status-attainment framework and the blocked-opportunities framework as the two major theoretical frameworks for studying educational and occupational aspirations. The status-attainment framework focuses on explaining factors that shape aspirations while the blocked opportunities framework focuses on the structural barriers influencing one's aspirations (Kao and Tienda 1998). The status-attainment model aims to explain variations in educational aspirations based on individuals' social class backgrounds. It argues that racial variations in educational aspirations are due to the inequalities of socioeconomic status of different racial groups. For example, Hispanic and African American students generally come from families with lower socioeconomic status and they tend to have lower educational aspirations than their White and Asian counterparts out of realistic considerations (Kao and Tienda 1998). The blocked opportunities framework argues that structural and social barriers could lead to lower educational aspirations if a racial group does not see the value of educational attainment for upward social mobility and an oppositional culture to education is likely to develop (Fordham and Ogbu 1986; Ogbu 1991). The lower educational aspirations of some minorities are not due to the minority status itself but the limited perceived and real opportunities (Macleod 1987).

The blocked-opportunities theory attributes racial variations in educational aspirations to socioeconomic inequalities (Kao and Tienda 1998). Similar to the blocked-

opportunities theory, Nichols et al. (2010) claimed that African American students are underrepresented in college because of the disparities they face in terms of economic situations, educational opportunities and poorer educational resources but not because they have lower educational aspirations. Researchers widely believe that family background factors such as family socioeconomic status (parent's occupation and educational attainment) as well as family structure influence children's educational aspirations but there is some controversy over whether the influence is direct or indirect. Some studies reported socioeconomic status played an indirect role through the mediating factor of parental involvement and children's self-esteem (Farmer 1985; Trusty, Watts and Erdman 1997).

Ogbu (1983) explained the educational underachievement and lower educational aspirations of African Americans from a cultural deficit perspective. The cultural deficit perspective holds that African Americans have not internalized the values of education. Ogbu classified minority groups into voluntary minorities and involuntary minorities. Voluntary minorities adopt proactive strategies to adapt themselves to the mainstream society while the involuntary minorities employ negative strategies and even create cultures that are resistant to the mainstream values (Ogbu 1983). Being successful in school is being viewed by African American students as a characteristic not appropriate for them (Fordham and Ogbu 1986). Carter (2002) pointed out that Ogbu had mainly focused on African American students' failure in school and his theory may not be applicable to college students since college students are already successful in certain senses. Latinos, like African Americans, are considered by Ogbu as involuntary minorities and they show similar negative attitude toward education (Ogbu 1983). Gilbert

(2009) refuted Ogbu's contention that involuntary minorities develop oppositional cultures toward schooling with her empirical study on the academic performances of immigrant and nonimmigrant Blacks. She found that immigrant status does not have significant influence on school performance when behavioral and attitudinal factors are controlled.

Previous research has indicated that a variety of factors could influence educational aspirations. Pascarella (1984) studied the influence of college environment on students' educational aspirations and proposed a longitudinal model. The model considers students' background characteristics including academic aptitude and parents' education as the exogenous variables and assumes both academic aptitude and parents' education will influence secondary school achievement and secondary school achievements will further influence students' pre-college aspirations. Secondary school achievement and pre-college aspirations will then have both direct effects on their graduate educational aspirations and indirect effects through the intermediate effects of institutional environment and college achievement.

Based on the status attainment and blocked opportunities frameworks, Kao and Tienda (1998) developed an empirical model including family background, school experiences, test scores and peer evaluations and they found family socioeconomic status plays a crucial role on students' educational aspirations. Farmer (1985) included three predictors of educational aspiration in his model: background, personal and environmental factors. The background factors include demographic characteristics such as sex, social status, school location, race, age, academic ability, etc. The personal factors

include academic self-esteem, self-confidence and intrinsic values. The environmental factors include parental support and teacher support etc.

Carter (2002) proposed a four-stage model based on previous theoretical frameworks. First, pre-college characteristics influence the initial aspirations and goals of students. Second, both pre-college characteristics and initial aspirations influence institutional experience and external-to-campus involvement. Third, pre-college characteristics, initial aspirations and goals and institutional experiences and external-to-campus involvement influence academic achievement. Fourth, all the four variables influence educational aspirations.

Empirical Studies on Graduate or Professional School Aspirations

Although many studies on educational aspirations have focused on high school students, there are a few empirical studies that examined college students' graduate or professional school aspirations (Centra 1980; Kao and Tienda 1998; Pascarella et al. 2004; Perna 2004; Mullen, Goyette and Soares 2003; Wallace 1965; Ethington and Smart 1986). A variety of factors are shown to have influences on graduate or professional school aspirations, including race, sex, socioeconomic status, college type, parents aspirations, peer aspirations as well as students' evaluation of college experiences (Centra 1980; Kao and Tienda 1998; Pascarella et al. 2004; Perna 2004; Mullen, Goyette and Soares 2003; Wallace 1965; Ethington and Smart 1986).

Based on Carter's theoretical framework, Pascarella et al. (2004) examined racial variations in the ways college experience influenced students graduate degree aspirations by using the National Study of Student Learning (NSSL). Pascarella and colleagues included White, Hispanic and Black students in their analyses. They found that the

likelihood of African American and Hispanic American aspiring for a graduate degree were twice as high as White students if all other factors were controlled. In addition, they also noted that African American and Hispanic students were more persistent in their graduate degree aspirations than their white counterparts when all other factors were controlled as they were less likely to lower their degree plans after three years in college. Many variables included in their analyses that had no significant effect on the graduate degree aspirations of college students as an aggregate were shown to have significant effects on different racial subgroups. Centra (1980) used the extensive Graduate Record Examination (GRE) registrant population of 1976-1977 to study the graduate degree aspirations of prospective graduate students and found that the degree aspirations of Black and Hispanic students were higher than those of White and Asian students everything else equal. Unlike Black and Hispanic students, Asian students showed similar patterns of graduate degree aspirations as White students.

