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ABSTRACT

This study examined factors associated with Hispanic students' high dropout rates, considering not only demographic factors but also the role of family background, early school experiences, and social influences in the high Hispanic student dropout rate. Data came from students in the High School and Beyond (HS&B) longitudinal study of the 1980 senior and sophomore student cohort. The 1980 sophomore cohort dataset was taken from a highly stratified national sample of this group of students, 10 years after high school. The HS&B survey included the 1980 senior class and sophomore class. Both cohorts were surveyed every 2 years through 1986, and the sophomore class was surveyed again in 1992. Of the 3,251 Hispanic students in the study population, 2,341 graduated from high school, and 910 dropped out. Analysis of data on those 910 students indicated that several factors significantly predicted Hispanic high school students' dropout rate: grade point average, socioeconomic status, employment, repeating a grade, citizenship, English proficiency, truancy, and urbanicity. Other contributing factors included gender, friends' and siblings' academic status, substance use, and pregnancy/fatherhood. (Contains 77 references.) (SM)

An Analysis of Hispanic Students' Drop Out Rates

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ABSTRACT

The dropout crisis in the United States and particularly among the Hispanic students is a matter of serious concern for parents, educators, politicians, and the general public. Due to the rapid technological advances, staying in school and graduating is crucial for preparing a skilled, knowledgeable, and flexible work force needed by America to compete in the global economy. Hispanic students are the largest-growing sector of the population and have the highest dropout rate of any major segment of the U.S. population (Hispanic Dropout Project, 1996).

While the nation's high school dropout rates have improved among White and African American students, Hispanic students' dropout rates are still at alarming levels. Hispanic students are dropping out of school at a rate that does not show signs of diminishing--with ultimate perilous costs to society. In 1994, the number of Hispanic students aged 16-24, who had not completed high school and were not enrolled, was 30 percent – as compared to 8 percent for White students and 13 percent for African American students (Hispanic Dropout Project, 1996).

In order to devise genuine strategies that will reduce the Hispanic students' high dropout rates, educational policy-makers and educational analysts must first abandon the prevalent popular conceptions that place blame on the individual, indicting the student or family for laziness, lack of willingness to be assimilated into American culture, and reluctance to learn English. A common and pernicious belief condemns Hispanic students for their alienation from school without taking into account the power of contextual factors that influence their school experiences.

This study offers a broad investigation into the factors that may be associated with Hispanic students' high dropout rates. It considers not only the demographic factors but also investigates the roles of family background, early school experiences, and social influences in the high Hispanic students' dropout rates.

The analysis was based on demographic factors, academic ability, family background, school experiences, and social influence factors taken from a national sample of high school sophomores twelve years after high school. Results suggest that factors related to citizenship, retention and SES are the primary determinants in Hispanic dropout rates.

INTRODUCTION

Today high school dropout rates are often quoted as an indication of the success or failure of American schools. As the American economy demands a more educated and highly trained work force, it has become increasingly important for American youth to continue their education through high school and beyond. Much of the interest in measuring dropouts stems primarily from the following:

First, there is concern about how well prepared our young adults are for entry into the work force. Without a high school diploma, and increasingly, a college degree or skilled training, chances for obtaining high quality, well-paid jobs are limited. The bulk of the interest in measuring high school dropout rates stems from the concern over how well prepared our young adults are for entry into the work force. As the emphasis on skilled labor and technology increases in the workplace, a high school education serves more and more as a minimum requirement for entry into the labor force (Markey, 1988). This, then, leads to interest in a measure of the number of young adults who have completed a high school program (Markey, 1988).

Second, research studies have highlighted that dropouts have a profound impact on our society as nearly half the heads of household on welfare did not graduate from high school and more than half of the U.S. prison population is composed of high school dropouts. In essence, students who do not receive adequate education will be more vulnerable to poverty, homelessness, crime, substance abuse, and other negative factors (IDRA, 1986).

George Bush, in his First State of the Union Address, January 1990, set some goals to strengthen American education. One of the goals was to reduce the national high

school dropout rate to 10 percent by the year 2000. According to president Bush at the time, the rate was 25 percent. This high rate, it is said, saddles the United States with an undereducated work force that, in turn, retards economic and social development. Dropouts also cost the nation billions of dollars in lost tax revenues and in welfare, unemployment, and crime prevention programs (Hahn and Danzberger, 1987).

The latest figures from the US government have been recently released, covering the academic year 1994-95 (McMillan, Kaufman, and Klein, 1997). Defining the dropout rate as the proportion of young adults (ages 16 to 24) who are not enrolled in a high school program and who have not completed high school, the Hispanic students recorded the highest dropout rates in the nation: 30 percent of Hispanic young adults were classified as dropouts, compared to 8.6% for non-Hispanic whites and 12.1% for non-Hispanic blacks.

According to the Hispanic Dropout Project (HDP, 1996), a student who drops out of high school is more likely to be unemployed, more likely to earn less when employed, and more likely to raise a family in poverty therefore putting the next generation at risk of dropping out, and repeating this cycle (U.S. Department of Education, 1998a). High dropout rates lead to increased unemployment, increased demands on social services, and a less skilled work force (Rumberger, 1987). The employment possibilities for a high school dropout are greatly restricted (U.S. Department of Education, 1998a, p. 6). For example, dropouts in 1982 were twice as likely to be unemployed (42%) compared to 1982 high school graduates (23%) (Rumberger, 1987). The effects on an individual's lifetime earnings are even more dramatic: for Hispanic students, the projected loss in

lifetime earnings for dropouts is $47.9 billion for the class of 1998 (U.S. Department of Education, 1998a).

But education should not be seen strictly in its relation to the economy; the capability of education to advance the social well-being of the United States and promote democratic values are also essential. Social peace in the United States is predicated on the possibility that all citizens, regardless of their economic and social status, can improve their lives. The dropout problem also threatens the future of American political institutions. The demands of democratic governance require an educated and well-informed citizenry to make knowledgeable decisions about the increasingly complex social and political problems faced by contemporary society.

Past studies on student dropout rates centered primarily on demographic factors such as sex, ethnicity, and family socioeconomic status. These factors may not be the key causes of students dropout but an over rationalization or simplification of a more complex problem. This study considers not only the demographic factors but also investigates the roles of family background, school experiences, and social influences in the high Hispanic students' dropout rate. The data for this study was taken from a national sample of high school sophomores 10 years after high school.

There is little systematic, longitudinal, large-scale research aimed specifically at the high Hispanic students' dropout rates even though studies have shown that Hispanics are the fastest growing ethnic segment in America. In 1996, the total school enrollment in K-12 was 51.5 million and this is projected to increase to over 54.3 million by 2004 (Gerald and Hussar, 1997). The number of Hispanic children aged 5-17 years is expected to grow by a third in the next decade and to more than double by 2025, whereas the

number of African-American children aged 5-17 years is expected to grow by a quarter by 2025 (U.S. Bureau of the Census, 1997; National Research Council, 1997). Consequently, the projected change in the racial/ethnic composition of school-aged children implies a substantial increase in the size of the educationally disadvantaged population. According to Natriello, McDill, and Pallas (1990), report that, "Failure to educate the educationally disadvantaged adequately may have catastrophic consequences for the social and economic well-being of this country."

