A STUDY OF PREDICTORS OF COLLEGE COMPLETION AMONG SEEK IMMIGRANT STUDENTS

by

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Abstract

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This study examined the strength of the relationship between eight situational and demographic variables and college completion among immigrant students in SEEK, an educational opportunity program. The eight variables studied as possible predictors of college completion included household composition, length of residency, English as a primary language, high school grade point average, age, gender, ethnicity, and year of entry. In addition, the study compared graduation rate of SEEK immigrant students admitted earlier in the program (1995-2000) versus those who entered later (2001-2003) when the admission criteria were changed. The study took place at the City College of New York (CCNY), a four-year, urban, public institution which is a branch of The City University of New York (CUNY). The study focused on the overarching question of are selected factors predictors of college completion among SEEK immigrant students?

The conclusions of this archival quantitative study were based on data from a sample of 390 SEEK immigrant students. Data was collected from the SEEK City College admission application form which provided pre-existing, multi-year information on student background characteristics and graduation status. Results from chi-square, t-test and regression analysis suggested that four out of the eight pre-enrollment variables are useful in discriminating between

completers and non-completers. High school GPA was the strongest predictor of college completion. Household composition, year of entry and gender also seem to have significant effects on college completion. It is notable that completers have a significantly higher GPA than non completers. Students who entered CCNY as members of the later cohort, enrolling in 2001 or after when the CUNY admission requirements became more selective, had a higher high school GPA and were more likely to graduate. The results also indicate that students who came from a large family household were more likely to complete than students from nuclear families. To some extent the study concluded that what students come into college with influences whether they complete college. Other pre-enrollment variables (e.g. age, English as a primary language and length of residency) did not seem to significantly effect college completion in this sample.

Overall, the study provided an initial and important exploration of some of the pre-enrollment factors that are associated with college success and therefore upward mobility among immigrant students. The implication of the study is that some pre-enrollment background characteristics effect college completion and should be taken into account in counseling theory, practice and policy. Based on the findings of the study, counseling and programmatic interventions were suggested to address the needs of this specific population

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"It Takes a Village…."

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To All My Relations.

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CHAPTER ONE: INTRODUCTION

Problem Statement

One of the most visible changes in colleges today is the presence of an increasing number of immigrant students (Bailey et al., 2005, Leinbach et al., 2006). As such, the success of immigrants in college has become a national priority. Immigration and the upward mobility of immigrants through higher education has been a major concern of educators, sociologists, and policymakers. The educational system continues to be the most viable context for promoting equal opportunity for racial and ethnic minority populations in the United States. Thus, an important aim of social policy has been to increase successful completion of college for populations and therefore increase their overall upward mobility. Moreover, given that one half of new wage earners in the workforce are immigrants (Capps & Fortuny, 2007), the success of immigrants is crucial to the economic growth and productivity of the United States.

Though far better researched, the number of immigrants who sought higher education in the United States at the turn of the 20th century actually pales in comparison to the size and ambition of today's immigrant populations (Cristostomo & Dee, 2001; Gray, 1996 et al.; Skadberg, 2005; Leinbach & Bailey, 2006). However, the relevant literature has not kept up with these new (20^{th} and 21^{st} century) immigration developments. The literature is especially insufficient regarding the experience of immigrants in higher education, particularly in four-year institutions where one in four of all undergraduate students are immigrants or children of immigrants (Roth, 1986; Gray et al., 1996; Suarezo-Orozco, 2000, Skadberg, 2005). This gap in

research about the immigrant student population has limited the capacity of the higher education system to prepare immigrant students for the future and respond to their needs.

As the number of immigrant students increases, counselors in higher education face the challenge of providing much needed services for this special population (Vonk et al., 2000; Feldman, 1998). Knowledge about the immigrant population and college completion can enhance a counselor's intervention efforts and thus contribute to better design of programs and services appropriate to immigrants entering college.

This study examined pre-enrollment factors that impede or support college completion among immigrant students in an educational opportunity program (EOP) in an urban, public four-year institution. Factors potentially contributing to the academic success of immigrant students were studied. Identifying these contrasting factors is an initial, but necessary, step toward helping to transform college "failure" into "success."

Pre-enrollment factors that influence later college success are one of the least examined aspects of the immigrant college experience. Greater knowledge of the pre-enrollment factors that contribute to successful completion will aid program design and policy decisions that may increase immigrant student's success. Various educational opportunity programs have been funded and implemented to increase success of underprivileged populations but their impact is not well known for immigrants. Some pre-enrollment and demographic factors influence a student's potential for graduation and some do not, but which are most influential is not well understood. Research on various factors as predictors of college completion will help future educational policy and program design.

The SEEK Program as an EOP Serving Immigrant Students

Opportunity programs like SEEK (Search for Education, Elevation and Knowledge) in the City University of New York (CUNY) system were established over 40 years ago to help educate students who do not meet the regular college admission criteria. SEEK is a New York State-funded educational opportunity program (EOP) designated for low-income students who meet specific academic and financial criteria for eligibility. Sixty-six percent of all participants in The City College of New York's (CCNY) SEEK program are immigrants (CCNY CityFacts, 2003). However, their low graduation rates indicate a problem in attaining SEEK's stated goals. In a review of the 1997 SEEK student cohort, more than 75% of students did not graduate after six years (SEEK Academic Plan, 2004).

Research into SEEK and the pre-enrollment characteristics of its immigrant student participants is necessary because New York City has the second largest number of immigrants in the United States (after Los Angeles) (Census, 2003). What is happening in New York is a precursor and example of what is and may happen in urban higher education across the nation. For example, the influx of "new immigrants" (immigrants coming primarily from the Caribbean, South America, and Asia as compared to the European immigrants entering the United States at the turn of the century) into CUNY, one of the largest and most diverse public universities in the United States (and parent of City College of New York), has had an impact on the SEEK program. Since the inception of SEEK in 1966, the SEEK population has changed from a predominantly African American and Puerto Rican student body to a more variegated population of minority immigrants. The student population in the CUNY system and in the SEEK program is a direct reflection of the current immigrant population in New York City. According to the annual report of HEOP for the academic year 2005–06, minority immigrants make up the

majority of students in opportunity programs in New York State. Forty-one percent of EOP students were Hispanic; 34% were Black , 9% were Asian, and 16% White (NYSED, 2005). With the dramatic change in demographics of the participants, there are concerns over whether higher education opportunity programs such as SEEK are meeting the needs of current students who have cultural and language differences.

PROFILE OF SEEK POPULATION

Students who are part of the SEEK program today are a microcosm of the ethnic and cultural diversity found at City College. Over 66% (CCNY CityFacts, 2003) of the students are immigrants. Unlike the program's inception forty-three years ago, however, current SEEK students are a mix of Latinos from all over South America, the Caribbean, Asia, and Africa. A smaller percentage of White students are recent immigrants from Eastern Europe from working class families. An informal review of the caseload of SEEK counselors at CCNY indicates a decrease in American-born SEEK students. The current students are younger and most are work part time, and fewer have children. For many, English is not their first language and most are the first in their family to attend college. SEEK students today are less prepared for college than their counterparts of twenty years ago. Only a small percentage of the students pass all three required CUNY entrance examinations, which assess reading, writing, and mathematical skills, at the first attempt. Most of the students need to repeat one or two of the examinations. The majority of SEEK students come from non-selective New York public schools, which are underfunded and overcrowded. Overall, SEEK students have become more diverse in character and their needs have become more complex than those of the original students, who were mainly African Americans and Puerto Ricans.

The graduation rate among SEEK students at CCNY is a critical issue. Despite the additional support SEEK students receive such as tutoring and individual counseling, the graduation rates have been consistently low. The program statistics show that less than 25% of SEEK students (1997 cohort) graduated after six years (SEEK Academic Plan, 2004). Of the fall 2000 cohort, less than half (47.3%) of SEEK students were still enrolled after six semesters. However, the majority of students make their decision to leave college during the freshmen year, within the first three semesters of college. Finding appropriate strategies to assist SEEK students in achieving college completion goals is a priority.

B. CUNY Policy Change and Impact on the SEEK Program

In the context of exploring the educational trajectories of immigrant students in an educational opportunity program, some perspective on SEEK and the historical significance of its development is necessary. A major impact on the SEEK program were the pivotal changes in the admission policy of CUNY in 2001. The changed admission policy implemented stringent admission requirements that changed the nature of the student population and thus changed the pre-enrollment characteristics. The policy changes had major implications for the population in this study.

"Open the doors to all. Let the children of the rich and the poor take their seats together and know of no distinction save that of industry, good conduct and intellect"

—Townsend Harris, Founder, The City College, 1848

It took over one hundred years for the founder's words to become a reality and CUNY began to truly "open the doors to all" and serve "the children of the whole people" when open admissions

was instituted. CUNY, founded in 1848, and then known as the Free Academy, was created to serve the growing immigrant population and the deserving poor who did not have access to higher education. The college was free but set rigorous admission requirements. City College, the first and oldest of the CUNY colleges, was often hailed as the "Harvard of the poor." Located in the heart of Black Harlem, City College's student population (like the population of all the CUNY colleges) was predominantly White for decades. Few students of color met the admission requirements.

In 1966, SEEK was created by a New York State legislative mandate (also known as the City University Supplemental Aid and Construction Act, New York State Law Chapter 782 Amendment) to reach out to minorities who did not meet the admission criteria. The program was designed to increase the enrollment of low-income, academically underprepared students in the senior colleges and to provide compensatory academic work to enrollment in traditional college level courses (Lavin, Alba, & Silverstein, 1981). City College was the first CUNY campus to have a SEEK program. The program addressed ethnic, economic, and educational concerns through financial aid, tutoring, and group and individual academic and personal counseling. SEEK applicants had to meet specific academic and financial eligibility criteria. Today, the SEEK program is available at all senior college campuses in the CUNY system. In the community colleges, it is called College Discovery (CD).

In 1969, student protestors at City College demanded equal representation and integration of students of color into CUNY. The students closed down the campus for several weeks and renamed it "Harlem University" (McGuire,1992). The City College protest initiated a bold experiment that would change the face of higher education for minorities in New York and nationally. Thus, amidst the political and social backdrop of the Civil Rights Movement and great social unrest and turmoil, CUNY instituted its open admissions policy in 1970. The open

admissions policy promised a place in a CUNY college – either a senior college or a community college – for every high school graduate. The average high school score required for admission was reduced to 80 and high school students who ranked in the top 50% of their class could enroll at one of CUNY's senior colleges. Students with lower averages were offered a place in the two-year community colleges and could later transfer to senior colleges. Since its inception, the open admission policy has faced much controversy and debate. Yet the policy was responsible for opening the doors for many Black and Hispanic students, as well as a number of White students who had not been able to gain access to higher education, in particular, working-class and middle-class Jews and Catholics. Open admission policies were not uncommon in higher education in the United States in 1970s. PhD programs at Ohio State University and the University of Kansas began as programs with open admission (Rossmann et al., 1995). What was unique about CUNY was that it was the first *public* institution to promote open admission and offer free tuition. More importantly, the policy specifically addressed the issue of equitable treatment of minorities in higher education (Lavin & Hyllegerd, 1996). Along with open admissions came the need for remedial education. Most of the minority students entering CUNY were not prepared for college.

With the advent of open admissions, the enrollment of Blacks and Hispanics in both the senior and community colleges of CUNY immediately increased. In 1969, 20,000 freshmen were enrolled in CUNY, whereas in the fall of 1970 over 35,000 freshmen had registered (Fullinwider, 1998). Black and Hispanic students made up a significant proportion of those entering class in 1970. With the inauguration of SEEK, the student population reflected the demographics of the minority population of New York City at that time, which was predominantly African American and Puerto Rican. A turning point for CUNY came in 1976 when, for the first time in its history, its student population was predominately made up of

students of color. At the same time, a tuition fee was imposed. Since its inception, CUNY had offered free tuition. After 128 years, with the change of student population, free tuition ended at CUNY. The imposition of tuition fees undermined the open admissions policy and a series of restrictions were also introduced on admissions at CUNY.

The CUNY executive staff appointments of the Republican Mayor Rudolph Guiliani and Governor George Pataki in 1994 were pivotal in bringing the changes that were to be implemented in the CUNY system. With the change of administrations and ideologies also came a change in the composition of the CUNY Board of Trustees. According to the CUNY Faculty Senate (Dunkel, 1998), the "Board of Trustees became politically appointed and ideologically driven." During this period, and subsequently, CUNY's budget was systematically cut. The political agenda sought to make CUNY senior colleges more selective and advocated raising the standards of the institution and increasing its performance. The Mayor's Task Force Report *CUNY: An Institution Adrift* (CUNY,1999), known as the Schmidt report, called for an end to open admissions and the phasing out of remedial courses. The report noted that admitting students who were not prepared for college lowered standards in colleges. The report claimed "An end to open admission and remedial education in CUNY will reclaim and revitalize the failing institution and raise standards.... placement of remediation should reside in the community colleges not in senior colleges" (CUNY, 1999, p. 6). The CUNY Faculty Senate responded with another document *CUNY: An Institution Affirmed* (Fumita, 2002). This document argued that students would be adversely affected and that regulating remedial work to the community colleges might further limit the number of minority students pursuing a bachelor's degree.

Almost thirty years after open admission had been put in place, the controversy over open admissions and political and social pressures for accountability and higher standards led to

dismantling of the existing system and the elimination of remedial classes in the CUNY system. Though the CUNY Board of Trustees voted to eliminate remedial classes in 1998, it was not until 2001 that the policy was fully implemented on all the CUNY campuses. The changes, however, began in 1995 and were first felt by the SEEK and College Discovery Programs. In 1995, the CUNY Board of Trustees enacted a major university-wide restructuring that included plans to phase out remediation throughout the CUNY system (SEEK Report, 1998). This resulted in significant changes in the operation of the SEEK and College Discovery programs. Services and funding for instruction and counseling services for SEEK and CD students were significantly reduced. "The fall semester of 1995 saw many SEEK and College Discovery freshmen arrive on campuses where no academic programs existed to address their special academic needs. Beyond this, funding cuts and reallocations resulted in a dramatic increase in the ratio of counselors to students. Many SEEK and CD programs now functioned with ratios of 200:1 or higher" (SEEK report, 1998. p 2).

At the same time the CUNY admission policies were being implemented, there was a marked shift in the ethnic composition of the CUNY student body, which reflected trends in immigration to New York City. During the years 1990–1994 the New York Department of Planning (NYDP) documented 563,000 immigrants who settled in New York City (NYDP, 1995). This represented approximately a 32% increase of immigrants compare to the 1980s. According to the City Planning report (NYDP, 1995), in 1995, an estimated 33% of the city's population was foreign-born and approximately another 20% were the offspring of immigrants. There was a marked increase in the ethnic composition of the student body of CUNY. As the number of White students enrolled in CUNY declined, from 50% in 1980 to 32.7% in 1996, the number of minority students increased. The percentage of Black students enrolled in City College increased from 27% to 32% in 1996. The proportion of Hispanic students in the senior

colleges increased from 24.2% in 1980 to 33.1% in 1996. Asian students had the most dramatic increase, from 5.4% in 1980 to 12.9% in 1996 (CUNY, 1995). From 1995 to the present, CUNY saw a dramatic change in the characteristics of the CUNY students as a result of the changing ethnic composition of the student body. English is the second language for nearly half of members of the CUNY student body. Many of them belong to immigrant households and are the first in their family to attend college. Most of them come from families that have low household income. These characteristics are predominant among the current student population in the CUNY opportunity programs.

Purpose of the Study

The purpose of this study was to identify and examine some of the pre-enrollment factors that account for success in college among immigrants. Specifically, this study examined the predictive validity of pre-enrollment situational and demographic factors for graduation among SEEK immigrant students. Overall, the study aimed to enhance the capacity of counselors from various disciplines in higher education to evaluate and use evidence of student needs based on these specific pre-enrollment characteristics. The factors examined included eight pre-enrollment situational and demographic variables (household composition, length of residence, English as a primary language, HS GPA, age, gender, ethnicity, and year of entry). Various researchers (Tinto, 1975; Ogbu, 1991, 1992; Bean, 1980; Bean & Metzner, 1985) have cited these factors as having an impact on the success of immigrant students (as measured by graduation). The study drew from the research on student attrition and retention to address the success of immigrant students in educational opportunity programs.

The study was characterized by the following:

- A focus on immigrant college student graduation as the outcome variable. Most

studies are concerned with retention and reasons for students dropping out.

- Accuracy in identifying the strongest predictors of college completion. Other studies have examined a few factors or have aggregated various factors in a way that makes it difficult to discern which factors are stronger predictors than others.
- Information from the intervention literature about immigrants and higher education and counseling. Few previous studies have used populations from opportunity programs such as the SEEK immigrant population as a source of knowledge about graduation predictors.

Significance of the Study

The study is significant because it examined factors that predict success among immigrant college students in an urban opportunity program in a very large urban environment. In turn, the results of this study should help counselors and program directors design improvements for serving this population. Some factors relating to immigrant graduation have been reported in previous studies that covered various places in the United States, such as California (Matute-Bianchi, 1986; Nora, 1987; Suarez-Orozco, 1995), but it is not known whether these previous findings would apply to SEEK students in New York City. In addition, most studies (Astin, 1993; Tierney, 1999; Crisostomo & Dee, 2001; Leinbach & Bailey, 2006) of disadvantaged college students focus on post-enrollment (in-college) rather than pre-enrollment factors as determinants of graduation. The role of pre-enrollment factors, such as the student's situational and demographic characteristics prior to college, is an important consideration in program planning and resource allocation.

Another significant aspect of the study is that it is directly relevant to the upward mobility of immigrants (since upward mobility is often dependent on college completion).

Immigrants are a fast-growing segment of the population and make up 14% of the workforce including 20% of low-wage workers (Capps & Fortuny, 2007). Among all members of the workforce, however, immigrants are the least educated. The educational status of immigrants is that that 84% of them have less than a ninth grade education, whereas 12% have completed the ninth grade, but not high school. Immigrants are underrepresented in higher education and their completion of college is far lower than for others.

Retention of college students until graduation has been a challenge for all higher educational institutions and for college counselors. Less than 50% of undergraduates among the immigrant population students achieve completion of the college degree (Engle & O'Brien 2008). This figure is even lower for students in urban public colleges. For the latter, funding is increasingly linked to student enrollment and completion, and therefore close attention must be paid to changes in student demographics. Low-income immigrant students choose public higher educational institutions because of affordability. They often are able to successfully complete their degrees with the aid of special programs and support services that increase retention until graduation. Studies show that student retention and subsequent completion of college (Pascarella & Terezini, 1980, 2005; Tinto, 1975, 1982) are intimately connected to a college's commitment to each student's educational achievement and the overall effectiveness of support programs to achieve the goal of graduation. Though public colleges have fewer resources at their disposal to affect outcomes than private ones, understanding the factors that influence successful degree completion of all students is essential to the wise use of public funds and other resources. This is especially so for immigrant students who rely on the public university system in urban metropolitan areas.

Educational opportunity programs have been the vehicles for nontraditional, underrepresented students to achieve a bachelors' degree and improve their socioeconomic

status. However, few studies have focused on immigrant college student achievement and graduation, and even fewer on the trajectory of immigrant college students in opportunity programs. If more findings pertaining to graduation rates and predictors in the SEEK program are generated, they may well apply to other opportunity programs. The SEEK program, immigrant students, and other opportunity programs at private and public institutions will all benefit from a better understanding of predictors of graduation and how college counselors can adopt the best of these findings.

In addition, no study on immigrant students in the CUNY SEEK program has been published since 1987. The present study has generated a set of data on a growing, significant population and can be utilized to examine the experiences of this group and the subsequent effect on their college completion rates. A possible outcome might be that students who are expected to be at greater risk of non-completion of college because of their predictive profile can be assigned more targeted, relevant resources than those who have fewer needs. The study therefore is expected to contribute to knowledge about effective resource allocations and what works in educating the rising number of immigrants in college today who represent the future workforce of the United States. It will especially expand our knowledge about public college programs for immigrant students in urban areas, where their presence and impact on the economy is undeniable.

Rationale for the Study

The current study has six implications for counseling theory and practice, particularly for those who work with immigrant college students. Conducting the study will:

1. Improve college counselor's understanding of immigrant students in higher education;

2. Help develop more effective intervention techniques for counselors, enabling them to identify high-risk students early in their academic career and then to implement early interventions;
3. Provide a guide for counselor training, and include identified factors that will explain what promotes or inhibits student success;
4. Help design recruitment policies to better address potential success and failure factors;
5. Aid better resource allocation, and
6. Act as a guide in structuring program planning and evaluation.