Perna (2004) used the 1997 follow-up to the Baccalaureate and Beyond survey of 1992/93 bachelor's degree recipients ((B&B:93/97) to study college students decisions to enroll in graduate school. Perna (2004) proposed a conceptual model focused on factors influencing college students' decision to enroll in graduate school based on an econometric perspective. The econometric perspective assumes that individuals make rational choices by weighing the economic and non-economic costs against the possible benefits. Perna's model includes sex, race, expected costs and benefits, financial resources, academic competence as well as cultural and social capital (Perna 2004). As for the cost for enrolling in graduate school, Perna (2004) mainly considered the opportunity cost rather than the direct cost. Financial resources are measured by students'

loans borrowed for their undergraduate education. Academic competence is measured by students' cumulative grade-point average (GPA). Cultural capital refers to students' values in advanced education and social capital refers to parental involvement in and contribution to students' education as well as students' other social networks, as measured by parents' monetary investments and the nature of the institution granting the degree (Perna 2004). She found that a higher percentage of Asians enrolled in their first professional degree programs even when expected costs and benefits, financial resources and academic competence and cultural and social capital were taken into consideration. Blacks and Whites were equally likely to enroll in master's and first-professional degree programs. However, when factors such as expected costs and benefits, financial resources and academic competence and cultural and social capital were controlled, it was found that Blacks are more likely to enroll in both kinds of programs. Kao and Tienda (1998) compared the educational aspirations of Whites, Blacks, Hispanics and Asians by using the National Educational Longitudinal Study 1988 and found that Blacks, Hispanics and Asians had much higher aspirations than their White counterparts from similar socioeconomic backgrounds to go to graduate school.

Studies have also found that gender plays a role in student's graduate or professional school aspirations. Centra (1980) found that being male was associated with higher aspirations for a doctorate degree among all ethnic groups except Asian students in humanities and natural science, and Hispanic students in natural science when ability was controlled. Perna (2004) found that the likelihood of females enrolling in master's programs was higher than that of males when race was controlled. However, the likelihood of females enrolling in first-professional degree program was lower than that

of males. When variables such as expected costs and benefits, financial resources and academic competence and cultural and social capital were controlled, no major difference was found between the odds of enrolling in a master's degree program among females and males. But females were found to be less likely to enroll in a first-professional degree program than males. Perna (2004) attributed the higher odds of female enrolling in a master's program to the fact that females generally have higher GPAs than males in college. However, this does not help in explaining why females are less likely to enroll in first-degree professional programs and doctoral programs than their male counterparts.

Mullen, Goyette and Soares (2003) used the Baccalaureate and Beyond Longitudinal Study (B&B) to study the social and academic determinants of college student's entry into graduate or professional school. They found that parent's education does not influence students' entry into MBA programs but has a small effect on their entry into master's programs. Mullen and colleagues (2003) also found that parent's education played a significant role in student's entry into first-professional and doctoral programs. Their study also indicated that parents' education influences students enrollment in graduate school both directly and indirectly, although the effects varied by the type of program (master's, MBA, first-professional and doctoral). In order to examine the direct and indirect effects of the multiple variables on graduate school enrollment, Mullen and colleagues included five blocks of variables in their analyses based on previous literature, namely, social background variables including parents' education, sex and age; high school academic performance which was measured by standardized test scores; institutional characteristics including type and selectivity of college attended; college academic variables including college GPA and field of study;

social psychological variables including degree expectations and career values . Mullen and colleagues explained that their inconsistent findings might be the results of cohort effects, or different approaches to operationalizing the dependent and independent variables. They also provided convincing explanations for their findings based on previous literature and theories: (1) students whose parents have higher socioeconomic status (SES) have more resources, which allow them more opportunities for a better and higher education; (2) from an expectations perspective, parents with higher education tend to have higher expectations for their children, which further influences children's own expectations; (3) students whose parents have higher education are more likely to have better academic performance in college, which is considered as an important predictor of students' aspirations for graduate school; (4) family socioeconomic background influences students' choice of study field, which further influence students' aspirations for graduate school; (5) family socioeconomic background may influence a student's attitudes and even moral values, which further influence their decision whether to enroll in a particular graduate program.

Different types of colleges have different missions and students in different college environment may show different patterns of educational aspirations. Mullen, Goyette and Soares (2003) considered the types of undergraduate institution to have structural effects on students graduate school aspirations. They found that the type of college a student attended had significant effect on their graduate school enrollment. Compared with students from comprehensive institutions, students from both private and public research universities were much more likely to enter a doctoral program. The odds of students from liberal arts colleges entering doctoral programs were the highest. The

likelihood of students from private research universities to enter a master's program is higher than students from other types of institutions. The social psychological model of status attainment assumes that students in different types of colleges have different experiences and socialization processes, which influence their educational aspirations and attainments (Carter 2002).

Although no study was found to specifically examine the effects of parents' educational aspirations on college students' graduate or professional school aspirations, there is evidence that parents' educational aspirations have significant influence on their children's aspirations (Qian and Blair 1999; Soto 1989). Sue and Okazaki (1990) found that Asian parents were more likely to be involved in their children's school activities and instill in them the value of education, which led to Asian students higher educational aspirations. Wentzel (1998) found that parental involvement and aspirations for their children's academic attainment directly influenced their children's own educational aspirations. Sewell and Shah (1968) studied the effects of socioeconomic status, intelligence and parental encouragement on the college aspirations of Wisconsin high school students and found that parental encouragement had the strongest effect on the college aspirations for both males and females. Another study found that peer aspirations could also influence college students' aspirations for graduate or professional school. Wallace (1965) used panel and cross-sectional observations for his study of students graduate school aspirations at a liberal arts college and found that after controlling for previous academic achievement and socio-economic ambition, peer group attitude toward graduate school education has the greatest influence on undergraduates' aspirations for graduate or professional school. Although Wallace acknowledged his study was

exploratory, it provided insights into how peers could influence college students' aspirations for graduate or professional school. Wallace noted that the aspirations of freshmen changed after some time of contact with non-freshmen. A majority of those freshmen changed their aspirations from "no" to "yes" and the change happened mostly among students with relatively poorer previous academic performance. Wallace gave the explanations that freshmen were influenced by non-freshmen and students with poorer academic performance had a strong desire of being accepted by their peers. After controlling for academic achievement and socioeconomic ambition, Wallace found that freshmen's change in aspirations for graduate school was largely determined by the aspiration climate among senior peers.

Students' evaluation of their college experiences is also a very important predictor of educational aspirations (Hoge et al. 1995). Pascarella (1984) found that students' perceptions of their college environments had more influence on their graduate school aspirations than the structural characteristics of the institution itself. Ethington and Smart (1986) used the survey conducted by the Cooperative Institutional Research Program (CIRP) at one particular undergraduate institution in 1971 and 1980 to study the effect of student background characteristics, academic and social integration, degree completion, financial aid as well as undergraduate experiences on their decisions to go to graduate school. Their study found that undergraduate experience had the strongest direct effect on student's decision to go to graduate school.