However, the decision to dropout of school is a complex and diverse affair. It is a process, not an event because it is uncommon for a student to make an overnight decision to leave school. Students from minority backgrounds particularly the Hispanic students face both structural and individual obstacles during the school year that place them at risk of educational failure (Berends and Koretz, 1996; Natriello, McDill, and Pallas, 1990; and Wilson, 1991).

To adequately understand the dynamic process that determines whether or not a student stays in school or drops out requires consideration of the student and the demands in the student's life, the school experiences, the local policies and practices, the state and federal policies that shape and reflect the social and educational views of the nation, and much more. Most of the past research studies on student dropout centered primarily on demographic factors such as sex, ethnicity, and family socioeconomic status. For instance, prior research has shown that poverty tends to be highly correlated with lower student achievement (Berends and Koretz, 1996; Grissmer, Kirby, Berends, and Williamson, 1994; Hill and O'Neill, 1994). These factors may not be the key causes of student dropout but an over rationalization or simplification of a more complex problem.

Therefore, this study offers a broad investigation into the factors that may be associated with the high Hispanic students' dropout rate. It considers not only the demographic factors but also investigates the roles of family background, school experiences, and social influences in Hispanic students' dropout.

Research Questions

The study addressed itself to the following specific research questions:

1. Are there differences in SES between the Hispanic students who complete high school diploma and those who dropout?
2. Are there differences in Test Scores between the Hispanic students who complete high school diploma and those who dropout?
3. Are there differences in Sex between the Hispanic students who complete high school diploma and those who dropout?
4. Are there differences in Employment Status (ES) between the Hispanic students who complete high school diploma and those who dropout?
5. Are there differences in Sibling Academic Status (SAS) between the Hispanic students who complete high school diploma and those who dropout?
6. Are there differences in Repeating a Grade (Held Back /Retained) between the Hispanic students who complete high school diploma and those who dropout?
7. Are there differences in Citizenship Status/English Proficiency between the Hispanic students who complete high school diploma and those who dropout?
8. Are there differences in Pregnancy/Fatherhood between the Hispanic students who complete high school diploma and those who dropout?

9. Are there differences in Alcohol and Drug Use between the Hispanic students who complete high school diploma and those who dropout?
10. Are there differences in Friends Interest in School between the Hispanic students who complete high school diploma and those who dropout?
11. Are there differences in Truancy between the Hispanic students who complete high school diploma and those who dropout?
12. Are there differences in Location of School (Urbanicity) between the Hispanic students who complete high school diploma and those who dropout?

REVIEW OF RELATED LITERATURE

Dropping out is a complex social problem for which there is no simple solution. Focusing attention on fixing one part of the problem calls attention to the need for solutions to many other parts as well. Thus, many educators and others concerned with the dropout problem are advocating policies involving a broad range of institutions and agencies (e.g., Hargroves 1987).

The school dropout rate for Hispanic students has remained a consistent problem over the past 40 years and, as recently as 1993, about 30 percent of the United States' Hispanic population ages 16 to 24 had dropped out of school. This is in comparison to an overall rate of 11 percent, an 8 percent rate for white non-Hispanics, and a 13 percent rate for African-Americans. This is causing increasing concern among many educators as the Hispanic population grows dramatically, and it will be a disaster for a large percentage of the labor force to lack a high school education. According to Dr. Walter Secada, director of the Hispanic Dropout Project (HDP), "An undereducated and under-skilled Hispanic

workforce is harmful not only to Hispanics who drop out, but to the American economy and larger non-Hispanic population as well." (HDP, 1996)

In order to prepare American students for today's high tech jobs and subsequently the types of jobs that will be available in the future, educators, policy-makers, parents, and educational analysts need to work together to ensure that all students stay in school and acquire the academic skills necessary to compete (National Education Goals Panel, The National Education Goals Report: Building a Nation of Learners, Washington, DC, 1996). As the Hispanic population grows, the reduction of the Hispanic students' dropout rates, the successful transition of Hispanic youth from school to work, and their active engagement in American society become more important for the Nation.

Out of a total 9.9 million young adults aged 15-24 enrolled in high school in October 1996, some 454,000 had quit school by October 1997, without successfully completing a high school program, according to a new government report to Congress (NCES, 1997). Notwithstanding the short-term downtrend in dropout rates, the high school completion rate has shown only a slight change over the past decade, moving up to 85.9 percent in 1997 from 85.5 percent in 1987 (NCES, 1997). In 1997, just over three-quarters (76.7 percent) of the 18- to 24-year-olds not still in high school were reported as being high school graduates. Another 9.1 percent completed an alternative route, such as the GED (NCES, 1997).

In their report, Dropout Rates in the United States: 1997, released in 1997 by the U.S. Department of Education's National Center for Education Statistics, Phillip Kaufman, Steve Klein, and Mary Frase warn that, "The economic consequences of leaving high school without a diploma are severe." The report is the tenth in the series and presents data for 1997 on high school dropout rates, high school completion rates, and graduation rates.

According to Kaufman, Klein, and Frase (NCES,1997), compared to high school graduates, dropouts are:

- More likely to be unemployed;
- More likely to earn less money;
- More likely to receive public assistance; and
- If female, more likely to have children at younger ages and more likely to be a single parent.

The authors add that, "The individual stresses and frustrations associated with dropping out have social implications as well because dropouts comprise a disproportionate percentage of the nation's prison and death row inmates."

The Hispanic Dropout Project (HDP,1996) has published a Data Book, which shows the scope of the Hispanic dropout problem, its causes, and its consequences. According to the Data Book, social and economic costs are escalating for many reasons:

- The Hispanic population is rapidly growing, in both absolute numbers and as a proportion of US students
- Fewer dropouts will find employment in future workplaces
- Upgraded workforce skills are critical for an individual's and the nation's successes in the global economy
- People need increasingly more advanced knowledge and skills to participate in this society, to vote intelligently, and to make intelligent consumer decisions
- Labor force productivity and income must expand to help meet the needs of senior citizens as they continue to make up a larger segment of our population
- Children of the future will be strongly affected by their parents' income and education levels.

The increase in the Hispanic population in the United States, and the resulting rise in the enrollment of Hispanic students, has contributed to an 11 percentage point increase in minority enrollment in public elementary and secondary schools between 1976 and 1995. In 1976, Hispanic students made up 6 percent of the student population at public elementary and secondary schools. By 1995, the proportion of Hispanic students rose 8 percentage points, reaching 14 percent, the largest increase of any minority group.

Percentage Distribution of Enrollment in Public School Schools by Ethnicity 1976-95

Race/Ethnicity	1976	1984	1988	1992	1993	1994	1995	1976-95
								Change In % point
Total	100	100	100	100	100	100	100	--------
White	76.0	71.2	70.7	66.7	66.1	65.6	64.8	-11.2
Total Minority	24.0	28.8	29.3	33.3	34.0	34.4	35.2	11.2
Black	15.5	16.2	15.2	16.5	16.6	16.7	16.8	1.3
Hispanic	6.4	9.1	10.1	12.3	12.7	13.0	13.5	7.1
Asian/Pacif. Isl.	1.2	2.5	3.1	3.5	3.6	3.6	3.7	2.5
Nat. Ame./Alas.	0.8	0.9	0.9	1.0	1.1	1.1	1.1	.3

SOURCE: U.S. Department of Education, Office for Civil Rights, Elementary and Secondary School Civil Rights Survey, 1984, 1986, 1988, and 1990; National Center for Education Statistics, Common Core of Data Survey, 1992; and Digest of Education Statistics, 1995 and 1996, table 44, and 1997, table 45.

