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THE RELATIONSHIPS OF CERTAIN SOCIO-CULTURAL FACTORS TO THE ACADEMIC ACHIEVEMENT OF MALE MEXICAN-AMERICAN HIGH SCHOOL SENIORS

by

Neal Eric Justin

A Dissertation Submitted to the Faculty of the
COLLEGE OF EDUCATION
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1969
I hereby recommend that this dissertation prepared under my direction by Neal Eric Justin entitled The Relationships of Certain Socio-Cultural Factors to the Academic Achievement of Male Mexican-American High School Seniors be accepted as fulfilling the dissertation requirement of the degree of Doctor of Education.

Herbert Sellman, April 9, 1969
Dissertation Director

After inspection of the final copy of the dissertation, the following members of the Final Examination Committee concur in its approval and recommend its acceptance:

Herbert Sellman
D. H. Kelley
April 9, 1969

April 5, 1969

April 7, 1969

April 9, 1969

This approval and acceptance is contingent on the candidate's adequate performance and defense of this dissertation at the final oral examination. The inclusion of this sheet bound into the library copy of the dissertation is evidence of satisfactory performance at the final examination.
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SIGNED: Neil E. Justin
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ABSTRACT

The purpose of this exploratory study was to determine the relationship of academic achievement to the socio-cultural variables of: delayed gratification (time orientation), feelings of personal control (fatalism), access to the rewards of the dominant culture, and exposure to the dominant culture. Of further concern was the determination of the inter-relationships of these variables and inferring from them indications of culture change.

"High School Questionnaire 1268" was used as the measurement instrument. One hundred sixty-eight male Mexican-American seniors were randomly selected from four Tucson urban high schools.

The hypotheses tested were:

(1) The tendency to delay gratification is not significantly related to their academic achievement;

(2) Feelings of personal control is not significantly related to their academic achievement.

(3) Feelings of personal control is not significantly related to their tendency to delay gratification.

(4) Exposure to the dominant culture is not significantly related to academic achievement.
(5) Access to the rewards of the dominant culture is not significantly related to their academic achievement.

(6) Access to the rewards of the dominant culture is not significantly related to their feelings of personal control.

Only Hypotheses No. 3 and No. 5 were rejected at the .05 level. The results only slightly indicate that feelings of personal control are related to delayed gratification and that access to the rewards of the dominant Anglo culture are related to the academic achievement of the Mexican-Americans.

A post hoc analysis comparing Anglos to Mexican-Americans further revealed significant differences between these two groups on each of the four variables. The Mexican-Americans were significantly less future oriented and more fatalistic than their Anglo peers. The findings indicate that the culture change among these Mexican-Americans has not resulted in any significant adoption of the Anglo cultural characteristics of future time orientation or strong feelings of personal control.
CHAPTER I

THE PROBLEMS AND HYPOTHESES

Introduction

Educators throughout the Southwest are concerned with the generally poor academic achievement of the Mexican-American students (New Voices of the Southwest, 1966). One of the most popular explanations for the under-achievement of the Spanish-speaking youngsters is the language problem. There appears to be the hopeful expectation that if the schools will change their orientation towards the use of Spanish and English the major obstacle to higher achievement will be removed. The report from the symposium on the Spanish-speaking child in the schools of the Southwest begins with the following remarks:

The bell has rung, and for the Spanish-speaking children in the schools of our Southwest, the school bell is beginning to have a friendly and welcome sound. Educational programs emphasizing the unique educational potential of the Spanish-surnamed children, have been undertaken. These programs are based on the premise that the child's ability in Spanish should be encouraged and developed into a learning resource. Throughout the Southwestern states this premise is being applied in numerous ways--the two most widespread programs being the companion approaches of 'Spanish for the Spanish-Speaking' and 'English as a Second Language' (Manuel, 1965, 2).
Certainly there are justifiable reasons to place a great deal of emphasis upon language; however, there tends to be more deep seated socio-cultural reasons for the academic problems of these minority group youngsters (Rosen, 1961, 47-60).

The California Department of Education recognized the importance of socio-cultural factors many years ago when a bulletin stated, "Much of the literature concerning the problems of educating Mexican-Americans is devoted to the problem of the language barrier. Perhaps the main reason these programs are unsuccessful is that only language is considered and other barriers to acculturation have been overlooked. New ways of behaving need to be learned along with the new language" (Teachers Guide to the Education of Spanish-Speaking Children, 1952, 11).

Extensive research has been done with the Negroes and with the American Indians (Simpson and Yinger, 1958, 8-11), but relatively little has been done with the Mexican-Americans. This lack of research is well supported by Celia Heller (1966, 3-4) in her book entitled Mexican American Youth: Forgotten Youth at the Crossroads. She writes:

The Mexican American minority has received little attention from the mass media of communication and, outside the Southwest, there is hardly any awareness of its existence. This merits some thought, especially since the Mexican Americans are the third largest minority in the United States. Moreover, in those Southwestern states, where they are
concentrated, an awareness exists but there is no correspond­
ing knowledge about them. Of course, few people in those
states would admit ignorance, and more would vouch that they
'know all there is to know' about Mexican Americans. The
'all' very often consists of a stereotypic image of Mexican
Americans that is widespread. I have heard numerous
comments which reflect this. The comments about Mexican
American youths, in particular--made even by individuals
having contact with them, such as teachers, school adminis­
trators, and social workers--run something like this: 'How
Mexican the young people are in their ways, how lacking in
ambition, how prone to delinquent behavior.'

Even for the person who is not satisfied with those stereo­
types, it is not easy to obtain factual knowledge. The meager
literature about the Mexican Americans both reflects and
contributes to their being unremembered and little known.
Not much of a systematic nature has been written about Mexican
Americans today, particularly about Mexican American youth.
As a matter of fact, there seems to be a general agreement
among interested social scientists that the field of Mexican
American studies has been sadly neglected from the '40's to
the present day, although it did attract the attention of social
scientists in earlier years.

If educators are to provide meaningful and significant educational
programs for Mexican-Americans, they must know more about them
than they do at the present time. Instruction for minority group
youngsters in our schools will continue to be inadequate unless and
until educators recognize operationally the need to understand their
culture, their socialization, and their language differences as well
as their ethnic diversity.

The seriousness of the situation is exemplified by the National
Education Association's Tucson Survey(The Invisible Minority, 1966,
iv) report when it states:
The most acute educational problem in the Southwest is that which involves Mexican-American children. In the elementary and secondary schools of the five states in that region—Arizona, California, Colorado, New Mexico, and Texas—there are approximately 1.75 million children with Spanish surnames. Many of these young people experience academic failure in school. At best, they have limited success. A large percentage become school dropouts.

Little headway is being made against the problem. While teachers and administrators are and have been deeply concerned about it, they are also for the most part perplexed as to just what to do.

Educators are becoming increasingly aware of the many socio-cultural factors other than intellectual capacity which relate to academic achievement. These factors are especially important to those working with minority group youngsters.

It is expected that the data from this research project will be useful to teachers, guidance personnel, curriculum and scholarship committees, local and national educational programs, and others working with and interested in the Mexican-Americans. This research should also provide new and useful data relating to the theory of culture change and to the acculturation of these Mexican-American students.

Statement of the Problem

The problem of this research study is to determine the relationships of four socio-cultural variables to the academic achievement of male, Mexican-American, high school, seniors. The four socio-cultural variables measure: (1) feelings of personal control (fatalism);
(2) delay of gratification (time orientation); (3) access to the rewards of the dominant culture; (4) exposure to the dominant culture. These variables were selected over many others because much of the literature dealing with Mexican-Americans refers to fatalism and time orientation. However, very little statistical measurement has been made of these factors. Therefore, this study attempts to provide a statistical measurement of these factors which are herein referred to as the socio-cultural variables. Furthermore, three recent studies made of the Tucson, Mexican-American population by Officer (1964), Bronson (1966), and Henderson (1966) dealt extensively with such variables as neighborhoods, joining habits, family patterns, occupations, and religion; however, the variables used in this study were not included.

Aspects of major concern to this problem include:

(1) Measuring the presence of the variables within the population used in this study.

(2) Analyzing the relationships of the four socio-cultural variables to the academic achievement of the sample population.

(3) Analyzing the interrelationships of the variables involving delayed or deferred gratification and those involving feelings of personal control.
(4) Inferring implications of cultural change, which forms the theoretical base for this study, within the sample Mexican-American population.

(5) Drawing inferences and implications that may be used to develop strategy for improving theoretical and practical educational programs involving Mexican-Americans.

Hypotheses To Be Tested

1. The tendency to delay gratification by male, Mexican-American, high school, seniors is not significantly related to their academic achievement.

2. Feelings of personal control by male, Mexican-American, high school, seniors is not significantly related to their academic achievement.

3. Feelings of personal control by male, Mexican-American, high school, seniors is not significantly related to their tendency to delay gratification.

4. Exposure to the dominant culture by male, Mexican-American, high school, seniors is not significantly related to their academic achievement.

5. Access to the rewards of the dominant culture by male, Mexican-American, high school, seniors is not significantly related to their academic achievement.
6. Access to the rewards of the dominant culture by male, Mexican-American, high school, seniors is not significantly related to their feelings of personal control.

**Definition of Terms**

1. Academic Achievement: Determined for each individual student according to his cumulative grade point average (G. P. A.) through the junior year of high school as shown in the high school records. Academic achievement is, therefore, based upon six cumulative semesters of high school work.

2. Anglo or Anglo-American: This is a term commonly used in the Southwestern United States to designate Caucasians who are not of Mexican or Spanish extraction (Henderson, 1966, 14).

3. Culture: The definition of culture for this research is taken from the "Summary of the Characteristics of Culture" by Kluckhohn and Kroeber (1963, 257). They state that culture:

   .... consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values; culture systems may, on one hand, be considered as products of action, and the other as positioning elements of further action.

The broad scope of this definition makes it particularly suitable for use in a study concerning culture change.
4. Ethnic Groups: "... usually possesses some continuity through biological descent, and its members share a distinctive social and cultural tradition. Ethnic groups tend to have cultural attributes in common to a greater degree than biological characteristics" (McDonough and Richards, 1953, 397).

5. Higher and Lower Achievers: Higher achievers are those students whose six semester cumulative grade point average range from 1.0 to 2.5. Lower achievers are those students whose six semester cumulative grade point average range from 2.6 to 5.0.

Because the schools within Pima County, Arizona use a grade scale of 1.0 to 5.0, with a grade of 1.0 representing the highest academic achievement and a 5.0 representing the lowest academic achievement, it was decided to artificially divide the sample population for this research into the two categories of higher achievers and lower achievers. These two terms formulate an artificial dichotomy (Edwards, 1967, 1-2), which provides additional interest and scope to the statistical analysis of the sample population.

6. Mexican-Americans: This term refers to individuals whose ethnic origin is Mexican but who now reside in the United States. The person may have been born in Mexico or be of Mexican ethnic origin by one or by both parents (Tuck, 1946, xix).
7. Reference Group: In this paper the term reference group is used in relationship to the Mexican-Americans as they relate to the dominant Anglo-American culture. The following statements by Robert K. Merton (1949, 233, 234, 269) help to further define and clarify the term "Reference Group":

In general, reference group theory aims to systematize the determinants and consequences of those processes of evaluation and self-appraisal in which the individual takes the value or standards of other individuals and groups as a comparative frame of reference.

The framework of reference group theory, detached from the language of sentiment, enables the sociologist to identify and to locate renegadism, treason, the assimilation of immigrants, class mobility, social climbing, etc. as so many special forms of identification with what is, at the time, a non-membership group. In doing so, it affords the possibility of studying these, not as wholly particular and unconnected forms of behavior, but as different expressions of similar processes under significantly different conditions.

Reference groups are, in principle, almost enumerable. Any of the groups of which one is a member, and these are comparatively few, as well as groups of which one is not a member, and these are, of course, legion, can become points of reference for shaping one's attitudes, evaluations, and behavior. . . . The fact that men frequently orient themselves to groups other than their own in shaping their behavior and evaluation, and it is the problems centered about this fact of orientation to non-membership groups that constitute the distinctive concern of reference group theories.

8. Socio-Cultural: This term refers to the concepts or generalizations from sociology and cultural anthropology as related to the study area under consideration (Wilson, 1968, v-vi).
Limitations

1. This study is concerned only with male, Mexican-American, high school, seniors. It is recognized that this population may represent a select group of students who have been more successful in school than many of their peers who have dropped out.

2. This study does not attempt to analyze the curriculum, teaching methods, or administrative structure and procedures used in the schools in which this study is made.

3. This study is limited to a sample population drawn from four, urban, high schools in Tucson, Arizona.

4. Because of the nature of the population and the adaptation of the measurement instrument for Mexican-Americans, this study is considered exploratory. It is the first such statistical study to be made in the Tucson area concerning these socio-cultural variables.

Importance of the Study

As educators respond to the challenge of providing meaningful academic programs for members of minority groups within the United States, they are made increasingly aware of the many socio-economic and cultural factors other than intellectual capacity which affects the school performance of these youngsters. The particular cultural or social class values which they hold, and the lack of congruence
between what they learn in school and what they experience at home may strongly influence school oriented success.

The identification of these factors, their origin, and interrelationships, and the strategy for their improvement or change have become research topics with both practical and theoretical importance.

This study goes beyond the language barrier and explores some of these underlying factors which may be of greater significance to the education and welfare of the Mexican-American youngsters.
CHAPTER II
SURVEY OF THE RELATED LITERATURE

Introduction

The literature relating to the Mexican-American population in the Southwest and, particularly, that of Tucson, Arizona, is reviewed in Part One of this chapter. The chapter begins with the historical background of the Mexican-Americans and continues with the major socio-cultural factors of relevance to understanding their position in relationship to the dominant Anglo-American culture.