Summary of the Literature Review

To summarize, the status attainment model proposed by Blau and Duncan (1967) laid the foundation for the study of educational aspirations. The social psychological and

social allocation models that followed, further explored a broader set of other factors influencing students' educational aspirations and occupational attainments. Similar to the social psychological model, the contest mobility system assumes individuals can move upward only if they have the abilities and motivations. The sponsored mobility system and the social allocation system assume that individuals are constrained by social structural barriers and their achievements are determined, in part, by the ascribed status into which they were born (Carter 2002). The blocked-opportunities theory also attributes racial variations in educational aspirations and attainment to socioeconomic inequalities (Kao and Tienda 1998). Ogbu's cultural deficit perspective had mainly focused on African American student's failure in school and his theory may not be applicable to college students since college students are already successful in certain senses (Carter 2002). Theoretical frameworks have mainly focused on examining the effects of race and SES. Empirical studies, however, suggest that sex, peer aspirations, institutional type and undergraduate experiences also play significant roles in college students' graduate or professional school aspiration. In summary, based on theoretical models and empirical studies, factors such as race, sex, socioeconomic status, parents' aspirations, peer influence, institutional type and undergraduate experiences all contribute to college students' aspirations for graduate or professional school.

Chapter 3 Methods

Data

This thesis uses the National Longitudinal Survey of Freshmen (NLSF). The NLSF is a longitudinal survey conducted by the Office of Population Research at Princeton University. The principal investigators are Douglas S. Massey from Princeton University and Camille Z. Charles from University of Pennsylvania. The longitudinal survey follows a cohort of college students from different racial groups at twenty eight participating colleges and universities through their college years. The major objective for developing the dataset is for researchers to test theories explaining the underachievement of minorities in college education. The baseline survey was conducted by means of face-to-face interview when students first entered college in Fall 1999. It gathered students' background information and their psychological preparation for college before they actually entered college. The follow-up surveys were conducted by means of telephone interviews in the spring semester of each academic year with the aim of gathering information about their college experiences. The surveys also followed students who dropped out of college or transferred to another institution in order to avoid sample selection biases. The survey initially targeted 35 schools. However, 5 declined to participate and 2 of the historically black institutions agreed to participate but were not able to provide a list of their freshmen. Therefore, investigators were able to secure the participation of only 1 historically black institution. Twenty eight schools finally participated in the survey, including 9 liberal arts colleges, 14 private research universities, 4 public research universities and 1 historically black college. The survey sample was stratified according to the size of the black student body. Two hundred and

eighty respondents (70 in each racial group) were chosen from institutions with over 1,000 black students. Two hundred respondents (50 in each racial group) were selected from institutions with black student populations ranging from 500 to 1,000. Eighty respondents (20 in each group) were chosen from institutions with black student populations ranging from 100 to 500 and 40 respondents (10 in each group) were selected from those with black student populations under 100. Seventy respondents were selected from the historically black university. The survey had an institutional participation rate of 80 percent and an individual response rate of 86 percent. The final sample size was 3,924, including 959 Asians, 998 Whites, 1,051 African Americans and 916 Latinos. All respondents were required to be first-time freshmen as well as U.S. Citizens or resident aliens. The sample does not include international students and returning students.

Measures

The dependent variable is *educational plans*, which is measured by responses to the question in Wave 5 of the survey, “Do you plan to attend graduate or professional school sometime in the next five years?” Answers to the question include: “1 yes; 3 already enrolled in advanced study; 5 no; 8 don’t know; 7 refused.” Answers 1 and 3 are coded as “aspiring to attend graduate or professional school within five years” (1) and answers 5 and 8 are coded as “Not aspiring to attend graduate or professional school within five years or not sure” (0). All others are coded as missing.

The focal independent variable is race. *Race* is measured by responses to the question, “Respondent’s ethnicity-Black/African American, Caucasian/White, Asian, Hispanic or Latino?” The Race variable is then recoded into four variables, “White” (0), “Asian” (1), “Black” (2) and “Hispanic(3)”.

The control variables include sex, family socioeconomic status (based on father's education, mother's education and family income), college type, parents' aspirations, peer aspirations as well as students' evaluation of college experiences. (3). *Sex* is measured by responses to the question "Sex of Respondents-Male or Female?" Male is coded as 1 and female is coded as 0. *College types* are identified by interviewers before the survey and include "1 Liberal Arts College; 2 Private Research University; 3 Public Research University." College type is then recoded into three separate variables, "Liberal Arts College" (1), "Private Research University" (2) and "Public Research University" (3). *Evaluation of college experience* is measured by responses to the question in Wave 5, "On a zero to 10 scale where zero indicates total disagreement and 10 total agreement, to what extent would you disagree or agree with the following statement: If I had it to do all over again, I would choose to attend (name of most recent college attended) 0 totally disagree; 1-9 disagree to agree; 10 totally agree; 98 Don't know; 97 refused." Answers 0 through 5 are coded as "negative perception of college" (0) and answers 6 through 10 are coded as "positive perception of college" (1). All others are coded as missing. *Peer aspirations* are measured by responses to the question in Wave 2, "Using the same scale where zero indicates no importance, and 10 indicates the utmost importance, how important is it to your friends and close acquaintances at college to go on to graduate or professional school?" Answers 0 through 5 are coded as "lower peer aspirations" (0) and answers 6 through 10 are coded as "higher peer aspirations" (1). All others are coded as missing. *Parents' aspirations* are measured by responses to the question "Once again, using a scale of zero to 10, where zero indicates no importance, and 10 indicates the utmost importance, how important is it to your parents or guardian that you go on to

graduate or professional school?” Answers 0 through 5 are coded as “lower peer aspirations” (0) and answers 6 through 10 are coded as “higher peer aspirations” (1). All others are coded as missing.