The Social and Individual Costs of Dropping Out

Studies have shown that withdrawal from school has adverse social and individual implications and, consequently, should not be overlooked. The most apparent of the two is, the societal implications, which researchers outlined to include greater unemployment, added social service costs, as well as increases in crime. However, the less publicized or less understood factor is the individual costs associated with leaving school without graduating.

- Costs to Individuals

The requirement of today's American work force has changed dramatically as the emphasis on skilled labor and technologies have increased in the work place. Consequently, young adults who leave school before graduating and acquiring needed skills will suffer greater penalties both in unemployment and underemployment rates than their counterparts who do complete high school (Bickel & Papagiannis, 1988).

Besides the higher unemployment and underemployment rates that relegate most school dropouts to lower social status and lower standards of living, associated with residing at the bottom of the social economic ladder, researcher studies points out that leaving school early without graduating creates a host of problems and negative effects (Catterall, 1987).

Although the connection between dropping out and criminal behavior has not yet been unequivocally established, the high representation of dropouts among those in prison suggests that dropouts are individuals who may have seen too few options available to them and so have found themselves in circumstances which promote criminal behavior (IDRA, 1989).

Rumberger (1987) reports that dropouts often suffer from more health and dental problems, increases in total mortality and suicides, and are admitted in greater numbers to mental hospitals than those in the general population. For too many dropouts, school is seen as a place where they have encountered failure after failure (for a variety of reasons) resulting in lower self-esteem (Bickel & Papagiannis, 1988; Catterall, 1987).

- **Costs to Society**

The society in general pays a price for student dropouts. As a consequence of the high dropout rates and subsequent unemployment or underemployment, the decreased earning power and loss of tax revenue from those who leave early is substantial. Its impact on social welfare services is equally tremendous. The state of Texas is probably the only state in America that has made a genuine effort as well as conducted a fairly comprehensive study over a decade ago to assess the dropout costs to its state (Markey, 1988).

In a fairly comprehensive study commissioned by the state of Texas over a decade ago and conducted by the Intercultural Development Research Association (IDRA), that analyzed the cost of students leaving school early in Texas, the Intercultural Development Research Association (IDRA) projected that the total earnings and tax losses to the state of Texas due to projected attrition rates among 1982-1983 ninth graders dropouts alone was nearly $16.9 billion (IDRA, 1986). They estimated that "45,344 males and 40,656 females ninth graders would drop out of school, that their lifetime earnings (adjusted for differences between expected income for graduates and those for dropouts) would be $241,630 for males and $146,072 for females, and that this would result in a loss of earnings of nearly $17 billion (including $5.068 billion in lost tax

revenues)" (IDRA, 1986, p. 29). If that is the case, imagine the cost when the tenth, eleventh, and twelfth graders dropouts are included. Consequently, the issue of school dropout becomes significant because society cannot afford to undermine it.

The Importance of Dropout Intervention and Prevention Programs

Research studies have highlighted that dropouts have a profound impact on society as nearly one-half of the heads of household on welfare did not graduate from high school and half of the U.S. prison population constitute high school dropouts. In the IDRA study the costs to the state of Texas for social welfare services, unemployment, crime and incarceration, and educating those dropouts who had left school early were also calculated. The burden to the state of Texas for only two social welfare programs alone (Aid to Families with Dependent Children and Food Stamps) was estimated at $253.7 million a year. The cost associated with increased unemployment (job placement services, unemployment compensation) was estimated at $17.6 million annually. With regard to costs associated with crime and incarceration, IDRA estimated that the state of Texas increased expenditures approximately $367.77 million. Finally, the cost of training and adult education was set at $12.9 million per annum. The total possible savings associated with keeping students in school was calculated to be approximately $652 million per year in Texas alone!

To demonstrate the difference between the cost of keeping children in school and the costs associated with their dropout, IDRA figured that in order to educate those potential dropouts and provide programs which would prevent them from doing so, it would cost the state of Texas nearly $2 billion per cadre (one class as it moves through grade levels). When compared to just the lost wages and tax revenues of nearly $17

billion, the result is an almost 9 to 1 ratio. That is, for every dollar spent on education and the prevention of dropouts, the return would be nine dollars.

These fairly comprehensive figures from IDRA study represent a cost-benefit analysis for only one state. If those calculations can be generalized to the rest of the country, (Texas dropouts represent nearly 10% of the national dropout figure) then the cost to the nation (in terms of the social services mentioned above) would exceed $6.5 billion dollars a year. The loss of earnings and tax revenues over the lifetime of a single cadre would be over $170 billion. Given the findings of the study, society can not afford to take the dropout problem lightly.

Highlighted the Impacts of Student Tracking:

Tracking is the most commonly used term for ability grouping. Traditionally, schools have responded to student diversity and poor academic performance with approaches such as ability grouping, grade retention, special education, and pull-out programs -- in which students are removed from their regular classrooms and offered remedial instruction in particular subjects (Letgers, McDill, & McPartland, 1993). As harmless as it seems, research has dramatically demonstrated that, this practice has done more harm than good. The tracks covered distinctly different curricula. This study calls the attention of educators and the educational policy-makers to the consequences of student tracking. It also highlights how they, the educational policy-maker, can set a policy context for high expectations and success, how important the investment in school dropout prevention and intervention program are in order to reduce school failure, as well as, how these strategies can be sustained through ongoing support for school improvement.

At the present, no researcher has performed a comprehensive study to identify different factors between Hispanic graduates and Hispanic dropouts. This study validated past studies done on Hispanic students' dropout rates that used only demographic variables – sex, ethnicity, and SES. It also examined the roles of the contextual factors such as: family background, school experiences, and social influences in Hispanic students' dropout as well as investigated the differences between the Hispanic students who completed their high school diploma and those who dropped out.

Method

This study validates past studies done on Hispanic students' dropout rates that used demographic variables – sex, ethnicity, and SES. It also investigates the roles of the contextual factors such as: family background, school experiences, and social influences in the high Hispanic students' dropout rates; as well as examines the differences between the Hispanic students who completed their high school diploma and those who dropped out.

In particular, the study offers a broad investigation into the factors that may be associated with the high Hispanic students' dropout rate. It considers not only the demographic factors but also investigates the roles of family background, school experiences, and social influences in the Hispanic students' dropout.

The analysis was based on the demographic, academic ability, family background, school experiences, and social influence factors taken from a national sample of high school sophomores twelve years after high school. The variable Dropout was the dependent variable; while the independent variables were:

i. Family Socioeconomic Status (SES),

ii. Academic Ability (Test Score),

iii. Student Gender (Sex),

iv. Employment Status (ES),

v. Sibling Academic Status (SAS),

vi. Repeated a Grade (Retained),

vii. Citizenship Status (CS)/English Proficiency,

viii. Pregnancy/Fatherhood (PF),

ix. Alcohol and Drug Use (ADU),

x. Friends Academic Status /Interest in School (Friends),

xi. Cut Classes (Truancy/Absenteeism), and

xii. High School Location (Urbanicity).

In order to develop a predictable model, Family Socioeconomic Status (SES), Academic Ability (Test Score), Sex, Ethnicity, Employment Status (ES), Sibling Academic Status (SAS), Repeated a Grade (Retained), Citizenship Status (CS)/English Proficiency, Pregnancy/Fatherhood (PF), Alcohol and Drug Use (ADU), Friends Interest in School (Friends), Cut Classes (Truancy), and High School Location (Urbanicity) are used as the independent variable while Dropout is used as the dependent variable.