Implications and Practical Applications for Program Design and Intervention with Immigrant College Students

The current study on situational and demographic variables has a number of implications for program design and intervention that can be used by counselors. The change process, including assessment, planning, monitoring, and execution, is used to illustrate how the knowledge of demographic and situational characteristics of students can have direct, concrete implications on college completion:

Assessment: An understanding of student's pre-enrollment situational and demographic background will help counselors understand students' needs, deficiencies, and strengths, and thus to be able to plan a course of action that would encourage successful academic outcomes.

At present, the only assessment for incoming students is test scores, which are used as indicators of a student's skills and abilities. The situational and demographic characteristics described in this study are expected to provide crucial information that can be used in assessing student success. The study can provide for a much more inclusive, in-depth understanding of the factors responsible for success and failure of the student in college completion. The counselor

can more readily identify obstacles and strengths that can be included in planning college completion.

Planning: Planning in educational opportunity programs involves assigning students to experiences that will make up for their deficiencies and assuring that students will take course work and have college experiences that will lead to graduation. The impact of student characteristics such as high school GPA, family responsibilities, language, length of residency in New York, gender, ethnicity etc., are factors that counselors must take into account when deciding services and experiences that will promote student success. For example, language skills affect which courses a student can and should take, and in what order. Students limited English skills have an impact on the courses they can take. A student who has a household composition that does not permit study at home must be steered toward a study schedule that allows for more time on campus. There are many ethnically related factors that counselors must take into account in planning for student success. For example, students may feel more comfortable and may choose to spend more time with those from their own ethnic group and therefore may pick up survival lessons and knowledge from these groups that they would not be able to gain otherwise. Ethnicity also has an impact on student adjustment since students who are with other outside ethnic groups may feel isolated and thus avoid school experiences. Conversely, some students seek to explore beyond their native ethnic group and may find it a refreshing opportunity to meet and interact with people from their ethnic group. Thus ethnicity plays an important role in adjustment and acculturation of the student to the college environment and may well affect degree completion.

Execution: The execution of a plan for a student's success in part depends on intervention and advocacy in academic situation and bureaucratic concerns. Knowledge of the students' situational and demographic characteristics will give counselors more information about the

typical pattern of students. For example, students who have a particular family configuration may present problems and opportunities that can be addressed. Counselors can suggest solutions and strategies that students can use to overcome family obstacles to college completion.

Monitoring: Monitoring by a counselor can identify, predict, and prevent serious mistakes that students can make, which may delay or prevent their college completion. Together with the student, the counselor can strategize and help the student make wiser decisions. For example, the role of language as a factor can be monitored to explain academic outcome. The student's attendance as well can be affected by his or her household composition and other factors that a counselor can interpret.

Research Questions

The objective of the study is to examine the strength of pre-enrollment variables that may be predictors of college success among low income, disadvantaged immigrant students in an educational opportunity program in an urban, public college. The study in general focused on the extent to which eight pre-enrollment situational and demographic variables are correlated with successful completion of college among SEEK immigrant students. The specific research questions addressed include the following:

1. To what extent are the eight specified pre-enrollment situational and demographic variables correlated with college completion?
2. Which pre-enrollment demographic and situational variables are the strongest predictors of college completion?
3. Is there a difference between the pre-enrollment demographic and situational variables among immigrants who successfully complete college, and immigrant students who do not complete college?
4. To what extent are students admitted before the 2001 CUNY policy change different terms of college completion as compared to those admitted afterwards.

Operational Definitions

For the purpose of this study the following operational definitions were used:

1. Successful Completion of College: Graduation from a four-year college baccalaureate degree program.

2. Completers: Students who enrolled in the period 1995–2003 and successfully graduated with a bachelor's degree.

3. Non-Completers[1]: Students who enrolled in the period 1995–2003 but did not graduate with a bachelor's degree from CCNY. These students either were been dismissed by CCNY or dropped out and were not reinstated at CCNY.

4. Persistence: A variable that indicates continuing enrollment toward degree attainment.

5. Situational factors that might affect college completion . Factors in a student's life situation prior to enrollment that have been examined in this study as possibly affecting later academic success, including:

(a) *Household composition*: A variable that indicates the total number of all persons living in a household regardless of familial relationships.

(b) *High school grade point average*: A variable that indicates the cumulative grade point average from grades 9 to 12.

(c) *English as the primary language*: A variable that indicates competency and skill in spoken English.

(d) *Length of residence in New York City*: A variable that indicates the length of time living

[1] The study only documented students for the period of time they were enrolled in the SEEK program at CCNY. Though this group has been designated as non-completers it is recognized that while some students did not complete at CCNY SEEK, some of them may have transfered to community colleges or other senior colleges to complete their education. There are non-completers who were dropped from the SEEK program and may have completed their degree at CCNY or other institutions. The limitations of time, scope, and restriction of data did not permit the researcher to track the non-completers and document their status.

in New York City. New York City was focused on because CCNY is an urban community college whose student population is drawn from New York City and its environs. The academic and work environments in New York City are different from those elsewhere in new York State.

(e) *Year of entry*: Students admitted to the SEEK program in 1995 to 2001 and 2001 to 2003.

6. Demographic factors that might affect college completion:

(a) *Age of entry into college*: A continuous variable based on student's initial age in years at the time of enrollment.

(b) *Gender*: A variable that indicates male and female identification as noted in the application for admission.

(c) *Ethnicity*: An identification that is based on shared culture, religion, geography, and language, which gives individuals a sense of kinship and loyalty (Abalos, 1986). As per the admission application, the ethnicity categories include: White, non-Hispanic, Black, non-Hispanic, Asian or Pacific Islander, American Indian or Native Alaskan, Hispanic and Other.

7. Immigrant student :A documented student, born outside the continental United States and Puerto Rico, who is a permanent legal U.S. resident or a naturalized citizen. The study does not include undocumented students, refugees, or students with valid visas because these specialized groups are not representative of the CCNY SEEK student. Very few CCNY SEEK students fall in this category and their inclusion in the sample would have confounded the results because of their low numbers.

8. Educational Opportunity Program (EOP):This refers to higher education programs that admit and support low-income, academically less prepared students at public or private educational institutions (NYSED, 2005).

9. Nuclear family: A household that only consists of a father, mother, and their children.

Summary

This chapter described the situation of immigrant students in college in relation to their college completion. A statement of the problem, rationale for the study, research questions, and definitions as well as the significance of the study were discussed. A historical overview of SEEK, CUNY policy changes, and the profile of the SEEK student population were provided. A rationale for continued research on the phenomenon of immigrant students in college was presented.

CHAPTER TWO: THEORETICAL AND CONCEPTUAL FRAMEWORK

Overview

The following section reviews the theoretical and conceptual framework of the study based on retention and persistence theory and allied social science literature related to immigrant students and factors that support their college completion. To understand the dynamics of immigrant students and degree completion, it is important to view them within the context of the socioeconomic impact of immigrants in the United States, and specifically in higher education.

Theoretical and Conceptual Framework

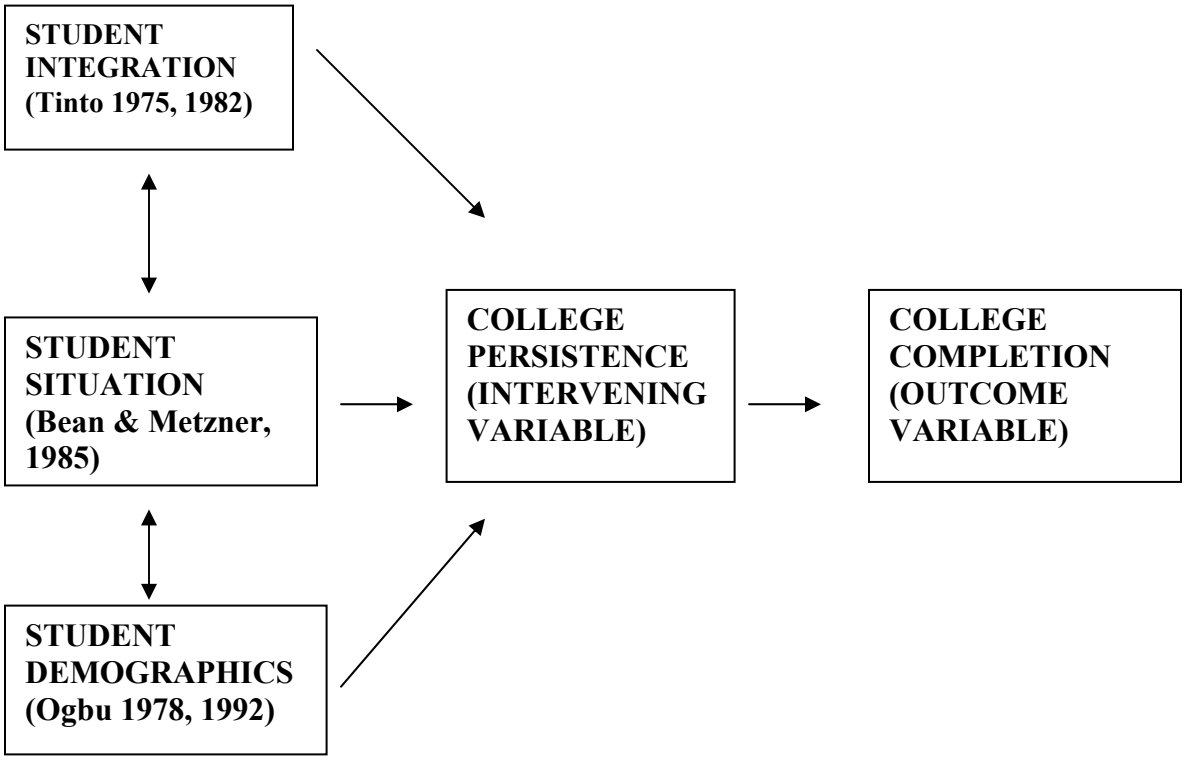
The focus of the study is on the student's academic success (defined as college completion). However, some of the research and theories pertaining to persistence and withdrawal from college also are relevant and useful for conceptualizing the pre-college predictors of college completion of the student (Tinto, 1975, 1987) The study of persistence and departure of students in institutions of higher education focuses on the personal characteristics of students, interaction within the institutional setting, and relevant external factors such as family and financial support (Bean, 1980). Some of these factors relate to the ability of a student to stay in college (i.e., persistence) while others relate to the student's graduation as a final outcome. Persistence can be defined as an intervening variable leading to completion since a student who does not persist cannot graduate and the final outcome of persistence is graduation. Since the causes and antecedents of college success are multifaceted and multiply determined, the question is raised as to whether college success is determined more by personal than by situational variables. Various theories attempt to address not only why students leave but also what the individual possesses that leads to his or her success (Spady 1970; Tinto 1975,1987, 1993; Bean, 1980; Bean & Metzer,1985; and Ogbu, 1978, 1992; Pascarella & Terezini, 1980). These studies focus on whether it is the person or his or her situation that determines graduation. Human

capital theory (Garcia & Bayer, 2005), for example, focuses on the process through which the individual, in this case, the student make choices, while other theories such as Student Integration (Tinto, 1975, 1983), the Nontraditional Student Attrition Model (Bean & Metzner, 1985) focus on institutional and external factors.

This study is based on the conceptual framework of three theories (Tinto, 1975, 1982; Bean & Metzner, 1985; Ogbu, 1978,1992) on student departure and persistence that may explain college success rates among immigrant students enrolled in a nonresidential, urban, community college.

The following section contains an overview of the three theoretical frameworks:

Figure 1: Theoretical Model for the Study



The above diagram shows a correlation and connectedness among the variables. Several independent variables (student integration, student situation, and student demographics) have an

impact on a student's college persistence and ultimately on his or her college completion. College persistence is assumed to be an intervening factor that results in college completion. The question the model raises is 'How strong is the correlation between the variables and college completion?'

Theories of Persistence and College Completion

The following section examines three major theories: Tinto's Student Integration Model, Bean and Metzner's Nontraditional Student Attrition Model and Ogbu's Cultural Ecology Theory.

TINTO: STUDENT INTEGRATION MODEL

Tinto's (1975) model of student integration and persistence suggests that the decision of a student to withdraw is based on the student's level of academic or social integration into the college environment. Tinto believed that student retention was really determined by whether or not students achieved their personal and/or academic goals by the time they left the college. Tinto (1975) explains: "Individuals may decide to drop out from college in order to invest their time and energies in alternative forms of activity even though their experiences in college may be satisfactory" (p. 98). Tinto's model is represented in figure 2.

Tinto's (1975, 1982, 1993) model argued that an individual's departure from institutions occurs due to a longitudinal process of the intricate interactions between a student's pre-enrollment college attributes (family background characteristics such as social status, high school experiences, community of residence) and individual attributes (ethnicity, gender, academic ability, and pre-college schooling), and his or her goals and commitments. These factors also interact with their institutional experiences to predict if they would withdraw from the institution. Students' academic and social integration contributed to their college commitment, which

combined with their goal commitment, to determine whether they stay in school or drop out. The basis of Tinto's theory was that if the student's motivation and academic ability "fit" with the institution's academic and social characteristics, the student would be more committed to staying at the institution and persist until the achievement of his or her educational goal. Tinto (1993) modified his 1975 model to include social support and external commitment components to acknowledge additional factors that influence how a student adjusts to college. Davalos, Chavez, and Guardiola (1999) support Tinto's belief that the more a student can adapt to the dominant college culture and understand the expectations, the more successful the student will be. However, Tierney (1999) contends that to follow Tinto's model completely, students must abandon their cultural heritage in order to be successful. They must assimilate into the majority culture on the college campus. This may make the transition to college life more difficult for immigrant students because they will have to learn new cultural expectations along with the usual adjustments most students must make. Tierney (1999) speculates that when immigrant college students are able to affirm their own cultural identities as well as the dominant culture on campus, their chance of graduation increases. While Tinto's theory focuses on what motivates students to leave college before graduating, the association between social integration and academic integration variables are necessary concepts that explain a student's persistence and college completion.

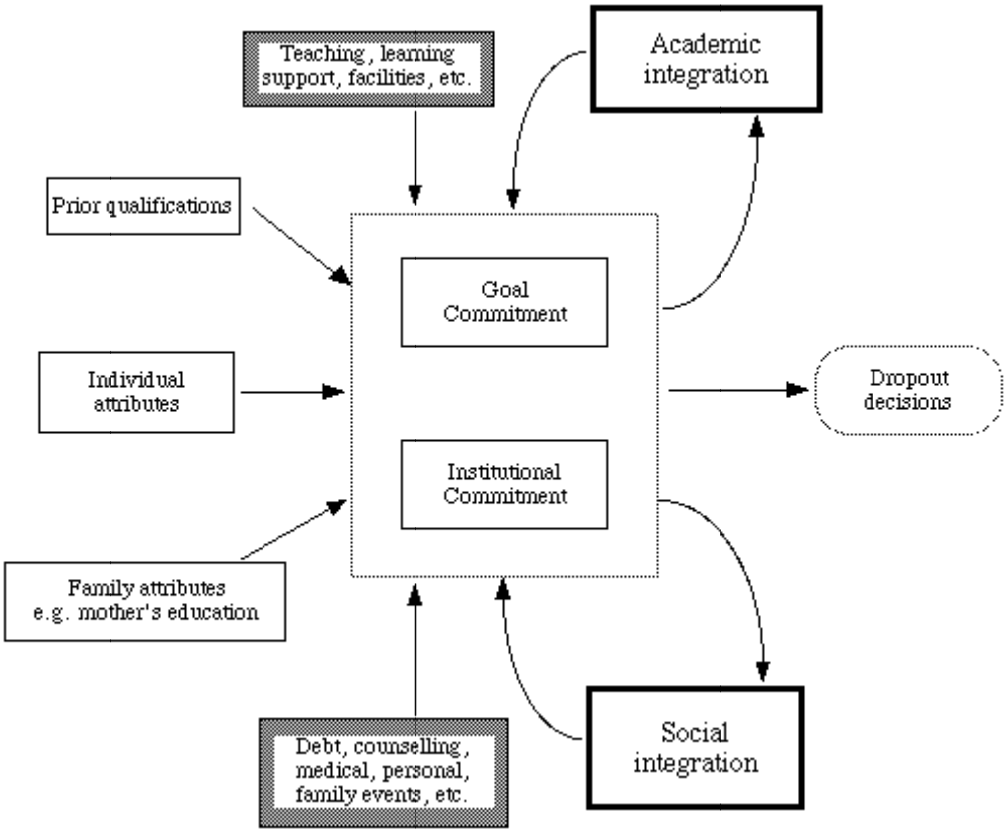


Figure 2. Tinto's (1975) Model of College Student Withdrawal

B. Bean and Metzner – Student Situation: Nontraditional Student Attrition Model

Bean and Metzner's (1985, 1987) research of nontraditional students illustrated that some prominent theories such as those of Tinto (1975) and Spady (1970) on student attrition at the time did not apply to nontraditional students. For the purposes of their study, they defined "nontraditional" as students who are older, commuters, and enrolled part-time/full time. After an extensive review of the literature, they noted that there was little research at the time that addressed the factors influencing student persistence at four year, commuter-oriented institutions. Tinto's (1975) model on student attrition placed too much emphasis on socialization as a factor contributing to the attrition of nontraditional students. Bean and Metzner tested Tinto's theory on part-time, commuter students and incorporated the influence of environmental factors. Using their model, they predicted 29% of the variation in student's dropout behavior. They found that college GPA and intent to leave were the best predictors of dropping out, followed by hours enrolled. Intent to leave was best predicted by the utility of an education for future employment and satisfaction with one's role as a student. These results support the conclusion that commuter students dropped out of college for academic reasons or lack of commitment to the institution. Social integration did not play a significant role in commuter students decisions to drop out (Metzner & Bean, 1987, Bean & Metzner's (1985) model was based on earlier work of Bean (1980) on student departure, the Student Attrition Theory. Bean's theory was based on models of organizational turnover. He argued that attrition was comparable to turnover in work organizations, and emphasized the importance of student intention as a predictor of enrollment behavior. Bean and Metzner's model is represented in figure 3.

Bean and Metzner's Nontraditional Model extended the research and identified four groups of variables that impacted attrition: academic performance, intent to leave, background, and environment. (1) Academic performance included grades, study habits, absenteeism, course

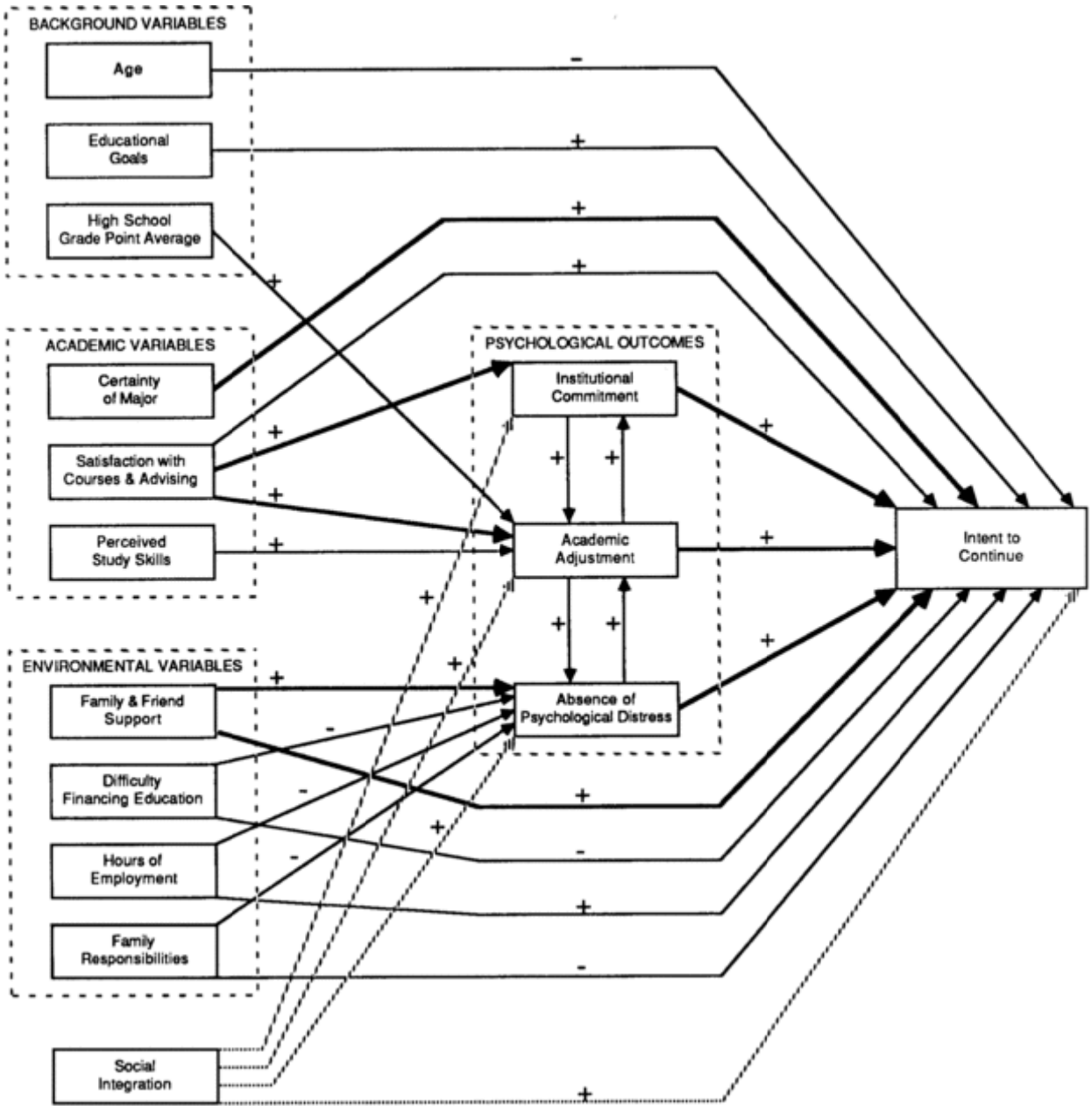


Figure 3. A Conceptual Model of Nontraditional Undergraduate Student Attrition (Bean and Metzner, 1985)

availability, use of academic advising, and certainty concerning a major. (2) Intent to leave was the degree to which a student considered dropping out of school due to a decrease in satisfaction with his or her experience or a decrease in his or her commitment to the institution or to education. (3) Background included age, ethnicity, gender, enrollment status, residence, educational goals, and high school performance. (4) Environment included finances, hours of employment, outside encouragement, family responsibilities, and opportunity to transfer.