The material in Part One serves the following functions: (1) It provides the reader with a wide range of information directly relating to Mexican-Americans, thus forming a base for reference with respect to the socio-cultural concerns of this study; (2) It provides a source of reference for the study of contemporary Mexican-Americans; (3) It provides insights into the positive and negative aspects of the acculturation of Mexican-Americans to the dominant Anglo-American culture; (4) It provides data concerning the social, cultural, economic, and educational problems prevalent among Mexican-Americans.

Part Two of this chapter is concerned with the theoretical base for this study. It includes a discussion of culture change and an
examination of the four independent socio-cultural variables included in this research with respect to their significance to the theories of cultural change, acculturation, and education of Mexican-Americans.

Part One

Historical Background

The historical treatment of the Mexican-Americans in literature is frequently filled with romanticism (Cabrera, 1967). Legends about the early California mission days and of the resolute Spanish conquistadors who explored the Southwest in search of the fabled Seven Cities of Cibola, contribute to the unrealistic history of the Mexican-Americans (Cabrera, 1967).

The historical and folk culture descriptions which serve as the basis of Mexican and Mexican-American history generally evoke two types of images. One of them includes dark-eyed Senoritas, with roses in their hair, dark men of spirited horses, excitement at the Plaza de Toro's, and of magnificent haciendas always depicted on a gracious and grand style (Cabrera, 1967, 102-103).

The other picture reflects a folk culture filled with images of the Indio peon, the victims of a futile system which was part of the European heritage. Out of this folk-culture concept a style of life emerges. A way of living dominated by present time orientation, feelings of respect for and docility to authoritarian institutions and
their agents, of low deferred gratification, of little feelings of personal control, fatalism toward life, of obedience toward a highly structured church, of low expectations for personal status change; and, therefore, little urgency for improvement through education (Cabrera, 1967, 103). This, and more, is frequently the stereotyped legacy of the Mexican-American folk culture.

The first Spanish speaking peoples explored the Southwest many years before the first settlers came to Jamestown or to Plymouth colony. In 1540 Coronado explored Arizona, Mexico, and other areas of the Southwest as far north as Kansas in hopes of finding the fabled Seven Cities of Gold. Actual colonization of the Southwest began in 1609 when the Spaniards settled at Santa Fe, New Mexico. This was eleven years before the first settlers came to the eastern part of the United States at Plymouth colony. The Spanish speaking people have lived in the Southwestern part of the United States for almost three-hundred sixty years.

By 1680 there were some 2,500 Spanish-speaking settlers in what we now call New Mexico. By 1790 this number had grown to an estimated 23,000 people of Spanish-speaking descent (The Invisible Minority, 1966, 4). The area included in the Southwestern states of California, Arizona, New Mexico, Nevada, and Utah, were then inhabited by Spanish-speaking people. Indeed, the non-Indian
population of the Southwest, what there was of it, was practically all Spanish. New Mexico had the largest concentration. Many of the towns in the Southwest today bear the imprint of this Spanish-Mexican origin, as symbolized by the many Spanish community names in the region. In New Mexico the settlers were referred to as "Hispanos," and many of these families can trace their lineage locally to long before the intruding Anglos entered the area.

During the beginning of the 1700's, the Spaniards began to settle in the regions of Texas, Arizona-New Mexico, and California. In each of these areas the culture of Spain had its influence as evidenced by such things as language, architecture, and religion. Until about the middle of the nineteenth century, the Spanish residents of the regions of California, Arizona-New Mexico, and Texas went their separate cultural ways, held together only slightly at first by the slender ties to Spain and later, briefly, by the uncertain and flimsy bonds with independent Mexico (Sanchez, 1940, 7).

The English-speaking Americans began to come to the Southwest soon after the Spanish-speaking peoples arrived. Mexico, with its own newly won independence from Spain, encouraged the immigration of these English-speaking people. This vast Southwestern area, stretching from the western border of Louisiana to the Pacific Ocean in California, belonged to Mexico. Mexico was interested and anxious to see this land settled and developed. However, few of the Mexican colonists
were moving there or had the capital to make the needed improvements that would lead to further expansion of the area and make it more profitable to their government.

To encourage the American settlers, the government of Mexico granted large areas of land to contractors who would bring in colonists. The response was large and prompt. By 1835 there were 25,000 or more American farmers, traders, and planters settled in the area of Texas, and more were on the way. Some of these English-speaking settlers also moved into areas of New Mexico, Arizona, and California. To the dismay of the Mexican government, these people began to outnumber the Spanish-speaking settlers, and they began to hold a great deal of influence in local affairs. To stop this problem, the Mexican government canceled any further grants of land to the Americans. The settlers in Texas, however, were much displeased by this move and in 1836 they revolted against the Mexican government and won their independence (Marden and Meyer, 1962, 121-122).

With the increasing immigration of the English-speaking peoples into the Southwest, the relations between the Mexicans and the Americans became more strained and antagonistic. It is not surprising that violence between the Spanish-speaking peoples of the area and the Anglos should frequently arise. Paul S. Taylor (1934), in his study of a border community, testified to many instances of violence from both groups. He cites the comment of a local official:
"Undoubtedly, robberies and murders by Mexicans have continually been perpetuated in Texas. But, in retaliation, Americans have committed terrible outrages upon citizens of Mexican origin" (Taylor, 1934, 65). The bitterness between the Anglos and the Mexicans often resulted in unfair use of so-called "frontier justice" (McWilliams, 1948). Shortly after Texas was admitted to the Union, another dispute broke out between the United States and Mexico over the southwestern boundary of Texas. This resulted in the war with Mexico which gained, for the United States, large areas of land that had once belonged to Mexico. This area included parts of the present states of New Mexico, most of Arizona, California, Utah, Nevada, and parts of Wyoming and Colorado. Even so, the southwestern part of Arizona, south of the Gila River, the area in which the city of Tucson is located, still belonged to Mexico, and it was not until the Gadsden Purchase, five years later, that the present boundary line was moved about seventy miles south of Tucson (The-Invisible Minority, 1966, 4-5). This new acquisition of land from Mexico completed the American boundary lines and our present frontiers were established in the Southwest.

The immigration of new people from Mexico was slow during the 1800's. It was not until the beginning of the Twentieth Century, as a result of the Mexican Revolution of 1910, that a great wave of immigration took place coming from Mexico. These Mexicans were unaffected by the restrictive immigration laws of 1921 and 1924, which had
substantially stopped the inflow of persons from Southeastern and Eastern Europe, and thus severely cut down on the supply of cheap labor (Bogue, 1959, 2). These large numbers of new immigrants from Mexico came here to fill the common labor market. Their employment was mainly in agriculture, although many worked on ranches or in the mines. Large numbers of these Mexican immigrants settled around Tucson and Phoenix. Although they were living in close proximity to the Anglos, there was relatively little contact between the two societies. In general, the Anglos were rather severe in their restrictions and feelings of prejudice toward the Mexican immigrants (Gamio, 1930).

The immigration from Mexico has largely been affected by the pull of employment opportunities in the Southwest, particularly the area of agriculture and the push of the negative effects of the economic conditions in Mexico (Marden and Meyer, 1962, 123). World War II brought on great demands for manpower and the immigration from Mexico reached a peak around 1953 (Marden and Meyer, 1962, 124). Much of this labor involved transient harvest hands who had entered the country illegally and were called "wetbacks." This term originated in Texas where the illegal immigrants had to cross the Rio Grande River. The "wetback" immigration reached startlingly high proportions in the post World War II period. In 1953 the Border Patrol apprehended 750,000 "wetbacks" (Marden and
Meyer, 1962, 124-125). Although these people were returned to Mexico, many of them found ways to reenter the United States. The large scale decline in immigration either legal or as "wetbacks" from Mexico after the 1950's has brought about a population of Mexican-Americans in the Southwest which is mainly native born in the United States (Saunders, 1954, 300-307). The 1960 Census reported 84.6 per cent of the Spanish surnamed people in the Southwest as "native born" (Manuel, 1965, 207). The percentage of those Mexican-Americans who were born in Mexico was, for Arizona, 17.6 per cent; California, 20 per cent; and, Texas, 14 per cent (Manuel, 1965, 207).

It is in the area of contact and culture change between the two cultures that this study is most interested. Specifically focusing on Tucson, we refer to the research done by Officer (1964, 43-91) which provides us with an interesting historical description of the social relations between the Anglos and the Mexicans in this area.

The first non-Indian residents in Tucson were probably the Spanish soldiers who were quartered here in 1756. The date usually cited for the official establishment of the city is 1776, which was the year in which the Spanish presidio was moved from Tubac to Tucson.

The first significant immigration of Anglos to the Tucson area came in 1856 and continued until the beginning of the Civil War. Prior
to the arrival of the railroad, a few profitable business partnerships were formed between Americans and Mexicans and successful merchants from Mexico were attracted to Tucson.

By 1910 the Anglo population had become numerically and economically dominant. Even during the period following the 1910 revolution in Mexico, relatively few of the Mexicans who were leaving Mexico came to Tucson. They seemed to prefer the agriculture areas around Phoenix and the other mining centers throughout Arizona. It is, perhaps, because of this reason that Tucson was spared some of the strife that characterized Anglo-Mexican relations in other communities in Arizona during this period (Officer, 1964, 48-59).

The period from 1910 through 1930 is characterized by Officer (1964, 61) as one of stabilized "pluralism." He means by this that the socially and economically dominant Anglo-Americans were highly tolerant of the cultural differences of the Mexicans. In many ways this term may characterize the situation even today (Henderson, 1966, 21).

The rapid growth of Tucson following World War II brought about many changes in the community. Many Mexican-American families migrated from the traditional barrios to other residential areas, and Mexican-Americans began to participate more in the political affairs of the community and to attend the University of Arizona in increasing numbers (Henderson, 1966, 21). Within the municipal boundaries of
Tucson and South Tucson, both included in this study, and in the work by Officer (1964), 18.2 per cent of the total population (United States Census, 1963)* was composed of residents who had Spanish surnames.

The education and economic status of this Mexican-American ethnic group may be dramatized by comparing them with the total population of the city. In 1964 the median income ranges in four of the five traditional Mexican-American barrios ranged from $850 to $1250 less than the median for all Spanish surnamed families (Officer, 1964, 85). The median for all families with Spanish surnames was $4,735, while the median for the community as a whole was $5,703. These figures indicate that not only are the Mexican-Americans of relatively lower incomes, but that their neighborhoods, or barrios, constitute pockets of poverty.

Officer's (1964, 85) study further shows us that the educational attainment for the Mexican-American community is substantially less than that of the Anglo community. His figures show that the median number of school years completed by the Mexican-Americans was 8.1 years, while, for the total population of Tucson, it was 12.1 years.

Officer (1964, 91) concluded his study of occupational status of the Mexican-Americans and Anglos by stating: "... the so called 'blue-collar' and lower echelon 'white collar' jobs were the main stays of the Mexican colony, with relatively few persons in the

*This is 1960 United States Census data published in 1963.
managerial and professional categories associated with upper middle and upper-class status."

To summarize, it would appear that the early Spanish and Mexican residents of the Tucson area were in a better socio-economic position than their predecessors of today. For the most part, the Mexican-American population has become economically and socially subordinate to that of the dominant Anglo community. After half a century, a high degree of cultural pluralism still exists in the community (Henderson, 1966, 23). It is difficult to make a precise assessment of the cultural change which is taking place within the Mexican-American community because of the continued immigration from Mexico, but it does appear that the general acculturation of this ethnic group has not been rapid.

**Discrimination and Prejudice**

The discrimination and prejudice which is often met by the Mexican-Americans living in the Southwest has a long history. It has an important bearing upon the socio-economic and socio-cultural aspects of this study. Anglo contacts with the Mexicans after the Mexican War developed such impressions as the Mexicans being wretchedly poor, idle, and given to drinking, thieving, and gambling (Burma, 1954, 106). These attitudes formed the first basis for the prejudice stereotype of the Mexican, which has carried over to the
present time. This stereotype helps in placing the Mexican usually in the lowest quartile on ethnic-status scales, even by persons who have made little or no observations of them. The Mexican coming to the United States is confronted with a double problem of prejudice. In Mexico, class discrimination is commonplace, but discrimination against color is unusual and this makes it doubly difficult for the Mexican who meets prejudice in this area when coming to the United States.

Discrimination against the Mexicans and Mexican-Americans in the Southwest generally follows this pattern: lack of job opportunity, lack of educational opportunity, segregation in housing, lack of equality before the law, and various kinds of social discrimination (Burma, 1954, 107).

John H. Burma (1954, 112-113) makes the following interesting and meaningful commentary concerning the reasons for the discrimination that is leveled against the Mexican-Americans in the Southwest:

Fundamentally, of course, it is injudicious of Mexicans to be a minority, but there are certain specific facts or charges which seem to be contributing factors. For one thing, Mexicans are often dark, and darkness of skin was already a badge of alleged inferiority before most Mexicans came upon the scene. Second, they are predominantly poor, and so suffer from class discrimination. Third, their culture is different, and, hence, is looked upon as inferior. Fourth, they are Catholic in a predominantly Protestant country. Fifth, their's is a different language, and when used in public it accentuates differences and may make Anglos feel excluded, fear insult, etc. In addition to these facts, there are a number of fairly common
charges, none of which is correct and all of which are somewhat commonly accepted. For example: 'Mexicans are clannish.' 'Family life and morals among Mexicans are both different and lower.' 'Mexicans live only for the day, lack drive, energy, and foresight.' 'Mexicans are childish, improvident, given to producing too many children and getting drunk too often.' Actually, few Anglos know anything of what goes on in the Barrio, and this ignorance make possible the belief of inaccuracies, misinformation, and contradiction.

For the most part, discrimination against the Mexican-Americans is subtle in nature. While the Mexican-American enjoys all the legal rights of any other American citizen, he must constantly face the problem of extralegal discrimination. It is this special type of discrimination which led Ruth Tuck (1946) to call her book *Not with the Fist*. She makes the following comments on this problem: "Rather than having the job of battering down a wall, the Mexican-American finds himself entangled in a spider web, whose outlines are difficult to see but whose clean, silken strands hold tight" (Tuck, 1946, 198).