Design

The HS&B database captured the periodic changes and progress in students' educational and non-educational activities due to its longitudinal nature. Students were classified by the following independent variables: academic ability (test score), race (ethnicity), family socioeconomic status (SES), gender (sex), employment status (ES), sibling academic status (SAS), repeated a grade (retained), citizenship status

(CS)/English Proficiency, pregnancy/fatherhood (PF), alcohol and drug use (ADU), friends interest in school (friends), cut classes (truancy), and high school location (urbanicity).

Beginning with the first follow-up year, 1982, and through the subsequent follow-ups, those students whose race/ethnicity were classified as Hispanic were identified. Students who were not classified as Hispanic were eliminated from the sample. This process reduced the number of students from 14,825 to 3,251.

Of all the independent variables, the following variables: gender (sex), citizenship status (CS)/English Proficiency, alcohol and drug use, employment status (ES), pregnancy/fatherhood (PF), repeated a grade (retained), friends dropped out, sibling dropped out (SAS), and interested in school are naturally dichotomized. Academic ability (GPA), family socioeconomic status (SES), ethnicity (race), cut classes (truancy), and high school location (urbanicity) have many different classes. For instance, ethnicity was comprised of Black, White, Asian, Hispanic, or Native American; SES consisted of Upper, Upper-Middle, Middle, and Lower quartiles; and GPA embraced eight different levels.

Table 1 - Organization of Variables – Sophomore cohort

Survey	Categories
SES	(Lower, Middle, Upper-Middle, & Upper) Quartiles
GPA	(8 Categories that ranged from <60 to 100)
Sex (Gender)	(Male/Female)
Ethnicity	(Asian, Black, Hispanic, Native American, & White)
Cut Classes (Truancy)	Often, Sometimes, and Rarely-Never
Worked over 20 hrs/Week?	Yes/No
Sibling(s) Dropped Out?	Yes/No
Repeated Grade (Retained)?	Yes/No
Born in the U.S.?	Yes/No
Was Pregnant/Father?	Yes/No
Used Drugs/Alcohol?	Yes/No
Friend(s) Dropped Out?	Yes/No
H.S. Location (Urbanicity)	Urban, Suburban, and Rural
Dropout	(H.S. Grad/H.S. Dropout)

The weights of academic ability (GPA/Test Score), race (ethnicity), family socioeconomic status (SES), gender (sex), employment status (ES), sibling academic status (SAS), repeated a grade (retained), citizenship status (CS)/English Proficiency, pregnancy/fatherhood (PF), alcohol and drug use (ADU), friends interested in school (friends), cut classes (truancy), and high school location (urbanicity) on high school completion were analyzed using the multiple linear regression technique.

Subjects

The population for this study was drawn from the High School and Beyond (HS&B) longitudinal study dataset of the 1980 high school senior and sophomore student cohort. The sophomore cohort dataset, which span 1980 through 1992, was the only data examined in this study. The 1980 Sophomore Cohort Dataset is taken from a highly stratified national sample of this group of students, ten years after high school. The

HS&B data were not only highly stratified, but also involved over 1,100 secondary schools that were randomly selected to participate in the study. From the 1,100 secondary schools, 36 seniors and 36 sophomores were selected in each school. The base year of this survey, which was conducted early in 1980, collected data from over 28,000 seniors and 30,000 sophomores. However, the senior files were discarded for this study because they were followed for only six-years, while the sophomores were followed for 12-years. Only those sophomores whose ethnicity was identified as Hispanic were included in the research cohort.

The HS&B survey included two cohorts: the 1980 senior class, and the 1980 sophomore class. Both cohorts were surveyed every two years through 1986, and the 1980 sophomore class was surveyed again in 1992.

Consequently, a base year and three follow-up surveys were conducted at 2-year intervals for the sophomores and seniors. Base year data were collected in the spring of 1980 from nationally representative samples of over 30,000 sophomores and 28,000 seniors. A subset (14,825) of the 30,000 sophomores was surveyed.

The first follow-up data were collected in the spring of 1982 and included 29,737 of the 1980 sophomores and a subset of 11,995 of the 1980 seniors. But only a subset of the sophomores (14,825) was surveyed.

The second follow-up data files include subsets of 14,825 of the 1980 sophomores (92% of whom participated in 1984) and 11,995 of the 1980 seniors (91% of whom participated in 1984).

The third follow-up data files include the same subsets of 14,825 of 1980 sophomores (91% of whom participated in 1986) and 11,995 of the 1980 seniors (92% of whom participated in 1986).

The fourth follow-up data were collected in 1992 but only on the sophomore cohort.

Table 2 - HS&B Subjects – Sophomore cohort

Survey	Year	# Participated	# Non Participants	% Response
Base Year	1980	13749	1076	92.7%
1st Follow-up	1982	14102	723	95.1%
2nd Follow-up	1984	13682	1143	92.3%
3rd Follow-up	1986	13425	1400	90.6%
4th Follow-up	1992	12640	2185	85.3%

Analysis

Method of Analysis

In order to develop a predictive model, a Stepwise Multiple Linear Regression analysis was conducted using the SPSS for Windows statistical package where completion was the dependent variable; academic ability (GPA/Test Score), family socioeconomic status (SES), gender (sex), employment status (ES), sibling academic status (SAS), repeated a grade (retained), citizenship status (CS)/English Proficiency, pregnancy/fatherhood (PF), alcohol and drug use (ADU), friends interested in school

(friends), cut classes (truancy), and high school location (urbanicity) were the independent variables.

The Stepwise model was chosen because it enabled the evaluation of each independent variable's contribution in explaining the dependent variable – Dropout. At each step, the weight of each variable was calculated to determine the contribution of each variable to the prediction.

The multiple linear regression technique requires that the independent and dependent variables be measured on an interval scale. Binary variables satisfy this requirement; consequently, nominal variables such as gender (sex), employment status (ES), sibling academic status (SAS), repeated a grade (retained), citizenship status (CS) /English Proficiency, pregnancy/fatherhood (PF), alcohol and drug use (ADU), friends interested in school (friends), cut classes (truancy), and Completion were coded in binary (dummy) variables.

This study determined the degree of linear dependence of Completion on the twelve independent variables (academic ability (GPA/Test Score), family socioeconomic status (SES), gender (sex), employment status (ES), sibling academic status (SAS), repeated a grade (retained), citizenship status (CS)/English Proficiency, pregnancy/fatherhood (PF), alcohol and drug use (ADU), friends interested in school (friends), cut classes (truancy), and high school location (urbanicity).

Findings

The purpose of the study was to offer a broad investigation into the factors that may be associated with high Hispanic students' school dropout rates. The analysis is

based on demographic factors, academic ability, family background, school experiences, and social influence factors taken from a national sample of high school sophomores twelve years after high school. The variable Dropout is the dependent variable while the independent variables are:

i. Academic Ability (Test Score),

ii. Family Socioeconomic Status (SES),

iii. Student Gender (Sex),

iv. Employment Status (ES),

v. Sibling Academic Status (SAS),

vi. Repeated a Grade (Retained),

vii. Citizenship Status (CS)/English Proficiency,

viii. Pregnancy/Fatherhood (PF),

ix. Alcohol and Drug Use (ADU)/Substance Abuse,

x. Friends Interest in School (Friends),

xi. Cut Classes (Truancy), and

xii. High School Location (Urbanicity).