Bean and Metzner believed that because nontraditional students usually do not become socially integrated into an institution in the same way as traditional students do, a different model was needed to explain the attrition of these students. They stipulated that nontraditional students were not as institutionally committed as traditional students and were not involved with as many extracurricular activities as traditional students. Traditional models of student retention centered on the fact that social integration had a major impact on whether a student stayed in college or not. The researchers felt that the external environment (such as family and work) had a much greater impact on the retention of nontraditional students compared with traditional students. External social contacts reduced the likelihood that students would be socialized by college relationships. Therefore, external environmental factors were expected to be a more important influence on persistence than social integration.

Bean and Metzner (1985) developed an attrition model they believed applied specifically to nontraditional students, minimizing the role that social integration played in the attrition pattern of nontraditional students. The model emphasized the importance of environmental variables as a key factor in whether students would persist: “for nontraditional students, environmental support compensates for weak academic support, but academic support will not compensate for weak environmental support.” (Bean & Metzner, 1985, p.492) The researchers concluded that a student’s decision to drop out is influenced more by environmental factors

(finances, number of hours worked, outside encouragement, family responsibilities, and the opportunity to transfer) than by academic factors (study habits, academic advising, absenteeism, certainty of major choice, and availability of courses). With the assumption of the importance of the external environment in the student's decision, the focus shifts from the relationship between the student and institution to the dual effect of the institution and the outside environment.

C. Ogbu—Demographic Characteristics Model: Cultural Ecological Theory

The work of anthropologist John Ogbu (1991, 1992) is arguably one of the most controversial theories on school departure. He deepens the conversation raised by the researchers (whose work we discussed in the previous sections) with respect to nontraditional students. His theoretical approach adds a complex explanation of minority groups, school failure, and the variations among immigrants and minority groups and their respective relationships to educational systems. Though Ogbu's research focused primarily on secondary school students, his research on native-born minorities and immigrants in high school provides an insight on similar populations among college students. Ogbu makes a clear distinction between immigrants or voluntary minorities (immigrants) and caste-like, involuntary minorities (people who came to the United States because of slavery, conquest, or colonization). Voluntary minorities include Asian immigrants, while involuntary minorities include Blacks, Native Americans, and Mexican Americans. Ogbu argues that differences in achievement can be explained by cultural differences that are shaped by a group's own culture and its initial terms of incorporation into American society. This is further impacted by the historical experiences of immigrants and nonimmigrant minorities. Immigrants coming to the United States in search of economic, political, and social benefits have different expectations than involuntary minorities. Therefore, their response to conditions they encounter, in the school for example, are different.

Immigrant minorities reference their situation in the United States to the homelands from which they fled and, in spite of discrimination and other barriers facing newcomers, find their present situation to be a hopeful one. Within this framework, the educational values of the immigrant minorities, based upon the orientation to the host society, often determine the achievement and persistence of that particular group. These groups tend to perform better than others because they are able to assimilate with the dominant culture while maintaining strong ties with their individual cultures. These groups consider obstacles as hurdles that can be overcome, whereas the caste-like minorities mark as their reference point the members of their group who have already lived in the United States for generations and have failed to secure a place in the mainstream society. Involuntary minority groups come unwillingly to reside within the dominant society, and therefore view school and education as the creation of others who subjugated them. They tend to resent and reject the society in which they currently exist and oppose its educational values and beliefs systems (Ogbu, 1992).

Ogbu and Matute-Bianchi (1986) applied this framework specifically to Mexican Americans to explain the way in which group behaviors may both result from and reinforce majority culture stereotypes that operate to maintain minority group subordination. For example, immigrant Blacks from Africa and the Caribbean within the United States are more likely to do better than African Americans born in the United States, and Mexican immigrants in the United States are more likely to do better than Mexican Americans or Chicanos immigrants (Gibson & Ogbu, 1991; Matute-Bianchi, 1986). As much as Ogbu's work achieved critical acclaim, many scholars disagree with this conceptual framework and argue that Ogbu did not take into consideration the politics and policies of the American educational system (Valenzuela, 1999). Some critics felt that Ogbu's analysis was not wrong, but that it was overly narrow and selective

(Foster, 2005). Foley (2004) argued that one theory could not explain the intricacies of culture, race, and class in any dominant society.

Comparative Critique

The three models (Tinto, 1975, 1987, 1993; Bean and Mentzer, 1985; Ogbu, 1991, 1992) alone do not fully explain the factors contributing to college completion among immigrant students. However, by drawing key tenets from each theory we can begin to explain how student characteristics, attitudes, as well as institutional factors and the role of cultural and ethnic background variables affect an immigrant student's remaining in and graduating from college. These three models can be distinguished not only on the basis of differences in the explanation of persistence and completion, but also in terms of the types of college students that were studied in their respective research. While these theories differ in their explanations of student persistence and departure, they share an emphasis on the importance of academic and social integration as prerequisite to student persistence. They each state that the likelihood of student retention is increased by the degree to which students become involved in the academic and social systems of the institution; consequently, the more the institution facilitates these interactions, the more likely students are to likely to remain in the college. Tinto explores persistence in the context of student departure. His model helps explain the learning behavior of students in institutions. Persistence is more likely if the student's interaction with the institution's social and academic systems is deepened. Bean and Metzner recognize, in addition, external factors (situational variables) such as household composition that impact a student's degree completion. This situational model brings attention to the experiences of commuter or employed students that characterize the SEEK student population. Ogbu's contribution extends the discussion to include the experiences of immigrant and minority students, which reflects the majority of SEEK students. Ogbu explores in depth the issue of race, culture, ethnicity, and immigration. His focus

on cultural factors demonstrates how the issues of cultural difference may influence student achievement. Culture, however, is only one factor operating in the student's situational context.

Summary

Using Tinto's Student Integration Model, Bean and Metzner's Nontraditional Student Attrition Model, and Ogbu's Cultural–Ecological approach as a conceptual framework, situational and demographic variables that contribute to the persistence of immigrant SEEK students will be examined in this study. Each of these theorists refers to one or more of the variables the study examined as predictors of college success. Exploring the strength and importance of these factors will enable the SEEK program to identify and address possible changes in activities or policies that might improve persistence for immigrant students. For counselors to successfully address the question of how a program such as SEEK can retain more of its immigrant students, there is a need to discover what factors affect persistence. The foundation laid by the theories of Tinto, Bean and Metzner, and Ogbu provides a platform for understanding degree completion among immigrant college students in an opportunity program enrolled in an urban, commuter, four-year college.

CHAPTER THREE: REVIEW OF THE LITERATURE

Introduction

The following section reviews the allied social science literature related to immigrant students and factors that support college completion.

To understand the dynamics of immigrant students and degree completion, it is important to view them within the context of the socioeconomic impact of immigrants in the United States, specifically in higher education. This literature review examines immigration trends, immigrants in higher education, previous studies on college completion, and the importance of situational and demographic variables in theory development and implications for program design for immigrant college students. Historical data will cover the years 1995–2003, in keeping with the population under study. The literature review concludes with a critique, summary, and hypotheses generated from the literature review.

Immigration Trends

"Immigration is the driving force behind a significant transformation of American society taking place at the end of the millennium. Few other social phenomena are likely to affect the future character of American culture and society as much as the ongoing wave of new immigration," notes Suarez-Orozco (1995, p. 380). Many researchers agree with Suarez-Orozco that the current immigration pattern is transforming the United States and has had a profound effect on the American society (Hood, 2003; Rumbaut,1996; Vernez et al., 1996). Since the colonial period, immigration has been a consistent part of U.S. history. What have changed are the ethnic characteristics and attitudes of the new immigrants and their reception by the host. For the past thirty years, the number of immigrants entering the United States has been

unprecedented. The 1965 Immigration Act opened the door to a new wave of immigration. The 2000 U.S. Census reports over 32.5 million immigrants in the United States. Immigrants now make up 11% of the total population (Census, 2000). Compared to the 19th and early 20th century immigrants who were of European ancestry, the most rapid growth of today's immigrants are from Latin America and Asia. Latin American immigrants constitute 52% of the new immigrants and 25.2% of the immigrants are from Asia, 14% from Europe, and the remaining 8.8% are from other parts of the world (Census, 2003). Census figures show that the new immigrants are concentrated in the following urban areas: Texas, California, New Jersey, Illinois, Florida, and New York. The influx of immigrants has caused a major increase in the racial and ethnic diversity in these urban areas. In New York City, for example, 40% of the population is foreign-born (Census, 2003); approximately 20% are offspring of immigrants. As the number of immigrants in the population has grown, it has naturally had an impact at the state and local levels. The most dramatic impact is reflected in social institutions such as the school system. In 1992 (a year under review in this study), over 120,000 immigrant students from 167 countries entered New York City public schools, causing it to experience one of the largest, unexpected growth spurts in the system's history (Stewart, 1993). Currently, the children of immigrants (children with at least one foreign-born parent) make up 54% of those in the public school system. Nationally, 29% (2.3 million) of the children of immigrants attending schools and K-12 were foreign-born (Ruiz-de-Velasco et al., 2000).

The educational needs of the current immigrant students are different from native-born students and the earlier waves of immigrants from Europe, thus new demands are being put on urban schools. The first waves of immigrants coming to the United States from Europe were, for the most part, well educated, skilled, and a small portion of them was affluent, whereas the current wave of immigrant population is less educated, less skilled, and their immigration often

tends to be undocumented (Stewart, 1993, Rong, & Preissle, 1998). For example, the percentage of immigrants from Latin America with a high school diploma is less than 50% (Reed, et al., 2005). Today's immigrants are also highly polarized with vastly different cultural and historical backgrounds. They include the most educated and the least-educated groups as well as groups with the lowest poverty rates and the highest poverty rates (Rumbaut, 1994).

Immigrants and Higher Education

More than 565,039 members of the college population in U.S. colleges and universities are foreign-born (Open Doors, 2005). The abundant educational opportunity available in the United States is one of the primary motivators for immigrants to come to the United States. Researchers indicate that the majority of immigrants have cited educational pursuits as the primary reason for migrating to the United States (Alfred, 2003; Pellegrino, 2001;Waters, 1999). As noted earlier, however, many of the new immigrants enter the United States with low educational attainment and many arrive with only a high school diploma or less (Leinbach & Bailey, 2006). As the number of immigrants continues to grow, they get involved as a significant number in the workforce. The Center for Labor Market Studies at Northeastern University (Census, 2003) found that immigrants have a direct impact on the American economy; they accounted for half of the new wage earners in the 1990s and continue to be upwardly mobile. If immigrants are to contribute to the positive growth and productivity of the United States, the education and training of immigrants are essential (Friedlander, 1991).

Traditionally, access to college has been a principal route for people to achieve social mobility. In today's economy and knowledge-driven society, a post-secondary education is a must as increasingly employers prefer workers with higher educational degrees (Capps and Fortuny, 2007). With the increasing competition in the job market, degree qualification has

become an efficient and legal method for "weeding out" job applicants. Studies have shown that individuals with postsecondary training fare better socially and economically (Sanderfur & Paharr, 1989; Tinto, 1993). The average income in 2000 for full-time workers with a bachelor's degree was $56,334 for men and $40,415 for women, whereas individuals with high school and associate degrees made $20,000 to $25,000 less annually (NCES, 2003). The correlation between income and education is undeniably evident. To that end, obtaining a college degree is critical for success in the global marketplace. Those who do not have a college degree will be left behind. With that understanding, the educational trajectory of immigrant students and their plight to obtain a higher education degree is of significant importance.

In the New York City region, The City University of New York (CUNY) is the gateway for many immigrants to pursue a higher education degree. CUNY is also the pipeline for most of the students from the public school system, of which the majority of the students, as noted earlier, are immigrants or children of immigrants. Traditionally, CUNY has always played a pivotal role in the education of immigrants in the New York area. CUNY's mission has been to serve the growing immigrant population and the "deserving poor" of New York City who did not have access to higher education. As of the fall of 2002, 80% of CUNY's student population described themselves as members of a minority group; 65% were immigrants and, overall, they spoke 88 languages other than English. Students came from 130 countries and were a mix of South Americans, Caribbean Americans, Asians, and Africans (City Facts, 2003). While the proportion of immigrant students and different types of immigrant groups varied at the 17 CUNY colleges, some community colleges (such as Hostos Community College in the Bronx) saw an increase in the number of immigrants as high as 66.6% (CUNY, 1995).

In 1995, in anticipation of the growing number of immigrants entering the CUNY system, CUNY conducted an extensive study of immigration and the migration of CUNY

students. The study examined how immigration has changed the profile of CUNY students and predicted the challenges that CUNY would face in the future. The results found that CUNY lacked support services and strategies to help immigrant students cope with the problems of cultural transition and the stresses of acculturation (CUNY, 1995). While the study did not focus on factors that contributed to immigrant student academic success, it did note that there was a need for more support services such as counseling and advisory services for this population.

Previous Studies of Factors that Impact College Completion

Previous research has been consistent on the profile of the individual characteristics of successful college students (Titus, 2004; Bailey et al., 2005, Porter, 2000; Ryan , 2004; Pascarella & Terezini, 2005). These characteristics include high scores on SATs, membership in higher income families, full-time college attendance, and being female. However, a study of students in community colleges (Bailey et al., 2005), which typically have a large number of immigrant students including native minority students, part-time students, and women, showed lower graduation rates. Students who were presented with personal and financial challenges were less likely to do well. The purpose of the research was to measure the institutional characteristics that affect the success of low-income and minority students in community colleges. The study utilized different models and data from the National Center of Education Statistics' Integrated Postsecondary Education Data System and the Education Longitudinal Study of 1988 to explain what characteristics of the institutions played a role in student outcome. The sample size was 915 community colleges. The independent variable was institutional characteristics and the dependent variable was degree completion. The total population size was 179,067 with a sample of 17,000. The final number of respondents was 6,383. A group logistic regression method was used. The study concluded that while greater instructional expenditures

have a direct impact on successful degree completion, a student's individual characteristics influenced his or her experience.

In her review of literature on two-year colleges and minority students, Nora (1993) found that academic and social integration were positively associated with college completion. Specifically, the findings of the comparative study of African American and White student college achievement by Nettles et al. (1986) suggest that four variables – SAT scores, student satisfaction, peer relationships and interfering problems – have differential predictive validity. The study compared African American and White students' college performance and their pre-enrollment academic, personal, attitudinal, and behavioral characteristics. The study also explored the predictive validity of the various student characteristics including attitudinal, academic, and personal. The sample consisted of 4,094 students and 706 faculty members from 30 colleges and universities. The dependent variable was GPA and the independent variable included demographics, pre-college academic and racial experiences and in college attitudinal and behavioral characteristics. Among the statistical procedures, chi-square analyses were used to compare several categorical variables, *F*-test, ANOVA, and multiple regression analyses to illustrate the significant predictors of student's performance. Weightage was given to the data analyses to control for oversampling of minority students and faculty. The study found that students' academic, personal, and attitudinal characteristics predict their college performance. Such pre-enrollment factors should not be ignored by the admission process. The study of Kriby et al. (2007) on predictors of academic success of minority students at a private women's college found similar results. Their study showed that while academic factors were also good predictors of college completion, standardized test scores may not be appropriate for predicting success among non-White students.

In his study of remedial education and SEEK students, Fumita (2002) identified three main obstacles encountered by immigrant students: (1) limited language acquisition; (2) unfamiliarity with higher education; and (3) low family income, forcing students to spend more time at jobs. The purpose of the study was to determine if students' initial, academic competencies shaped their chances for degree completion and to determine if student's initial academic competencies are functions of the time spent to graduate. Data was collected from student transcripts. The sampling frame was comprised of students in a senior public institution. Two cohorts were studied. One consisted of 438 freshmen and the other 317 freshmen at the same college. Correlation analyses were conducted. Gray et al. (1996) identified other potential barriers to academic success, such as the stress of acculturation, the need to balance school with family and work responsibilities, and discrimination. Obviously, these obstacles can have a negative impact on college achievement. The greatest barrier noted, however, was inadequate language skills (Fumita, 2002; Gray, 1996; Brown et al., 2002; Hume, 2003). Since most services and college information are only provided in English, students with limited English have difficulty in accessing services and information. For example, they find it difficult to understand and fill out the applications for financial aid and communicate with counselors, staff and faculty. Students who have completed the requirements of English as a second language (ESL) classes may still need support. Thus English fluency should be considered an independent variable affecting college success.

In his study of completion rates of students of different races, Astin (1996) found that White students have the highest graduation rates from public universities six years after enrolment (41.8%), followed by Puerto-Rican Americans (39.9%), Asian-American (39.2%), African-Americans (29.9%), and Mexican American/Chicano (29.1%) students. Average high school grades, SAT verbal and math scores, and gender were significant predictors of both four-

and six-year completers. Astin found that pre-college characteristics such as high school achievement and family socioeconomic status affected college GPA and persistence for Latino students, but not for other ethnic groups.

Bosher and Rowekamp (1998) studied the relationship between pre-enrollment college characteristics (such as academic English proficiency and academic success) of 57 immigrant students attending a "bridge" program at the University of Minnesota. Bridge programs include a transitional curriculum developed for ESL students whose academic language proficiency prevents them from attending mainstream college classes. The pre-enrollment characteristics include high school diploma type and length of residence. Academic proficiency was measured by a standardized English test, the Michigan English Language Assessment Battery (MELAB), and academic success was measured by GPA. Years of schooling in the native country and the objective score on the MELAB test showed positive correlation with GPA, with years of schooling presenting the strongest correlation.

In a national study of immigrant student experiences, Vernez and Abrahames (1996) used the National Center for Educational Statistics (NCSE) "High School and Beyond "data set. They tracked a sample of high school sophomores and seniors through six years of post–high school activities. The study focused on immigrants who had some exposure to U.S. high school education. The authors found that immigrant students face a variety of barriers in adapting to American schools. Learning English, constant migration, poverty, and social adjustment are the most cited problems. Race and ethnicity were also cited as key factors accounting for low educational achievement in the immigrant population. Overall, immigrant students were 10% more likely than those native-born to begin and complete their educational careers at community colleges. Hispanic and Black immigrants were more likely to enroll in college than their native counterparts, while immigrant status was insignificant among White and Asian students.

Hispanic students, however, were found to be overrepresented among those who only attend a community college (Cristostomo & Dee, 2001).

Similarly, Leinbach and Bailey's (2006) study of Hispanics and Hispanic immigrants in the CUNY system concurred with Vernez and Abrahames(1996) and also found that Hispanic educational attainment is less than that of other populations. The researchers conducted a longitudinal study of how enrollment and achievement of Hispanic students changed from 1990 to 2000. They used a student cohort from 1990 and 2000. Utilizing data from the CUNY Office of Institutional Research and Analysis, the study was able to disaggregate a random sample into native- and foreign-born as well as country of origin. Student's demographics, enrollment, credit accumulation, and outcome data were analyzed. Hispanics at CUNY were found to be overrepresented by native-born students and underrepresented by immigrants. Hispanic natives were less likely to attend a four-year institution. Boyd (2001) also noted that among high school graduates, the percent of Hispanics who eventually earn a bachelor's degree is one-third that of Anglo high school graduates. Bailey and Weininger's (2002) longitudinal study on immigrants in CUNY community colleges found that in an analysis of choices between two- and four-year colleges, nativity was a more important factor than race or ethnicity.