Anglo-Mexican relations in Tucson, Arizona, have been very good in reference to other cities in the Southwest. Anglo-Mexican marriages since the Civil War have been rather common in the community and examples of Anglo discrimination in places of public accommodation and housing have been rare (Officer, 1964, 165).

In his extensive report concerning the Mexican-American community in Tucson, Arizona, James Officer (1964, 165) reports
that almost without question his Mexican-American informants either began or concluded their remarks concerning prejudice and discrimination with a qualification similar to the following: "Discrimination in Tucson is not nearly as bad as in Texas, or California, or lots of other places in Arizona, like Phoenix, for example. A Mexican can do whatever he wants, if he has the education and the determination."

Officer (1964, 177) concludes his survey of Anglo-Mexican-American relations in Tucson with the following statement:

Emerging from my Tucson studies was a picture of two ethnic groups living side-by-side over a long period of time with relatively little tension and hostility; whose members intermarried when the social situation was propitious for the incubation of marriage relationships, and who consistently shared certain community institutions; yet who generally retained their separate ethnic identities. The common American tendency upon perceiving two groups maintaining this sort of 'arms-length-relationship'—especially where one is so obviously dominant—is to assume a high degree of discrimination on the part of one or the other. However, in the Tucson instance, the facts as I observed them gave only slight support to such an assumption.

**Mexican-American Socio-Economic Characteristics in the Southwest**

The literature concerning the Mexican-Americans in the Southwest usually creates the image of a very stereotyped group of people. There appears to be little differentiation of Mexican-Americans as compared to most other ethnic groups in terms of schooling, income, and occupation (Broom and Shevky, 1952, 154). Therefore, the following
characteristics should be interpreted only as a general representation of the Mexican-American ethnic group in the Southwest.

The socio-economic status of these people has been severely limited by four major factors. They are: the problem of their language, their cultural background, prejudicial treatment on the part of Anglo-Americans, and their lower socio-economic class membership (Chilcott, 1968, 359).

The most obvious identifying characteristic of the Mexican-Americans is their language. The National Education Association's Tucson survey on the teaching of Spanish to the Spanish-speaking dealt with the influence of the Spanish language and its use in relationship to the academic achievement of Mexican-American students.

The report pointed out the paradox of the American schools which directs the Mexican-American child to speak English and try to eradicate his Spanish, while, at the same time, the school offers special classes in Spanish language instruction for the Anglo students. In addition, the National Defense Education Act provides funds to public schools to teach modern languages. Thus, there are public funds being used to make monolingual students bilingual and to make the bilingual student monolingual (The Invisible Minority, 1966, 8-11). The report goes on to state:

The harm done a Mexican-American child linguistically is paralleled, perhaps even exceeded, by the harm done to him as a person. In telling him that he must not speak his native
language, we are saying to him by implication that Spanish and the culture which it represents are of no worth. Therefore, it follows that people who speak Spanish are of no worth. Therefore, it follows again, this particular child is of no worth. It should come as no surprise to us, then, that he develops a negative self-concept, and inferiority complex. If he is no good, how can he succeed? And, if he can't succeed, why try? (The Invisible Minority, 1966, 11)?

In most cases, the language of the Mexican-American's home and his childhood has been Spanish, and his experiences and personality have been affected by the use of the Spanish language and his Mexican cultural heritage. Available research shows, however, that language need not be an insurmountable barrier to the academic and intellectual achievement of youngsters who come from foreign-language-speaking homes (Tyler, 1956, 305).

Use of the Spanish language by the Mexican-American has played a definite role in the isolation and discrimination of these people by the Anglo-Americans. The preservation of the Spanish language by Mexican-Americans has been interpreted by the dominant group as "a persistent symbol and instrument of isolation" (Broom and Shevky, 1952, 153). While the Anglo tends to consider the use of Spanish as an indication of foreignness, the Mexican-American considers it a symbol of their unity and loyalty to La Raza (Madsen, 1965, 106).

There is an indication, however, that the Mexican-Americans are following the trend of most immigrant groups and are now using more and more English in the home when speaking with their children (Penalosa, 1967, 406). This was indicated in the Pamona studies; for
example, 65 per cent of the interviewed Mexican-Americans who had children reported that their children spoke only English to them (Penalosa, 1967, 406). The later generations of Mexican-Americans are becoming increasingly aware of the need to speak and write the English language well. They know that their socio-economic advancement depends upon it (Rubel, 1962, 49). An implication of the significance of language development and proficiency is brought out by Loban who states:

The persistently parallel relation of language proficiency with socioeconomic status cannot be overlooked. It appears entirely possible that, much more than previously thought, language proficiency may be environmentally, as well as hereditarily, determined. If children reared in families of at least favored socioeconomic positions receive a restricted language experience at home, if their early linguistic environment stresses only limited features of language potential, such children will, indeed, be at a disadvantage in school and in the world beyond school—unless the school offers a planned sequential program of language instruction (Loban, 1966, 71-72).

Marden and Meyer (1962, 140-141) made the following comprehensive statement regarding Mexican-Americans and their language:

... they have clung tenaciously to their language and to other manifestations of their sense of identity. This, in spite of widespread blind, misguided pressures by schools, employers, news media, and the like. In some public schools, children are still punished if they speak Spanish on the school grounds; and, it is the exception, rather than the rule, that by all reason should prevail, when a school system seeks to capitalize on the Spanish vernacular of its children. The pressures have been so great that, on occasion, a Spanish-Mexican leader sought to champion the obliteration of this basic cultural heritage of his people. Fortunately, these instances have been rare; and, in most instances, the proponent has recanted.
One of the most encouraging of recent developments has been a conscious and vocal resistance to these pressures. This is, in part, the result of the action of the leaders of whom there are many more with good educations; in part, this results from the increased maturity and sophistication of the entire society, which daily appreciates more the value of foreign languages; and, in part, the slowly spreading realization among educators, that, instead of being a disastrous handicap, the Spanish mother-tongue of these Americans of Mexican descent can be transformed into a decided asset.

The progress noted in the language fields, slow though it still is, may be seen reflected when other features of the Spanish-Mexican culture are considered. Southwestern history, as now presented to the student and the public, is much less chauvinistic than it was a few years ago, though, for instance, in Texas, Cabeza de Vaca, still doesn't rank with Jim Bowie and, in New Mexico, Kitt Carson far overshadows Father Jose Antonio Martinez. The anti-Mexican climate has been much reduced in the past ten years.

In an article discussing "Barriers to Mexican Integration in Tucson," Officer (1951, 7) stated, "My opinion is that the greatest hindrance to complete cultural assimilation of Tucson's Mexicans is the language problem." Apparently, this opinion has been shared widely by educators if we can judge from the curricula adjustments made for Mexican-Americans. The 1-C program provided for years in Tucson as a means of introducing children to English prior to beginning first grade work has placed the emphasis on language. Henderson (1966, 142) points out that, "The current mania for structural linguistics as a panacea for educational problems of Mexican-American children is another example of a language centered curriculum emphasis." It is interesting to note that the research by
Henderson (1966, 144) shows that the Mexican-American pupils who spoke the most Spanish could also speak the most English. For the most part, the Mexican-American child is considered a speaker of a foreign language. It would appear that most educators considered the language barrier as the major obstacle to the Mexican-American pupil's success and achievement in school (Henderson, 1966, 142). It may be wise, however, to place a greater emphasis on the socio-cultural problems of the Mexican-American student.

**Economic Status**

Although Mexican-Americans are found in all walks of life, an examination of the United States Census data of 1960 shows that they occupy an overwhelming position in the lower ranking occupations. Almost 75 per cent of the Mexican-Americans are employed as manual workers. It is in the field of professional employment that the Mexican-Americans are the most under-represented (Manuel, 1965, 20). Only 5 per cent of the urban employed Mexican-American males in the Southwest can be considered members of the professions (Manuel, 1965, 20). The concentration of the Mexican-Americans in the unskilled occupations has, of course, had a direct influence upon their incomes. Reference to the 1960 Census figures indicates that the Mexicans in the Southwest earn between $1,000 and $2,000 less
per year than do the Anglo-American unskilled workers (Manuel, 1965, 20).

It appears that the economic and occupational status of the Mexicans in Tucson, Arizona, is generally representative of the Southwest. Officer's (1964) detailed study of Mexican-Americans in Tucson made the following conclusion concerning occupational status:

This rather general discussion of Mexican occupations indicates that the so-called 'blue-collar' and lower echelon 'white-collar' jobs are the mainstays of the Mexican colony, with relatively few persons in the managerial and professional categories associated with upper-middle and upper-class status. From these data, we might infer that Mexican income levels were relatively low and that the bulk of the Mexican population was concentrated in the lower middle and lower-classes. Such a supposition is confirmed by information from the 1960 Census. The median income of Spanish surnamed families was $4,735, as compared with a median family income of $5,703 for the total community. However, the median family income for Mexicans did exceed that of the non-white population, which was $3,667.

Thus, we find that poverty and low economic status is far more prevalent among Mexican-Americans than among Anglo-Americans. In all five southwestern states, the average income of the Mexican-Americans, referred to as white-Spanish surname population in the United States Census data (1963), is well below that of the general population.
Religion

The traditional religion of the Mexican-Americans in the Southwest has been Catholicism (Wagner, 1966, 27). However, some Mexican-Americans are members of non-Catholic denominations. It is estimated that over 90 per cent of the Mexican population of the Tucson area is nominally Roman Catholic (Officer, 1964, 124). In an interview with the bishop of the Tucson diocese, Officer (1964, 124) was told that the bishop felt that the Mexicans made up about one-half of the total Catholic population of the total Tucson community.

The major portion of attendance at the Catholic churches is generally limited to the older generations and women, except on special occasions (Griffith, 1948, 184). The following quotation from Officer (1964, 121) indicates that this trend is also prevalent in Tucson.

I found the Mexican men of my acquaintance to be much more critical of Catholic doctrine than their wives, and often to relegate priests to the same category in which they placed their mother's-in-law as co-conspirators of their wives' working to undermine their authority in their households. Despite this fact, those few Mexican men who were faithful church-goers were not considered less macho because of it. In fact, they were respected by other males provided they did not attempt to make active church-goers of them, too.

There are approximately fifteen Protestant denominations in Tucson which have predominantly Mexican-American congregations (Bronson, 1966, 27). Although Mexican-American Protestants were overwhelmingly concentrated in these churches, there was a sprinkling
of membership in other churches outside the barrios (Officer, 1964, 125). Officer's study (1964) indicates that there is generally good feelings existing between the Catholic and Protestant members of the Mexican-American areas in Tucson. It was interesting to note that when his study was done, none of the protestant ministers was a native of Tucson. Most of them had been here only a short time and several indicated that they intended to move to a city which was less Catholic (Officer, 1964, 126).

Bronson (1966) divided her study of protestant Mexican-Americans into sects and denominational congregations. She makes the following statement concerning the sects (Bronson, 1966, 29):

"The congregations of Pentecostal sects are in large part derived from the upper-lower class. The churches in Tucson range from well-constructed large buildings to small jerry-built structures. Most of the ministers are poorly educated. Services are frequent and emotional." Bronson (1966, 39) makes the following observation of the denominational congregations in Tucson representing the Mexican-Americans:

The denominational congregations tend, on the whole, to have higher socio-economic status. The ministers often are more highly educated than the ministers leading the sects. Services are more subdued and there is a more formal liturgical order. Also, there are more ties with similar English-speaking congregations.... Congregations seem often to be held together by personal loyalty to a religious leader. When the minister leaves it is not uncommon for half the congregation to seek religious
support elsewhere. The instability of the situation is underlined by the express fear of some of the ministers concerning parishioner 'stealing' and their anger toward those ministers accused of such practices. This is one of the major factors which makes co-operative effort among these religious leaders so difficult. Although there is a Mexican-American minister's organization in Tucson, some leaders have refused to join and the rest are held together in a loose and rather ineffectual group by an Anglo-American president with a background of missionary work in Mexico.

The traditional Catholicism of Tucson's Mexican-American population can be described as generally weak. The history of the Catholic church in Arizona and Sonora, Mexico, has been long and interspersed with many problems and conflicts (Bronson, 1966, 23-24). For the most part, the Anglo-oriented Catholic churches of Tucson do not play a great part in the lives of many Mexican-Americans who avow Catholicism. In general, the Mexican-Americans maintain their own Catholic churches (Officer, 1964, 122-123).

According to Bronson (1966), the actual numbers of Mexican-American Protestants in Tucson is relatively small. Mexican-American Protestant churches in Tucson are described as very intimate, personalized, and Mexican-oriented (Bronson, 1966, 48).

The importance and the amount of influence exerted upon the Mexican-Americans by the "church," whether Catholic or Protestant, is not yet determined. Broom and Shevky (1952, 157) believed that "The Church is the principal agency of cultural conservatism for
Mexicans in the United States and reenforces the separateness of this
group." The relationship of religion to the socio-cultural concerns
of this study are not measured; however, the factor of religion as a
part of a culture cannot be ignored.

Family Size

Although there are no known studies specifically devoted to the
subject of family size among Mexican-Americans, reference to the
United States Census data of 1960 reveals that Mexican-American
families are, in general, larger than those of the Anglo families.
This factor should be considered in relation to their socio-economic
status and education. Mexican-American youths, as a whole, come
from much larger families than those of the "white segment" of the
population. Of the total families with children under eighteen, the
proportion of families with four or more children is twice as high
among Mexican-Americans as among "whites" in general (Heller, 1966,
28). Such large families constitute one-third of all Mexican-American
families with children under eighteen.