Univariate Frequency Distribution of Cases

The study on the sophomore cohort was composed of a base year and four follow-up surveys. Base year data were collected in the spring of 1980 from nationally representative samples of over 30,000 sophomores. But, only a subset (14,825) of the 30,000 sophomores were followed at each of the four follow-up studies. However, at each follow-up study, the deceased and non-respondent students were replaced by students who were randomly selected from the pool of 30,000 students. This study,

extracted the 14,825 students who participated in the First Follow-up and tracked them through the Fourth Follow-up for analysis. In other words, the replacement students were not included in the analysis. This was done to preserve the consistency of the independent variables, GPA, SES, Gender, Employment Status (ES), Sibling Academic Status (SAS), Repeating a Grade (Retained), Citizenship Status (CS)/English Proficiency, Pregnancy/Fatherhood (PF), Substance Abuse, Friends Interest in School, Cutting Classes (Truancy), and High School Location (Urbanicity). The independent variables for the 14,825 study population were distributed as shown below:

Table 3 - COHORT: COMPOSITE GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
MALE	7347	49.6	49.6	49.6
FEMALE	7478	50.4	50.4	100.0
Total	14825	100.0	100.0	

The gender composition of the study population was approximately equal of the 14,825 sample population, 7,478 (50.4%) were female and 7,347 (49.6%) were males.

Table 4 - COHORT: ETHNIC COMPOSITE

	Frequency	Percent	Valid Percent	Cumulative Percent
HISPANIC OR SPANISH	3251	21.9	21.9	21.9
AMERINDIAN	292	2.0	2.0	23.9
ASIAN, PCFC ISLNDR	430	2.9	2.9	26.8
BLACK	2036	13.7	13.7	40.5
WHITE	8624	58.2	58.2	98.7
OTHER	192	1.3	1.3	100.0
Total	14825	100.0	100.0	

The ethnic composition of the 14,825 study population was as follows: 3,251 (21.9%) were Hispanic or Spanish Americans, 292 (2%) were Native Americans, 430 (2.9%) were Asian/Pacific Islanders, 2,036 (13.75%) were African Americans, 8,624 (58.2%) were Caucasian Americans, and 192 (1.3%) were from some other ethnic group not listed above.

Table 5 - COHORT: H.S. GPA (Academic Ability)

	Frequency	Percent	Valid Percent	Cumulative Percent
MOSTLY A 90-100	595	4.0	4.0	4.0
HALF A + B 85-89	1811	12.2	12.2	16.2
MOSTLY B 80-84	3026	20.4	20.4	36.6
HALF B + C 75-79	3973	26.8	26.8	63.4
MOSTLY C 70-74	3392	22.9	22.9	86.3
HALF C + D 65-69	1598	10.8	10.8	97.1
MOSTLY D 60-64	305	2.1	2.1	99.2
{ILLEGITIMATE SKIP}	125	.8	.8	100.0
Total	14825	100.0	100.0	

The high school GPA of the 14,825 study population revealed that 595 (4%) of the students selected were "A" students, 1,811 (12.2%) were "B+" students, 3,026 (20.4%) were "B" students, 3,973 (26.8%) were "C+" students, 3,392 (22.9%) were "C" students, 1,598 (10.8%) were "D+" students, and the rest were "D" or lower students. In other words, 36.6% of the selected students were "A and B" students, 49.7% were "C and C+" students, and the rest 12.9% were less than "C" students.

Table 6 - COHORT: BASE YEAR SES QUARTILE

	Frequency	Percent	Valid Percent	Cumulative Percent
LOWEST QUARTILE	3541	23.9	23.9	23.9
SECOND QUARTILE	3186	21.5	21.5	45.4
THIRD QUARTILE	3109	21.0	21.0	66.3
HIGHEST QUARTILE	3242	21.9	21.9	88.2
{MISSING}	672	4.5	4.5	92.7
{LEGITIMATE SKIP}	1075	7.3	7.3	100.0
Total	14825	100.0	100.0	

The socioeconomic status (SES) of the 14,825 study population reveals a fairly even distribution - 3,541 (23.9%) were from the "Lowest Quartile," 3,186 (21.5%) were from the "Second Quartile," 3,109 (21.0%) were from the "Third Quartile," 3,242 (21.9) were from the "Highest Quartile," and 1,747 (11.8%) were not specified.

Table 7 - H.S. URBANICITY (High School Location)

	Frequency	Percent	Valid Percent	Cumulative Percent
URBAN	3630	24.5	24.5	24.5
SUBURBAN	7442	50.2	50.2	74.7
RURAL	3753	25.3	25.3	100.0
Total	14825	100.0	100.0	

The High School Location (Urbanization) of the 14,825 study population reveals a fairly reasonable distribution. The composition was as follows: 3,630 (24.5%) were from the "Urban Schools," 7,442 (50.2%) were from the "Suburban Schools," and 3,753 (25.3%) were from the "Rural Schools."

Bivariate Crosstabulation Results

Table 8 - Crosstabulation: Ethnicity * COMPHS

		Graduated from High School?		Total	Dropout %
		Yes	NO		
Ethnicity	Hispanic	2341	910	3251	28.0%
	Nat-American	175	117	292	40.1%
	Asian-P-Islndr	412	18	430	4.2%
	Afr-American	1696	340	2036	16.7%
	Caucacian	7882	742	8624	8.6%
	Other	187	5	192	2.6%
	Total	12693	2132	14825	14.4%

Of the 14,825 study population identified from the First Follow-up, only 2,132 of them dropped out from high school resulting in a 14.4% dropout rate for this cohort. Of the 3251 Hispanic student participants, 910 of them dropped out resulting in a 28% dropout rate for the Hispanic students.

Table 9 - Hispanic Students Participants: By Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	1672	51.4	51.4	51.4
Female	1579	48.6	48.6	100.0
Total	3251	100.0	100.0	

The gender composition of the 3,251 Hispanic students in the study was as follows: 1672 (51.4%) males, and 1579 (48.6%) females.

Subproblem #1: Are there differences in Test Scores (GPA) between the Hispanic students who graduate and those who drop out?

Table 10 - Crosstabulation :HS Grad / HS Dropout * Test Score Quartile

	Test Score Quartile				Total
HS Grad / HS Dropout	Quartile 1 – Low	Quartile 2	Quartile 3	Quartile 4 -- High	
HS Grad	375	743	764	459	2341
HS Dropout	582	237	69	22	910
Total	957	980	833	481	3,251

The Test Scores (GPA) of the 3251 Hispanic students participants in the study population revealed that only 375 of the 2341 (16%) graduates were in the "Quartile

1/Low Quartile" while 582 of the 910 (64%) of the dropouts students were in the "Quartile 1/Low Quartile". In other words, most of the dropouts (64%) were not academically able students; therefore, there are differences in Test Scores (GPA) between the Hispanic students who graduate and those who drop out.

Subproblem #2: Are there differences in SES between the Hispanic students who graduate and those who drop out?