Asian students outperform all other racial groups academically, including Whites. Although Asian-Americans represent just 3.6% of the general U.S. population (Census, 2003), they represent 6% of college student enrollment (NCES, 2003). Hsia's study (1988) at UCLA on Chinese-American immigrants found that one in four Asian college students admit that English is not their best language, yet they have higher college GPAs than White students. Furthermore, regardless of their length of residency in the United States, they have the same college GPA as native-born Chinese-American students.

Demographic and Situational Variables as Factors in College Completion

The studies that have focused on degree completion and academic success indicate that certain factors contribute to academic success among college immigrant students (Pascarella et al., 1980, Murphy, 2005; Skadberg, 2005). Positive social integration, interest in courses, and positive relationships with faculty were found to contribute to strong academic integration. Skadberg's (2005) dissertation research on CUNY immigrant students found that among Hispanic students, a longer period of assimilation in the United States was also a positive contributing factor to degree completion. The study utilized data collected from the 1995 CUNY Student Experience Survey to test current assimilation theories with students in a large public institution. The total population size was 179,067 with a sample of 17,000. The final number of respondent was 6,383. Using a logistic regression, the study compared factors that impact GPA, odds of graduation, years of graduation, and degree aspiration. Crisostomo's (2001) research focused on language acquisition, college experience, placement testing, and socio-demographics to explore the academic success of immigrants. The overall purpose of the study was to determine the extent to which sociodemographic, language acquisition, college experience, and placement test variables can predict the academic success of immigrants in a higher education institution. The study conducted a semester analysis with GPA as the dependent variable. Data collected by the CUNY Office of Institutional Research was used. The data source was retrieved from the freshmen application form. The selected cohort included 26,728 students. The final sample size was 1,656 for semester one, 1,510 for semester two, and 1,050 for year two. The researcher utilized a blockwise multiple regression. The findings indicated that students who had lived in the United States for 10 years or longer were less likely to experience academic success. This unexpected finding suggests that cultural assimilation had a negative impact on academic success since number of years in the United States should correlate with college completion. A

point of interest here is that the findings in this study conflicted with Skadberg's (2005) recent study that showed longer assimilation periods have a positive influence on degree completion. It is also worthy of note that, while Crisostomo's study provided some insight for understanding college immigrant student academic success using GPA as a measure of academic success), the study did not examine the differences among immigrants that foster degree completion.

HOUSEHOLD COMPOSITION

A student's household composition affects college completion for a number of reasons. Studies have shown a significant impact of single-mother households on student educational attainment (Finlay et al. 1988; Coleman, 1988; Pong et al. 2002). Single-mothers are more likely to have low-status occupations, and often have incomes at or below the poverty level; thus the children are more likely to face a multitude of problems (including lack of educational attainment). Students from low-income homes are three times more likely to become dropouts than are students from more economically advantaged homes (Garcia and Bayer, 2005). Coleman (1988) found that children from single-parent families have higher high school dropout rates than children from two-parent families. He argues that children from single-parent families receive insufficient attention from parents, which is a negative factor for their educational attainment. Though Coleman's study focused on high school students, it has implications for entering college age students who are more likely to be younger and living at home.

Space available at home is another factor that can impact college completion. It was hypothesized that students in large families (or who have limited personal space and privacy) would not be able to study at home and would either do poorly in school or be obliged to use campus facilities (with all the attendant travel and inconvenience) to stay ahead academically. Students living in non-English-speaking families might not develop the language fluency required (Nora, 1987). Furthermore, if students have parenting, babysitting, or family

maintenance responsibilities, their college completion rates are likely to be lower than those who are free to devote time and attention to college work, especially around examination time (Murphy, 2005).

2. Length of Residency in New York City

Length of Residency (LOR) in New York City in the study was examined as one key indicator of assimilation in the United States that would have an impact on degree completion. Vernez and Abrahames's (1996) longitudinal study of high school students found that immigrant students who spent more time in the United States were more likely to attend college and to attend continuously for four years compared with more recent immigrants. In another study, positive associations between length of residence and language proficiency scores on standardized tests were also found among immigrant students (Duran & Weffer, 1992). Duran and Weffer studied four groups of successful Mexican immigrant students in high school and found that length of residency indirectly influenced success rate in high school. LOR also strongly affected reading skills, which in turn affected mastery in other subjects. The study noted that poorer readers were less likely to take challenging courses that would advance them academically. Students with more life experience in the United States were more likely to persist and succeed. Although it is an imperfect measure, LOR in New York is certainly correlated with assimilation. Furthermore, no other data on assimilation is available to the researcher.

3. English as a Primary Language

English language fluency is definitely correlated with academic success in obvious ways. Examination and instruction in college in America are typically in English and fundamental

academic tasks such as reading, writing, and study are also in English rather than in an immigrant's native tongue. Fluently bilingual students who can perform well in the English language for a relatively long time could be expected to do better academically, know more about American society in general, and complete college at a higher rate than those who do not have a command of the English language. In support of this assumption, a number of studies have pointed out the role of English language fluency in educational outcomes (Huang, 2004; Rumberger & Larson, 1998; Hao & Portes, 1998).

4. High School GPA

The predictors of a student's college completion include academic factors. A student's level of academic achievement and preparation before entering college can be expected to affect academic performance and thus college completion rates after entering college (given the need for an adequate educational foundation to achieve success in college). Several researchers have pointed out the relationship between high school GPA and later college success as well as the rate of progress through college (Tinto & Goodsell, 1994; Huang, 2000; Vernez & Abrahamse, 1996; McPartland, 1998). Academic background factors may directly predict persistence for nontraditional students in particular (Bean & Metzner, 1985). While academic performance is often measured by standardized tests, studies have shown that the actual high school grade is the critical predictor of educational ability. This functionally coexists with other critical factors (Wilson & Portes,1975). For example, there appear to be different academic predictors for different ethnic groups. Bryson et al. (2002) found that high school GPA was a positive predictor of college success for Black students, whereas high school rank and ACT scores were predictors of college success for White students. Their study indicated that the best academic predictors may vary by ethnicity of the student. This was consistent with Rodriguez's (1996)

study of academic success among Mexican and White college students from a public university. He found that while high school GPA was a predictor of academic success for Mexican Americans, it was necessary to consider other indicators such as socio-demographics and college experience variables in assessing academic success.

Age of Entry into College

There are conflicting reports in the research regarding age as a defining variable to college completion. Research by Windham (1994) and Price (1993) reported students likely to achieve degree completion were younger students and conversely those less likely to complete a degree were older students. Bean and Metzner (1985) found the rate of degree completion lower for adult students than for traditional age students. Yet, Feldman's (1993) investigation of pre-enrollment variables as predictors of one-year retention of 1,140 first time students at one community college found that the risk of dropping out was associated with young students 20–24 years old. In their study of age and college completion among women aged 15–44, Jacobs and King (2002) found that women over age 25 were at a disadvantage in completing their degree. Some of the contributing factors cited were work and family demands on their time. Horn and Carroll (1997) had similar findings in that older students are less likely than their younger counterparts to complete college within five years. Older students were more likely to be working and have family obligations and thus take longer to graduate then their younger counterparts. Many professional counselors in the field, however, confirming this researcher's experience, attest to the multiple effects that age has on college completion. Younger students are less likely to have maturity, motivation, work experience, and college survival skills than older students (causing them to complete college at a lower rate). Age also affects financial aid eligibility, which might exert the opposite effect in that older students might not qualify for financial aid; this factor definitely affects the rate of academic progress. Further, a higher age is

likely to be strongly correlated with high school academic success (Brown et al., 2002), test taking skills (Huang, 2000), work commitments, and other variables.

6. GENDER

Researchers have found mixed results in the study of gender differences in terms of degree completion. Earlier studies by Tinto (1975) found that women were more likely to drop out than men. Other studies showed little difference in the rates of attrition between males and females (Pantages & Creedon, 1978; Bean, et al., 2001). Several recent studies, however, concluded that women were more likely than men to earn a bachelors' degree. In an in-depth study of gender difference in rates of participation and degree completion conducted by Peter and Carroll (2005), it was reported that over the past thirty years, there has been a significant increase in the number of women in the undergraduate population, thus reversing the gender gap. Today, women represent 56% of undergraduates (Freeman, 2004). Women of all racial/ethnic groups earned a majority of the degrees awarded. Minority women outperform minority male graduates. The study found that Black women made up 63 % of undergraduates, 62% of students are 40 years or older, and 70% are single parents (Peter and Carroll, 2005). In his study of gender identity, Burke (1989) found that gender identity accounted for much of the difference in academic performance. The study explored the relationship between gender identity and school performance. Using a sample size of 1,688 school age students from 58 classrooms in 15 urban schools, the study examined the performance of both sexes in a variety of academic subjects. The outcome measure included the GPA of the academic subjects. The study found that there was a pattern across all subject areas showing that females performed better as measured by GPA in classes. Hubbard's (1999) study of African American high school students found gender beliefs and action toward education often sabotage academic future. The role of expectations, both of self and others for the individual, is an important factor. It noted that although there are many

similarities, males and females may well have different factors operating in their respective situations that in turn affect their college completion rates. For example, more males may be designated by their families as the official bearers of the responsibility to get educated than females, and females with childrearing responsibilities may be hindered in their academic progress by these responsibilities. However, in a study conducted by Vernez and Abrahamse (1996), with the exception of Latino students, no relationship was found linking gender and college attendance. Some researchers (Bers, 1994) found no gender differences in college graduates.

7. ETHNICITY

Ethnicity is an indicator of culture, values, and income, and thus affects college completion to a noticeable extent. Most research provided a break-up of college success and completion by ethnic groups (Solberg and Villarreal, 1997; Nora, 1993; Skadberg, 2005). Studies were consistent in identifying low enrollment and after enrollment, low performance among Hispanics and Blacks students in college. Pidcock et al. (2001) found significant ethnic differences between Hispanic and Anglo-American first-year students in risk factors related to college degree completion. Hispanic females were at a particularly high risk of leaving schools. The study identified that low retention was associated with family, personality, and problem behavior variables. A study on persistence of African Americans, Whites, and Hispanic students (Rodriguez, 1999) provided similar findings. The results of this study revealed that while being African American and White have a positive relationship to persistence, being Hispanic has a negative relationship to persistence. However, Asian students demonstrated higher levels of academic success than any other ethnic group (Cristostomo, 2002).

8. YEAR OF ENTRY

The year of entry in the current study is an indicator of the change in the composition of the SEEK population and its influence on college completion. In its effort to raise academic standards, CUNY changed its admission policy at the senior colleges and began to dismantle remediation programs in 1995, and remediation was phased out by 2001. All students entering CUNY senior colleges in 2001 were required to have a certain academic skill set that would support college level work and eventual college completion. The debate over the effectiveness or lack of effectiveness of remediation has been widely documented in the literature and in the print media (Bettinger & Long, 2005, Jepsen, 2006, IHEP, 1998, Jamiliah, E., 1999). Bettinger and Long (2005) and Jepsen (2006) found remediation to have a positive effect on college completion. Other researchers (Green & Foster, 2003; Martorell & MacFarlin, 2007) argued that remediation is costly and hindered college completion.

Uses of the Study in College Counseling Practice

Learning more about the predictors of college success among contemporary urban immigrants would lead to a number of practical advantages:

1. Program designers and educators will be in a better position to determine student strengths and risk factors that must be included in individual educational plans.
2. Counselors will have a profile of student characteristics to help assess student needs and goals.
3. Program resources could be better allocated to address student needs and situations. Institutions and their special programs have a responsibility to respond to immigrant students' needs.

Within the college community, counseling centers are the primary venue to help students "find and effectively use the information, skills, insight, and understanding they need in order to be successful, first and primarily in the college and secondarily, later in life" (Helfgot, 1995, p.

49). Traditionally, counselors have provided academic advice, career guidance, and personal counseling. A number of researchers have found however, that college counselors and advisors need information on situational and demographic variables in order for their work to be more effective (Hume, 2003; Brilliant & Jay 2000; Brown et al., 2002). The studies and programs reviewed below suggest techniques that can be effective in addressing the obstacles faced by immigrant students and show how counselors can intervene to provide support to students and prevent stresses from affecting their academic career.

For example, one of the challenges that counselors face is encouraging students to access support services. A research by the *California Tomorrow* (Brown et al., 2002) think tank involving nine community colleges in California provides insight into the experiences of students of color and immigrants in accessing support services. This study identified counseling services as beneficial for immigrant students. Students reported positive experiences with counselors who were seen as key in helping students navigate the college community and access information. The study also noted some of the barriers to effective counseling. A major barrier was the accessibility of counselors: counselors with large caseloads were limited in the amount of time they could spend with each student. In some cases, students found it difficult to schedule a meeting with their counselor. There were other key barriers to counseling: counselors who did not listen well, counselors with negative attitudes toward immigrant students, lack of bilingual counselors, cultural misunderstanding, and difficulty connecting with a counselor because of cultural or language differences. Racism and discrimination on campus were other serious barriers faced by immigrant students.

The California study argued that immigrant students would benefit from specific programs. Nine campuses in the study were engaged in various practices to assist immigrants

and students of color that were expected to make a difference to those students' lives (Brown et al. 2002).

The practices included the following:

1 A campus-wide student equity initiative
2 Instructional practices
3 Counseling and advice
4 Tailored, culturally-specific support programs
5 Tailored, effective outreach to students and their families
6 Professional development on diversity; and
7 Equal opportunities in hiring.

Recent immigrants may not have had the time to become acculturated and socialized to the American education system or the general way of life in the United States before entering college. This lack of acculturation, along with language limitations, may make the college experience even more difficult (Hume, 2003). Similar to what other studies have suggested, Hume notes that immigrant students who are less familiar with the institutions, values, and culture of the United States may feel like "outsiders" since they do not know how to negotiate the college community. Access to cultural knowledge is seen as a critical component to students' success. Brilliant and Jay (2000) suggest that colleges should develop acculturation groups to enhance cultural knowledge. This is a form of group counseling that helps students learn about the expectations of the college, to share their experiences, and to raise questions.

The growth and diversity of immigrants in higher education presents institutions with programmatic and administrative challenges. This population requires a variety of counseling support services to address their needs. The availability and accessibility of such services can be a determining factor in the success or failure of the student in higher education. Educational opportunity programs, (such as SEEK) that traditionally serve disadvantaged and underprepared students consist of a framework of counseling and tutoring services that is ideal for immigrant students, yet EOPs are being dismantled because of budgetary cutbacks and some are being

closed because they have not been effective. Existing programs face additional challenges when they are not integrated with the mainstream activities of the college. Staff and students in such programs can experience isolation that works against them (Sommerville, 2001). Special programs that operate from a separate unit are susceptible to being eliminated or changed. Sommerville (2001) argues that special programs should become an integral part of their institutions. The success of special programs depends on a concerted effort that involves a campus-wide commitment by faculty, staff, students, administrators, and trustees; the key is in understanding the expectations of students, college tutors, and administrators.

Critique of the Literature

There is much more to learn in understanding predictors of immigrant college completion and the current study aims to fill some of these gaps. Of the twelve articles in a special issue of the *Harvard Educational Review* on "Immigration and Education" (Suarez-Orozco & Suarez-Orozco 2001), which covered a broad range of issues and research methods, only one article focused on the immigrant college students. In a study conducted by Gray et al. (1996) on how institutions perceive immigrant students and their response to them, only eight of the fourteen institutions studied had statistical data on the status of immigration students. The study noted that immigrants are not a targeted population. Most institutions do not track immigrant students. Furthermore, immigrant students are not differentiated from naturalized citizens and are often grouped with other minorities in terms of access to college and persistence in completing a degree. In fact, respondents in the study believed that the issues affecting immigrant students were not much different from those affecting disadvantaged native-born students. To provide special support services would be "inappropriate." This tendency has resulted in inadequate research findings about immigrants and college outcomes.

In addition to the limited research on college immigrant students, much of the research available has been conflicting. Some comparing immigrant and native-born students in both secondary and higher education suggest that immigrant students did better academically than native-born students (Ruiz de Velsaco et al., 2000; Gray, et al. 1996; Skadberg, 2005). Immigrant students were more likely to report high personal and parental aspirations, more likely to excel in math and science courses, and more likely to graduate from college. However, other studies (Vernez & Abrahamse, 1996; Pidcock et al., 2001) indicated that immigrant students, especially Hispanics, underachieved and had lower educational attainment. The aggregate performance data of Mexican and Central American students in particular showed that they lagged behind compared with native-born students (Gray et al., 1996). Other studies noted that their degree completion, both at the secondary level and in higher education, is lower proportionally than any other ethnic group (Fumita, 2002; Ruis de Velsaco et al., 2000). Whereas gender, socioeconomic status, and ethnic origin were factors that influenced persistence among some immigrant students, among certain ethnic groups like ex-Soviet students, these factors had less influence than parents, peers, and academic achievement (Sagy & Liberman, 1998). Overall, the majority of studies reviewed focused on the Latino and Asian population and thus may have limited applicability to other groups. While cultural variables are important and exert an impact on academic success, there are other factors that should be accounted for, such as situational and demographic variables that occur with a number of ethnic groups. Many existing studies do not focus specifically on pre-enrollment situational and demographic variables and there is, therefore, a gap in the research literature and theory related to the importance of these nonpersonal factors.

Another shortcoming of previous studies is that situational and demographics are typically aggregated and combined with other variables, thus making it difficult to determine

which situational and demographic variables are most influential in college completion (Suarez-Orozco, 1995; Hume, 2003; Astin, 1993; Crisostomo, 2001). To properly examine these variables, it is necessary to disaggregate them and examine them separately and individually, as will be done in the present study.

Summary

A substantive amount of research (Tinto, 1975, 1982; Bean, 1980; Bean & Metzner, 1985; Nora, 1993; Pascarella & Terezini, 1980, 2005) has explored why students drop out of college. The factors that cause students to both persist and graduate are particularly important for immigrant populations. While most studies on the success of immigrants have focused on comparison of native-born and non-native-born students, few studies have focused on differences among immigrants and pre-enrollment predictors of later college success. Researchers have repeatedly found that there are certain characteristics among successful college students that make them more likely to succeed in college. The characteristics of successful students include high school GPA, students whose parents are college graduates, and number of people in the household, to name a few. Despite the growing numbers of immigrants in college, the predictive power of pre-enrollment characteristics in determining the success of immigrant students in opportunity programs is not clearly understood.

Currently, many opportunity programs do not address pre-enrollment differences among immigrant students. Immigrant students have varying academic and personal needs and such needs are different from those of the traditional college students, and these factors must be taken into account when providing services to the immigrant students. Understanding the pre-enrollment profile of immigrant students will help institutions provide more customized and directed services and positively influence graduation completion rates.

Hypotheses

In view of the purpose of the study of specific pre-enrollment situational and demographic variables that affect college completion among immigrant students and based on the findings of the literature review, the following hypotheses were formulated:

Hypothesis 1: Pre-enrollment household composition is a predictor of later college completion:

(a) Students with fewer people in the household are more likely to be successful completers than those with more household members.

(b) Students from a nuclear family are more likely to be successful completers than students from other types of family structure.

Hypothesis 2: Pre-enrollment demographic characteristics are predictors of later college completion:

(a) Students who ethnically identify as Asian are more likely to be successful completers than students who identified from other ethnicities.

(b) Among immigrant students born overseas, female students are more likely to be successful completers than male students.

(c) Older students are more likely to be successful completers than younger students.

Hypothesis 3: Pre-enrollment situational characteristics are predictors of later college completion:

(a) Students with higher high school GPA are more likely to be successful completers than students with lower high school GPA.

(b) Students whose length of residence in New York City is longer are more likely to be successful completers than students who have a shorter length of residence in New York City.

(c) Students whose primary language is English are more likely to complete college than students whose primary language is not English.

Hypothesis 4: Students admitted in the later cohort (2001-2003) are more likely to complete college.

CHAPTER FOUR: METHODOLOGY

Introduction

This chapter describes the research method utilized in conducting the current study. It covers the description of the current study and information about the research design and rationale, population, sample, variables, data collection, data analysis and management, and limitations of the study.

Research Design and Rationale

The study examined the strength of the relationship between eight situational and demographic variables and college completion among two cohorts of SEEK immigrant students, those enrolled before or in 2000(1995-2000) and in 2001 or later (2001-2003) at The City College of New York . The two cohorts were chosen because the pre-enrollment characteristics may have changed given the change in CUNY admission policies in 1995. The policies were not fully implemented until 2001. The more recent cohort,(the 2001 and later) was admitted under a different and more stringent set of guidelines than the before 2000 cohort.

The researcher employed a quantitative study using pre-existing, multi-year archival data about student background and graduation characteristics. This research design was chosen because it is well suited to the purpose of the study. Data mining allows finding patterns, predicting behavior, and revealing future trends from pre-existing data (Royse, 1991; Epstein & Blumenfield, 2001). Correlations of the data were examined to determine whether student characteristics were strong versus weak correlates (and therefore possible predictors) of graduation.