Family socioeconomic status (SES) is a composite index, created for the study, based on father’s education, mother’s education and family income. First the values of father’s education, mother’s education and family income are converted into Z scores. A new variable SES is created with SPSS by using a function mean2(father’s education, mother’s education, family income). This means SES is the mean value of any two of the three variables: father’s education, mother’s education and family income. Since sometimes respondents will not be able to provide answers to all the three questions, doing so will reduce missing cases to the minimum while maintain the effectiveness of the variable. Mother’s education is measured by responses to the question in Wave 1, “What is the highest level of schooling achieved by your mother or the woman most responsible for raising you?” The following answer options are provided for the respondents: “1. Grade school; 2. Some high school; 3. High school graduate; 4. Some college; 5. College graduate; 6. Some post-graduate; 7. Graduate or professional degree; 95 No mother/No woman responsible for raising you; 98 Don’t know; 97 Refused.” Answers 1 through 4 are coded as “less than college education” (0) and answers 5 through 7 are coded “college education or above” (1). All others are coded as missing. Father’s education is measured by responses to the similar question in Wave 1, “What is the highest level of schooling achieved by your father or the man most responsible for raising you?” The following answer options are provided for the respondents: “1. Grade school; 2. Some high school; 3. High school graduate; 4. Some college; 5. College

graduate; 6. Some post-graduate; 6. Graduate or professional degree; 95 No father/No man responsible for raising you; 98 Don't know; 97 Refused. Answers 1 through 4 are coded as "less than college education" (0) and answers 5 through 7 are coded "college education or above" (1). All others are coded as missing. Family income is measured by responses to the question in Wave 3, "Finally, we would like to update our information on your family's socioeconomic status. What is your parent or guardian's household annual income? In thinking about household income you should include the wages and salaries of all household members, plus any self-employment income they may have had, along with interest, dividends, alimony payments, social security, any pensions. Is your parent or guardian's annual income: 1 less than \$20,000; 2 \$20,000-\$24,999; 3 \$25,000-\$34,999; 4 \$35,000-\$49,999; 5 \$50,000-\$74,999; 6 \$75,000-\$99,999; 7 \$100,000-\$124,999; 8 \$125,000-149,999; 9 \$150,000-\$174,999; 10 \$175,000-199,999; 11 more than \$200,000; 98 Don't know; 97 Refused." Answers 1 through 5 are coded as "lower family income" (0) and answers 6 through 11 are coded as "higher family income" (1). All others are coded as missing.

Asian respondent's *ethnicity* is determined by matching mother's ethnicity with father's ethnicity. Mother's ethnicity is measured by responses to the question in Wave 1 of the survey, "Where was your biological or adoptive mother born?" Father's ethnicity is measured by responses to the question in Wave 1 of the survey, "Where was your biological or adoptive father born?" A list of countries is provided for respondents to select from. A variable *mixedethnicity* is created for the mixed ethnicity cases by subtracting mother's ethnicity by father's ethnicity. If the numerical value of *mixedethnicity* equals 0, it means the respondent's father's ethnicity is the same as

mother's ethnicity. If the numerical value is any value other than 0, it means the respondent is of mixed-ethnicity. By excluding the mixed ethnicity cases, respondent's ethnicity is then determined by either father's ethnicity or mother's ethnicity since they are the same. Respondent's ethnicity is then determined by the corresponding country code of either mother's ethnicity or father's ethnicity. For example, if the country code for the variable mother's ethnicity is 280(China), it is determined that the respondent is of Chinese descent. If the country code is 490(Japan), it is determined that the respondent is of Japanese descent.

The geographic division of respondents is based on the United Nations Geoscheme. According to the United Nations geographic classification, the Asia continent is made up of Central Asia, East Asia, South Asia, Southeast Asia and Western Asia. This thesis will only take into consideration respondents with East Asian, South Asian and Southeast Asian backgrounds. Based on the United Nations classification rules, respondents whose parents are from China, Taiwan, Hong Kong, Macau, Japan, South Korea or North Korea are considered as "East Asians"(1). Those whose parents are from Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand or Vietnam are considered as "Southeast Asians" (2). Respondents whose parents are from Bangladesh, Sri Lanka, India or Pakistan are considered as "South Asians" (3).

To examine the proactive actions college students take toward turning their plans into reality, I also included the variable graduate or professional school application in the analysis, which is measured by responses to the question in Wave 5 of the survey, "To how many graduate or professional schools did you apply/have you applied?" Answer 0

(no schools) is coded as “not applied” (0) and Answer 1 school through 20 schools are coded as “applied”(1). All others are coded as missing.

Statistical Procedures

First descriptive statistics are used to examine variations in graduate or professional school plans among students representing the race-ethnic groups at selective colleges and universities. Next logistic regression is employed to determine if race is an important factor influencing the graduate or professional school plans of college students, controlling for other theoretically relevant correlates of student aspirations, and to understand how other factors such as socioeconomic status, sex, student college type, parents’ aspirations, peer aspirations and students’ evaluation of their college experiences affect the graduate or professional school plans of students from different racial groups. To examine the effects of different factors on the graduate or professional school plans of different racial groups, I also perform separate multiple logistic regressions for each racial group. Finally, I examine the graduate or professional school plans of East Asians, Southeast Asians and South Asians and compare specific ethnic subgroups within these broad categories.

Chapter 4 Results

Racial Variations in Graduate or Professional School Plans

Table 1 shows the percentages of students from different racial groups who planned to attend graduate or professional school. On average, 86.7 percent of all students indicated that they wanted to attend graduate or professional school within five years. Interestingly, Whites (86.1%), Hispanics (85.5%), Asians (87.1%), and African Americans (88%) indicated very comparable graduate or professional school plans. White is considered as the reference group when Chi-square Tests are performed. The Chi-square Test results indicated that there are no statistically significant differences between the plans of Asians and Whites ($X^2=0.301$, 1df, $p>.05$), Blacks and Whites ($X^2=1.236$, 1df, $p>.05$) or Hispanics and Whites ($X^2=1.116$, 1df, $p>.05$).

Table 1 Percentage Planning for Graduate or Professional School by Race

Race	Percentage	Chi-square	P-value
White (n=794)	86.1		
Asian (n=767)	87.1	0.301	0.583
Black (n=833)	88	1.236	0.266
Hispanic (n=719)	85.5	1.116	0.734
Total (n=3,113)	86.7		

(White as the reference group; 1 degree of freedom; * $p<.1$; ** $p<.05$; *** $p<.01$)

Correlations, Means, and Standard Deviations for Analysis Variables

Table 2 shows the correlations, means and standard deviations for the variables included in the analyses. Sex is negatively correlated with Black but positively correlated with White. SES is positively correlated with Asian, White and Sex but negatively correlated with Black and Hispanic. Private Research University is positively correlated

with sex and SES but negatively correlated with Black. Public Research University is positively correlated with Black and negatively correlated with sex and SES. Parents' aspirations are positively correlated with Asian, SES but negatively correlated with Hispanic, White, Sex and Public Research University. Peer expectations are positively correlated with Black and parents expectations but negatively correlated with sex.