Table 11 - Crosstabulation: HS Grad / HS Dropout * SES Quartile

	SES Quartile				Total
HS Grad / HS Dropout	Lowest Quartile	Second Quartile	Third Quartile	Highest Quartile	
HS Grad	554	870	559	358	2,341
HS Dropout	619	163	83	45	910
Total	1,173	1,033	642	403	3,251

The SES of the 3251 Hispanic students who participated in the study population revealed that only 554 of the 2341 (23.7%) of the Hispanic graduates were the "Lowest Quartile" while 619 of the 910 (68%) Hispanic students' dropouts were in the "Lowest Quartile". In other words, most of the dropouts (68%) were from the financially handicapped families; therefore, there are differences in SES between the Hispanic students who graduate and those who drop out.

Subproblem #3: Are there differences in Gender (Sex) between the Hispanic students who graduate and those who drop out?

Table 12 - Crosstabulation: Hispanic HS Grad / HS Dropout * Gender

	Gender		Total
HS Grad / HS Dropout	Male	Female	
HS Grad	1151	1190	2,341
HS Dropout	521	389	910
Total	1,672	1,579	3,251

Of the 2341 Hispanic students' High School Graduates in the study population 1151 (49%) was male and 1190 (51%) was female. Of the 910 Hispanic students' High School Dropouts in the study population 521 (57.3%) was male and 389 (42.7%) was female. Therefore, there are slightly differences in Gender (Sex) between the Hispanic students who graduate and those who drop out.

Subproblem #4: Are there differences in Employment Status between the Hispanic students who graduate and those who drop out?

Table 13 - Crosstabulation: HS Grad / HS Dropout * Worked More than 20 Hours/Week

	Worked More than 20 Hours/Week While in H.S.?		Total
HS Grad / HS Dropout	Yes	No	
HS Grad	757	1584	2,341
HS Dropout	576	334	910
Total	1,333	1,918	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 757 (32%) Worked More than 20 Hours per Week while in High School. But, of the 910 Hispanic students' High School Dropouts in the study population 576 (63%) Worked More than 20 Hours per Week while in High School. Therefore, there are significant differences in Employment Status between the Hispanic students who graduate and those who drop out.

Subproblem #5: Are there differences in Sibling Academic Status between the Hispanic students who graduate and those who drop out?

Table 14 - Crosstabulation: HS Grad / HS Dropout * Sibling Dropped Out

	Sibling Dropped Out		Total
HS Grad / HS Dropout	Yes	No	
HS Grad	645	1696	2341
HS Dropout	268	642	910
Total	913	2,338	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 645 (27.6%) had a sibling who dropped out from school. Also, of the 910 Hispanic students' High School Dropouts in the study population only 268 (29%) had a sibling who dropped out from school. In other words, sibling academic ability did not make any significant difference between the Hispanic high school graduates and the dropouts. Therefore, there are no differences in Sibling Academic Status between the Hispanic students who graduate and those who drop out.

Subproblem #6: Are there differences in Repeating a Grade (Held Back) between the Hispanic students who graduate and those who drop out?

Table 15 - Crosstabulation: HS Grad / HS Dropout * Ever Repeated Grade/Held Back?

	Ever Repeated Grade/Held Back?		Total
HS Grad / HS Dropout	Yes	No	
HS Grad	448	1893	2,341
HS Dropout	636	274	910
Total	1,084	2,167	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 448 (19.1%) had been held back for at least one grade. But, of the 910 Hispanic students' High School Dropouts in the study population 636 (70%) of them had been held back for at least one grade. In other words, being held back at least a grade level is a significant predictor of the Hispanic high school graduates and the dropouts. Therefore, there are significant differences in Repeating a Grade (Held Back) between the Hispanic students who graduate and those who drop out.

Subproblem #7: Are there differences in Citizenship (Born in USA?)/English Proficiency between the Hispanic students who graduate and those who drop out?

Table 16 - Crosstabulation: HS Grad / HS Dropout * Born in the U.S.? – Citizenship/English Proficiency

	Born in the U.S.?		Total
HS Grad / HS Dropout	Yes	No	
HS Grad	1866	475	2,341
HS Dropout	247	663	910
Total	2,113	1,138	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 475 (20.3%) were foreign born. But, of the 910 Hispanic students' High School Dropouts in the study population 663 (73%) of them were foreign born. In other words, being from a foreign country is a significant predictor of the Hispanic high school graduates and the dropouts. Therefore, there are significant differences in Citizenship (Born in USA?) between the Hispanic students who graduate and those who drop out.

Subproblem #8: Are there differences in Pregnancy/Fatherhood Status between the Hispanic students who graduate and those who drop out?

Table 17 - Crosstabulation: HS Grad / HS Dropout * Pregnant/Fatherhood

	Pregnant/Fatherhood		Total
HS Grad / HS Dropout	Yes	No	
HS Grad	175	2166	2,341
HS Dropout	298	612	910
Total	473	2,778	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 175 (7.5%) were pregnant or fathered a child while in school. But, of the 910 Hispanic students' High School Dropouts in the study population 298 (33%) of them were pregnant or fathered a child while in school. In other words, being pregnant or fathering a child while still in school has an impact on the Hispanic high school graduates and the dropouts. Therefore, there are differences in Pregnancy/Fatherhood Status between the Hispanic students who graduate and those who drop out.

Subproblem #9: Are there differences in Substance Abuse (Use of Drug and Alcohol) between the Hispanic students who graduate and those who drop out?

Table 18 - Crosstabulation: HS Grad / HS Dropout * Drug and Alcohol Use (Substance Abuse)

	Drug and Alcohol Use (Substance Abuse)						Total
HS Grad / HS Dropout	Yes	No	Mult-Response	Refusal	Missing	Legit Skip	
HS Grad	747	1543	2	10	35	4	2341
HS Dropout	187	78		74	8	561	910
Total	934	1,621	2	84	43	565	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 2290 students responded to this question and of the 2290 who responded 747 (23%) admitted using drug and alcohol. But, of the 910 Hispanic students' High School Dropouts in the study population only 265 responded to this question and of the 265 who responded 187 (70%) admitted using drug and alcohol. However, since a large number of the dropout students did not respond to this question, the response to this question is skewed; therefore, it would be inappropriate to generalize that 70% of the dropouts used drug and alcohol. Therefore, based on the data, it is inconclusive to determine that there are differences in Substance Abuse (Use of Drug and Alcohol) between the Hispanic students who graduate and those who drop out.

Subproblem #10: Are there differences in Friends' Interest in School between the Hispanic students who graduate and those who drop out?

Table 19 - Crosstabulation: HS Grad / HS Dropout * Left Because Friend Dropped Out

	Left Because Friend Dropped Out					Total
HS Grad / HS Dropout	Yes	No	Refusal	Missing	Legit Skip	
HS Grad					2341	2341
HS Dropout	17	546	25	150	172	910
Total	17	546	25	150	2513	3251

Of the 910 Hispanic students' High School Dropouts in the study population only 563 responded to this question and of the 563 who responded 17 (3%) admitted leaving school because their friends dropped out. Therefore, friends dropping out of school have no impact in predicting Hispanic students' high dropout rates. Therefore, there are no differences in Friends' Interest in School between the Hispanic students who graduate and those who drop out.

Subproblem #11: Are there differences in Truancy (Cutting Classes) between the Hispanic students who graduate and those who drop out?