In general, sociologists agree that large families within our
highly industrialized society tend to be more of a deficit than an
asset and that, in general, the size of family is inversely related with
upward mobility (Lipset, 1961, 240-241). Heller's (1966, 32-33)
studies with Mexican-American seniors in Los Angeles, California, has this to say about the size of their families:

My recent study of Mexican American high school seniors supports the contention that Mexican-Americans are no exception to this general relationship--students with fewer siblings had more means for realizing their occupational aspirations than others. Moreover, there was as much as ten points of difference in the average I.Q. scores of Mexican American boys with only one sibling or none and those who had four or more siblings. As many as 43 percent of the former, but only 14 percent of the latter pursued an academic course of study. Furthermore, three times as many boys with up to three siblings anticipated finishing college or pursuing graduate studies as those with four or more siblings.

This study suggests the idea that an important factor in the slow upward mobility of Mexican-Americans, which has not been sufficiently explored, is their high birth rate. The importance of family size in this respect is supported by the finding that, while the avenues of mobility of Mexican-American students differed significantly with size of family, they did not differ much with parental occupation, education, or country of birth.

Youth Population

Based upon examination of the 1960 United States Census data the Mexican-American population has a larger percentage of young people than do the Anglo-Americans (United States Census, 1963). The median age for the Mexican-American groups in 1960 was close to 20, as compared to around 30 years old for the total United States population of Anglo-Americans. As one might expect, the older members of the Mexican-American population were born in Mexico;
the younger members are native born Americans. The Census data shows that 85 per cent of the Mexican-American population is native born (United States Census, 1963). Of further interest, it shows that almost 60 per cent of the Mexican-Americans have both parents that were also born in the United States. It might be inferred from these figures that the younger generations of Mexican-Americans have greater exposure to the dominant Anglo-American culture. This situation should make for an increased rate of culture change, since opportunities for change are greatly increased when exposure and contact with another culture is increased (Herskovits, 1945, 170).

From the Census data it can be estimated that the youth population of Mexican-Americans is around 300,000. Of these, about half are males (United States Census, 1963). Almost nine out of every ten Mexican-American youths ages fifteen to nineteen were born in the United States. Six out of ten of their parents were also born in the United States. Thus, the majority are at least third-generation Americans (Heller, 1966, 29).

**Educational Attainment**

Repeated examination of research pertaining to the educational achievement of Mexican-Americans consistently shows that they do not measure up to the general educational attainment of the United States as evidenced by the Census data presented below. It appears
that a long history of social and academic discrimination has resulted in their lack of ability and lack of motivation to fully participate in the educational enterprise as it has been conceived and practiced by the dominant Anglo-American culture (Wilson, 1968, 5).

In 1960 the median number of school years completed by Mexican-American males was 8.1 overall and 8.4 for those Mexican-Americans living in urban areas (United States Census, 1963). This compares with 10.3 years overall and 11.0 for the Anglo-American groups living in urban areas (United States Census, 1963). The median for the native born Mexican-American males with both parents also born in the United States is only 8.6, but for the Anglo-American native born males the average is closer to eleven years of school (United States Census, 1963). In the five southwestern states, the median school years completed by Mexican-American males range from a high of 8.9 years in California to a low of 6.2 in Texas (United States Census, 1963). It is apparent from the Census figures that the Mexican-Americans are well represented in the first years of school, but as they progress in the years of education their numbers in school drop off sharply. There are many reasons why youngsters drop out of schools. While economic factors are important, the social factors tend to have priority. The lack of participation or involvement in extra-curricular school activities appears to be closely related with leaving school (Hollingshead, 1949). There is also a strong
relationship between class status and participation in extra-curricular activities (Hollingshead, 1949). The higher the social class background of students, the more they tend to participate in extra-curricular activities. The study by Hollingshead (1949) shows that 75 per cent of the students coming from upper middle class families participated in extra-curricular activities. Those from the highest socio-economic levels participated almost 100 per cent. Only 57 per cent of those coming from the lower middle classes participated and his study goes on to show that only 27 per cent of those coming from the lowest level participated in extra-curricular activities.

Similar conclusions were reached in a study conducted by Abrahamson (1952). He pointed out that participation in extra-curricular activities in school functions has a reward and that students involved in the activities develop a deeper sense of appreciation for school, a higher morale, and have a feeling of sharing in the school program. These findings have important implications on the educational attainment of Mexican-Americans; since, for the most part, they tend to be in the lower socio-economic classes.

Wilson's (1968) surveys discovered that one of the major factors for many Mexican-Americans attending higher educational institutions in Arizona is that they tended to be encouraged to continue in high school and go on to university education because of their participation
in athletic programs. They felt they had a place because they had the talent and skill which was needed by the school.

The lack of educational attainment is reflected in the high amount of illiteracy among Mexican-Americans when compared to Anglo-Americans (United States Census, 1963). Less than 6 per cent of the Anglo-American males fourteen years of age or older are considered illiterate in the Southwest, as compared to almost 29 per cent for the Mexican-Americans (United States Census, 1963). Even among the urban third (or later) generation, Mexican-American males of this age category, those with both parents native born, 16 per cent have less than five years of education (United States Census, 1963). Higher education finds as few as 8 per cent of the Mexican-Americans have ever attended college, while approximately 27 per cent of the Anglo-American males, age 25 and over, in the Southwest have had one or more years of college (United States Census, 1963).

The educational attainment of Mexican-Americans in Tucson is also generally low (Officer, 1964). Individuals of Spanish surname over 25 years of age in 1960 had completed an average of 8.1 years of formal schooling, as compared with 12.1 for the population generally, and 8.8 years for the non-white population (Officer, 1964, 92). In addition, only 2.5 per cent of the Mexican-Americans over 25 years of age had received college degrees, as compared with 11.1 per cent for the population generally (Officer, 1964, 92). It is encouraging,
however, to note that the educational attainment in Tucson is rising when compared with the 1950 Census which showed a median educational attainment for the Spanish surname population to be only 7.1 years. The 1950 Census data also showed that only 1.9 per cent of the adults 25 years of age and older had received college educations (Officer, 1964, 92).

It may be concluded that the lack of educational attainment on the part of Mexican-Americans is closely associated with a steady decline in their scholastic achievement as the number of years of school attendance increases (Heller, 1966). Mexican-American children tend to start out much on the same level as Anglo children, both in I.Q. scores and scholastic achievement (Heller, 1966, 46). However, the longer the Mexican-American children stay in school the less they resemble the other children in these endeavors. Part of the reason for this decline in performance and measured ability is the notion that the curriculum does not tend to facilitate the transition from the Mexican-American home to the Anglo-American oriented school (Wilson, 1968, 8). In Los Angeles, for example, Heller pointed out that only 20 per cent of the Mexican-American youngsters were following an academic curriculum, while 50 per cent of the Anglo youngsters were in this curriculum program (Heller, 1966, 51).

An awareness of the lower educational attainment of Mexican-Americans and an interest to correct this situation is indicated by the
increase of Federal funds for special educational programs with Mexican-American youngsters. The difficulties and shortcomings of these educational programs is clearly pointed out by Wilson (1968, 4, 6) in the following statement:

Characteristically, the educational programs which have been devised to motivate and assist the Mexican-Americans have been developed from the middle-class point of view. The public schools have tended to become middle-class enclaves or islands situated and sprinkled throughout poverty pockets of the Southwest where youngsters who have the skill of assimilation and are able, and who are supported in the notion of acculturation, can move up and make the grade. But the youngsters who find rejection from full participation in these enclaves have sought support in La Familia and La Raza, the language and the traditional cultural values, and found them more comfortable, more affectionate, and more meaningful to them, and have withdrawn from the opportunities provided by these schools.

These youngsters have been rejected from full participation and have found themselves unable to acquire the skills necessary for the acquisition of the techniques and methods of upward social mobility. They have been caught in a trap that constantly restricts and identifies them as members of a sub-cultural group, a group who has close identity and affiliation with the Mexican nation, whose language and cultural patterns, though rich in tradition and history, no longer serve them in their quest for full participation in the dominant Anglo-culture....

There are many problems connected with the evaluation and assessment of youngsters coming from cultures that are different from the school dominant culture. Youngsters in the process of acculturation have a difficult time attempting to fit into the overall patterning of the dominant culture, or the middle-class school enclave. There is a definite need for the middle-class schools to provide in their curriculum the methodology, technique, and skill of helping youngsters learning how to accommodate, so that they can be assimilated into the overall culture pattern, with feelings of self-worth, successful participation, and a sense of belonging.
Part Two

Part Two of this chapter concerns the subject of culture change and its related theories. The latter part of the chapter focuses on the socio-cultural variables used in this research study.

The theoretical base for this study rests upon culture change. The research problem in this study is oriented toward the understanding of the processes of change within a society that is in close contact with the Anglo-American culture. It is particularly concerned with the adoption of two Anglo socio-cultural characteristics, delay of gratification and feelings of personal control, and their relationships to the academic achievement in Anglo-oriented schools by Mexican-American male seniors.

Culture Change

Many works in anthropology and sociology show considerable interest in the study of culture change (Keesing, 1953, 69). The great bulk of modern cultural theory has been developed on the basis of more or less synchronic models or constructs. These have often related to behavior, e.g., functional integration, configurational phenomena, modal personality (character structure), social structure, and equilibria of interaction (Keesing, 1953, 69). Some of the well-known works using cultural, societal, and personality theory were
done by Gillin (1948), Herskovits (1948), Kroeber (1948), Keesing (1949), Barnett (1953), and Spicer (1961).

The term cultural change may not be the final answer in the search of adequate anthropological terminology because it tends to push the equally important dimensions of nonchange and deliberate resistance to change into the background. However, in the survey of the literature there appears to be no better term at the present. Therefore, in this study culture change will be looked upon as the interacting, accepting and rejecting of old and new experience and learned ways which are undergoing conflict and readjustment (Keesing, 1953, 70).

Many scholars both in and outside anthropology have emphasized the pervasiveness of change, e.g., Boas (1927), Linton (1936), Herskovits (1948), Kroeber (1948). Linton (1940, 467) makes the following statement concerning culture change: "Cultures are infinitely perfectible and everything indicates that all cultures are in a constant stage of change. The rate of this change will, of course, differ from one culture to another and even at different points in the same cultural continuum, but some modifications are always under way."

The whole picture, as shown by Ruesch and Bateson (1949), is one of dynamic "open systems," whether the results over time
approximate to a state of equilibrium (or "steady state") or involve "irreversible changes" in the form of historically recognizable additions to, or subtractions from, an existing culture.

Because of the particular variables selected for study in this research, a critical category of culture change concerns values. Groups and individuals, faced by new experience, respond positively or negatively in terms of affectively charged preferences or values. These in turn tie into the total system of what may variously be referred to as interests, premises, orientations, themes, ideals, purposes, goals, and other terms variously expressing cognitive, affective, or conative aspects of the cultural configurations (Keesing, 1953, 79).

Value theory in relation to culture change is relatively recent. It is based primarily on static cultural models or constructs (Vogt, 1951). It is becoming increasingly realized that value concept is crucial to the interpretation of choice behavior in culturally dynamic situations. The basic value system of a group or individual, such as the Mexican-American of this study, stands as a kind of watchdog or censor, consciously or otherwise, to govern responses resulting from new stimuli. New experiences undergo a selective screening in terms of established affects, sanctions, and other determinants of value. The adoption of a new cultural element tends to be shaped in terms of the currently accepted value system (Keesing, 1953, 79, 80).
Whether or not the Mexican-Americans have adopted, or will adopt, the Anglo values of future time orientation and strong feelings of personal control is of major concern in the study of their culture change and its relationship to their educations.

Crucial in the world situation of construct, as to how far persons conditioned from infancy in one culture can shift in basic matters to another milieu, has been delineated in general terms by several anthropological workers. Anthony Wallace (1951, 55-76) states a perhaps widely held view that "no cultural form can be successfully introduced, within the space of one generation," which "requires behavior which is uncongenial to the modal personality structure." Hallowell goes further in saying that it is "hard to imagine" how basic sets of personality structure could be changed fundamentally in "less than three generations" (1952, 106). Keesing (1949), however, suggests that if the crucial cultural surrogates (e.g., the mother or foster parents in an entirely outside setting) are sufficiently in the new tradition, the essentials of such a shift might be made in two generations, though he admits that this would be quite exceptional. It should be noted that most of the currently enrolled Mexican-American, high school, seniors in Tucson, Arizona, are third generation residents of the United States. This study, therefore, provides some indications of culture change regarding values and attitudes in respect to feelings
of personal control and time orientation as discussed in the later part of this chapter.

The examination of culture change must take into account the study of culture contact. When members of societies with different cultures come into contact, an adaptation or change begins. Spicer (1961, 519) points out that in some instances the contact is so compatible that a single society may develop out of the contact situation. In other situations the two cultures make adjustments of beliefs and customs which result in a kind of cultural integration. In either case the contact situation is based upon directed or non-directed situations as discussed in Chapter I (Linton, 1940). In both directed and non-directed situations members of one society interact in some way with members of another society. Directed contact involves interaction in specific roles between members of two different societies and assumes effective control and interest in changing the behavior of the subordinate society in particular ways by the superordinate society (Linton, 1940). In this study the high schools are considered to represent the superordinate Anglo culture and are the primary agents for directed culture change with respect to the sample population. Elements of non-directed change come from the Mexican-American students' contact with their Anglo peers and from their daily contacts with the Anglo community.
There are many ways to view the contact situation as it relates to culture change. It may be viewed as a process of social integration, or the development of a common social system, of cultural integration, or the development of common culture, of cultural reorientation, or as any of many other processes present in cultural systems (Spicer, 1961, 528-29).

There are a number of change theory models that might be considered appropriate for discussion in relation to the particular problems of this study. The works of Spicer and his colleagues (1961), Linton (1940), and Burger (1968) have been selected for discussion. Their contributions toward four models of change have been related to studies involving numerous ethnic groups including American Indians and Mexican-Americans. The four change models discussed here are: (1) incorporation, (2) assimilation, (3) fusion, and (4) poly-ethnicity and syncretism.