Table 2 Correlations, Means, and Standard Deviations for Analysis Variables

	1	2	3	4	5	6	7	8	9	10	11	12	Mean	SD
1 Asian		-.362	-.317	-.331	.029	.118**	-.018	-.002	.044	.177**	-.027	-.006	.256	.436
2 Black			-.334	-.349	-.113**	-.179**	-.053*	.056*	-.006	.024	.070**	.001	.276	.447
3 Hispanic				-.306	.007	-.161**	.037	-.029	.019	-.065**	-.013	-.000	.226	.419
4 White					.081**	.225**	.038	-.029	-.021	-.142**	-.033	.005	.242	.428
5 Sex						.064**	.081**	-.069**	-.030	-.096**	-.057**	.034	.418	.493
6 SES							.123**	-.120**	-.011	.119**	.014	.019	.632	.384
7 Private								-.895**	-.263**	-.037	.018	.018	.547	.498
8 Public									-.195**	.048**	-.016	-.017	.400	.490
9 LAC										-.023	-.005	.024	.054	.226
10 Parents											.316**	.015	.567	.496
11 Peer												-.004	.633	.482
12 Evaluation													.842	.365

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

Effect of Each Variable on Graduate or Professional School Plans

Table 3 shows the logistic regression results of different models with different sets of variables predicting the graduate or professional school plans of college students. In Model 1, Model 2, Model 3 and Model 4, none of the variables are statistically significant. In Model 5, both sex and peer aspirations are statistically significant at the

0.05 level. In Model 6, peer expectations are nominally significant at the 0.10 level, and evaluation of college experiences is statistically significant at the 0.05 level.

Model 1 is a bivariate model including the dependent variable graduate school plans and the independent variable race. White is considered as the reference group in the model. The results indicate that Asians are 8.5 percent more likely than whites to plan for graduate or professional school. The likelihood of Blacks planning for graduate or professional school is the highest. Compared with Whites, Blacks are 17.9 percent more likely to have graduate or professional school plans. Hispanics are less likely than Whites to plan for graduate or professional school as indicated by the odds ratio of 0.951. However, all of the p-values are greater than any conventional critical p value, which means all the racial effects are not statistically significant.

When the control variable sex is included, as indicated in Model 2 of Table 11, the likelihood of Asians and Blacks planning for graduate or professional school as compared to Whites are still higher and that of Hispanics remains lower. The p-values indicate that none of the differences are statistically significant. The odds ratio for sex 1.167 indicates that males are 16.7 percent more likely than females to plan for graduate or professional school. However, the p-value indicates that the difference is not statistically significant at any conventional level.

When SES is further included as the control variable, as indicated in Model 3 of Table 11, Asians and Blacks remain more likely than Whites to have graduate or professional school plans. Compared with Whites, the likelihood of Asians planning for graduate or professional school is 7.8 percent higher and that of Blacks is 14.5 percent higher. The likelihood of Hispanics to have graduate or professional school plans is still

lower than that of Whites. However, the p-values indicate that none of the race effects are statistically significant at any conventional levels. Males are still more likely than females to plan for graduate or professional school but the p-value indicates the sex effect is not statistically significant. The odds ratio of SES indicates that students with higher family socioeconomic status are 4.7 percent more likely than students with lower family socioeconomic status to have graduate or professional school plans. However, as indicated by the p-value of 0.596, the SES effect is not statistically significant at any conventional level.

Model 4 further adds college type as the control variable. Public research universities are considered as the reference. Results for Model 4 indicate that the likelihood of Asians planning for graduate or professional school is 7.4 percent higher than Whites. Blacks are 13.7 percent more likely than Whites to plan for graduate or professional school while the likelihood of Hispanics planning for graduate or professional school is only 94.2 percent that of Whites. The p-values indicate that none of the race effects are statistically significant. In this model, males are 16.2 percent more likely to have graduate or professional school plans but it is still not statistically significant. The odds ratio of SES indicates that students with higher family socioeconomic status are 4.9 percent more likely than students with lower family socioeconomic status to have graduate or professional school plans. However, as indicated by the p-value of 0.582, the effect is not statistically significant at any conventional level. The likelihood of students in private research universities is only 85.8 percent that of students in public research universities. Students in liberal arts colleges showed a slightly higher likelihood than students in private research universities to have

graduate or professional school plans but the likelihood is still lower than that of students in public research universities. However, the p-values indicate that none of these differences are statistically significant at any conventional level.

Model 5 includes parents aspirations and peer aspirations. When these two variables are entered into the model, both the odds ratios for Asian and Black increased slightly but the p-values indicate the differences are still not statistically significant. However, the odds ratio becomes larger than 1, which means when parents aspirations and peer aspirations are controlled, the likelihood of Hispanics planning for graduate or professional school is 4.7 percent higher than that of the Whites although the p-value indicates that the race effect is not statistically significant. In model 5, the sex effect becomes marginally significant at the .05 level. The odds ratio 1.244 means that the likelihood of males planning for graduate or professional school is 24.4 percent higher than females. Students with higher family socioeconomic statuses are 6.5 percent more likely to have graduate or professional school plans than those with lower family socioeconomic statuses. The likelihood of students in private research universities and liberal arts colleges planning for graduate or professional school are 85.3 percent and 82.7 percent that of students in public research universities. However, the p-values indicate that the family socioeconomic status and college type effects are not statistically significant. The odds ratio for parents' aspirations 0.951 indicates that the likelihood of students whose parents' aspirations are higher is 95.1 percent that of students whose parents have lower aspirations for them. The effect of parents' aspirations is not statistically significant as indicated by the p-value 0.673. The odds ratio for peer aspirations 0.772 indicates that the likelihood of students whose peer aspirations are

higher is 77.2 percent that of students whose peers have lower aspirations for graduate or professional school. The p-value 0.037 indicates that the effect is statistically significant at the 0.05 level.

Model 6 further includes evaluation of college experiences as the control variable. As we can see from Table 1, both the likelihood of Asians and Blacks planning for graduate or professional school drop as compared with Whites. Asians are 2.3 percent more likely than Whites to have graduate or professional school plans and the likelihood of Blacks planning for graduate or professional school is 9.5 percent higher than that of Whites. In this model, Hispanics have the highest likelihood of graduate or professional school plans as compared with Whites. Hispanics are 10.4 percent more likely than Whites to plan for graduate or professional school when all other variables are held constant. However, as we can see from the p-values, the race effects for all three groups are not statistically significant. The likelihood of males planning for graduate or professional school is still 21.1 percent higher than that of females and the p-value indicates that the effect is not statistically significant. Students with higher family socioeconomic statuses are 7.0 percent more likely to have graduate or professional school plans than students with lower family socioeconomic statuses. The likelihoods of students in private research universities and liberal arts colleges planning for graduate or professional school are 92.6 percent and 81.0 percent that of public research universities. The odds ratio for parents' aspirations 0.860 indicates that the likelihood of students whose parents' aspirations are higher is 86.0 percent that of students whose parents have lower aspirations for them. However, the p-values indicate none of the above effects are statistically significant. The odds ratio for peer aspirations 0.775 indicates that the

likelihood of students whose peer aspirations are higher is 77.5 percent that of students whose peers have lower aspirations for graduate or professional school. The p-value 0.071 indicates that the effect is statistically significant at the 0.10 level. The odds ratio for evaluation of college experiences 1.450 indicates that students who have positive evaluations of their college experiences are 45.0 percent more likely to plan for graduate or professional school than those who have negative evaluations of their college experiences. The p-value 0.017 shows that the effect is statistically significant at the 0.05 level.