Table 20 - Crosstabulation: HS Grad / HS Dropout * Truancy (Cut Classes)

	Truancy (Cut Classes)				
l / HS Dropout	Often	Sometimes	Rarely-Never	Missing	
HS Grad	374	721	1053	45	23
HS Dropout	485	217	179	29	9
Total	859	938	1,232	74	3,251

Of the 2341 Hispanic students' High School Graduates in the study population only 374 students (16%) admitted cutting classes often. But, of the 910 Hispanic students' High School Dropouts in the study population 485 students (53%) admitted cutting classes often. Consequently, Truancy has a significant impact on the high Hispanic students' dropout rate. Therefore, there are significant differences in Truancy (Cutting Classes) between the Hispanic students who graduate and those who drop out.

Subproblem #12: Are there differences in High School Location (Urbanicity) between the Hispanic students who graduate and those who drop out?

Table 21 - Crosstabulation: HS Grad / HS Dropout * H. S. Urbanicity

	H. S. Urbanicity (Location)			Total
HS Grad / HS Dropout	Urban	Suburban	Rural	
HS Grad	519	1091	731	2341
HS Dropout	577	201	132	910
Total	1,096	1,292	863	3,251

Of the 2,341 Hispanic students' High School Graduates in the study population only 519 students (22%) are from the inner city (Urban) schools. But, of the 910 Hispanic students' High School Dropouts in the study population 577 students (63%) are from the inner city (Urban) schools. Consequently, there are significant differences in High School Location (Urbanicity) between the Hispanic students who graduate and those who drop out.

Multiple Regression Analysis

This multiple regression analysis determined the degree of linear dependence of Dropout on the twelve independent variables - Family Socioeconomic Status (SES), Academic Ability (Test Score), Sex, Employment Status (ES), Sibling Academic Status (SAS), Repeated a Grade (Retained), Citizenship Status (CS), Pregnancy/Fatherhood (PF), Alcohol and Drug Use (ADU), Friends Interest in School (Friends), Cut Classes (Truancy), and High School Location (Urbanicity). For this purpose, the multiple R and R^2 values yielded the appropriate information. However, R^2 was used because of its

straightforward interpretation. For instance, if $R^2 = .2822$, then one can say that 28 percent of the variation in the dependent variable (in this case Dropout) is explained by the independent variable (in this case Family Socioeconomic Status (SES), Academic Ability (Test Score), Sex, Ethnicity, Employment Status (ES), Sibling Academic Status (SAS), Repeated a Grade (Retained), Citizenship Status (CS), Pregnancy/Fatherhood (PF), Alcohol and Drug Use (ADU), Friends Interest in School (Friends), Cut Classes (Truancy), and High School Location (Urbanicity)).

The result of the stepwise multiple regression analysis of the independent variables on the 910 Hispanic students who dropped out of high school:

Table 22 - The Contribution /Weight of GPA in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
1	.326	.106	.106	.85	.106	1622.323	1	13680	.000

Predictors: (Constant), Test Score.

For the independent variable GPA, the R^2 value was .106. In this case, 10.6 percent of the high Hispanic dropout rate was attributed to the students' academic ability or grade point average (GPA). In other words, the independent variable Test Score (GPA) explained 10.6 percent of the high Hispanic dropout rate.

Table 23 - The Contribution /Weight of SES in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
2	.369	.136	.136	.83	.136	2151.360	1	13660	.000

Predictors: (Constant), Socioeconomic Status

For the independent variable SES, the R^2 value was .136. In this case, 13.6 percent of the high Hispanic dropout rate was attributed to the students' family Socioeconomic Status (SES). In other words, the independent variable SES explained 13.6 percent of the high Hispanic dropout rate.

Table 24 - The Contribution /Weight of Sex (Gender) in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
3	.058	.003	.003	.43	.003	10.912	1	3249	.001

Predictors: (Constant), Sex

For the independent variable Sex, the R^2 value was .003. In this case, .3 percent of the high Hispanic dropout rate was attributed to the students' Gender or Sex. In other words, the independent variable Sex explained only .3 percent of the high Hispanic dropout rate.

Table 25 - The Contribution /Weight of Employment in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
4	.248	.061	.061	.87	.061	894.069	1	13680	.000

Predictors: (Constant), Worked More than 20 Hours/Week

For the independent variable Employment, the R^2 value was .061. In this case, 6.1 percent of the high Hispanic dropout rate was attributed to the students' working more than 20 hours per week. In other words, the independent variable Employment Status explained 6.1 percent of the high Hispanic dropout rate.

Table 26 - The Contribution of Sibling Academic Status in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
5	.196	.039	.038	.42	.039	130.436	1	3249	.000

Predictors: (Constant), Older Sibling(s) Dropped Out of High School

For the independent variable Sibling Academic Status, the R^2 value was .039. In this case, 3.9 percent of the high Hispanic dropout rate was attributed to the students' older sibling(s) dropping out of high school. In other words, the independent variable Sibling Academic Status explained 3.9 percent of the high Hispanic dropout rate.

Table 27 - The Contribution of Repeated a Grade in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
6	.388	.150	.150	.83	.150	2418.881	1	13680	.000

Predictors: (Constant), Held Back (Retained) One or More Grades from 1st to 12th Grade.

For the independent variable Repeated a Grade, the R^2 value was .150. In this case, 15.0 percent of the high Hispanic dropout rate was attributed to the students' being held back on one or more grade levels. In other words, the independent variable Repeated a Grade (Retained) explained 15.0 percent of the high Hispanic dropout rate.

Table 28 - The Contribution of Citizenship/Foreign Born in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
7	.436	.190	.190	.49	.190	3407.187	1	14528	.000

Predictors: (Constant), Born in U.S?

For the independent variable Citizenship Status, the R^2 value was .190. In this case, 19.0 percent of the high Hispanic dropout rate was attributed to the students' being foreign born. In other words, the independent variable Citizenship Status explained 19.0 percent of the high Hispanic dropout rate.

Table 29 - The Contribution of Pregnancy/Fatherhood in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
8	.215	.046	.046	.87	.046	660.490	1	13680	.000

Predictors: (Constant), Pregnancy/Fatherhood

For the independent variable Pregnancy/Fatherhood, the R^2 value was .046. In this case, 4.6 percent of the high Hispanic dropout rate was attributed to the students' being either pregnant or a father. In other words, the independent variable Pregnancy/Fatherhood explained 4.6 percent of the high Hispanic dropout rate.

Table 30 - The Contribution of Alcohol and Drug Use in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
9	.041	.002	.002	.39	.002	23.669	1	13747	.000

Predictors: (Constant), Alcohol and Drug Use.

For the independent variable Alcohol and Drug Use, the R^2 value was .002. In this case, .2 percent of the high Hispanic dropout rate was attributed to the students' using drugs and/or alcohol. In other words, the independent variable Alcohol and Drug Use explained only .2 percent of the high Hispanic dropout rate.

Table 31 - The Contribution of Friends' Academic Status in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

Model	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
10	.127	.016	.016	.57	.016	243.524	1	14823	.000

Predictors: (Constant), Friends Don't Think Learning is Important or are Dropping Out.

For the independent variable Friends' Academic Status, the R^2 value was .016. In this case, 1.6 percent of the high Hispanic dropout rate was attributed to the students' friends lack of interest, poor performance, or dropping out of school. In other words, the independent variable Friends' Academic Status explained only 1.6 percent of the high Hispanic dropout rate.

Table 32 - The Contribution of Truancy in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

Model	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
11	.230	.053	.053	8.48	.053	827.998	1	14823	.000

Predictors: (Constant), Students' Class Attendance.