The incorporation model has been given considerable attention by Vogt (1951) and Spicer (1961). By incorporative is meant the transfer of elements from one culture system and their integration into another system in such a way that they conform to the meaningful and functional relations within the later. It is implied that the borrowing system is not disrupted or changed in fundamental type (Vogt, 1951). In other words, incorporative integration is a type of tradition combination which results in totally new forms being accepted into a culture in such
a way that they enhance the existing organization of that culture (Spicer, 1961, 530).

The second theoretical model for consideration is the model of assimilation which requires the harmonious acceptance of two cultures. In this case the individuals select among alternatives in the contact situation as if they were participants in the dominant culture (Spicer, 1961, 531).

The third model deals with fusional integration which requires that the elements of two or more distinct cultural traditions be involved, that they be combined into a single system, and that the principles in terms of which they combine not be the same as those governing the cultural systems from which they come. The process may result in a variety of combinations of form and meaning. The essential point is simply that whatever the specific form of combination is the principles which guide it are neither wholly from one or the other of the two systems in contact (Spicer, 1961, 533). The emergence of a third culture as a result of fusion makes it difficult to assess the role of the parent cultures. Linton (1940, 491) points out that: "First, borrowing is normally a reciprocal process and second, its logical, although by no means always its actual, end product is the amalgamation of the two cultures involved, resulting in a new culture differing in certain respects from either of its parent cultures." Borrowing takes place whenever two cultures are in
contact for any length of time (Linton, 1940). However, the amount of borrowing by one culture from the other is usually different. At least two factors appear to determine the differential in culture transfer. One factor is the relative effectiveness of the techniques for adaptation to the local environment which each culture provides. The second factor involves prestige. Usually the cultural group that recognizes itself as having a socially inferior position will borrow from the superior cultural side (Linton, 1940, 491).

The fusion theory might lead one to assume that the resulting third or new culture would contain the most desirable aspects of its parent cultures and might actually be superior to both. Conclusive studies are lacking to substantiate this theory, however. If the fusion theory of culture change could be proven it would show that there truly is a Mexican-American sub-culture.

One of the most interesting treatments concerning culture change has been done by Burger (1968). He points out that when two or more cultures come into contact the borrowing or transfer is very difficult to predict unless one knows precisely the important factors involved (Burger, 1968, 63). Nevertheless, the borrowing is taking place as in the case of the Mexican-Americans and the Anglos but the actual result is more difficult to determine. Burger believes that minority groups do not spread themselves through all the classes of the dominant society, that they retain many of their original cultural
characteristics, and that their position cannot be clearly expressed through the theory of fusion. Rather, he believes that poly-ethnicity is more appropriate. It assumes that the minority ethnic group forms a society which is more economically stratified, such as generally occupying lower socio-economic status, and in which both cultures survive in close proximity or are intertwined. Poly-ethnic then refers to a multi-cultural situation which may or may not result in harmony. The poly-ethnic situation may range from close cooperation to genocide (Burger, 1968, 63, 69).

Burger then proceeds to advocate syncretism. In this arrangement he proposes that "the several cultures may be reconciled with mutual changes, instead of each minority group becoming a pale imitation of Yankeeism" (Burger, 1968, 73). He believes that the typical way to syncretize or harmonize an Anglo culture with a native culture is by blending the two partially or completely. Students should be taught "... that diversity is not to be feared or suspected, but enjoyed and valued" (Burger, 1968, 75). He believes that this arrangement would eventually result in achieving the equality we have always proclaimed to be a national goal.

Of the four models for change discussed above, it would seem that the last two might afford the best possibilities in respect to the culture change of the Mexican-Americans in this study.
The studies of Officer, Bronson, Henderson, and others involving the Mexican-American population of Tucson appear to lend support to the idea that a great deal of fusion has taken place. The results of this study also indicate that as far as the two major variables are concerned this borrowing and incorporating has done little to disturb the fundamental values of the Mexican folk culture in regards to time orientation and feelings of personal control (fatalism).

Specific attention is now directed to the role of culture change and acculturation of the Mexican-Americans. The acculturation of the Mexican-Americans in the Southwest is taking place at varying speeds. Nevertheless, culture change is taking place within this ethnic group's culture as it does in all cultures. As Herskovits states:

A society may be never so small, never so isolated; its technological equipment may be of the simplest, its devotion to its own way of life expressed in extreme conservatism; yet changes constantly take place as generation succeeds generation, and new ideas, new alignments, new techniques come into the thinking of its members. For no living culture is static (Herskovits, 1945, 143).

A very interesting and graphic analogy of the impact of the dominant Anglo-American culture upon the Mexican-Americans is presented by Ruth Tuck (1946, 119, 120):

What Mexican-American life in the United States really constitutes is a sub-culture, not a sub-culture of Hispanic life, but a sub-culture of our own civilization. Let us imagine that two stone discs, each containing distinctive raised patterns, were ground, one on the other, for thirty years. And let us further imagine that the top disc was placed in a position to exert superior force and pressure.
If we separated the two stones later, we would find that the top stone had very few marks on it, but that the bottom stone had many of its patterns eradicated, many blurred beyond recognition, and scarcely any untouched. If we continued to examine the bottom stone, we would become increasingly aware of the impress of the top stone and of the pressures and forces which had driven it. We would see how a commercial pressure had bitten deeply, obliterating whole areas of complicated design, and we might be surprised to see that an educational system had left different tracings from those we had expected. Some of the top patterns might have dug so deeply as to leave a design below in inverse. But, whatever we saw, we would be seeing chiefly the imprint of our own culture, with only a little of the original pattern of the subordinate stone really evident. We would have difficulty deciding whether those surviving areas existed because the dominant culture exerted little pressure there, or because the original design had some unsuspected strength. But, even where we could pick out a traceable Hispanic design, as in family life, there would be numerous scars and grooves, the mark of the dominant culture.

The acculturation process is often very subtle and slow to take place, and it may begin in a very simple way. A new tool, a mere change in the style of dress, any combination of incidental items may set in force a whole train of changes which will spread out until even the ideals and values of the original culture have been touched, transmuted, and changed. Tuck (1946, 102) compares a culture to a spider web. She says that if we touch one piece of it we have touched all of it. "Tear out a section and the fabric sags; it has to be rewoven, and the new pattern will not be like the old" (Tuck, 1946, 102).

In almost every major town and city in the Southwest the Mexican-Americans have been found living in their own Spanish-speaking communities (Burma, 1954, 88). These sections of the town are known
by many different terms. Two common names for the Mexican-American sections of the towns in the Southwest are "Colonia" and "the Barrio" (Burma, 1954, 88). These sections of town are frequently in poor condition and lack many of the facilities such as paved streets and lighting that are usually found in the Anglo sections of the communities. The homes, for the most part, are smaller and in poorer condition than those found in the Anglo sections of the city (Gamio, 1930, 146).

Although the Spanish-speaking people often prefer to live in close proximity to each other, there is the factor of segregation and discrimination which plays a part in keeping these people in their "Colonia" or "Barrio." In many areas of the Southwest, it is because of restrictive covenants, and more often because of informal unwillingness on the part of the Anglo-Americans to rent or sell to the Mexican-Americans that these people continue to live in their own almost isolated sections of the community (Burma, 1954, 89).

There is no denying the fact that the Anglos have discriminated against the Mexican-Americans in the Southwest, not only in the area of housing and employment opportunities, but also in the field of education. During the National Education Association Tucson Survey, John M. Sharp, Professor of Modern Languages at The University of Texas at El Paso, had this to say about the acculturation and assimilation of Mexican-Americans:
The Mexican-American is, by no means, willing to abandon his ancient cultural and linguistic heritage, in which he takes, however inarticulately, traditional pride, to accept the cultural pattern common to native speakers of English in our nation. His position may, perhaps, be compared to that of the Greeks in Sicily, who, though citizens of a Latin-speaking area, have maintained their culture and language and mores for some twenty-three centuries (The Invisible Minority, 1966, 5).

Discrimination against immigrant groups has not been unusual in American history (Mack, 1963, 118). The Chinese, Jews, Italians, Irish, Polish, and others are common examples. However, the faster the immigrant group moves toward adopting the customs and language of the dominant Anglo-American society, the less discrimination they seem to experience (Mack, 1963, 118).

Unlike the immigrant groups from Europe, who were more willing to give up their native languages and customs, the Mexican-Americans have preferred to hold to their traditional Mexican cultural ways and to their own language. William Madsen (1965, 1) states:

Every American is expected to show a maximum faith in America, science, and progress. Any ethnic group that fails to display these three tenets of faith will remain outside the mainstream of American life and will be designated by a distinctive label. If such a group is distinguished by recognizable physical features, or reliance on a foreign language, the process of assimilation may be further slowed up.

Since these factors seem to adversely affect the socio-economic status of the Mexican-American, public agencies often try to accelerate the Americanization of the Mexican-American
citizens (Madsen, 1965, 1). It does not seem likely that the dominant society will become a great deal more tolerant toward minority groups that do not readily acculturate. Simmons points out: "Mexicans want to be accepted as full members of the larger society, but do not want to achieve this at the cost of giving up completely their cultural heritage" (Simmons, 1966, 298).

The acculturation of the Mexican-Americans has been much slower than that of the European immigrants. Marden and Meyer (1962, 142) state several reasons among which are those of the Mexican's close identification with the Mexican folk culture, and the fact that they are residents of an area which is close to their native homeland; and, therefore, the ties of culture and language are much more easily reenforced.

Professor George Sanchez of the University of Texas wrote the following observation in *Minorities in American Society*:

In the last analysis, these are all Indio-Hispanic peoples, Spanish-Mexican peoples, with all that that implies in terms of their bio-social make-up. Furthermore, these people, in New Spain and then in Mexico and in the United States, have been consistently disadvantaged peoples, much in the same boat as to socio-economic circumstances. These common antecedents have given a fundamental sameness to their culture and, as a consequence, to their behavior. Therefore, while the Hispano of Santa Fe is a Mexicano with a tradition somewhat different from that of the Mexicano of Laredo or of Fort Collins or of Fresno or of Tucson, and each has backgrounds that are different from that of each of the others, they are all Mexicans, they all belong to La Raza, that vague but very real community that has nothing to do with nationality or patriotism or race.
The recent past has been eloquently illustrated of this little-appreciated fact. One cannot view developments throughout the Southwest (and in the Mexican-American communities in such places as Chicago) without marveling at the similarity and, in the last analysis, the cohesiveness of these peoples (Marden and Meyer, 1962, 143).

William Madsen (1965, 2-3) has listed three levels of acculturation among the Mexican-Americans. They are:

The traditional folk culture which comes direct from Mexico has been little changed by its new setting within the United States. The folk culture is usually held by those Mexican-Americans who were born in Mexico but now reside in the United States.

The second level of acculturation takes in those individuals who are caught in the value conflict between two cultures. These people were born with the first level; but, because of their education and other experiences, have come to recognize the conflict between the Mexican values that they learned in their homes and the values of the United States society. These are the individuals who frequently learn to compartmentalize their lives. They use some of their parents' ways and others from the larger Anglo-American society, as they deem appropriate. This eclectic approach is often marked by severe anxiety because the individual finds it difficult to place his true identity.

The third level of acculturation includes those Mexican-Americans who have achieved status in the English-speaking world. These individuals see progress and science as the keys to the future. Patriotism and a strong sense of American nationalism are part of their shared beliefs.

Madsen (1965) believes that these three degrees of acculturation on the part of the Mexican-Americans frequently represent a three-generational process (Madsen, 1965, 10). An indication of the degree of culture change from the folk culture of Mexico (Madsen,
1965) to the middle class Anglo culture of the United States, should manifest itself through the factors of delayed gratification and feelings of personal control.

Anthropologists have pointed out that the Mexican-American culture is the mirror image of the Anglo culture (Kluckhohn and Strodtebeck, 1961). Such a mirror image would mean that if the Anglo is future oriented, for example, the Mexican-American is not; if the Anglo shows strong feelings of personal control, the Mexican-American is strongly fatalistic.

Since American schools, for the most part, are Anglo middle class oriented, it is important to know whether or not the Mexican-American student represents this mirror image. One might assume, then, that those Mexican-Americans who have experienced various degrees of cultural change or perhaps total acculturation into the dominant Anglo culture will also achieve well academically in the Anglo-oriented schools and that the opposite might also be assumed.

Studies concerning culture change must always be aware of the basic distinction between directed and non-directed situations (Linton, 1940, 501). In both the directed and non-directed situations of culture change, the two societies involved interact in some way. In the non-directed situation, the innovations are accepted and integrated into the other culture in accordance with that society's interests. In the directed situation, the two societies are linked through the kind of
social relations established and generally involve some degree of effective control and direction by the members of one society over the members of the other society (Spicer, 1961, 520-21). It should be further noted that if one society wants to change another, but has no power to do so, the situation may be considered as a non-directed contact (Spicer, 1961, 521). Further, if the superordinate society is interested only in changing some features of the subordinate society, it is best to treat the total situation as one of directed change (Spicer, 1961, 521).

Directed Cultural Change of the Mexican-Americans

It appears that the public schools are generally interested in bringing about culture change for the Mexican-Americans. The public schools, which are mostly controlled by Anglo, middle class boards and staffed by Anglo, middle class personnel, are attempting to bring about changes in certain behavior characteristics of these people (Henderson, 1966, 24).