Research Sample

The research sample was drawn from the CCNY SEEK student population in two periods (pre and post 2000). The sample consists of immigrant students and did not include undocumented or refugee students. The sample includes graduates and students who were inactive from 1995-2000 and 2001-2003. Students who were inactive (i.e. non-completers) were students who had not graduated from the SEEK CCNY program within six years. Data on long- term college completion after six years, and outside the SEEK program were not available. However, the sample examined is representative of most SEEK immigrant students whether completers or non-completers. Data on background characteristics (gender, ethnicity, residency, age, high school GPA, etc.) were drawn from CCNY SEEK admission applications.

The sample consisted of two groups: completers and non-completers. Completers consist of all City College of New York SEEK students who are identified as immigrants and were enrolled in the 1995-2000 and 2001-2003 time periods and graduated within six years of entry to college. The non-completer sample consist of all CCNY SEEK students who are identified as immigrants and enrolled in the 1995-2000 and 2001-2003 period but who did not graduate within six years. These students either were dismissed by CCNY or dropped out and have not returned to CCNY to complete their degree. The criteria for inclusion in the sample include immigrant status, graduation status (completers versus non completers) and admission to City College in the 1995 to 2000 and 2001-2003 time periods. Transfer students meeting the above criteria were not included in the sample in order to eliminate any effects that transferring from an institution outside of CCNY might have on college completion**.** Students from Puerto Rico also were not included in the sample because they are U.S. citizens. Though born on the island, they are exposed and partially acculturated to U.S. culture prior to arriving to the mainland.

Variables

The variables investigated for the current study are:

1. College completion – College completion within six years with a bachelor's degree College completion is considered the dependent outcome variable.
2. Eight Student Situational and Demographic Characteristics - Student demographic and situational characteristics are considered to be independent variables, which predict or exert an effect on the rate of college completion. The following are the student situational and demographic variables to be examined for their relationship to college success:

   Situational Variables:

   1. Household composition
   2. Length of residence in New York City
   3. English as a primary language
   4. High School GPA
   5. Year of entry

   Demographic Variables:

   6. Age of entry into the program
   7. Gender
   8. Ethnicity

The variables addressed in the study were selected because previous theorists (Tinto, 1975; Bean & Metzner; 1985, Ogbu, 1975; Pascarella & Terezni, 1980) had cited that many of these variables were significantly associated to college success either for persistence in college or graduation from college.

Anecdotal evidence from the researcher's experience also indicates that these variables, (such household composition), are important in determining college success. Students who come from a two parent household are more likely to persist and graduate (Coleman 1988). The

students receive more support and attention from their parents. They are less likely to be employed and thus able to focus their efforts on their studies full-time (Garcia & Bayer, 2005; Coleman 1988). Some variables are expected to have more predictive power than others but all are (both logically and experientially) independent variables that have an effect on college completion as a dependent variable. What was not known, however, is which variables were the strongest predictors. Many of these variables are interrelated and there may be common factors among them that would explain their predictive power. However, in this study they were looked at separately and then compared in order to untangle their effects on college completion.

Data Collection

The data was collected from the CUNY 32-item admission application of City College students. The application contains student background such as high school academic information, primary language spoken and length of residency. The application also includes a section that queries applicants about demographic characteristics such as country of origin, ethnic background, native language and social background. SEEK candidates are also required to supply income and household composition information. The information contained in the application includes all the variables selected for this study. The admission application instrument for the current study was de-identified (rendered anonymous) prior to access by the researcher to maintain the confidentiality of students. Since this is a data mining approach, it did not involve closed or open communication with subjects or interfere with service delivery

Data Management and Storage

The current study used archival documents (admission applications) from the CCNY SEEK Department. The admission application, the primary source of data for the study, is a standardized application used universally by CUNY for entering students admitted to all the

CUNY colleges. The information provided by the applicant for the admission application is not particularly sensitive and it is assumed that the information is accurate and valid for the purpose of the university study. Portions of the admission application completed by incoming students contains items to be filled out by prospective SEEK students (see Appendix B). To determine eligibility for the SEEK program, the SEEK portion of the form is verified by the SEEK Department for accuracy and validity. SEEK student files are currently kept in a locked filing cabinet in the SEEK Department. Only the staff of the SEEK Department has access to the filing cabinets.

Data Analysis

Data analysis compared four different sub samples of students to see whether the background characteristics are associated with graduation. Correlations between student entry background characteristics and their graduation rate were examined for each of these four groups as noted in the diagram below:

Comparison of Student's Background Characteristics Pre 2000 and Post 2001

	Completers	Non-Completers
Pre 2000(1995-2000)	Background Characteristics	Background Characteristics
Post 2001 (2001-2003)	Background Characteristics	Background Characteristics

To determine outcome measures such as graduation rate, region where most of the students come from, descriptive and inferential statistics were used. This includes univariate statistics to examine the variables individually and bivariate statistics to examine the relationships between variables. Among the bivariate statistics used were analyses of variance (ANOVA) to determine if there are any differences between the two cohorts and the variables and if the interactions between the variables have a statically significant effect on the dependent

variable (Gall, Borg, and Gall, 1996). The outcome measured was the degree completion. Chi-square was also used to determine interaction among categorical variables and how they connected.

A data extraction procedure was used to create a profile of each student in the sample. It involved examining each record and transferring data elements within each record on the eight focal variables to a coding sheet (Appendix A), which was the basis for running the correlation test. Raw data was recorded as coded and grouped later into categories for data analysis (e.g., by age, country of origin or ethnicity). A logistic regression analysis was conducted to determine which variables are the strongest predictors of college completion. Collected data was entered into SPSS statistical software to generate descriptive statistics to analyze the relationship between the variables and college completion.

Limitations

Because the current study used archival data, the limitations of the study are noted as follows:

- Results of the study may not be generalizable to non-SEEK immigrant students and non-immigrant students.
- The study focused on the effects of pre-college attributes of students on degree completion but not on factors occurring after admission and students' subjective experiences such as academic and social integration.
- There are extraneous factors affecting student completion such as marriage, pregnancy or job loss, which will not be addressed in the study.
- The study does not distinguish between first and second generation immigrants.
- The study was not able to disentangle the effect of length of time in the Unites States on completion because length of time in the US is not available.

- The study did not distinguish the impact of counseling, including the quantity or quality of counseling on graduation rate.
- The study did not distinguish personality factors such as motivation and familial factors such as pressure to graduate or distractions to graduate.

CHAPTER FIVE: FINDINGS

Introduction

This study sought to identify whether eight background characteristics of immigrants students enrolled in the SEEK (Search for Education, Elevation and Knowledge) program at City College of New York were possible predictors of educational "success" defined as whether or not the students completed their undergraduate degrees. In addition, the study examined whether time of entry had an effect on the graduation rate and whether time of entry moderates the relationship between the eight possible predictor variable and graduation rate. Time of entry was defined as membership in one of two cohorts of entering freshmen: an earlier cohort who entered City College between 1995 and 2000 and a later cohort who entered in 2001 or after, but not later than 2003. The findings of the study are important in constructing a model of pre enrollment college completion indicators that can be used by Counselors to design program and counseling intervention to increase the college success rate of immigrant students.

Demographic / Background Description of the Sample

The sample included students who did graduate and compared them to those who did not. The major outcome measure or indicator of success was whether or not a student graduated from college. Table 1 shows that the sample (n =390) is almost evenly divided between those who did and did not graduate, with 52.1% of the students completing their degrees.

Table 1. Graduation Rate

	Frequency	Percent
Did Not Graduate	187	47.9%
Did Graduate	203	52.1%
Total	390	100.0%

Possible predictors of graduation included eight independent variables grouped together into three conceptual groups: (1) HOUSEHOLD COMPOSITION VARIABLES which include the number of people in the household and whether student resides in a nuclear family (both parents) or not, (2) DEMOGRAPHIC VARIABLES which include the age, the gender and the ethnicity of the student and, finally, (3) SITUATIONAL VARIABLES which include the student's primary language, length of residence in New York City, year of entry into City College (cohort), and high school grade point average (GPA). A description of the sample in terms of these variables is presented in Table 2.

Table 2. Summary of Household Composition, Demographic and Situational Variables			
Household composition Variables			
	Number in household		
	Mean	4.27	
	Std Deviation	1.53	
	Reside in Nuclear Family		
	No	209	53.6%
	Yes	149	38.2%
	No Reply	32	8.2%
Demographic Variables			
	Age		
	Mean	18.85	
	Std Deviation	2.62	
	Gender		
	Male	172	44.1%
	Female	218	55.9%
	Ethnicity		
	Asian	94	24.1%
	African-American Black	6	1.5%
	Caribbean	208	53.3%
	Caucasian	81	20.8%
	No Reply	1	0.3%
Situational Variables			
	Primary language		
	English	249	63.8%
	Other Than English	136	34.9%
	No Reply	5	1.3%
	Length of residence in NYC		
	Mean	6.45	
	Std Deviation	.75	
	Year of entry into City College		
	1995-2000	316	81.0%
	2001-2003	74	19.0%
	High School GPA		
	Mean	77.67	
	Std Deviation	5.37	

With regard to the household composition variables, as illustrated in Table 2, the number of people in the student's household ranged from 0 to 9 with an average of 4.27 (sd = 1.53) people in the household. However, the majority of the 390 students (54%) noted in are not currently living with both parents.

Demographically speaking, most students were between 16 and 20 years of age. The mean age at the time of entry was 18.85 years of age (*SD* = 2.62) at the time of entry. There were more females(56%) than males(44%). The majority were of Caribbean descent (53%) especially from the Dominican Republic. There were however a substantial number of Asians (24%) and Caucasians (21%) but rather few Black or African-American students (< 2%).

With respect to the situational variables, Table 2 shows almost that two-thirds of the students speak English as their primary language (64%) even though English is not their first language. On average these students have resided in New York City for more than six years (mean = 6.45, sd =.75) and the mean grade point average was 77.67 (sd = 5.37) grade point average. Finally, most (81%) entered City College prior to 2001.

Thus, though there were variations, the typical entering SEEK immigrant student was an 18 years old Dominican female who lived in a household of four or more people whose primary language was English, who had lived in new York City for six or seven years and whose high school GPA was approximately 78. More of those who entered in the 1995-2000 period were included in the sample than those who entered in the 2001-2003 period.

Correlates of Graduation - Bivariate Analysis

Because the primary purpose of this investigation was to identify possible correlates of graduation among immigrant students, the next portion of the analysis examines simple bivariate associations between graduation and each of the eight independent variables. These analyses involve the use of crosstabulation / chi-square tests for categorical independent variables and t-

tests for ordered or continuous variables. The results of the analyses organized by the study hypotheses are presented below.

Hypothesis 1A – Students with fewer people in the household are more likely to be successful completers:

Table 3. Relationship between Graduation and Household Composition					
Variable	N	Mean	Std. Dev.	t-value	Level of sig.
People in Household					
Did Not Graduate	185	4.06	1.52	-2.667	.008
Did Graduate	192	4.48	1.52		

Inconsistent with Hypothesis 1A, graduates as a whole had a significantly larger number of individuals in their households relative to non-graduates (4.48 vs. 4.06, $t = -2.67$, $df = 375$, $p < .01$).

Hypothesis 1B - Students from a nuclear family are more likely to be successful completers than students from other types of family structure.

Table 4. Relationship between Graduation and Living with Nuclear Family			
Graduated	Not Living with 2 Parents	Living with 2 Parents	Total
No	53.6%	40.3%	48.0%
Yes	46.4%	59.7%	52.0%
	100%	100%	100%

$\chi^2 = 6.184$, $df=1$, $p < .02$

Consistent with Hypothesis 1B, Table 4 shows that students who were living with two parents (in a nuclear family) graduated ($\chi^2 = 6.184$, $df=1$, $p < .02$) more than students who did not live with two parents.

Hypothesis 2A – Students who ethnically identify as Asian are more likely to be successful completers than students who identify as another ethnicity.

Table 5. Relationship between Graduation and Ethnicity

Graduated	Other than Asian	Asian	Total
No	44.4%	58.5%	47.8%
Yes	55.6%	41.5%	52.2%
	100%	100%	100%

$\chi^2 = 5.68$, df=1, $p < .02$

Inconsistent with Hypothesis 2A, Table 5 shows that 41% of Asian students graduated compared to 56% of students from other ethnicities. So the graduation outcomes for Asian students were poorer as opposed to any other race/ethnicity ($\chi^2 = 5.68$, df=1, $p < .02$)

Hypothesis 2B – Among immigrant students born overseas, female students are more likely to be successful completers than male students.

Table 6. Relationship between Graduation and Gender

Graduated	Male	Female	Total
No	51.7%	45.0%	47.9%
Yes	48.3%	55.0%	52.1%
	100%	100%	100%

$\chi^2 = 1.78$, df=1, $p < .19$

The findings for with Hypothesis 2B were not significantly related to graduation. Gender, presented in Table 6, shows minimal differences among males and females who graduate or fail to graduate ($\chi^2 = 1.78$, df=1, $p < .19$).

Hypothesis 2C – Older students are more likely to be successful completers than younger students.

Table 7. Relationship between Graduation and Age					
Variable	N	Mean	Std. Dev.	t-value	Level of sig.
Age of Respondent					
Did Not Graduate	187	18.97	2.70	.865	>.05
Did Graduate	203	18.74	2.54		

Inconsistent with Hypothesis 2C the age of respondent (18.97 vs. 18.74, t=.865, df=, p=.865) was not significant in terms of graduation.

Hypothesis 3A – Students with higher high school GPA are more likely to be successful completers than students with lower high school GPA.

Table 8. Relationship between graduation and High School GPA					
Variable	N	Mean	Std. Dev.	t-value	Level of sig.
High School GPA					
Did Not Graduate	177	76.68	4.62	-3.566	.000
Did Graduate	184	78.66	5.85		

Table 8 shows that findings were consistent with Hypothesis 3A. Graduates also had significantly higher grade point averages (78.66 vs. 76.68, t = -3.58, df = 345.79, p = .001).

Hypothesis 3B- Students whose length of residence in New York City is longer are more likely to be successful completers than students who have a shorter length of residency in New York City.

Table 9. Relationship between Graduation and Length of Residency in NYC					
Variable	N	Mean	Std. Dev.	t-value	Level of sig.
Length of Time in NYC					
Did Not Graduate	181	6.30	3.92	.652	>.05
Did Graduate	193	6.60	4.68		

Length of residency in New York City (6.30 vs. 6.60, t=.652, df=, p=.652) was inconsistent with Hypothesis 3B and not significant in terms of graduation.

Hypothesis 3C – Students whose primary language is English are more likely to complete college than students whose primary language is not English.

The findings for Hypothesis 3C were not significantly related to graduation. Table 9 indicates that primary language of English and other than English has little impact on graduation with a percent difference of less than 3% ($\chi^2 = 0.25$, df=1, $p < .62$).

Table 10. Relationship between graduation and primary language

Graduated	Other Than English	English	Total
No	46.3%	49.0%	47.9%
Yes	53.7%	51.0%	52.1%
	100%	100%	100%

$\chi^2 = 0.25$, df=1, $p < .62$

Hypothesis 4- Students admitted in the later cohort are more likely to complete college.

Table 11. Relationship between graduation and year of entry

Graduated	1995-2000	2001-2003	Total
No	50.9%	35.1%	47.9%
Yes	49.1%	64.6%	52.1%
	81.0%	19.0%	100%

$\chi^2 = 6.01$, df=1, $p < .02$

Consistent with Hypothesis 4, Table 11 shows that 65% of the 2001-2003 cohort graduated versus only 49% of the 1995-2000 cohort, a difference of 16% ($\chi^2 = 6.01$, df=1, $p < .02$).

Comparing the chi-square findings with the study hypotheses the following becomes apparent. With regard to the first statistically significant association, 60% of students who lived in a nuclear family graduated from college but only 46% of those not living in a nuclear family graduated from college (Table 4). This finding supports the claim advanced in Hypothesis 1B, i.e., students from a nuclear family would be more likely to graduate from college in comparison

to other students who did not live in a nuclear family. The second statistically significant finding, however, fails to support the claim made in Hypothesis 2A. That is to say, contrary to expectation, Asian students in these two SEEK cohorts were less, not more, likely to graduate from college than are students from other racial or ethnic backgrounds, 42% vs. 56% (Table 5). Finally, students admitted in the 'later' cohort, i.e., 2001-2003, were significantly more likely to graduate (65%) than were their counterparts in the "earlier" cohort (49%) as shown in Table 11. With regard to the first of the two statistically non-significant findings, 55% of females and 48% of males graduated from college (Table 6). The second non-significant result is that 54% of those respondents of whom English is not their primary language graduated from college whereas 51% of the English-speaking students did so (Table 10).

Graduation Predictors- Multivariate Analysis

Multiple logistic regression was used to develop a model for predicting graduation. Unlike the bivariate analyses presented previously (which ignore the correlations among the predictors), the multiple logistic regression model takes these correlations into account in estimating the "net" relationship of each predictor to the ultimate outcome, graduation from college. Stated somewhat differently, the multiple logistic regression model estimates the "unique" relationship of each predictor to successful graduation.

Taken as a set, the eight predictor variables are significantly related to, i.e., predictive of, successful graduation (Nagelkerke $R^2 = .16$, $\chi^2 = 41.48$, $df = 9$, $p < .001$)[2] as shown in Table 12.

[2] Sixty-nine cases (n = 69) were deleted from the logistic regression model due to missing values on one or more of the eight predictors in the model. Also, tests for possible multicollinearity among the predictor variables as well as tests for possible curvilinearity involving the continuous predictor variables indicated that there was no evidence of either multicollinearity or curvilinearity.

Table 12. Model Summary for Logical Regression[a]			
Step	-2 Log likelihood	Cox & Snell R^2	Nagelkerke R^2
1	403.368[a]	.121	.162

[a]Estimation terminated at iteration number 4 because parameter estimates changed by less than .001

This finding indicates that one or more of the eight predictor variables are useful in discriminating or differentiating characteristics of and non-graduates. Also, the Hosmer-Lemeshow goodness-of-fit test indicates that the discrepancies between the observed and model predicted values of the dependent variable, graduation from college or not, are statistically insignificant ($\chi^2 = 3.94$, df=8, $p < .86$) (Table 13) .

Table 13. Summary for Homer-Lemeshow Test			
Step	Chi-square	Df	Sig.
1	3.937	8	.863

This finding implies that the logistic regression model does a good job of fitting the distribution of the scores of the dependent variable. Table 14 presents the relevant data with regard to the individual predictors in this model.

This finding implies that the logistic regression model does a good job of fitting the distribution of the scores of the dependent variable. Table 14 presents the relevant data with regard to the individual predictors in this model.

Table 14. Variables in the Equation							
		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	HH_Number	.254	.092	7.674	1	.006	1.289
	Nucfam	.236	.267	.780	1	.377	1.266
	Age	–.025	.070	.132	1	.716	.975
	gender	.509	.244	4.359	1	.037	1.664
	Asian	–.475	.294	2.603	1	.107	.622
	GPA	.082	.025	10.739	1	.001	1.085
	Linnycyrs	.052	.035	2.201	1	.138	1.054
	YrEntry	.887	.310	8.187	1	.004	2.428
	Primlan	–.128	.292	.193	1	.660	.880
	Constant	–9.032	2.524	11.850	1	.001	.000

[a]Variable(s) entered on step 1: HH_Number, Nucfam, age, gender, asian, GPA, Linnycyrs, YrEntry, Primlan

As seen in Table 14, four predictors, the number of individuals in the household ($p < .01$), gender ($p < .04$), grade point average ($p = .001$), and year of entry, i.e., cohort ($p = .004$) are statistically significantly related to graduation at the conventional, $p < .05$ level. The signs of the unstandardized logistic regression coefficients (B) of these four predictors are positive indicating that higher scores on each predictor are associated with a greater likelihood of a student graduating. In order to understand the "strength" or "magnitude" of each of these effects, the "odds ratios" (Exp(B)) associated with each predictor can be examined. The odds ratio associated with the number of people in the household variable is 1.289. In substantive terms, an odds ratio of this magnitude indicates that, controlling for the other predictors in the model, for each additional individual in the household, the odds of graduating increase by [(1.289 – 1.00) × 100 =] 28.9%. With regard to gender, for females, the odds of graduating are 66.4% higher than for males, controlling for the other predictors in the model. With regard to GPA, the odds of successfully graduating increase by 8.5% for each additional point of GPA net of the other variables in this model. Finally, being a member of the

"later" cohort, i.e., enrolling in 2001 or after, as opposed to the "earlier" cohort (1995–2000), is associated with a 142.8% increase in the odds of graduating.