Table 3 Summary of Logistic Regression Analyses for Variables Predicting Graduate or Professional School Plans of College Students

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Odds ratio (p-value)					
Asian	1.085 (0.583)	1.078 (0.615)	1.078 (0.615)	1.074 (0.633)	1.087 (0.591)	1.023 (0.899)
Black	1.179 (0.267)	1.155 (0.332)	1.145 (0.364)	1.137 (0.392)	1.166 (0.318)	1.095 (0.605)
Hispanic	0.951 (0.734)	0.944 (0.694)	0.944 (0.699)	0.942 (0.687)	1.047 (0.769)	1.104 (0.588)
Sex		1.167 (0.147)	1.168 (0.146)	1.162 (0.161)	1.244 (0.050**)	1.211 (0.133)
SES			1.047 (0.596)	1.049 (0.582)	1.065 (0.499)	1.070 (0.533)
Private research university				0.858 (0.201)	0.853 (0.201)	0.926 (0.586)
Liberal arts college				0.872 (0.484)	0.827 (0.347)	0.810 (0.347)
Parents aspirations					0.951 (0.673)	0.860 (0.275)
Peer aspirations					0.772 (0.037**)	0.775 (0.071*)
College experience evaluation						1.450 (0.017**)

(* p<.1; ** p<.05; *** p<.01)

Table 4 shows the odds ratios and p-values of the variables predicting graduate or professional school plans of White college students. The odds ratio of sex 1.655 indicates that White males are 65.5 percent more likely than White females to have plans for graduate or professional school. The p-value 0.046 indicates that the effect is statistically

significant at the 0.05 significance level. The odds ratio of SES 1.079 indicates that higher SES White students are 7.9 percent more likely to plan for graduate or professional school. However, the p-value 0.772 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of private research university 1.225 means that White students in private research universities are 22.5 percent more likely than those in public research universities to have plans for graduate or professional school. The p-value indicates that the effect is not statistically significant. The odds ratio of liberal arts college 0.969 means that the likelihood of White students in liberal arts colleges having plans for graduate or professional school is 96.9 percent that of White students in public research universities. Again, the p-value indicates that the effect is not statistically significant. The odds ratio of parents' aspirations is 0.652, which means the likelihood of White students whose parents have higher aspirations for them are 65.2 percent the likelihood of those whose parents have lower aspirations for them. The p-value 0.103 indicates the effect is marginally significant at the 0.10 level. The odds ratio of parents' aspirations is 0.729, which means White students whose peers have higher educational aspirations are 72.9 percent the likelihood of those whose peers have lower educational aspirations. The p-value indicates that the effect is not statistically significant. The odds ratio of evaluation of college experiences is 1.162, which means White students who have positive evaluation of their college experiences are 16.2 percent more likely to plan for graduate or professional school. However, the p-value 0.643 indicates that the effect is not statistically significant. Thus, among Whites, gender is the only variable with statistically significant effects on students' plans for graduate and professional school.

Table 4 Logistic Regression Analyses for Variables Predicting Graduate or Professional School Plans of White College Students

Variable	Odds-ratio	P-value
Sex	1.655	0.046**
SES	1.079	0.772
Private research university	1.225	0.471
Liberal arts college	0.969	0.943
Parents aspirations	0.652	0.103
Peer aspirations	0.729	0.260
Evaluation of college experiences	1.162	0.643

(* p<.1; ** p<.05; *** p<.01)

Table 5 shows the odds ratios and p values of the variables predicting graduate or professional school plans of African American college students. The odds ratio of sex 1.156 indicates that African American males are 15.6 percent more likely than African American females to have plans for graduate or professional school. The p-value 0.576 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of SES 1.039 indicates that higher SES African American students are 3.9 percent more likely to plan for graduate or professional school. However, the p-value 0.802 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of private research university 1.073 means that African American students in private research universities are 7.3 percent more likely than those in public research universities to have plans for graduate or professional school. The p-value indicates that the effect is not statistically significant. The odds ratio of liberal arts

colleges 1.170 means that the likelihood of White students in liberal arts colleges having plans for graduate or professional school is 17.0 percent higher than that of African American students in public research universities. Again, the p-value indicates that the effect is not statistically significant. The odds ratio of parents' aspirations is 1.454, which means African American students whose parents have higher aspirations for them are 45.4 percent more likely to plan for graduate or professional school than those whose parents have lower aspirations. The p-value 0.150 indicates the effect is not statistically significant at any conventional significance level. The odds ratio of peer aspirations is 0.517, which means the likelihood of African American students whose peers have higher educational aspirations to plan for graduate or professional school are 51.7 percent the likelihood of those whose peers have lower educational aspirations. The p-value 0.028 indicates that the effect is statistically significant at the 0.05 significance level. The odds ratio of evaluation of college experiences is 1.217, which means African American students who have positive evaluation of their college experiences are 21.7 percent more likely to plan for graduate or professional school. However, the p-value 0.540 indicates that the effect is not statistically significant. Among African Americans, peer aspirations is the only variable with statistically significant effects on students' plans for graduate and professional school.