There has been little systematic study to identify the specific behaviors which are the major targets of this directed cultural change or to identify associated cultural and psychological traits that may act as inhibitors of change. Furthermore, we know relatively little about the similarities and differences of Tucson and other areas in the Southwest with considerable numbers of Mexican-Americans.
There are a number of highly generalized works on Mexican-Americans (e.g., Burma, 1954; McWilliams, 1948), while others such as those done by Kluckhohn and Strodtbeck (1961) deal with communities not readily comparable to our larger urban setting. In general, we can accept Dozier’s (1966, 2) statement that scholars are in general agreement concerning selective characteristics of Spanish-speaking groups in the Southwest, but we need to know more about what factors have changed if we are to better describe the factors which may facilitate or inhibit school achievement. This study is concerned with measuring two major factors of significance in the culture change process of the Tucson Mexican-American in addition to determining the relationship of these factors to the academic achievement of the male, senior, Mexican-American students in the public high schools.

Almost every study of Mexican and Mexican-American cultures (e.g., Heller, 1966; Lewis, 1959; Madsen, 1965; Officer, 1964; Samora, 1966) has discussed the importance of the factors of time orientation, herein referred to as the delay of gratification variable, and fatalism, which is referred to as the variable dealing with feelings of personal control. Since these studies indicate that the traditional Mexican culture shares an almost mirror image of these two factors in relationship to the dominant Anglo middle class culture of the
United States, it follows that their measurement may prove to be a valuable indicator of culture change.

The differentiation of modes of cultural variation are evident, but at the same time, they are difficult to isolate experimentally. The Mexican-American and Spanish-speaking peoples were the original settlers. The few Anglo-Americans who lived in the Southwest prior to the Civil War produced little change in the value patterns of the Spanish-speaking population. However, as greater numbers of Anglos moved into the region, they soon demonstrated their future time orientation in many ways. They purchased land that the Spanish-speaking population had used for years without formal title. Soon the Spanish-speaking people found themselves working for the Anglo landowners. The future oriented behavior of the Anglos may be contrasted in retrospect with the present time orientation behavior of the Spanish-speaking population, but the problem of isolating and clearly defining these modes of behavior still exists (Caplan and Ruble, 1964, 17).

Characteristically, most of the immigrant groups to the United States have moved from lower socio-economic status to the vast middle class within one or two generations (Marden and Meyer, 1962). However, this process has not been typical of the lower socio-economic Spanish-speaking population in our Southwest. The reason for this difference may be found in the analysis of the inherent values of the Mexican-American sub-culture.
Kluckhohn and Strodtbeck (1961, 14) cite several major values which appear to influence Spanish-American behavior and acculturation in the following statement:

Spanish-American culture in the American Southwest gives us an example of a very definite Subjugation-to-Nature orientation. The typical Spanish-American sheepherder, in a time as recent as 25 years ago, believed firmly that there was little or nothing a man could do to save or protect either land or flocks when damaging storms descended upon them. He simply accepted the inevitable. In Spanish-American attitudes toward illness and death, one finds the same fatalism.... Spanish-Americans who have been described as taking the view that man is a victim of natural forces, are also a people who place the present time alternative in first-order position. They pay little attention to what has happened in the past and regard the future as both vague and unpredictable. Planning for the future or hoping that the future will be better than either the present or the past is simply not their way of life.

Americans, more strongly than most people of the world, place an emphasis on the future.... a future which is anticipated to be bigger and better. This does not mean they have no regard for the past and no thought for the present. But it certainly is true that no current generation of Americans ever wants to be called 'old fashioned.' The ways of the past are not considered good just because they are past, and truly dominant (that is, typically middle-class) Americans are seldom content with the present.

Further commentary pointing out the contrast of the Mexican-American sub-culture to the Anglo-American culture, especially relating to time orientation, is found in the following statement by Mamie Sizemore (1965, 6):

The Mexican-American has a different time perspective from the people of the Anglo-American culture. He does not regulate his life by the clock as Anglos do; he works by the clock only when he works for Anglos. This culture puts its
major emphasis on the established present. He feels that he should enjoy today. There is always manana to do something. He puts off the things which will bring him future benefits for manana. Meetings scheduled for a certain time usually begin late.

The present time is so important that there is an absence of concern for the future. Only the minority who recognize education as an important source of security save in advance for the education of their children. The immediate needs are of paramount importance on pay day.

The Anglo-American teacher frequently finds the Mexican-American's disregard for the future time orientation very frustrating (Sizemore, 1965, 7). The Mexican-American student may be indifferent to promptness, in getting his assignments in on time, and in showing an interest in preparing for his future career. The Mexican concept of time is entirely alien to the Anglo-American school system, which includes bells, charts, time tables, and long-range planning. For Anglo-Americans, time is horizontal and in movement (Augur, 1954, 273). It moves from the past to the present and into the future. For the Mexican, time is vertical and stationary. It stays within a given space. The Mexican lives in the present, which contains all the time there is. The past is not behind him, but around him. The future is part of today (Augur, 1954, 274). Chilcott writes:

The Mexican realizes he cannot possibly do all the things he would like or should do in one lifetime. There simply isn't enough time in one's life, so he lives each moment and each day to the fullest extent and does not become concerned for
tomorrow. The manana promise is an attempt of Mexican-American children to compromise between their cultural concept of time and the Anglo-American pressure to accept the American concept of time (Chilcott, 1968, 362).

It would seem that the contrasting cultural values and patterns of the Mexican-American would meet with difficulty, especially in the Anglo oriented public schools. Several writers have pointed out that various cultural and personal factors affect academic achievement in school (Reissman, 1962). Before educators can deal efficiently with those students who represent differing cultural values, they need to know the type of factors which affect achievement. They should also try to understand the relationships and references that affect differing ethnic groups.

The Independent Variables

The factors of time orientation, herein referred to as the variable of delay of gratification, or deferred gratification, and the closely related variable of the individual's feelings of personal control, which is often associated with fatalism, are of major concern in this study. The degree of presence of these two variables should be affected by the group's reference to the dominant society. Therefore, two additional reference group variables are also included in the research. This study, therefore, deals with four variables that should provide significant insights relating to the acculturation and the culture change of the Mexican-Americans toward the dominant Anglo-American culture.
The literature on reference group theory is rich with examples of the effects of group associations on changes in beliefs and attitudes (Lieberman, 1963, 264-279). Although it is widely recognized that such changes are not universal and automatic, few researchers have attempted to explore systematically the conditions under which changes do or do not occur (Ibrahim, 1964).

The task of exploring group change is facilitated by recognizing the common elements in reference group theory, and theories of acculturation in anthropology (Barnett, 1954) and adoption of innovations in world sociology (Rogers, 1962). However, the concern of such theorists has usually focused on the adoption of material traits, rather than beliefs and attitudes (Graves, 1966).

Changes in beliefs and behavior among minority group members in the direction of those held by the dominant groups are conceptually equivalent to changes in the belief and behavior of individuals who seek admission to and acceptance by a new reference group.

The conceptual similarity between the reference group variables which are those dealing with exposure to the dominant society and access to the rewards of the dominant society, and those involving delay of gratification and feelings of personal control, may be seen in this study. Exposure to a new group may be seen as involving the acceptance of the values and rewards held by the group with which a person identifies, as well as valuing the good opinions of these
persons. Exposure and access to the means for achieving these rewards is a structural prerequisite for developing high expectations that modifications in belief and behavior will prove rewarding. If both such conditions exist, these modifications should occur (Graves, 1966).

The Mexican-American minority group members differ in the degree to which they have come to identify with the dominant Anglo-American society and to value its rewards. They also differ in the amount of their exposure to this society, and the extent of their access to these rewards, particularly economic access. These factors all appear to be important for understanding differences among Mexican-Americans in the extent that they have taken over the beliefs and norms of the dominant culture.

A large research tradition has developed around the concept of a generalized belief in the efficiency or fruitfulness of personal action under the term "Internal versus External Control" (Rotter, 1954, 28). This can be defined as the extent to which an individual feels that his own actions determine what happens to him, or that which happens is the result of fate, luck, chance, or powerful forces outside the individual's control. It is generally expected that if a person holds a fatalistic view of life then he may feel that there is no point in working for long-range goals.
Frank Reissman (1962) writes of the significance of this factor of personal control and its inhibiting effect upon the educational attainment of deprived persons. He states: "The deprived person does not think he has a good chance of getting much education. This feeling forces his educational aspirations to remain more at the wish or fantasy level, rather than making of them a definite concrete intention" (Reissman, 1962, 14).

Coleman's study also mentions the importance of the pupil's attitude in relation to his personal control. He writes: "A powerful predictor of achievement of minority group pupils is the amount of fatalism they express on a short test which the author's call 'Control of Environment.' Apparently, minority pupils achieve in school only if they are convinced... as convinced as white pupils are.... that they have a chance to control their destiny" (Coleman, 1964, 10-17).

In sociological language, the term "lack of feeling of personal control" is often referred to as "powerlessness." Seeman and Marks (1959) refer to "powerlessness" as a representation primarily of the Marxian view of alienation, and defines it as the expectancy or probability held by the individual that his own behavior and actions cannot determine the occurrence or the outcome, or reinforcement he seeks (Seeman and Marks, 1959, 784).
Bullough's studies report that minority group youngsters often express a fatalistic viewpoint. They feel powerless in controlling their lives and futures (Bullough, 1967).

The delay of gratification variable in this study focuses on the relationships among a series of socio-cultural personality traits, and a class of behavior, delay of gratification, which is considered critical for success in both work and school by most middle class, Anglo-American oriented individuals. Many of the actions which educators value in their students and employers in their workers involve decisions to do something for which the major reward is relatively delayed, rather than a competing activity more immediately pleasurable. Thus, the good student decides to study in the evenings rather than go to a movie, the good employee avoids week night activities that might interfere with his working abilities. Over a wide class of behavior, such choice tendencies are referred to as the disposition to delay gratification (Graves, 1962). In terms of making an adequate adjustment to both the demands of school and work in an urban-industrial society, this may be a key personality trait, one which is believed to be in short supply among Mexican-American minority group members (Graves, 1962).

In Anglo-American society, delay of gratification behavior tends to occupy a key position in the value system of the dominant middle class (Graves, 1962). Many of our most valued activities like planning
ahead, hard work, saving, education, pre-marital chastity, post-marital fidelity, sobriety, concern with child-rearing, have their major reward not at the moment they are engaged in, but at some future time. Furthermore, such valued behavior is also highly adaptive for successful functioning in an urban, industrial society.

Not only is immediate gratification behavior likely to be considered "deviant" and therefore subject to social censure (Graves, 1962), but also the very foundations of industrial society rest on delay behavior: planning, saving, and hard work. A recent review of the extensive literature on delay of gratification has been done by John Shybut (1965).

The ability to delay gratification is frequently conceptualized as a skill which develops with age and maturity. It is often considered as the product of rational choices where a reward for engaging in such behavior can be expected to accrue. In decision theory terms, the interest a person has in a particular course of action, the subjective expected utility (SEU) attached to that action, is a function of his personal expectations that this course of action will lead to various outcomes and the utility values, both positive and negative, which he attached to these outcomes. A person's choice between alternative acts will usually be for the one possessing the highest subjective expected utility (Graves, 1962).
The decision model can be generalized to focus not on specific choices between alternative acts, such as studying or going to a movie, but to include cross-situational choice tendencies or predispositions. The tendency to make choices which involve delay of gratification, a highly generalized SEU for such choices, should be a function of a belief or generalized expectation that such behavior will be of value in receiving long-range goals, and a personal need or generalized value for the type of rewards which long range efforts may yield. These factors have each been the object of extensive social and psychological research (Atkinson, 1964).

A high personal value placed on the rewards of long-term effort fits fairly closely the definition of need-achievement as developed by McClellan and his colleagues (Atkinson, 1964). A large body of research experience has also grown up around this concept (Hummel and Sprinthall, 1965, 389). Other aspects of the definition of achievement motivation, such as comparison with a standard of excellence, also imply an orientation toward long-range goals, since achievement of some high standard of performance can rarely be accomplished in a short period of time (Hummel and Sprinthall, 1965, 389).

To understand the tendency to delay gratification among some Mexican-American students and not among other classmates, should prove a valuable approach to the understanding of their overall academic achievement. These and other factors are of particular
significance in the education of Mexican-American youngsters.

Difficulty can arise when teachers are inadequately prepared to understand or accept the dissimilar cultural values of the Mexican-American. The values of most teachers are middle class. Therefore, most teachers have come from homes where there is the drive for achievement and the desire to climb the ladder of success; where "work for work's sake" is rewarded; where the individual's destiny is a matter of his own efforts; and where emphasis is placed on building for the future (Zintz, 1960, 55).

According to Zintz (1960, 55-56), some of the values emphasized by the dominant Anglo-American culture which the child in school is expected to become oriented to are:

1. He must place a value on competitive achievement and climbing the ladder of success.

2. He must learn time orientation that will be precise to the hour and minute, and he must also learn to place high value on looking to the future.

3. He must accept the teacher's reiteration that there is a scientific explanation for all natural phenomena.

4. He must become accustomed to change and must anticipate change.

5. He must develop a socially approved, aggressive and competitive behavior.
6. He must somehow be brought to understand that he can, with some independence, shape his own destiny and future.

The Mexican-American youngster many times enters the Anglo-American dominated school with a set of values and experience background that is radically different from those of the average Anglo-American child. The interaction of social and ethnic groups over a period of time necessitates a degree of exchange of attitudes, practices, values, and ideas. The degree to which this interaction causes either group to internalize these factors is critical to the acculturation and culture change of these people. Theoretically, it should be desirable to have mutual acceptance and exchange of the cultures involved.

Summary

Historically, the Spanish-American and Mexican-American culture was dominant in the Southwest. However, acculturation has been very slow when compared to the rapid rate evidenced by other cultural groups into American society. There have been a number of factors which influenced the Mexican-American acculturation process in the Southwest. Some of these are: (1) Inbreeding with various Indian groups, (2) geographic isolation from the major Anglo-American population and from Europe, and (3) continued reenforcement of ties with Mexico. These factors, and others, have developed
a unique sub-culture in the Southwest (Tuck, 1946, 119). Pressures for conformity to the dominant Anglo-American culture have been extensive and Mexicans who have rebelled against them have found life difficult.