Based on these results, it would appear that being a member of the later rather than the earlier cohort is a strong predictor of college completion. However, because the four statistically significant predictors are measured in different metrics, the odds ratios reported above may be more misleading than informing. In order to arrive at a more even-handed comparison of the relative strengths of these four predictors' effects, all eight predictors have been converted to *Z*-scores, which effectively standardize their metrics. Table 15 presents the odds ratios for all of the predictors now based on the more comparable, "standardized" metrics.

Table 15. Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(*B*)
Step 1[a]	ZHH_Number	.389	.140	7.674	1	.006	1.476
	ZNucfam	.117	.132	.780	1	.377	1.124
	ZAge	-.066	.183	.132	1	.716	.936
	Zgender	.253	.121	4.359	1	.037	1.288
	ZAsian	-.203	.126	2.603	1	.107	.816
	ZGPA	.439	.134	10.739	1	.001	1.552
	ZLinnycyrs	.227	.153	2.201	1	.138	1.255
	ZYrEntry	.348	.122	8.187	1	.004	1.416
	ZPrimlan	-.061	.140	.193	1	.660	.940
	ZConstant	.019	.121	.025	1	.873	1.019

[a]Variable(s) entered on step 1: ZHH_Number, ZNucfam, Zage, Zgender, Zasian, ZGPA, ZLinnycyrs, ZYrEntry, ZPrimlan

Notice that the significance tests of the predictors remain the same as reported above. However, the odds ratios for the standardized predictors have been reordered. Now, the strongest predictor of graduation is GPA (odds ratio = 1.55), followed by the size of the household (odds ratio = 1.48), year of entry cohort (odds ratio = 1.42) and, finally, gender (odds ratio = 1.29).

In substantive terms, the same four predictors continue to be significantly related to graduation. The strongest of these, not surprisingly, and consistent with the claim made in

Hypothesis 3A, is that higher high school GPAs are predictive of college graduation (odds ratio = 1.55). Also, students from larger households are more likely to graduate from college (odds ratio = 1.48). Students entering college in the "later" cohort (2001 or after) are more likely to graduate than those entering in the "earlier" cohort (2000 or earlier) with an odds ratio = 1.42. Finally inconsistent with Hypothesis 2B women, not men, show a greater likelihood of graduating from college (odds ratio = 1.29). None of the other hypotheses are supported by the study data.

As outlined above, there is a second question involving the year of entry, i.e., the cohort, predictor. More specifically, aside from the main effect of this variable, i.e., whether students in the earlier and later cohorts differed with respect to their likelihood of graduation, is there any evidence that the effects of the other eight predictors on the likelihood of graduation differed, or depended upon, the student cohort? Stated somewhat differently, is there any evidence that the effects of these other predictors of graduation are "moderated" by the time of entry into City College? To answer this question, eight interaction terms involving year of entry and each of the other predictors were added, as a set, to the main effects logistic regression model discussed above. In fact, the addition of this set of interaction terms is not statistically significant (χ^2 = 4.50, df=8, $p < .81$) as shown in Table 16.

Table 16. Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	4.503	8	.809
	Block	4.503	8	.809
	Model	45.851	17	.000

Moreover, no individual interaction effect is statistically significant (all, $p > .05$) as presented in Table 17. Substantively, then, the data do support the claim that students who entered City College as members of the later cohort were more likely to graduate than were their

counterparts who entered earlier. However, the relationships between the other eight predictors and the likelihood of graduation do not differ for the members of these two cohorts. That is to say, the effects of these other eight variables remained the same from the earlier cohort to the later cohort.

Table 17. Variables in the Equation							
		B	S.E.	Wald	Df	Sig.	Exp(*B*)
Step 1[a]	HH_Number	.638	.352	3.282	1	.070	1.894
	Nucfam	-.106	.880	.015	1	.904	.899
	Recoded Age	-.354	.339	1.087	1	.297	.702
	Gender	.449	.815	.304	1	.581	1.567
	Asian	-.122	1.018	.014	1	.904	.885
	GPA	.015	.081	.034	1	.854	1.015
	Linnycyrs	.047	.068	.479	1	.489	1.048
	YrEntry	–7.706	7.920	.947	1	.331	.000
	Primlan	.333	.924	.130	1	.719	1.395
	1 Yr HH_Number	–.351	.308	1.291	1	.256	.704
	1 Yr Nucfam	.281	.715	.155	1	.694	1.325
	1 Yr RAge	.311	.288	1.170	1	.279	1.365
	1 Yr Gender	.093	.663	.020	1	.889	1.097
	1 Yr Asian	–.329	.857	.147	1	.701	.720
	1 Yr GPA	.055	.066	.699	1	.403	1.057
	1 Yr Linnycyrs	.056	.342	.027	1	.869	1.058
	1 Yr PlanG	-.408	.744	.278	1	.598	.665
	Constant	.487	9.510	.003	1	.959	1.627

[a]Variable(s) entered on step 1: HH_Number, Nucfam, Age, Gender, Asian, GPA, Linnycyrs, YrEntry, Primlan, 1 Yr HH_Number, 1 Yr Nucfam, 1 Yr Age, 1 Yr Gender, 1 Yr Asian, 1 Yr GPA, 1 Yr Linnycyrs, 1 Yr PlanG.

Summary of Findings

This study explored college completion among immigrant college students in an opportunity program, at a four-year, urban, public institution. The study examined the predictive validity of pre-enrollment situational and demographic factors for graduation. The factors examined included eight pre-enrollment situational and demographic variables (household composition, length of residence, English as a primary language, high school GPA, age, gender, ethnicity, and year of entry).

Results from chi-square, *t*-test, and regression analysis suggested that four out of the eight pre-enrollment variables are useful in discriminating between completers and non-completers. High school GPA was the strongest predictor of college completion. Household composition, year of entry, and gender also emerged as significant in having an influence on a student's

college completion. The effect of high school GPA as an indicator of college completion is supported by previous research (Tinto, 1975; Astin 1993; Pascarella & Terezini, 2005) in the field. Similarly, in this study, completers have a significantly higher GPA than noncompleters. Subsequently, students who entered CCNY as members of the later cohort, enrolling in 2001 or after (when the admission requirements became more selective), had a higher high school GPA and were more likely to graduate. The results fail to support the claim that Asian students and students in nuclear families were more likely to graduate. Interestingly, the results indicate that students who came from a large family household were more likely to complete than students from nuclear families. Table 18 shows a summary of the findings of the study hypotheses.

Table 18: Summary of Findings		
Study Hypotheses	Findings	
Household Composition	Disconfirmed	Positively related to Graduation
Nuclear Family	Disconfirmed	Not related to Graduation
Primary Language	Disconfirmed	Not Related to Graduation
Length of Residency		Not Significant
Year of Entry	Confirmed	Positively Related to Graduation
High School GPA	Confirmed	Positively related to Graduation
Age		Not Significant
Gender	Confirmed	Positively Related to Graduation
Ethnicity/Asian	Disconfirmed	Not Related to Graduation

There are several student characteristics that may have confounded the findings. It is possible that strained family economics and the need for students to earn income conflicted with the academic progress of some Asian students since by definition they were poor. Income earning power among Asian students may be more important than the will to overcome completion desires. Another possible reason is that Asian students culturally are less likely to ask for help and may be reluctant to discuss personal problems that may impact them academically. The language barrier may be greater for Asian students and thus impact their college completion. Unlike the romance languages spoken by the majority of CCNY SEEK immigrants students (i.e, Spanish, French), Asian languages do not share cognitive categories and rules. Learning English is challenging for Asian students. Anecdotal observation of the research notes compared to their Spanish- and French-speaking counterparts, Asian students still struggle with the English language even after years of being in the United States. The challenge

of being able to effectively communicate, compounded with cultural differences and economic pressures, are factors that may contribute to an Asian student's college completion.

A student characteristic that was not measured in the study and may confound the findings is why students in large families were more likely to complete is birth order. Birth order may have an impact in future studies because of the effect of the oldest versus the younger students where there are different expectations of the student. The oldest male or female becomes the role model in the family. In most traditional cultures, the role modeling effect is very strong. Students are expected to do well and thus are motivated to complete college. The immediate and extended family may provide such students with the needed support to ensure their success in college ultimately the uplifting the family. This is contrary to the expectations that large families are a burden to students due to family responsibilities and commitments. Students in nuclear families may experience different types of stressors. The lack of extended family and social networks (not measured in the present study) may also be a factor affecting their college completion.

CHAPTER SIX: DISCUSSION AND ANALYSIS OF PRESENT DATA

Introduction

The following chapter presents the discussion and analysis of new data based on the results of our research. Our findings go beyond the situational and demographic variables initially presented. The study examined whether selected pre-enrollment factors have a significant impact on college completion among SEEK immigrant students at The City College of New York. Eight pre-enrollment situational and demographic variables were examined: household composition, length of residency, English as a primary language, high school GPA, age, gender, ethnicity, and year of entry. These pre-enrollment factors were examined to see whether they were possible predictors of higher educational success as defined by college completion. Above all, the study was developed in order to frame effective counseling interventions. The study also explored the effect of time of entry influence on college completion. The study focused on two overarching questions:

- Are the selected factors predictors of college completion among SEEK immigrant students?
- Do these factors prior to enrollment contribute to the academic success of immigrant students?

The research focused on pre-enrollment factors because their influence on completing graduation studies among immigrant students in educational opportunity programs has been understudied. While much has been researched on what happens to students once they enter college (in-college factors that impede or support college completion), information on pre-enrollment factors, specifically on immigrant students in urban four-year institutions, is spotty and minimal. Tinto's Student Integration Model, Bean and Metzner's Nontraditional Student

Attrition Model, and Ogbu's Cultural Ecological theories (1992, 1991) were used to derive the pre-college predictors of student college completion.

The findings generated supported some but not all of the cited theoretical and empirical expectations about college completion and immigrants. Tinto's (1975) and Bean and Metzner's (1985, 1987) theories acknowledge the importance of in-college social support and external commitment. These factors interacted with student's institutional experiences and were stressed in their research as important influences on student's ability to persist. However, Bean and Metzner's model placed more emphasis on the role of environmental support such as family and outside support as predictors for successful graduation. Ogbu's (1992) research on immigrant minorities however, point to pre-enrollment characteristics such as strong familial and cultural ties as supporting students to perform better and achieve academic success.

Overall, the results of the present study suggest the importance of some of the pre-enrollment background of immigrant students when attempting to identify those students who are more likely to complete college. Some characteristics such as high school GPA, household composition, time of entry and gender were correlated with a higher likelihood of college completion. Other variables (e.g., age, English as a primary language, and length of residency) did not seem to significantly predict college completion in the current study. However, it is important to acknowledge that these variables have been found to have significant impact on college completion in other studies. It may thus be concluded that to some extent what students come into SEEK at CCNY would influence whether or not they complete college. Pre-enrollment factors such as higher high school GPA do impact completion. The students who were better prepared (and almost did not need the SEEK program based on their academic skills) did better. Furthermore, the current study differs from other studies and has recorded different findings. The study focused on urban, lower-income students. The factors impacting CCNY

SEEK students may be different from those impacting students in institutions in other studies because the nature and socioeconomic characteristics of the immigrant student population were different.

Theoretical Analysis

1. HOUSEHOLD COMPOSITION

The findings for household composition as a predictor of college completion did not support Hypothesis 1(a) "*Students with fewer people in the household are more likely to be successful completers than those with more household members"* or Hypothesis 1(b) "*Students from a nuclear family are more likely to be successful completers than students from other types of family structure."* Surprisingly a large household composition was found to be correlated with college completion. A larger household composition suggests that the role of the family and extended family in student's academic success seems to be a somewhat more important factor for immigrant students in predicting later college completion.

Based on the literature surveyed, the assumption was made that students coming from smaller two-parent household should have more support, less responsibilities, and thus more ability to focus on school and achieve college completion. Academic research on household composition indicated a strong relationship between household composition and educational outcomes (Coleman 1988; Garcia and Bayer, 2005; Finlay et al. 1988; Nora, 1987; and Murphy, 2005). Studies on the impact of household composition on educational outcomes also found that students from intact families (i.e.. two parent families continuously married) tend to complete college more than students from other family constellations (Sanderfur & Wells, 1999; Bilblarz & Rafter, 1999). Students from intact families are more likely to fare better on cognitive, emotional, and behavioral outcomes than those living in other family forms (Amato, 2005).

In the current study, this was not the profile of the 203 students who completed college. Students from smaller, nuclear families did not complete at a higher rate than students from larger households as expected. The higher graduation rates of students from a large, single-parent household challenged the stereotype of smaller, two-parent households as environments that are more likely to produce college success. A closer look at the sample offers some explanation. The majority of the sample students were from the Dominican Republic, a prominent and growing Latino group in New York City. Dominican families are traditionally large, including extended families (Reynoso, 2008). Extended families provide greater family stability and incentive to achieve, especially to single female head of household. Traditional family values provide a supportive family structure for students that enable students to thrive despite family and external responsibilities. This result suggests that membership in a supportive family that provides incentive to achieve is an important factor in explaining students' college completion. In the current study, contrary to previous studies, the large household number and a single-parent household had a positive impact of college completion. This finding supports the premise of Bean and Metzner's (1985, 1987) Attrition Model and Tinto's Student Integration Model (1978, 1975) that external factors such as community and family support impacts college completion. While Tinto (1978, 1975) explains how some institutional factors account for failure to complete, his model was deficient in addressing the impact other factors such as finances or demographics on completion. Tinto (1993) modified his 1975 model to also include social support and external factors as important components that impact college completion. What is not clear here, and an area to be explored, is the quality and quantity of support provided by the family and its impact on college completion.

Another possible theoretical explanation for this unexpected outcome is motivation. Personal factors relate to Tinto's (1978, 1975) premise that the more students are motivated to go

to college the more likely they will persist. Immigrant students from large families who are the first to attend college may have a stronger motivation to complete. First generation students often experience pressure to succeed and to become a role model for the rest of the family. The motivation to succeed is greater among those who feel that they have to pull their families up and out of poverty. It is not uncommon for individuals to engage in activities or behavior to reverse the lack of upward mobility of previous generations. The problems of the previous generation can often be perpetrated in the next generation and sometimes they are reversed by the initiatives of high achieving and motivated college students. People sometimes do the opposite of what they experienced growing up. For example, if poverty and ignorance was experienced growing up, one may be more determined to succeed. Thus, it is not only the academic aptitude that students entered college with (such as high school GPA) that accounts for student success. Students attributes (personal variables such as motivation and commitment) may also be determining factors because they feel that they have to succeed because the family is counting on them.

A related explanation could be that immigrant families were seeking upward mobility when they immigrated and college completion is a natural fulfillment of this upward mobility drive. For many prospective immigrants, a U.S. college degree has become the proverbial "streets paved with gold," the next step after citizenship. They believe that a college degree will lead to better employment opportunities and economic stability for their families in the United States and abroad. The size of the family may also be a motivator. The pioneer member from a large, extended family who goes to college may have greater motivation and commitment due to the desire to help his or her family. The larger the family, the more the family needs help. The role of the family with respect to student failure or successes is an area given little attention by higher education administrators. However, for the counselors who work with families it is a

critical area of expertise and an important concern in counseling intervention. The above explanations, cited for why larger families are associated with higher completion rate, constitute a hypothesis that needs to be explored in future studies.

2. ETHNICITY

The findings about ethnicity as a predictor of college completion did not support Hypothesis 2(a) "*Students who ethnically identify as Asian are more likely to be successful completers than students who identify as another ethnicity".* This finding was unexpected since other empirical studies on ethnicity and college completion have found significant differences among ethnic groups (Pidock et al., 2001; Rodriguez, 1999; Cristostomo, 2002). Asian students were shown to have the highest degree completion rate compared to other ethnic groups when it comes to college completion. According to the Census (2000), Asian students overall accounted for 62% of earned bachelors' degree, and Hispanic students had the lowest college completion rate (Kusmi, 2007).

The literature and media have often stereotyped Asians as the model minority population. In the area of education, Asian students are often reported be the 'high achievers," "studious," " whiz kids," and "great in math or science." The results of this study indicate something different. Asian students in this study were less likely to graduate. Because of the strong reverence for education among certain Asian ethnic groups, many Asians students have indeed excelled academically. That is not the case for all Asian students. Generalizing the "model students" to all Asians ignores a large number of Asian students who come from poor and illiterate families, which is more reflective of the profile of the Asian students in the current study. Moreover, the Asian students in the study are from a variety of ethnic groups, namely South East Asian, Korean, Japanese, and Chinese, all coming from low socioeconomic status families as per their financial eligibility for the SEEK program.

Why did Asians in this sample study not complete graduation at a more successful level? One possible explanation for non college completion is their family's economic pressure. According to this researcher's experience with the study population, many of the Asian immigrant students are in the workforce to supplement low family income. Often, students work in the family business and their salary supports the business and ultimately the family. The impact of working while attending school can have an adverse effect on a student's academic performance and ultimately college completion. While families may value education, because of circumstances, they may value economic survival even more. Therefore, variables such as economic pressures of the family (that were not taken into account in the study) may overwhelm the importance of variables examined. Economic pressure to get a job may force students to drop out.

Overall, economic pressure is a prevalent concern among SEEK students and can have a direct impact on their college completion. An interesting phenomena noted among the SEEK population (and can very be true for the general population as well), is that students may come to school not because they are learning but because they need to keep their financial aid. Students who receive full financial aid receive an excess of funds that is reimbursed to them during the semester. Those funds, which should be used by the student for education needs, such as books, school supplies, are often used to help the family and pay bills. Economic pressure in this case becomes a motivator to stay in school. Anecdotal data from the researchers' counseling practice show that economic factors may well overwhelm academic factors in determining whether a student graduates from college:

Lui, a senior, economics major with a 2.7 GPA in his last semester at CCNY met with his SEEK counselor to drop his entire course load. He was registered part time for six credits, but only needed three credits to complete his college requirements for graduation. When asked why he wanted to drop all his classes when he was so close to graduation he responded that his uncle found him a full time "good paying" job working in an accounting office. His parents wanted him to take the job now. His family needed the financial help. Lui's family migrated to the United

States from China when he was 12. His parents operate a laundry shop in Chinatown and Lui has always worked in the shop. The counselor spoke to Lui at length and discussed the benefits of a college degree. She strategizes how he might drop one class and manage his work schedule around the one class for a short time. The counselor reminded him how in the past they have been successful in working his classes around his job at the laundry shop. Yet, Lui was adamant about his decision. The counselor conceded to sign the drop form only after Lui met with the Director of the SEEK program. Despite the counselor's efforts and having met with the Director, Lui dropped his courses. After three semesters, Lui had not returned to CCNY and was dropped from the SEEK program.

Variables such as culture within the Asian family structure and community may also influence or mitigate the expected theoretical findings that Asians complete college at a higher rate. Thus the role of cultural values for this sample study may provide another explanation for why SEEK Asian students are less likely to complete college. From the observation of the researcher, Asian students do not utilize SEEK resources, counseling services, or university resources to the same extent as other students. They tend to not ask for help or discuss their problems. They may therefore be in more academic and personal difficulty than is recognized and thus complete college at a lower rate. The reluctance to discuss personal and academic problems with counselors may well be associated with succumbing to these problems and therefore failure to complete college. This highlights the need for greater cultural sensitivity among counselors engaged with this population.

The first generation effect is another possible theoretical explanation that has not been explored by the theorist Ogbu, whose focus was on immigrants born overseas. His theory did not take into account generational differences within the Asian population. Not all generations are the same. A family that has been here more than one generation is likely to assimilate more and use the education system to its advantage. Students in the sample study are relatively new immigrants and by definition are first generation people born overseas. A family that is first generation could be used to not only immigrant issues and values but illegal immigrant issues and values. For example, a family may not want to discuss too much of the family business and

they may not use counseling and they may try to make it on their own and not utilize SEEK resources. Family members can be undocumented, whereas the student can be documented. Fear of being deported may prevent students from discussing family and personal issues with their counselor that may have an adverse effect on their studies.

3. GENDER

The findings about gender as a predictor of college completion support Hypothesis 2(b) "*Among immigrant students born overseas, female students are more likely to be successful completers than male students."* Though most of the research on gender and college completion is based on American born students, the current study confirms the finding in the literature that women are more likely to complete college than men.

While in the current study women represent over 55% of the sample population, nationally there has been a steady upward trend of more women entering college. Buchmann and Diprete's (2006) study on gender-specific education trends indicate a steady reversal of the gender gap in college completion as women consistently outperform their male counterparts in high school graduation, college entry, and college completion. For example, in 2005, women received 58% of all bachelor's degrees and comprised 56% of all college students compare to 1960 when 65% of all bachelor's degrees were awarded to men (NCES, 2007). Among minorities, researchers showed that women tend to have a higher college completion rate than minority men (Peter and Carroll, 2005).

Many minority males, especially Hispanics and Blacks, are diverted before they even finish high school.