Table 5 Logistic Regression Analyses for Variables Predicting Graduate or Professional School Plans of African American College Students

Variable	Odds-ratio	P-value
Sex	1.156	0.576
SES	1.039	0.802
Private research university	1.073	0.787
Liberal arts college	1.170	0.744
Parents aspirations	1.454	0.150
Peer aspirations	0.517	0.028**
Evaluation of college experiences	1.217	0.540

(* p<.1; ** p<.05; *** p<.01)

Table 6 shows the odds ratios and p values of the variables predicting graduate or professional school plans of Asian American college students. The odds ratio of sex 0.924 indicates that the likelihood of Asian American males having plans for graduate or professional school is 92.4 percent that of Asian American females. The p-value 0.750 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of SES 0.971 indicates that the likelihood of higher SES Asian American students having plans for graduate or professional school is 97.1 percent that of lower SES Asian American students. However, the p-value 0.905 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of private research university 0.640 means that the likelihood of Asian American students in private research universities having plans for graduate or professional school is 64.0 percent that of Asian American students in public research universities. The p-value

indicates that the effect is not statistically significant. The odds ratio of liberal arts college 0.503 means that the likelihood of Asian American students in liberal arts colleges having plans for graduate or professional school is 50.3 percent that of Asian American students in public research universities. The p-value 0.102 indicates that the effect is marginally significant. The odds ratio of parents' aspirations is 0.924, which means the likelihood of Asian American students whose parents have higher aspirations for them are 92.4 percent the likelihood of those whose parents have lower aspirations for them. The p-value 0.784 indicates the effect is not statistically significant at any conventional significance level. The odds ratio of peer aspirations is 1.171, which means the likelihood of Asian American students whose peers have higher educational aspirations to plan for graduate or professional school are 17.1 percent higher than the likelihood of those whose peers have lower educational aspirations. The p-value 0.553 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of evaluation of college experiences is 1.861, which means Asian American students who have positive evaluation of their college experiences are 86.1 percent more likely to plan for graduate or professional school. The p-value 0.032 indicates that the effect is statistically significant at the 0.05 significance level. Thus, among Asian Americans, students' evaluation of their undergraduate college experience is the only variable with statistically significant effects on students' plans for graduate and professional school.

Table 6 Logistic Regression Analyses for Variables Predicting Graduate or Professional School Plans of Asian American College Students

Variable	Odds-ratio	P-value
Sex	0.924	0.750
SES	0.971	0.905
Private research university	0.640	0.128
Liberal arts college	0.503	0.102
Parents aspirations	0.924	0.784
Peer aspirations	1.171	0.553
Evaluation of college experiences	1.861	0.032**

(* p<.1; ** p<.05; *** p<.01)

Table 7 shows the odds ratios and p values of the variables predicting graduate or professional school plans of Hispanic American college students. The odds ratio of sex 1.177 indicates that Hispanic American males are 17.7 percent more likely than Hispanic females to have plans for graduate or professional school. The p-value 0.559 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of SES 1.395 indicates that higher SES Hispanic American students are 3.9 percent more likely to plan for graduate or professional school than lower SES Hispanic American students. However, the p-value 0.314 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of private research university 0.881 means that the likelihood of Hispanic American students in liberal arts colleges having plans for graduate or professional school is 88.1 percent that of Hispanic American students in public research universities. Again, the p-value indicates that the

effect is not statistically significant. The odds ratio of liberal arts college 0.750 means that the likelihood of Hispanic American students in liberal arts colleges having plans for graduate or professional school is 75.0 percent that of Hispanic American students in public research universities. Again, the p-value indicates that the effect is not statistically significant. The odds ratio of parents' aspirations is 0.575, which means the likelihood of Hispanic students whose parents have higher aspirations for them are 57.5 percent the likelihood of those whose parents have lower aspirations for them. The p-value 0.062 indicates the effect is statistically significant at the 0.10 significance level. The odds ratio of peer aspirations is 0.746, which means the likelihood of Hispanic American students whose peers have higher educational aspirations to plan for graduate or professional school are 74.6 percent the likelihood of those whose peers have lower educational aspirations. The p-value 0.347 indicates that the effect is not statistically significant at any conventional significance level. The odds ratio of evaluation of college experiences is 1.443, which means Hispanic American students who have positive evaluation of their college experiences are 44.3 percent more likely to plan for graduate or professional school. However, the p-value 0.273 indicates that the effect is not statistically significant. Thus, among Hispanic Americans, parental educational aspirations is the only variable with statistically significant effects on student's plans for graduate and professional school.

Table 7 Logistic Regression Analyses for Variables Predicting Graduate or Professional School Plans of Hispanic American College Students

Variable	Odds-ratio	P-value
Sex	1.177	0.559
SES	1.395	0.314
Private research university	0.881	0.680
Liberal arts college	0.750	0.554
Parents aspirations	0.575	0.062*
Peer aspirations	0.746	0.347
Evaluation of college experiences	1.443	0.273

(* p<.1; ** p<.05; *** p<.01)

Variations in Graduate School Plans between Asian Subgroups

Table 8 shows the graduate or professional school plans of college students who have East Asian descents. Of East Asians, 84.3 percent indicated that they planned to attend graduate or professional school with five years after college graduation. Of Southeast Asians, 87.1 percent indicated that they had plans for graduate or professional school. The percentage of South Asians having graduate or professional school plans was the highest, which was 88.0 percent. East Asian is considered as the reference group when Chi-square Tests are performed. However, as indicated by the Chi-squares and p-values, there are no statistically significant differences between the graduate school plans of Southeast Asians and East Asians($X^2=1.973$, 1df, $p>.05$) nor between those of South Asians and East Asians($X^2=1.332$, 1df, $p>.05$).

Table 8 Percentage Having Plans for Graduate or Professional School by Asian Subgroups

Asian Subgroups	Percentage	Chi-square	P-value
East Asian (n=363)	84.3		
Southeast Asian (n=139)	87.1	1.973	0.160
South Asian (n=183)	88.0	1.332	0.248
Total (n=685)	86.3		

(East Asian as the reference group; 1 degree of freedom; * p<.1; ** p<.05; *** p<.01)

Table 9 shows the graduate or professional school plans of college students who belong to the major East Asian ethnic subgroups. Among the East Asian subgroups, a highest percentage (88.3 percent) of Chinese showed their plans to attend graduate or professional school within five years. A relatively lower percentage of South Koreans showed their plans for graduate or professional school, with only 76.2 percent of them indicating plans to attend graduate or professional school within five years. The percentages of Japanese and Taiwanese planning to attend graduate or professional school lay between those of South Koreans and Chinese, which were 84.6 percent and 87.9 percent respectively. Chinese are considered as the reference group when Chi-square Tests are performed. As indicated by the Chi-squares and p-values, there are neither statistically significant differences between the plans of Japanese and Chinese (($X^2=0.241$, 1df, $p>.05$) nor between those of Taiwanese and Chinese($X^2=0.006$, 1df, $p>.05$). However, the Chi-square Test of Independence ($X^2=4.296$, 1df, $p<.05$) indicates that there is statistically significant difference between the graduate school plans of South Korean and Chinese descent college students.