The differentiation of modes of cultural variations are evident, but at the same time, they are difficult to isolate experimentally. The Mexican-Americans and Spanish-speaking peoples were the original settlers in the Southwest. The few Anglo-Americans who lived in this region prior to the Civil War produced little change in the value patterns of the Spanish-speaking population. However, as greater numbers of Anglos moved into the region, they soon demonstrated their future time orientation in many ways. They purchased lands that the Spanish-speaking population had used for years without formal title. Soon the Spanish-speaking people found themselves working for the Anglo land owners. The future oriented behavior of the Anglos may be contrasted in retrospect with the present time orientation behavior of the Spanish-speaking population, but the problem of isolating and clearly defining these modes of behavior still exists.

It is evident that the Mexican-American population in the Southwest is, in most respects, in a position of socio-economic inferiority.

The position of the Mexican-Americans in the Southwest is well summarized by Wilson (1968, 22) in the following statement:
It is recognized that while the Mexican-Americans have rich traditional and historical pasts, these no longer fully serve them to participate in the middle class dominant culture of a technological age. If the Mexican-American is to achieve his reward commensurate with those of other members of the dominant American culture, then surely the influence of the public educational program must be reflected in the trend toward upward mobility and a modification of culture patterns which tend to inhibit and restrict their full membership.

The heritage and present day position of the Mexican-Americans is dissimilar in many respects from those of the Anglo-Americans. These dissimilarities frequently act as barriers to their acculturation and assimilation into the dominant Anglo-American culture. The cultural barrier, the language barrier, and the experience barrier can best be met in the classroom, if the teacher understands the feelings and attitudes of the Mexican-American pupils and knows that their anxieties are real and logical to them.

There is little conclusive data specifically relating to the four socio-cultural variables and their sub-indices used in this study with Mexican-Americans. This research is, consequently, exploratory. It is an effort to compensate for the lack of research data in this area of basic importance to the education of Mexican-Americans. It, perhaps, will shed new light upon the acculturation process and the culture change of this large ethnic minority living in the Southwest, especially in Tucson, Arizona.
CHAPTER III

THE SELECTION AND DESCRIPTION OF THE POPULATION,
RESEARCH TECHNIQUES, THE INSTRUMENT, AND SCORING

Introduction

The method used in the collection of the data for this research, as well as the questionnaire administered and the rationale for the selection of schools, is discussed in this chapter. A brief description of each of the schools used in the study is presented. These descriptions were compiled from information supplied by the principals, assistant principals, and school's registrars. The descriptions include enrollment figures, ethnic and racial compositions of the student bodies, socioeconomic stratification, and statements relating to the curriculum of the schools. All of the information pertaining to the schools and to the study applies to the 1967-68 school year.

The Setting

Since the end of World War II, Tucson, Arizona, has undergone a phenomenal increase in population. The July 1, 1967 estimate on population showed 241,000 persons living within the city limits, an increase of more than 400 per cent since the census of April, 1950.
Some of this increase can be attributed to the expansion of the city limits, however (Arizona Statistical Review, 1967, 12).

In Pima County a change of ethnic distribution is indicated by a substantial increase of people with Spanish surnames—from 27,224 in 1950, to 44,481 in 1960. For 1960, the ethnic distribution in Tucson was approximately as follows: Anglo, 249,000; Mexican-American, 44,500; Indian, 7,300; Negro, 8,000; and Other, 1,200 (Arizona Statistical Review, 1967, 13).

The Selection of the Schools

Since this study is primarily concerned with Mexican-Americans, it was decided that the following three high schools: Pueblo High School, Sunnyside High School, and Tucson High School, would be of particular value because they have the largest Mexican-American enrollment. Amphitheater High School was selected because it is somewhat representative of the other suburban high schools in the Tucson area.

A copy of the proposal for this study and the measurement instrument were both submitted to Dr. Charles Grubbs, Director of Research for the Tucson District No. 1 Public Schools. It was Dr. Grubbs' opinion that the project merited the cooperation of the suggested schools. Dr. Reavis and Dr. Hendrix of Amphitheater
District also gave their approval and cooperation for conducting the study as did the principal at Sunnyside High School, Dr. Mitchell.

After conferences with the administrators, teachers, and counselors in each of the selected schools, the project was approved by the cooperating districts and the Graduate College of the University of Arizona. The project had the approval of the principals in each of the selected schools.

**Description of the Schools**

The number preceding the name of each of the four schools corresponds to the one used for identification in the data processing.

**School No. 1, Sunnyside High School**

This modern high school, located on the south side of Tucson, has an enrollment of about 1,750 students with 90 classroom teachers.

The senior class totals 315 students, with 170 boys and 145 girls. The 1967 dropout rate was 6.8 per cent.

The ethnic and racial composition of the student body is estimated as follows:

(a) Anglo-Americans 53 per cent
(b) Mexican-Americans 41 per cent
(c) Negroes 2.5 per cent
(d) Orientals 1 per cent
(e) American Indians 2.5 per cent
According to the principal, most of the students are from lower-middle, and middle class homes. Seven per cent of the student body qualified for OEO funds at the beginning of the 1967-68 school year. Although there are a few higher socioeconomic level families represented, their number is very small.

The United States Office of Economic Opportunity survey (1967) shows that in the Sunnyside area, approximately 19 per cent of the families are living on incomes of less than $3,000 per year. This data also shows that about 3 per cent of the persons under eighteen are receiving aid to dependent children (AFDC) payments. Approximately one-third of the persons twenty-five and older have less than eight years of education and about 12 per cent of the homes in the Sunnyside area are considered sub-standard (OEO, 1967).

Sunnyside High School has structured its curriculum generally toward college entrance. It has been recognized recently that this type of academic program does not necessarily best meet the needs of the students and, therefore, a new emphasis has been placed upon vocational training. The school has recently added two courses in industrial education and plans to add two more courses in business education for the 1968-69 school year.
School No. 2, Tucson High School

The enrollment of the oldest high school in the Tucson urban area is approximately 3,200. There are 155 classroom teachers at Tucson High School.

The senior class totals almost 600 with 281 boys and 316 girls. The dropout rate for the past three years has been between 6 and 7.25 per cent. The 1967 dropout rate was 6.43 per cent.

The ethnic and racial composition of the student body is estimated as follows:

(a) Anglo-Americans 44 per cent
(b) Mexican-Americans 42 per cent
(c) Negroes 12 per cent
(d) Orientals 1 per cent
(e) American Indians 1 per cent

Because of the far ranging boundaries for Tucson High School, the families of the students represent the complete range of socio-economic levels; Dr. Grubbs estimates that the Tucson High School population area closely approximates the normal curve for socio-economic levels with perhaps a slightly greater proportion toward the lower levels.

Tucson High School is considered to be a comprehensive high school. In addition to an academic program which meets the needs for college entrance requirements, the school has a strong industrial and
vocational training program. No attempt is made to place students in a particular track, and the pupils may vary their courses to best fit their needs.

School No. 3, Pueblo High School

There are approximately 2,400 students at Pueblo High School, with 138 classroom teachers.

The senior enrollment was 484 in March, 1968, with 258 senior boys and 226 senior girls. The 1967-68 dropout rate was 7.13 per cent.

The ethnic and racial composition of the student body is estimated as follows:

(a) Anglo-Americans 39 per cent  
(b) Mexican-Americans 53 per cent  
(c) Negroes 7 per cent  
(d) Orientals Less than 1 per cent  
(e) American Indians Less than 1 per cent

According to the principal, about 65 per cent of the students come from lower-middle class homes, 30 per cent from middle class homes, and about 15 per cent from lower class homes.

Pueblo High School serves people in the middle to lower socio-economic levels (Hendrix, 1967, 141).
The attendance area of Pueblo High School covers approximately 26 square miles, about 9 per cent of the total urban area of Tucson, and includes a population of about 38,000 (Hendrix, 1967, 142). The family size for this area is generally larger than for Tucson as a whole. It is 4.58 as compared to 3.32 for the rest of the metropolitan community (Hendrix, 1967, 142).

The study conducted by Hendrix (1967) with the school's seniors revealed that the educational level of the parents was as follows: 39 per cent had eighth grade educations or less, 20 per cent had some high school education but did not graduate, 22 per cent graduated from high school, 4 per cent had some college attainment but less than 3 per cent had graduated from college. Approximately 3 per cent of the parents had attended trade or business schools (Hendrix, 1967, 144).

The dropout rate at Pueblo High School was estimated to be 7 per cent. It was further noted by Hendrix (1967) that 58 per cent of the dropouts' parents had no high school education.

According to the school's principal, the student achievement level is generally below that of other Tucson high schools. The principal suggested that this could be attributed to the fact that 45 per cent of the homes have English as a second language and that the language barrier could adversely affect the student achievement levels.
Pueblo High School has a very fine vocational training program in addition to its academic curriculum. The principal stated that some 60 per cent of the students take vocational training, although college preparatory courses are increasing in their popularity. The increased interest toward higher education is evident by the fact that 37 per cent of the 1967 graduating class went on to college.

School No. 4, Amphitheater High School

Approximately 1,400 students are enrolled at Amphitheater High School with 63 classroom teachers.

The senior class of 342 students has 177 boys and 165 girls. The dropout rate in recent years has been about 4 per cent.

The ethnic and racial composition of the student body is estimated to be as follows:

(a) Anglo-Americans 85 per cent
(b) Mexican-Americans 12 per cent
(c) Negroes Less than 1 per cent
(d) Orientals Less than 1 per cent
(e) American Indians Less than 1 per cent

Most of the students at Amphitheater High School come from middle class and lower class homes, although some professional families in the upper-middle class brackets are represented. Most
of the higher income and higher educational level families are now located within the school boundaries of the new Canyon del Oro High School.

According to the United States Office of Economic Opportunity (OEO, 1967) approximately 18 per cent of the families in the Amphitheater area, south of the Rillito River, have family incomes below $3,000 per year. The figures also show that 6.1 per cent of the males over fourteen are unemployed. About 1.7 per cent of the persons under eighteen are listed as receiving government funds from aid to dependent children (AFDC). This is slightly higher than the 1.54 per cent for the total community of Tucson. The Office of Economic Opportunity survey (OEO, 1967) also shows that 28 per cent of the persons of age twenty-five and over have less than eight years of education as compared to almost 30 per cent for the total community. The Amphitheater area rates slightly better than the rest of Tucson in the condition of its dwellings. Approximately 10.8 per cent of the Amphitheater district housing units south of the Rillito River are considered sub-standard by the Office of Economic Opportunity survey (OEO, 1967) while almost 14 per cent are rated as sub-standard for the whole of Tucson.

The curriculum at Amphitheater High School is still basically designed to meet college entrance requirements. However, a greatly
expanded vocational education program has been developed in the last four years, largely as a result of the efforts of Dr. William F. Hendrix, Principal.

Dr. Hendrix feels that the more comprehensive program of education better meets the needs of the highly diversified socio-economic backgrounds of the students.

Selecting the Sample Population

Selecting the populations within the male senior class of each school in this study was done as uniformly as possible.

At Sunnyside High School, at the request of the administration, the entire male senior class was administered the "Questionnaire 1268" (see Appendix A). Those students who were classified as Mexican-Americans were separated from the total population, and the same was done for those who were Anglo-Americans or of ethnic or racial backgrounds other than Mexican-American. Using the definition of Mexican-American and Anglo-American, as stated in the "Definition of Terms" in Chapter I and also on the cover sheet of Part I "High School Questionnaire 1268," each student was asked to classify himself. A code number of "1" was used to designate Mexican-Americans, a number "2" was given for Anglo-Americans, and a number "3" was used for all others, such as Negroes, Orientals, Indians, and others.
Twenty per cent of the Mexican-American students were eliminated by random selection from the Sunnyside population. This was done to insure the use of a random population sample.

At Tucson High School, the sample population was randomly selected from the non-grouped heterogeneous English classes. The non-grouped, or heterogeneous classes, were used to insure the overall representation of the sample population. The same procedure as used at Tucson High School was also used at Pueblo High School for obtaining the sample population.

Since the number of Mexican-American male seniors was small at Amphitheater High School, the questionnaire was administered to all the Mexican-American male seniors and then five of these students were randomly selected for elimination.

At all of the schools, special education students were not included in the research because it was felt that their academic achievement record would not be representative of the regular high school curriculum.

Male high school seniors were used in this study with Mexican-Americans for the following reasons:

(1) The basic research and instrument that provided the foundation for this study was developed for and conducted with male, senior high school American Indians. Therefore, it was advisable to use male high school seniors in this exploratory study with Mexican-
Americans in order to maintain essentially the same reading level and content of the questions which were aimed at high school seniors.

(2) The research consultant for this study, Dr. Robert Karabinus, from the College of Education, University of Arizona, suggested that the response to the questions would be more reliable on a first time basis when using senior class members, since the instrument was designed originally for use with male seniors.

(3) Further research and comparison with the work being conducted at the Behavioral Sciences Institute at the University of Colorado could be more readily achieved by using like sex groups with similar high school grade placement.

(4) Further research projects of a similar nature conducted with younger age groups could attain valuable insights and comparisons with the findings of this study.

**Collecting the Data**

A similar procedure for the collection of the data was followed in each of the four schools included in this study. The students who had been selected were sent to a classroom in groups not exceeding 35, where they were administered the questionnaire using uniform instructions. Figure 1 is a copy of the administration instructions that were used in administering the questionnaire to all the randomly selected students.
ADMINISTRATION INSTRUCTIONS FOR
HIGH SCHOOL QUESTIONNAIRE NO. 1268

In order to obtain the best results with this questionnaire, it is suggested that the following uniform procedures be used as closely as possible. Please write the instructions for numbers 3, 7, 9, 10, 11, 12, 13, and 14 on the chalk board so that the students may refer to them during the administration of this questionnaire. Please read instructions No. 1 thru No. 15 aloud to the students before they begin.