Gender identity dynamics may factor in as an explanation of higher college completion among women. Bean and Metzner noted that gender is likely to interact with other predictor variables, resulting in an indirect effect on college completion through family background and

responsibilities. Research on educational attainment and gender differences (Kerckoff, 1984; Kalmijn, 1994; Davies & Kandel, 1981) concurs that educational aspiration of women tend to be closely related to family background status. While Kalmijin (1994) found a positive correlation between educational outcomes and maternal labor force participation, Marini and Greenberger (1978) noted a stronger effect on boys. Despite conflicting findings, the social construct of gender is often apparent in the area of educational attainment. The educational experiences of women and men are different. Furthermore, in different cultures, education means different things for women and men. While a good U.S. education is one of the primary reasons why immigrants come to the United States, cultural factors in the home environment may hinder the progress of education. A student from a male-dominated culture may experience high expectations of finding a husband and having children regardless of her educational pursuits. Restrictions on their education can come in many ways. For example based on the researcher's experience, female students, often from Muslim culture, were not able to take evening courses or engage in college activities after a certain hour in response to their parent's instructions not to come home late. As a counseling intervention, the researcher advised female students how to negotiate with their parents to be able to fully engage in the college experience. A great deal of the negotiation involves educating their parents on what goes on at the college that supports their education, such as study groups and club activities that focus on not only on social activities but networking and skills building. Gender could also work against college completion since girls might get pregnant and drop out of college. But because the pregnancy rate is not known for the study population, it is not possible to say whether women would drop out more for that reason than men.

4. AGE

The findings were not significant for age as a predictor of college completion and did not support Hypothesis 2(c) *"Older students are more likely to be successful completers than younger students"*. In the current study, the average age of an entering student in the SEEK program is 18 years. Age, along with some of the other variables examined, are clear indications of the changing population of the SEEK program. The early SEEK population at the beginning of the program over forty years ago were older students in contrast to the current population.

It should be noted that the findings are ambiguous with regard to theory. The correlation between age and college completion could have been faulty because there was not much of a variation in age distribution in the sample to be able to detect if there was an age effect. There were too few older students to detect a clear-cut difference in college completion. However, while age was not shown to correlate significantly with college completion in this study, age is generally considered a key dimension in the process of degree completion as determined by where the student is in his or her life cycle.

Based on the researcher's anecdotal observation of the population and previous studies (Feldman, 1993; Brown et al., 2002; Huang, 2000,) older students enter college with different experiences and expectations. For example, adults returning to school or entering college for the first time are likely to combine school with other activities such as work, marriage, and parenthood (Maralani, 2005). Their educational trajectory is quite different from the student entering college at age 17 or 18. Older students may have dropped out early and are now in need of their degrees for advancement in their career or a better job and thus are more serious when they return to school. Older students who are employed in full-time jobs may not receive full financial aid because their income may put them above the SEEK income requirement. Because

they are paying for their education, the commitment to completing college is more serious. In contrast, younger students receive financial aid and do not feel the financial consequences of the cost of their education.

Yet the research on the relationship between age and college completion has been inconsistent. Some research (Windham, 1994; Price, 1993; Horn & Carroll, 1997; Jacobs & King 2002; Calcagno et al., 2007) found that younger students were more likely to achieve college completion. Given the age of the sample in the current study, the majority of entering freshmen come directly from high school. Many enter with unrealistic expectations that courses and exams will resemble their experiences in high school. Students often experience culture shock given the realities and demands of college. It is the experience of the researcher that first-year students who are dismissed or placed on academic probation do not lack basic skills competency, but rather, they lack maturity and basic college survival skills such as study skills and good time management habits essential for college success.

Many students also lack educational goals. According to Tinto (1975), pre-entry attributes such as educational goals and commitments can influence a student's decision to persist and college completion. Counseling sessions with students in their first semester focused heavily on engagement and transition issues from high school to college. Better entry preparation to support students to have realistic expectations of higher education and a shift of attitudes and educational goals are areas that can be explored to achieve college completion.

5. High School GPA

Not surprisingly, the findings for high school GPA as a predictor of college completions were significant and support Hypothesis 3(a) "*Students with higher high school GPA are more*

likely to be successful completers than students with lower high school GPA." These results are consistent with previous studies. Across the board, researchers concur that students with strong high school GPA are more likely to graduate (Tinto, 1975, Huang, 2000, Vernez & Abrahamse, 1996, McPartland, 1998, Bryson et al., 2002). High school GPA was a better predictor of college completion than standardized test scores. GPA mattered much more in determining student success.

Data from the National Clearing House (NCES, 2003) showed that only 15% of students entering a four-year college with a GPA of 2.0 or less were less likely to graduate within six years. However, 75% of students who graduate from high school with a GPA of 3.6 or higher graduated from a four-year college within six years. This finding indicates that the higher high school GPA score that students come in with (academically speaking), the more they are likely to graduate. This is particularly true for students in the current study. According to Bean and Metzner (1985), academic variables such as high school GPA have a direct effect on college GPA for nontraditional students (including immigrants, minority, and commuter students who are represented the sample).

How is high school GPA correlated with college completion? Simply put, high school GPA is correlated with high school skills. Thus, theory is supported. Those who come in with better academic skills are more likely to graduate. They enter with less or no need for remedial education and are better prepared to handle college course work. A more subtle explanation of this phenomenon is that students who are more prepared academically speaking may well find college less threatening and less of a culture shock than students who are less prepared. Well-prepared students can adapt better to a college environment. The student who is less prepared will feel inadequate or embarrassed. Students with higher high school GPA are better able to take courses for credits than noncredit courses and therefore accumulate credit for graduation

faster. A student who entered with a failure in the entrance exam will have to take a noncredit-bearing workshop. Students who learn to write a term paper or how to do algebra in high school will be able to master classes that will move them forward in the academic career when they begin their college studies. Anecdotally, students who sits in the back of the class room and are afraid to ask questions are the ones who are usually lost. Their deficiencies become apparent when they take a test or have to write a paper.

6. Length of Residency and Primary Language

The findings were not significant for length of residency and primary language as predictors of college completion and did not support Hypothesis 3(b) "*Students whose length of residence in New York City is longer are more likely to be successful completers than students who have a shorter length of residence in New York City";* and the findings did not support Hypothesis 3(c) "*Students whose primary language is English are more likely to complete college than students whose primary language is not English".*

Length of residence is a close correlate of primary language for the contemporary college population. A number of studies have found factors that influence educational attainment include length of residency and primary language (Vernez & Abrahames,1996; Duran & Weffer, 1992 ;Huang, 2000; Rumberger & Larson, 1998; Hao & Portes, 1998). Research in this area has been conflicting. Some researchers (Garcia & Bayer, 2005, White and Glick, 2000; Wojtkiewicz & Donato, 1995) found length of residency linked to low education attainment. Students who have less time to acculturate to their new environment may have a difficult time negotiating and understanding the school system.

Length of residence is also linked with language skills. Limited English skills reduce the ability to understand course material taught in English as well as write papers in English, thus

compromising school work and college completion (Kao & Tienda, 1995). However, other researchers (Suarez-Orazco, 2001) found the opposite results. Length of residency and fluency in English associated with acculturation led to a decline of school achievement and aspirations. Students who have been here for a longer time had deterrents that impacted college completion. They were more likely to have jobs, debts, more distractions, and more social relations that have an anti college effect. Suarez-Orazco (2001) and others attributed this phenomenon to immersion in the U.S. youth pop culture, which values less school involvement and greater disconnection from parental values. Ogbu (1975) suggests that factors such as voluntary and involuntary migration determine assimilation and acculturation experiences that varies and can impact educational attainment. Ogbu (1975) notes that recent immigrants, that is voluntary immigrants, to the United States may be more motivated to go to school and thus perform better than involuntary immigrants who entered the United States from a history of slavery and colonization. Ogbu argues that involuntary immigrants are affected by feelings of oppression and are faced with racial barriers that prevent them from doing well in school.

7. Year of Entry

The findings were significant that year of entry into CCNY was related to college completion and support Hypothesis 4 "*Students admitted in the later cohort are more likely to complete college."* In conjunction with a higher GPA, students in the study who entered in the later cohort, when admissions policy became more selective, were more likely to complete college.

The study points to an interesting result. Concerning the time of entry, the other seven variables remained constant despite the admission policy change (discussed in chapter one). The relationship the seven variables to college completion did not change. This suggests that the outcome of college completion perhaps did not come from the individual student, but from the action of the institution in changing its admission policy. Cohort membership was based on

situational and demographic characteristics. While most of the characteristics of the two cohorts were similar, the later cohort was better prepared academically as per their higher high school GPA. Because of the new admission policy, students were selected who were more qualified for college work, and as a result, there was a significant impact on the graduation rate.

Year of entry is correlated with other factors of predictors of success, particularly high school GPA. This goes back to the suggestion that student who are better prepared do better. This explanation also is derived from the researcher's clinical observation and experience. The student who is more academically prepared, connected to his or her home community, the college community, and uses the support system provided by the SEEK (program such as counseling) is more likely to succeed than the student who has fewer resources and limits his or her access of SEEK.

8. Other Factors That Affect College Completion

These findings in general indicate that while some of the variables examined do have a significant relationship with successful college outcomes, other variables that were not examined in the study may play a role in determining graduation. These other variables were beyond the scope of the study and could not be examined within the resources and data available to the researcher. However, they should be cited in order to provide a more comprehensive set of possible determinants of college completion. They should also be factored into the design of counseling intervention. Based on anecdotal reports and the researcher's own experience, the following variables may well influence the graduation rate for some students (though they are not examined in the current study):

A. Social Challenges

FAMILY AND WORK OBLIGATIONS

As noted previously, family and work-related issues often have been cited as factors that have had a significant impact on college completion. The current study found that a large household has a positive impact on college completion. The results suggest that students in the sample may be receiving support from the family toward college completion. However, family pressures can be challenging for students. The student's' "new" identity as a college student may have important effects on the relationship with family and friends, especially if the student is the first member of the family to attend college. Parents who do not have experience with higher education maybe enthusiastic about their child attending college but have only a vague idea of the realities of college life. There maybe an assumption that the student can and should continue with family responsibilities. In fact, the student may have little time, and tasks such as babysitting siblings, cooking, and cleaning interferes with time needed for studying and even attending classes. One student describes this dilemma:

> *My father does not live with us. He lives in Dominican Republic and my mother works a lot. I am the oldest and I have to pick up my little brother and sister from after school and start dinner. I can't take late classes because I need to be home.*

Change in family economics while student is in college can have an impact on college completion of the students. Studies (Astin, 1975**;** Garcia & Bayer, 2005; Coleman 1988**)** and the researcher's anecdotal experience have found that students who work more than 20 to 25 hours per week are negatively impacted academically. Often these students have no choice, particularly students in high-risk categories (students with financial and educational deficits) such as SEEK students. They have to work to help

support the family for a variety reasons. In a phone conversation with a student who failed to keep his counseling appointment twice, and in the previous semester failed two courses, the counselor learned that the student, who is a full-time student with 12 credits, is working 40 hours. The student reports:

My mother was diagnosed with cancer and she can't work right now.

I have to work to support the family.

Overall, family relationships and student employment are key factors for supporting or counteracting the college experience. Helping students to confront and discuss these issues and how to negotiate and balance their needs are key intervention areas for counselors.

Peer Pressure

Students who do not have their educational priorities in perspective may succumb to negative peer pressure both on and off campus. Often spending too much time engaged socializing with others and little time on course work can lead to academic failure. Research by Ryan (2001) on peer groups found that students are more likely to associate with other students who have similar academic characteristics. For example, high achievers tend to belong to a peer group with other high achievers, and low achievers tend to belong to a peer group with other low achievers. Furthermore, unrealistic expectations of the demands of college and how to balance academic and social life have been the downfall of many students. A freshmen currently on academic probation concurred:

My first semester I joined the sorority and the Salsa club. Both took a lot of time. I spent so much time hanging out that I did not have the time for my studies. When I was in high

school, I party all night and made it to class the next day and still did well. I thought I could do the same here (college).

B. Academic and Personal Challenges

MOTIVATION, RESILIENCE, AND EDUCATIONAL GOAL COMMITMENT

Just wanting to go to college is not enough. A level of motivation and goal commitment is needed to facilitate and to successfully navigate and complete college. Studies (Tinto, 1975; Bean and Metzner, 1985, 1987) have found a positive relationship between motivation, educational goal commitment, and college completion. Tinto noted the importance of a student's initial educational goals, their effect on student motivation, and on persistence and college completion:

Not all persons enter college with clearly held goals or with goals which are either coterminous with degree completion or compatible with the educational goals of the institution… the completion of a college degree requires a considerable amount of effort and therefore commitment to the goal of college completion. Not all students possess that commitment. (Tinto, 1987, p. 6)

The student who has a clear understanding of the work and commitments required of a college student, along with what it is they want to get out of the experience, the value of a college education, and the sacrifices that are necessary, is more likely to complete graduation than the student who is not aware of them.

Resilience is another factor that may impact heavily on college completion, since college often involves a number of setbacks and difficulties, as well as stress (Garza et al., 2004). The ability of students to overcome these challenges is important in college completion. Thus, resilience in the face of obstacles may well distinguish those who are overwhelmed by the problems they encounter and those who are not, and can complete.

Choice of College Major and Educational Ability

Certainty and clarity about a major has been shown to strongly correlate to college completion. Students who are not clear on their major and career path can spend years in a major that is not appropriate for them. But once on the right path and in the right major, it may take students longer to complete.

> *When I began working with Carlos he was a mechanical engineering major in his 8th semester at CCNY, with two semesters remaining for full financial aid. A review of his transcript showed that he had made no substantial progress towards his major or graduation. He was challenged in math and science, two critical areas for engineering major. He was repeating an advance calculus for the third time. He had barely passed the necessary science courses which he repeated twice and was struggling in the engineering course he was allowed to take. Along with the science and math courses, he took liberal arts courses and had done well. Carlos's uncle was engineer and Carlos had his heart set on being like his uncle. Yet, his skills and abilities indicate something different. A career assessment conducted with Carlos revealed that he enjoyed working with children. After several sessions of discussing his goals and interest Carlos changed his major the following semester to Education. Since changing his major, Carlos semester GPA rose from a C to a B average. Carlos graduated three years later with an overall B- average. It took Carlos 7 years to complete his bachelor's degree and he also had to pay out of pocket to complete his education as he had ran out of financial aid. He was also dropped from the SEEK program after his 10th semester. In the end, he was satisfied with his degree and wished that he had made the change of major sooner.*

Adequate Preparation

The lack of necessary academic skills and ability can negatively impact college completion. The majority of the students entering the SEEK program are from the New York City public high schools. Unfortunately, many lack adequate academic skills that are necessary to prepare them for college work. Though remedial courses are no longer provided in the CUNY senior colleges, SEEK students who failed one or more of the admission skills examinations (reading, writing, and math) must take required workshops to acquire the skills to be successful in college. The SEEK program has found that some students who have passed all the admission examinations

are also academically deficient in many areas. Often students can become unmotivated, frustrated, and even angry that they are obligated to take workshops, or have difficulty of grasping the academic material in class. Students who understand and recognize that they have to put the effort in to reduce their academic deficits by using tutoring services, investing more time, and making school a priority are more likely to complete college.

SUMMARY

The findings indicate that some theoretical predictions do apply to the SEEK population especially household composition, high school GPA, gender, and year of entry. In contrast, many theoretical predictions did not hold true for this sample. Several possible reasons can explain why previous theoretical predictions might not have been valid for this population. This population may have been different from those studied by previous theoreticians in ways that are relatively subtle and more difficult to detect. The sample, and the distribution characteristics in the sample size, did not permit the detection of the impact of certain variables such as in the case of age. Confidentiality concerns prevented the researcher from collecting certain types of data that might have explained the presence of absence of certain variables as predictors. Lastly, theoreticians may not have considered factors such as culture and family economics that are important in understanding SEEK students.

CHAPTER SEVEN: IMPLICATIONS, RECOMMEDATIONS AND CONCLUSIONS FOR COUNSELING PRACTICE

The major implication of the study is that some pre-enrollment factors do indeed affect college completion and should be taken into account in counseling practice, counseling theory, and policy. Based on the data gathered from the current study, this chapter suggests several directions for counseling practice, policy implications, program planning, and recommendations for future research and conclusions.

A. Practice and Program Recommendations

EARLY IDENTIFICATION OF AT-RISK STUDENTS AND NEEDS ASSESSMENT TOOL

Research has been consistent that the freshman year is the point at which the greatest numbers of students are at risk of dropping out (Bean, 1980; Tinto 1975; Porter, 1990) and many of these students will leave during the first six to eight weeks of their first semester (Tinto, 1975, 1993). Students would be better served if they could be identified earlier. Information from the current study can be used to identify students who are at risk and intervention can be initiated as early as possible in the pre-admission and in the matriculation process in order to improve the possibility of college completion. Early survival strategies can be developed to help students persist and succeed in college. Early intervention strategies can include a needs assessment tool for counselors to actively outreach to high-risk students at the onset of admission. This tool would be a combination of interview and questionnaire methods that would pick up information on those pre-admission variables that predict college completion. Not only the counselor's perceptions of the student's preparedness will be examined, but also the student's and the family's perception of key pre-enrollment factors would be examined.

Involving the student and the family in needs assessment and intervention planning is an important step in reducing later risks of nongraduation that arise from student perceptions and family dynamics while getting student and family motivations "out in the open," i.e., expressed early. This would reduce the chances of academic obstacles from these sources. Since one size does not fit all, counseling plans can be customized and tailored to the preadmission profiles of incoming students. The SEEK program could utilize known risk characteristics to positively impact graduation rates, and given this information, the program can take a logical next step.

Students should be made aware of their risk factors earlier and that their academic performance is not up to average. However, this has to be done carefully, without communicating or activating a sense of low expectations to the student. Therefore, a student's attention should be drawn to areas of improvement without making a pessimistic prediction that these areas of concern will remain low-performance areas. The very criteria to be eligible for SEEK (being financially and economically disadvantaged), acknowledges that SEEK students enter college at a deficit. Some entering students have internalized these deficits and have low expectations of themselves. Alerting students to their risk factors as noted earlier must be done carefully. Using a strengths approach (Saleebey, 2002) that acknowledges student strengths and the resources that they possess would offer a more holistic way of interacting with students. While it does not dismiss difficulties, this approach emphasizes what is working well.

Students can be introduced to study groups during the SEEK summer transition program for all incoming freshmen to help them in areas identified as problematic. For example, if a student scores low in reading comprehension or has not passed the reading or writing entrance examination, his or her assignment to a study group can begin the intensive efforts toward developing better verbal skills.

The findings indicate that students coming from large family households are more successful in college completion. This suggests the importance of the role of families in supporting the student to achieve academic success. The experiences of immigrants, within the context of the family system and social network, are important for counseling practice and intervention and should not be overlooked by counselors in higher educational institutions. The family can be a source of support and encouragement as well as contributing to the pressures and challenges that detract from a student's academic path. Lack of understanding of the college experience, the time and sacrifice required, and the urgency of family needs taking precedence over academic work can often hinder a student's academic success. Families should understand the demands of college and thus be more integrated into the educational experience. Incorporating the family as part of the program and counseling intervention can be essential in supporting college completion. For example, along with the student orientation the program can offer family orientation and invite not only the parents, but siblings and other relatives. The family orientation should be conducted at times when the student's family is available to attend. This may require a weekend orientation, as relatives who are working during week are unable to participate on weekdays. Efforts to reach out to students' friends from their community should be considered. Workshops and activities can be developed, which can address issues related to people in the student's community, i.e., immigration issues, housing and access to reliable and inexpensive health care.

Along with family involvement in the orientations, individual family conferences are recommended. Based on the needs assessment data mentioned above, the counselor will be able to provide feedback to parents on how they can best support their child. The conference is

another opportunity to discuss expectations and goals, and to provide a bridge for the parents, students, and the institution to foster understanding and communication.

However, having a family conference is not the solution in total to low graduation rates for several reasons. There can be logistical barriers, such as language and scheduling, that may make family conferences difficult, especially if the counselor works in the day when family members are working. Families may not want to engage in college discussions. The family may feel threatened by college personnel and be reluctant to participate because of these preconceived notions. For example, an immigrant family may not want to talk to someone in an official position because of negative experiences with people in official positions. Families may also be hostile toward the counselor because they may see the counselor as blaming them. Family conferences are a good idea, but in reality they may be challenging to implement for the reasons motioned above. One recommendation to overcome some of the challenges of family conferences is for the SEEK program to provide more flexible hours of service. Overall, a move from the traditional service hours of 9–6 PM, Monday to Friday to later evening hours and weekends may better meet the needs of students and their families.