For the independent variable Truancy, the R^2 value was .053. In this case, 5.3 percent of the high Hispanic dropout rate was attributed to the students' poor class attendance. In other words, the independent variable Truancy explained 5.3 percent of the high Hispanic dropout rate.

Table 33 - The Contribution of School Location in High Hispanic Student's High Dropout

Model Summary: Dependent Variable ... Dropout

	R	R^2	Adj. R^2	Std. Error of the Est.	Change Statistics				
Model					R^2 Change	F Change	df1	df2	Sig. F Change
12	.285	.081	.081	.86	.081	1213.612	1	13680	.000

Predictors: (Constant), Urbanicity.

For the independent variable School Location, the R^2 value was .081. In this case, 8.1 percent of the high Hispanic dropout rate was attributed to the students' school location. In other words, the independent variable School Location explained 8.1 percent of the high Hispanic dropout rate.

Summary of Findings

In all, there are 14,825 students in the study population and 3,251 (21.9%) of these participants were Hispanic students. Of the 3,251 Hispanic students, 2,341 graduated from high school while 910 (28.0%) dropped out of school.

The results of the multiple regression analysis of the twelve independent variables GPA, SES, Gender, Employment Status (ES), Sibling Academic Status (SAS), Repeating a Grade (Retained), Citizenship Status (CS), Pregnancy/Fatherhood (PF), Substance Abuse, Friends' Interest in School, Cutting Classes (Truancy), and High School Location (Urbanicity), analyzed on the 910 Hispanic student dropouts revealed that 84.4% of high school dropout by the Hispanic students can be associated with the twelve independent variables. The contributions of the twelve independent variables were as follows:

GPA accounted for 10.6%, SES accounted for 13.6%, Sex (Gender) accounted for .3%, Employment (working 20 or more hours per week while attending high school) accounted for only 6.1%, Sibling Academic Status accounted for 3.9%, Repeated a Grade accounted for 15.0%, Citizenship (Foreign Born)/English Proficiency accounted for 19%, Pregnancy/Fatherhood accounted for 4.6, Alcohol and Drug Use (Substance Abuse) accounted for .2%, Friends' Academic Status accounted for 1.6%, Truancy (Cutting Class) accounted for 5.3%, and Urbanicity (School Location) accounted for 8.1%.

In essence, other variables not considered in the analysis accounted for 15.6% of the high Hispanic students' dropout rate. However, it should be noted that the following independent variables - Citizenship/English Proficiency (19%), Repeated Grade (15%), SES (13.6%), and Student academic ability/GPA (10.6%) had the most impact; School Location/Urbanicity (8.1%), Employment/working 20 hours or more per week (6.1%) and Truancy (5.3%) had a moderate impact; while Pregnancy/Fatherhood (4.6%), Sibling Academic Status (3.9%), Friends' Academic Status (1.6%), Sex/Gender (.3%), and Alcohol and Drug Use (.2%) had the least or negligible impact.

In other words, Pregnancy/Fatherhood (4.6%), Sibling Academic Status (3.9%), Friends Academic Status (1.6%), Sex/Gender (.3%), and Alcohol and Drug Use (.2%) were not factors in the prediction of the high Hispanic students' dropout rates.

Conclusions

As a result of the quantitative analysis and findings generated by this study, the following conclusions were drawn regarding the factors that contribute to the high Hispanic dropout rate:

1. Citizenship/ English Proficiency (19%), Repeated Grade (15%), SES (13.6%), and Student academic ability/GPA (10.6%) had the most impact.
2. School Location/Urbanicity (8.1%), Employment/working 20 hours or more per week (6.1%) and Truancy (5.3%) had a moderate impact.
3. Pregnancy/Fatherhood (4.6%), Sibling Academic Status (3.9%), Friends Academic Status (1.6%), Sex/Gender (.3%), and Alcohol and Drug Use (.2%) had the least or negligible impact. In other words, Pregnancy/Fatherhood (4.6%), Sibling Academic Status (3.9%), Friends' Academic Status (1.6%), Sex/Gender (.3%), and Alcohol and Drug Use (.2%) were not factors in the prediction of the high Hispanic students' dropout rates.
4. The overall contributions of the independent variables - Family Socioeconomic Status (13.6%), Academic Ability (10.6%), Sex (.3%), Employment Status (6.1%), Sibling Academic Status (3.9%), Repeated a Grade (15.0%), Citizenship Status/ English Proficiency (19.0%), Pregnancy/Fatherhood (4.6%), Alcohol and Drug Use (.2%), Friends' Interest in School (1.6%), Cut Classes (5.3%), and High School Location (8.1%) in explaining the high Hispanic dropout rate was 84.4%. In other words, 84.4% of the high Hispanic dropout rate can be attributed to those twelve factors, 15.6% of the high Hispanic dropout rate can be attributed to other independent variables that were not considered in this study.

5. The dropout rate of the Hispanic students in this study was found to be 28.0%; because, of the 3251 Hispanic student participants, 910 of them dropped out resulting in a 28% dropout rate for the Hispanic students.

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12 Variables *Demographic Factors (2, 3) *Academic Ability (1) *Family Background (4, 5, 7, 8) *School Experiences (6, 11) *Social Influence Factors (9, 10, 12)	**Crosstabulation** 14,825 Sample Population 3,251 Hispanic Students 2,341 Graduated 910 Dropouts Y – Difference X – Little or No Sig. Difference	**Multiple Linear Regression** 84.4% = 12 Variables 15.6 % =Other Variables	**1-4** Most Impact *5-7* Moderate Impact 8-12 Were not Factors in the prediction of the high Hispanic students' dropout rates
1. Academic Ability (GPA)	Lowest Quartile 2341 = 375 (16%) 910 = 582 (64%) Y	**10.6%**	**4th**
2. Socioeconomic Status (SES)	Lowest Quartile 2341 = 554 (23.7%) 910 = 619 (68%) Y	**13.6%**	**3rd**
3. Sex (Gender)	2341 = 1151 (49%) 1190 (51%) 910 = 521 (57.3%) 389 (42.7%) X	.3%	11th
4. Employment Status (ES) Worked 20+ Hrs./Week	2341 = 757 (32%) 910 = 576 (63%) Y	*6.1%*	*6th*
5. Sibling Academic Status (SAS)	2341 = 645 (27.6) 910 = 268 (29%) X	3.9%	9th
6. Repeated a Grade (Retained)	2341 = 448 (19.1%) 910 = 636 (70%) Y	**15.0%**	**2nd**
7. Citizenship Status (Foreign Born)	2341 = 475 (20.3%) 910 = 663 (73%) Y	**19.0%**	**1st**
8. Pregnancy/Fatherhood	2341 = 175 (7.5%) 910 = 298 (33%) Y	4.6%	8th
9. Alcohol and/or Drug Use	2341 = 2290 Responded 747 (23%) 910 = 265 Responded 187 (70%) (SKEWED b/c low response)	.2%	12th
10. Friends' Interest in School	910 = 563 Responded 17 (3%) X	1.6%	10th
11. Absent from School (Truancy)	2341 = 374 (16%) 910 = 485 (53%) Y	*5.3%*	*7th*
12. High School Location (Urbanicity)	2341 = 519 (22%) 910 = 577 (63%) Y	*8.1%*	*5th*

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