Table 9 Graduate or Professional School Plans of East Asian-descent Students by Ethnic Subgroups

Ethnic Subgroups	Percentage	Chi-square	P-value
Chinese (n=77)	88.3		
South Korean(n=105)	76.2	4.296	0.038**
Japanese (n=26)	84.6	0.241	0.624
Taiwanese (n=116)	87.9	0.006	0.936
Total (n=324)	84.0		

(Chinese as the reference group; 1 degree of freedom; * p<.1; ** p<.05; *** p<.01)

Table 10 shows the graduate or professional school plans of college students who belong to the major Southeast Asian ethnic subgroups. Among the Southeast Asian subgroups, a highest percentage (90.9 percent) of Vietnamese showed their plans to attend graduate or professional school within five years. Lower percentages of Filipinos and Cambodians showed their plans for graduate or professional school. The percentages were 88.5 and 88.9 respectively. Vietnamese is considered as the reference group when Chi-square Tests are performed. However, as indicated by the Chi-squares and p-values, there are no statistically significant differences between the aspirations of Filipinos and Vietnamese($X^2=0.174$, 1df, $p>.05$) nor between those of Cambodians and Vietnamese($X^2=0.037$, 1df, $p>.05$).

Table 10 Graduate or Professional School Plans of Southeast Asian-descent Students by Ethnic Subgroups

Ethnic Subgroups	Percentage	Chi-square	P-value
Vietnamese (n=55)	90.9		
Filipino(n=52)	88.5	0.174	0.677
Cambodian (n=9)	88.9	0.037	0.847
Total (n=116)	89.7		

(Vietnamese as the reference group; 1 degree of freedom; * p<.1; ** p<.05; *** p<.01)

Table 11 shows the graduate or professional school plans of college students who belong to the two major South Asian ethnic subgroups. A higher percentage (88.3 percent) of Indians showed their plans to attend graduate or professional school within five years. A slightly lower percentage of Pakistanis (81.3 percent) indicated that they had plans to attend graduate or professional school within five years. However, as indicated by the Chi-squares and p-values, there are no statistically significant differences between the graduate school plans of Indians and Pakistanis($X^2=0.663$, 1df, $p>.05$).

Table 11 Graduate or Professional School Plans of South Asian-descent Students by Ethnic Subgroups

Ethnic Subgroups	Percentage	Chi-square	P-value
Indian (n=162)	88.3		
Pakistani(n=16)	81.3	0.663	0.416
Total (n=178)	87.6		

(1 degree of freedom; * p<.1; ** p<.05; *** p<.01)

Proactive Actions

Table 12 shows that the percentage of students who had applied to graduate or professional schools was much lower than the percentage of students who planned for graduate or professional school. The table indicates that of all college students, only 29.7 applied to at least one graduate or professional school at the time of Wave 5 of the survey when most of them were in their senior years. This means that although many college students planned to attend graduate or professional school, a majority of them had not taken proactive actions and did not apply to even one graduate or professional school in their graduation year.

Table 12 Graduate or Professional School Application Status of College Students in the Aggregate

% Applied	% Not Applied
29.7	70.3

Chapter 5 Discussion and Conclusions

The study indicates that there are no statistically significant differences in graduate or professional school plans between different racial groups. Other factors such as sex, SES, college type and parents aspirations also do not show statistically significant effects on the graduate or professional school plans of college students. Contrary to Wallace(1965) findings, peer aspirations is found to negatively impact college students plans for graduate or professional school. An explanation would be college students whose peers have higher aspirations generally live in a very competitive environment, which may lead to their lower self-esteem and lower aspirations. Consistent with the literature of Ethington and Smart (1986), students' evaluations of college experiences are found to be positively related to their plans for graduate or professional school.

When evaluation of college experiences is not included in the model if race, SES, college type and parents aspirations are controlled, sex and peer aspirations have statistically significant effects on student's plans for graduate or professional school. Males are more likely than females to have graduate or professional school plans. Students whose peers have higher aspirations are less likely to plan for graduate or professional school. When race, sex, SES, college type, parents aspirations are controlled, peer aspirations are statistically significant at the 0.10 level and evaluation of college experiences is statistically significant at the 0.05 level. When the full model is applied to different racial groups, the independent variables show different effects. Sex has a statistically significant effect on the plans of White college students but not on that of the other racial groups. Similarly, peer aspirations have statistically significant effects on the plans of African American college students; evaluation of college experiences has a

statistically significant effect on the graduate school plans of Asian American college students; and parents' aspirations have statistically significant effects on the graduate school plans of Hispanic American college students. This may suggest that the educational plans of different racial groups should be studied separately.

A close look at graduate school applications reveals that the percentage of students who had applied to graduate or professional schools is much lower than the percentage of students who planned for graduate or professional school. A majority of them have not taken proactive actions and did not even apply to one graduate or professional school in their graduation year. This probably implies that many students are going to apply to graduate or professional school after graduating from college for some years. It may be considered as a good phenomenon as students will become clearer of their life goals after working in the labor force for some years and they are more likely to survive and succeed in graduate school. The findings may also imply that many college students lack the knowledge on graduate school application.

Overall, no statistically significant racial variations were found between the graduate school plans of students from different races. However, different factors do influence the plans of students from different racial groups in different ways. Similarly, no other statistically significant variations were found between the graduate school plans of students from different Asian ethnic subgroups. This implies that the lower educational achievements of some of the Southeast Asian subgroups such as Cambodians, Laotians and Vietnamese are not due to their lower aspirations but other factors. Peer aspirations and students' evaluations of college experiences rather than the racial and ethnic factors were found to be more closely related to their plans for graduate or professional school.

The study serves to inform graduate school administrators to know the plans for graduate or professional school of students from different racial groups and better understand which factors contribute or cause barriers to their plans. The study implies that faculty, student affairs personnel, graduate school administrators and all relevant departments should make joint efforts to enhance students' self-esteem. The study also provides useful information for universities and college to enhance student's undergraduate experiences, to help those planning for graduate or professional school become more familiar with the graduate school application procedures and at the same time to fully prepare students who plan to get only a bachelor degree for their future jobs after graduation.

The study has its limitations in that the comparisons of the graduate or professional school plans between the Asian subgroups are only exploratory. In addition, there are only small sample sizes for some of the Asian ethnic groups. For instance, there are only 26 Japanese, 9 Cambodians and 16 Pakistanis in the sample. However, these are still the subgroups that have relatively large sample sizes. When comparing the Southeast Asian ethnic subgroups, those from Burma, Indonesia, Laos, Malaysia, Singapore and Thailand were not taken into consideration due to too small sample sizes. Similarly, when comparing the South Asian ethnic groups, those from Bangladesh and Sri Lanka were not taken into consideration.

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