Outreach to Asian Students

Asian students dealing with parental and family pressures may need additional support to develop skills to effectively communicate with parents. While many Asian parents understand the importance of education and indeed exert a lot of pressure on their children to do well, there are still expectations that the students help with the household and also contribute financially to the family income. The program must ensure at the beginning of the student's academic career that the family understands the requirements of the program and expectations of the students. The family may need a cultural translation to help them understand that at certain times students will not be able to work because they must be on campus doing college work. An essential

counseling technique in working with Asian students will be to role play with them how to effectively communicate with their parents and negotiate for their needs.

Cultural competency is fundamental in counseling practice. Practice with immigrant populations calls for a diverse setting with diverse service providers and culturally relevant services (Chang-Muy & Congress, 2009). Given the growing Asian student population in the SEEK program, an Asian counselor would be an asset to the program and provide a cultural link for Asian students.

Early Student Contact

Counselors should establish direct contact with students early on during the recruitment process. Counselors should be involved in the recruitment process to establish one-on-one contact with students and create an opportunity for potential students to become familiar with the college.

Proactive Counseling

Once students are admitted into the program, counselors should engage in proactive counseling. The counselor should actively intervene if the student presents a profile that might lead to problems. The counselor assumes the responsibility of establishing and maintaining the relationship with the student and employs preventive measures including frequent contacts with students and providing positive support.

Study Groups

A supplementary activity, such as family-like study groups, may increase the success rate of students who do not have the family configurations that are predictive of success. These study

groups would consist of a small group of students (less than 15) who have a similar academic situation and who are focusing on the same course. The group would engage in activities such as chapter review, definition of terms, presentation of concepts by each member, and practice writing tasks. The group would be led by a senior tutor (e.g. a graduate student) or a counselor and would engage in

- assessment of each student's problems and weaknesses,
- formulation of a study plan for each student,
- implementation of the study plan on the individual and group level,
- individual tutoring to enact the plan when needed,
- evaluation of each student's progress,
- monitoring of grades, and
- redirecting student's time

The rationale for small family-like study groups is that small groups have an impact on behavior that large groups do not. Students who are not keeping up with the progress of a course can more easily be enrolled in small group activities than in large classes. Furthermore, because they all know each other, students in a small group can more easily assist one another in the learning process.

A small group does have risks, however. First, group activity may use up more of a student's time on learning activities. Students might rebel and resist participation because they want to have more free time. Secondly, a small group depends on the quality of the leadership. If the leader of the group is not academically qualified or proficient in the subject matter the group can be unproductive. Lastly, small groups can turn into social networks rather than work groups. The leader must be very careful to keep the group oriented toward learning tasks rather than

merely social relations. Social relations are a means to an end and are very useful to a small group, but is not the end in itself.

Student Assistance Program to Enhance SEEK Counseling Services

Student Assistance Programs (SAP), modeled after Employee Assistance Programs (EAP), have historically provided support, prevention, and intervention to students with drug and alcohol addiction and related issues (Veeser & Blakemore, 2006). This school-based approach, traditionally in secondary schools, is now emerging in higher education as a new avenue to address a multitude of problems affecting a student's educational attainment. A study by the California SAP Resource Center (2008) on the effectiveness of SAP showed an improvement in academic performance and an increase in the use of services among participants.

Student assistance programs can be compared to the SEEK counseling program on a number of dimensions: First, SAPs are aimed at reducing nonacademic barriers to academic progress. SAP provides counseling and problem-solving solutions just as SEEK programs do. However, there are some differences. SAPs are intended for all students and not just those defined as disadvantaged (the admission criterion for SEEK).Secondarily, SAPs utilize noncollege as well as college personnel whereas SEEK uses only college personnel, trained counselors, and other mental health workers.

There are several SAP models. Among the models that are uniquely different from SEEK is the Core Model Team approach that uses a multidisciplinary team of people from the school and community to provide services. Given the success of the SAP model, it is recommended that this program model should be tried in SEEK since SAPs would serve to enhance the counseling services. It is worth investigating to see if such a model that incorporates the community can be

beneficial for SEEK students. Notably, the major component of the program to be considered is parent and community involvement.

B. Policy Implications

The open admission policy initiated by CUNY in 1970 saw an increase in student enrollment, yet many students coming from the New York City public school system were underprepared and failed in college and subsequently left college. CUNY open admissions became known as a "revolving door policy" (Garcia & Seligsohn, 1978). Low academic standards of incoming students and the low graduation rates at the senior, four-year colleges were largely attributed to the open admissions policy. In an attempt to restore admission standards, the CUNY Board of Trustees instituted stringent admission requirements that ultimately had an impact on admission of CUNY students including SEEK students. Remediation courses, a key academic support for SEEK students, were dismantled. Proponents of open admissions argued that the new policy would be detrimental to disadvantaged students, minority students in particular, who would not be able to access a senior college.

This study found that a higher high school GPA was among the strongest predictors of college completion. This study raises several questions that reignite the debate on open admissions and remediation. Should only students with a high GPA be admitted to the program because they are the ones most likely to succeed? The findings show that some students are more likely to succeed if they come in with more skills, but other factors (e.g. personality and student determination) also contribute. Can something be done with those who come with less? The study also found some indication that some of the factors in the study do not predict completion.

Other pre-enrollment factors that do predict college completion must be also be taken into account in policy development. High school GPA is not the only factor that should be looked at in admissions. From a policy standpoint, other factors, such as motivation, conflicting

family needs and number of hours working in the first year of college should be considered in determining whether certain students should be admitted to SEEK. Admissions policy is only one aspect of the policy implication of the study. Other aspects are policies for distributing and allocating counseling resources. How can resources best fit student's needs? Inevitably, some students may need more counseling attention than others. Students, for example, who have greater family economic pressures, may need different counseling approaches than students who do not have onerous family pressures.

This study suggests a positive influence of family involvement. Greater family involvement may lead to higher college completion rates. The student confidentiality prevents the college from contacting families and working with them. The confidentiality rule should be reexamined in order to address and prevent a student's non-completion of college. There are many instances in which the student may not want family involvement, but there are times when the student may welcome it. If a student is clearly failing, with the student's permission, family factors can be included in counseling discussion.

C. Recommendations for Future Research

This study expanded knowledge about immigrants and college completion. A comprehensive examination of specific pre-enrollment variables that impact college completion was done that yields some significant results. However, several recommendations for future research have emerged as a result of the findings from this study.

UNEXAMINED FACTORS

Some pre-enrollment factors that are possible determinants of college completion, which were not examined in the current study, should be addressed in future studies. For instance, factors such as the impact of employment, family pressures and motivation on a student's college completion should be included.

MIXED METHOD

The use of data mining of institutional data in the current study is a convenient, nonintrusive method of collecting information on student characteristics and pre-enrollment characteristics. While the study focused on quantitative methods, future research that employs qualitative measures to study college completion among immigrants is necessary. A qualitative methodology, including interviews and focus groups, will give a more subjective, personalized picture of SEEK students. Students will have an opportunity to explain their choices and beliefs and describe factors that impact academic success.

FOLLOW-UP STUDIES

Follow-up studies should be conducted to explore what happens to students after they are enrolled in the SEEK program and how the services offered by opportunity programs impact college completion. This type of information could prove invaluable in assisting the program to assess the effectiveness of its services and activities.

SEEK STUDENTS VERSUS NON-SEEK STUDENTS

Future research on college completion of SEEK immigrant students should also examine even more closely the similarities and differences between the non-SEEK students and SEEK students. Focusing on the difference in the graduation rate and failure to complete of the two groups may highlight the gaps related to college completion where the two groups overlap and how best to provide services for both groups.

THEORETICAL CONSIDERATIONS

Previous theories need to be reexamined and elaborated given the recent findings such as those in this study. There are several factors and types of theoretical elaboration needed in future studies, with regard to the SEEK population. First, greater attention needs to be paid to family economics affecting completion rates. Second, greater attention needs to be paid to cultural

factors affecting graduation rates. Third, greater attention needs to be paid to personality factors affecting graduation rate (e.g. motivation, commitment, and resilience). Fourth, greater attention needs to be paid to the extent to which students utilize SEEK resources to increase their chances of graduating. Lastly, greater attention needs to be paid to the role of non-GPA pre-enrollment factors affecting graduation.

Conclusions

The past twenty years have seen a tremendous increase of immigrants to the United States. The impact of immigrants is not only felt in the workforce, but also in schools across the country. Higher education institutions, in particular, are faced with the challenge of meeting the educational needs of immigrants and providing services that will promote their academic success (as defined by college completion) and ultimately their upward mobility and success in society. The main contribution of this research is that it begins to address the predictors of success of immigrant students in opportunity programs. As the number of immigrant students increases in colleges, their success and failure experiences will continue to become increasingly important to college officials and the counselors in higher education.

There are a variety of factors that affect college completion. Pre-enrollment factors are one type among them. However, there are different types of pre-enrollment factors. Some of the pre-enrollment factors examined in the current study do seem to affect and predict college completion, but some of pre-enrollment factors that are not examined here may well also affect college completion.

Counseling in higher education (and associated policies) needs to be adjusted to reflect a fuller range of factors that affect college completion and take them into account in policy formulation and program design. The study also points to a need for a more sensitive needs assessment of students' pre-enrollment situations. Needs assessment tools that pick up

information about these various potential success predictors should be designed, utilized, and tested. The study also suggests a need for greater involvement of the family. Family support has been shown to enhance support student success.

It can also be concluded that more research is needed with regard to whether the success and failure factors affecting SEEK students are the same as the failure and success factors that characterize the academic career of non-SEEK students. If there are differences, then a whole set policy formulations relevant to the SEEK population should be looked at. If there are many similarities, then counseling policies and programs related to college students in general should be supported.

In general, the study showed that college completion, predictors, and dynamics for immigrant students represent an important area for future research. Current theory and understanding of factors involved are not adequate for addressing policy, intervention, and resource allocation questions. The forces that influence college completion among immigrants are multifaceted, complex, and different for immigrant students compared to the mainstream, nonimmigrant student. These factors need to be explained and examined not only for college completion, but for other areas of education as well (high school success perhaps even elementary school success). It is also true that some of these factors may determine career and workplace success outside of, before, after and in addition to college success per se. This study begins to address some of these forces and make necessary preliminary contribution to understanding the complexity of forces affecting the upward mobility of an increasingly large segment of the U.S. population. However, the study raises as many questions as it has answered. Counselors and policymakers clearly have more work to do to extend the initial work that this study has started.

APPENDICES

Appendix 1: SEEK Graduation Study Coding Form

1. ID #_____

2. Entry Yr _____ (1=1995-2000; 2=2001-2003)

3. Graduate_____ (1=yes; 2=no)

4. GPA_____ (number)

5. Gender_____ (1 = male; 2 =female)

6. Age_____ (number)

7. Length of time in New York City Years_____ (number)

8. Ethnicity_____ (1=Hispanic, etc.)

9. Country_____ (1=China, etc.)

10. Primary language_____ (1=English; 2=Spanish; etc)

11. House Hold Number_____ (number)

    Spouse _____

    Children _____

    Parents _____

    Siblings _____

12. Family Structure (Nuclear) (1=nuclear; 2=no`t nuclear)

Appendix 2: Table of Ethnicity and Gender

Table 19: Table of Ethnicity and Gender				
Ethnicity and Gender of Respondent				
Ethnicity		Gender of Respondent		Total
		Male	Female	
Asian	Count	37	57	94
	%	21.5%	26.3%	24.2%
Black/African American	Count	3	3	6
	%	1.7%	1.4%	1.5%
Caribbean	Count	81	127	208
	%	47.1%	58.5%	53.5%
Caucasian	Count	51	30	81
	%	29.7%	13.8%	20.8%

Appendix 3: Table of Country of Origin

Table 20: Country of Origin

	Frequency	Percent	Cumulative Percent
China:Mainland	39	10.0	10.1
Hong Kong	11	2.8	13.0
Korea	2	.5	13.5
India	8	2.1	15.5
Vietman	6	1.5	17.1
Bangladesh	11	2.8	19.9
Israel	1	.3	20.2
Nigeria	1	.3	20.5
Peru	3	.8	21.2
Colombia	6	1.5	22.8
Cuba	1	.3	23.1
Dominican Republic	146	37.4	60.9
Ecuador	18	4.6	65.5
Guyana	10	2.6	68.1
Haiti	35	9.1	77.2
Jamaica	23	5.9	83.2
Panama	2	.5	83.7
Trinidad	6	1.5	86.0
Poland	1	.3	86.3
Russia	2	.5	86.8
Ukraine	1	.3	87.0
Others	53	12.8	100.0
Total	386	99.0	
Missing	4	1.0	
Total	390	100.0	

Appendix 4: Sample Admission Application

APPLICATION FOR UNDERGRADUATE FRESHMAN ADMISSION

CUNY
THE CITY UNIVERSITY OF NEW YORK

Please be sure that this is the CORRECT APPLICATION for you.

Since graduating from high school or receiving a GED diploma, have you attended a college, university, or postsecondary institution?

YES NO

B 0000248589

If your answer is YES, please DO NOT use this form. Contact the Office of Admission Services at (212) 997-CUNY (2869) for the Transfer application.

PLEASE PRINT IN BLUE OR BLACK INK. Refer to the instructions in the application packet and be sure to answer the question on the top of this page.

1 Applicant's Last Name

Applicant's First Name M I

(Any prior last name used) Suffix (Jr., Sr.)

2 Expected Date of Entrance

Fall Spring Year

3 Female Male

4 Date of Birth

Month Day Year

5 Applicant's Address Apt. #

City State Zip Code

5a Length of time at the above address Years / Months

5b Length of time in N.Y.C. Years / Months

5c Length of time in N.Y.S. Years / Months

6 Mailing Address (if different from above, or local address for international students)

Apt. #

City Country State Zip Code

7 Social Security Number

If you do not have a Social Security Number, check here and see application instructions in the CUNY Admissions Guide.

8 Day Telephone Number

Evening Telephone Number

8a E-mail Address, if available

9 Have you taken or do you plan to take the SAT I or ACT? Note: If you are applying to a CUNY baccalaureate program and are in your last year of high school in the United States, or have graduated from high school within the past year, you must submit SAT I or ACT scores. Yes No

CITY UNIVERSITY COLLEGE CHOICES

10 Intended Major

10a I am considering pursuing certification in: Secondary Ed.,7-12 Art, Health, Music, or Physical Ed., K-12

10b Choices of Colleges and Curriculum: Before entering your college choices, please refer to the instructions. Indicate your choices in the boxes printed below, following the directions given. Applicants may indicate up to six choices in order of their preference. You must enter the code and the college name.

1st Choice — Code — College Name

2nd Choice — Code — College Name

3rd Choice — Code — College Name

4th Choice — Code — College Name

5th Choice — Code — College Name

6th Choice — Code — College Name

Response to Questions 21 through 23 is voluntary, and the information will be kept confidential. Refusal to provide this information will not subject your application to any adverse treatment.

21 Which category describes you best?

☐ Black, non-Hispanic (2) ☐ Asian or Pacific Islander (5) ☐ American Indian or Native Alaskan (6)

☐ White, non-Hispanic (1) ☐ Hispanic (4) ☐ Other - please specify (7) _____

22 From what country or part of the world did you or your family originally come? (Check the box next to the name of the country or part of the world with which you most identify.)

☐ Bangladesh (012)	☐ Cuba (038)	☐ Greece (060)	☐ Ireland (074)	☐ Nigeria (113)	☐ Russia (158)
☐ Barbados (013)	☐ Dominican Republic (045)	☐ Guyana (065)	☐ Israel (075)	☐ Panama (117)	☐ The Philippines (121)
☐ China: Mainland (032)	☐ Ecuador (046)	☐ Haiti (066)	☐ Italy (076)	☐ Peru (120)	☐ Trinidad (153)
☐ China: Taiwan (148)	☐ England, Scotland, or Wales (160)	☐ Hong Kong (170)	☐ Jamaica (077)	☐ Poland (122)	☐ Ukraine (223)
☐ Colombia (033)	☐ Germany (056)	☐ India (070)	☐ Korea (083)	☐ Puerto Rico (185)	☐ Vietnam (178)

☐ Other - specify _____

23 Where were you and each of your parents born? Check one in each column.

	You	Mother	Father
Born in the United States, excluding Puerto Rico or U.S. Territories	☐		☐
Born in Puerto Rico or U.S. Territories	☐		☐
Born outside of the United States	☐		☐

24 Do you speak a language other than English at home? ☐ Yes ☐ No

If yes, with which language do you feel more comfortable? ☐ English ☐ Language other than English ☐ Equally comfortable with both

24a Your native language _____

24b Other languages spoken _____

25 Father's full name

_____ (Last Name) _____ (First Name) _____ (MI)

26 Father living? ☐ Yes ☐ No

Citizen of U.S.? ☐ Yes ☐ No

26a Father's occupation _____

27 Father's residence

_____ (City) _____ (State) _____ (Country)

28 Mother's full name

_____ (Last Name) _____ (First Name) _____ (MI)

29 Mother living? ☐ Yes ☐ No

Citizen of U.S.? ☐ Yes ☐ No

29a Mother's occupation _____

30 Mother's residence

_____ (City) _____ (State) _____ (Country)

Response to Questions 21 through 23 is voluntary, and the information will be kept confidential. Refusal to provide this information will not subject your application to any adverse treatment.

21 Which category describes you best?

☐ Black, non-Hispanic (2) ☐ Asian or Pacific Islander (5) ☐ American Indian or Native Alaskan (6)

☐ White, non-Hispanic (1) ☐ Hispanic (4) ☐ Other - please specify (7) _____

22 From what country or part of the world did you or your family originally come? (Check the box next to the name of the country or part of the world with which you most identify.)

☐ Bangladesh (012)	☐ Cuba (038)	☐ Greece (060)	☐ Ireland (074)	☐ Nigeria (113)	☐ Russia (158)
☐ Barbados (013)	☐ Dominican Republic (045)	☐ Guyana (065)	☐ Israel (075)	☐ Panama (117)	☐ The Philippines (121)
☐ China: Mainland (032)	☐ Ecuador (046)	☐ Haiti (066)	☐ Italy (076)	☐ Peru (120)	☐ Trinidad (153)
☐ China: Taiwan (148)	☐ England, Scotland, or Wales (160)	☐ Hong Kong (170)	☐ Jamaica (077)	☐ Poland (122)	☐ Ukraine (223)
☐ Colombia (033)	☐ Germany (056)	☐ India (070)	☐ Korea (083)	☐ Puerto Rico (185)	☐ Vietnam (178)

☐ Other - specify _____

23 Where were you and each of your parents born? Check one in each column.

	You	Mother	Father
Born in the United States, excluding Puerto Rico or U.S. Territories	☐	☐	☐
Born in Puerto Rico or U.S. Territories	☐	☐	☐
Born outside of the United States	☐	☐	☐

24 Do you speak a language other than English at home? ☐ Yes ☐ No

If yes, with which language do you feel more comfortable? ☐ English ☐ Language other than English ☐ Equally comfortable with both

24a Your native language _____

24b Other languages spoken _____

25 Father's full name

_____ Last Name _____ First Name _____ MI

26 Father living? ☐ Yes ☐ No

Citizen of U.S.? ☐ Yes ☐ No

26a Father's occupation _____

27 Father's residence

_____ City _____ State _____ Country

28 Mother's full name

_____ Last Name _____ First Name _____ MI

29 Mother living? ☐ Yes ☐ No

Citizen of U.S.? ☐ Yes ☐ No

29a Mother's occupation _____

30 Mother's residence

_____ City _____ State _____ Country

Appendix 5: Letter of IRB Approval from the City College of New York

The City College
City University of New York
Institutional Review Board
160 Convent Avenue, Shepard Hall Room S-16
New York, New York 10031

January 25, 2008

Marie Nazon

237 West 132nd Street

New York, New York 10027

RE: **07-0044C The Success of Immigrants in College: A Study of Predictors of College Completion Among Immigrant College Students**

Dear Marie Nazon:

The City College IRB has approved the above study involving humans as research subjects. This project is Approved - Exempt Category: 4 - under 45 CFR 46. No further IRB review is necessary unless modifications to the protocol related to human research subjects are proposed.

IRB Number: 07-0044C This number is a City College IRB number that should be used on all correspondence with the IRB regarding this study.

Approval Date: January 24, 2008

Consent Form: If you are using a consent form, all research subjects must use the approved and stamped consent form. You are responsible for maintaining signed consent forms for each research subject for a period of at least three years after study completion.

Mandatory Reporting to the IRB: The principal investigator must report, within five business days, any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition, the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol.

Amendments/Modifications: All amendments/modifications of protocols involving human subjects must have prior IRB approval, except those involving the prevention of immediate harm to a subject. Amendments/modifications for the prevention of immediate harm to a subject must be reported within 24 hours to the IRB.

If you have any questions, please feel free to contact Lissy Wassaff BA in the IRB Office at 212-650-7902.

Good luck on your project.

Sincerely,

Alexandra Miletta, PhD
IRB Vice-Chair

(REVISED, JUNE 2006)

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