1. Each male senior student must have both Part I and Part II plus an IBM scoring sheet to be used with Part II, only.

2. Do not begin until told to do so.

3. Use pencils only. Any lead pencil is usable.

4. No talking while working on the questionnaire.

5. This is a questionnaire, not a test. There are no "right" or "wrong" answers.

6. This is part of a University of Arizona research project.

7. All information is confidential.

8. This questionnaire requires about 50 minutes; however, if you need additional time please raise your hand.

9. When finished, raise your hand and your papers will be collected. Place the IBM "Answer Sheet" on top of Part I. Part II is

Figure 1. Administration Instructions for High School Questionnaire No. 1268
10. All students are to read the instructions for Part I and Part II before they begin answering.

11. Answer all the questions. Do not leave any blank. You have plenty of time.

12. Be sure to put your name on Page 2 of Part I and on the top of the IBM "Answer Sheet."

13. If you have any questions while completing the questionnaire, please raise your hand.

14. After your papers have been collected, you are to return to your class.
During the preliminary discussions with the staff members, the need for developing positive attitudes toward this project on the part of the faculty and students was discussed. The school staffs, in all cases, were very receptive to this project, because they were interested in the nature of the study and in receiving copies of the findings which have been sent to the participating schools.

Positive attitudes of the students involved were developed in several ways. Particular assurance was given to the students that this was a questionnaire and not a test. They were told that they could not "Pass" or "Fail"; however, their answers were important for research that is aimed in helping to improve the education of future students. The need for completeness and honesty was stressed, along with the point that all answers were absolutely confidential. The students were assured that their names would be translated into IBM code numbers, and their identity would never be revealed. Further positive reenforcement was provided by giving the students free released time from one of their regular classes in order to participate in the research study.

The Measurement Instrument

The instrument used to determine the degree of presence of each of the four independent variables and their component sub-variables was an established questionnaire consisting of two parts.
The questionnaire had been developed and tested for content validity by the research team of Dr. Theodore Graves, Joseph Powers, and Bryan Michener, at the University of Colorado, Institute of Behavioral Science, for use in their Indian education research project with approximately 2,000 high school senior, male American Indians.

Only those sections of the questionnaire which applied to the four independent variables in this study were used. Only minor changes were necessary to adapt the instrument for use with Mexican-Americans. The number "1268" was given to identify the study with respect to twelfth grade for the school year 1967-68. Further refinement of the instrument included:

(1) Reestablishing the content validity which was accomplished by the critical judgment of nine university and public school educators. The public school judges came from the schools in which the research was conducted.

(2) Administration of the questionnaire to four randomly selected male, senior boys, two Anglo-Americans, and two Mexican-Americans, at Tucson High School. After each boy had finished the questionnaire, he was given a private interview to determine his feelings toward the types of questions asked, the reading difficulty, the structure, the instructions, and the time limitations. Each of the boys was most cooperative and their comments and suggestions were taken into consideration during the refinement of the instrument.
Part I of "High School Questionnaire 1268" consisted of 21 questions. Numbers 14 and 17 are not to be included in the scoring. Answers from these two items can be used in optional tables of frequency distribution in future studies. Question 1 (a) and 1 (b), "Occupations of the Mother and Father," are scored 1 thru 6, according to the Alba Edwards scale. This same scoring method is applied to Questions 7 and 11. The highest rank occupations (professional, technical, etc.) are given a score of "1." Each occupational classification thereafter is given an additional point until the sixth and lowest ranked occupation is awarded a score of 6 points.

Questions No. 2 asks, "What was the highest grade in school completed by your parents or the persons who raised you during most of your life?" The scoring for this question is done on a scale of 1 thru 6, as indicated below:

<table>
<thead>
<tr>
<th>Scores</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
</table>
| 2 a Father: | 0, 1, 2, 3 : 4, 5, 6 : 7, 8 : 9, 10, 11 : 12 : Over 12
| 2 b Mother: | 0, 1, 2, 3 : 4, 5, 6 : 7, 8 : 9, 10, 11 : 12 : Over 12 |

For Question No. 3, a score of 3 points is given for response (1) or (2); a score of 2 for response (3) or (4); and, a score of 1 point is given for response (5).
Score points for Question No. 4 are awarded as follows: 1 person equals 1 point; 2 persons equals 2 points; 3 or more persons equals 3 points.

For Question No. 5, one point is given for the answer of "Father"; two for "Mother"; and three for "Other."

Question No. 6 is awarded score points as follows: 1 point for (1); 2 for (2); and, 3 for (3).

The following grouping is used in Question No. 8: Responses from (1), (2), or (3) received 3 points each; (4), (5), or (6) received 2 points each; (7), (8), (9), or (10) received one point each.

Responses to Question No. 9 are scored according to their category. A score of 1 point is given to the answers relating to military service obligations; 2 points for answers relating to grades in school, educational attainment, or intelligence; 3 points for answers relating to competition and finances.

Question No. 10 was scored as follows: (1) or (2) equal 1 point; (3) equals 2 points; (4) equals 3 points.

Question No. 12: (1), (2), or (3) equals 3 points; (4), (5), or (6) equals 2 points; (7), (8), (9), or (10) equal 1 point.

Question No. 13: (1) equals 1 point; (2) equals 3 points.

For Question No. 15, only the highest expected educational attainment is scored and recorded. The score recorded is arrived
at by multiplying the number for the highest selected answer times a predetermined figure as follows:

15. a. (1), (2), or (3) times 4.
15. b. (1), (2), or (3) times 3.
15. c. (1), (2), or (3) times 2.
15. d. (1), (2), or (3) times 1.

Responses to Question No. 16 are scored according to their category. A score of 1 point is awarded to answers relating to financial problems; 2 points for answers relating to military obligations or lack of interest; and 3 points for answers relating to school achievement, or intelligence.

Question No. 18: (1) or (2) equals 3 points; (3) equals 3 points; (4) equals 1 point.

Question No. 19: (1) or (2) equal 3 points; (3) equals 2 points; (4) equals 1 point.

Scores for each of the questions discussed above and for Part II were recorded on a master chart which was later used for transferring the data to the IBM punch cards by the University of Arizona Numerical Analysis Center.

Scores for each question in Part I and Part II are recorded separately and, therefore, they can be treated separately. In essence, each question is considered as a sub-variable. This is illustrated in Chapter IV.
The scores for Part I are also used to compile four subindices, as follows:

(1) Index of Actual Access to the Rewards of the Dominant Society. This index is made up of scores from Questions 1. a. and 1. b., 2. a., and 2. b., 3, 4, and 5.

(2) Index of Perceived Access to the Rewards of the Dominant Society. Scores for this index came from Questions 6, 7, 8, 9, 10, 11, 12, 13, 15. a., b., c., or d., and 16.

(3) Index of Job Expectations. Scores for this index came from Questions 7, 8, 9, 10, 11, 12, 13, 18, and 19.

(4) Index of Educational Goals and Expectations. The index scores were taken from Questions 13, 15. a., b., c., or d., 16, 18, and 19.

The combined total score from Part I constitutes the major index of access to the rewards of the dominant society. This index then becomes one of the four independent variables of the research.

Part II of "High School Questionnaire 1268" consists of 52 questions. Questions 1 thru 37 have only two possible answers each. The students were asked to choose the answer they believed to be more true. The scoring procedure for these questions is as follows:
<table>
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<tr>
<th>Question No.</th>
<th>Response Number Given One Score Point</th>
<th>Question No.</th>
<th>Response Number Given One Score Point</th>
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<tbody>
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<td>1</td>
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<td>23</td>
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<tr>
<td>19</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

All other responses to Questions 1 thru 37 are given 2 score points.
Questions 38 and 39 are scored as follows: (1) or (2) equal 1 point; (3) or (4) are given no score.

Question No. 40: (1) or (2) equal 3 points; (3) or (4) equal 1 point; (5) equals 2 points.

Questions 41 thru 44: (1) or (2) equal 1 point; (3) equals 2 points; (4) or (5) equal 3 points.

Question 45: (1) equals 1 point; (2) or (3) equal 2 points; (4) or (5) equal 3 points.

Questions 46, 47, 48 and 52: (1) equals 1 point; (2) equals 3 points.

Questions 49 and 50: (1) equals 1 point; (2) equals 3 points; (3) equals 2 points.

Question 51: (1) equals 3 points; (2) equals 1 point; (3) or (4) equal 2 points.

The scores for Part II are used to comprise five sub-indices, and three major indices. The sub-indices are:

1. Index of Willingness to Delay Gratification. This index includes scores from questions 26 thru 30.

2. Planning Index. Scores for this index came from questions 31 thru 39.

3. Ethnic Exposure Index. This index includes scores from questions 40, 51, and 52.
Mass Media Index. This index includes scores from questions 41 thru 45.

Language Index. This index uses scores from questions 46 to 50.

Each of the three major indices in Part II are also the remaining three independent variables of the research. They are:

(1) Feelings of Personal Control Index. Uses scores from questions 1 thru 25.

(2) Total Index for Delay of Gratification. Includes scores from questions 26 thru 39.

(3) Total Index for Exposure to the Dominant Society. This index uses scores from questions 40 thru 52.

The use of sub-indices and sub-variables provides greater flexibility and use of the data as presented in Chapter IV. Other individuals interested in this area of study can more readily find information of interest and value to them. Further research work can be based on this study without the need to break the data down into further categories. The instrument can also be quickly adapted to further research, since its component parts are clearly defined and separable.
The Alba Edwards Scale

Occupational rating of the parents or the persons who reared the students involved in this study were included because social class or status is an important variable in much social research (Miller, 1964, 97). This variable has proved difficult to measure in a pluralistic, equalitarian, and fluid society, such as exists in the United States. However, many researchers have tried to identify the social strata and to measure them. Therefore, the occupational rating for this study was done according to the Alba M. Edwards Social-Economic Grouping of Occupations. This is the most widely used scale of social-economic grouping of gainful workers in the United States. It is the basis on which the United States Census has grouped workers since 1930 in each decennial census (Miller, 1964, 99). Occupations are classified into six major groups with each group reported to have a somewhat distinct economic standard of life and to exhibit intellectual and social similarities. The two major dimensions for the ranking order are income and education.

Although the use of this Occupational Rating Scale must apply to occupations of the parent or the persons who were responsible for rearing the boys involved in this study, it should be understood that the social-economic position and the occupations of these persons has a direct affect on the chances for education, income, occupation,
marriage, health, friends, and even the life expectancy of the student (Miller, 1964, 97).

Reliability for the Edwards Scale of Occupational Groupings is highly comparable to similar occupational ranking systems such as Barr-Taussiz, Beckman, Goodenough, Anderson, Centers, and others (Miller, 1964, 98).


The following listing represents the social-economic groupings of occupations used in the Alba Edwards scale. This scale is presently used for the United States Census Classification of Occupational Groups. The listings are:

(1) Professional, Technical, and Kindred Workers
   (Engineers, Lawyers, Doctors, Teachers, etc.)

(2) Business Managers, Officials, and Proprietors
   a. Non-Farm Managers, Officials, and Proprietors
   b. Farm Owners and Managers

(3) Clerical and Sales Workers
   a. Clerical and Kindred Workers (Secretaries, Stenographers, Bookkeepers, etc.)
   b. Sales Workers (Brokers, Salesmen, Newsboys, etc.)
(4) Craftsmen, Foremen, and Kindred Workers (Carpenters, Mechanics, Bakers, Plumbers, etc.)

(5) Operators and Kindred Workers (Bus Drivers, Dressmakers, Railroad Brakemen, etc.)

(6) Unskilled, Service, and Domestic Workers
   a. Private Household Workers (Housekeepers, Laundresses, Babysitters, etc.)
   b. Service Workers, except Private Household (Police, Firemen, Barbers, etc.)
   c. Farm Laborers, Unpaid Family Workers
   d. Laborers, except Farm and Mine

Summary

Four large high schools were selected in Tucson, Arizona for study in this research project. Three of these schools enrolled the largest number of Mexican-American male, seniors, while one of the schools was considered relatively representative of the other suburban high schools in the Tucson area.

Selection of the sample population was carefully controlled and uniformly conducted as far as possible. Close cooperation with the school administrators and teachers involved in this study were maintained at all times. Their suggestions and criticisms were given
careful consideration in both the refinement of the instrument and its administration to the sample population.

Close uniformity was stressed throughout the administration of the instrument.

A detailed account of the scoring procedure and use of the indices has been presented.

The rationale and use of the Alba Edwards Scale has also been described with emphasis upon the flexibility and further use which can be made from the data obtained from this research study.
CHAPTER IV

ANALYSIS OF DATA AND RESEARCH FINDINGS

Introduction

The data collected by the measurement instrument from the sample population of male, Mexican-American seniors from the four urban, Tucson high schools was analyzed statistically and then subjected to interpretive analysis.

The measurement of the four independent variables was achieved by use of the "High School Questionnaire 1268" which was discussed in the previous chapter. The reliability of this instrument is presented in this chapter. The numeric results of this instrument were readily adaptable to statistical analysis.

The data was processed and programmed for statistical computation at the computer center of Project EPIC (Evaluative Programs for Innovative Curriculums), Tucson, Arizona, under the direction of Dr. Robert Hammond with the cooperation of Allan Gibson, Statistical Design Specialist, Thomas McLain, Data Processing Manager, and Dr. Terry Cornell, Research Design and Statistics Consultant.

In this chapter the methods and formulas used in the analysis of the data are presented. The results are then discussed with emphasis
placed upon their relationships to the hypotheses stated in Chapter I and to the theory of culture change.

Whenever possible, the correlations of the variables are shown graphically. The correlations of the 26 variables, which made up the one dependent variable of academic achievement and the four major independent variables, are illustrated for the total population and then, in turn, for the lower achievers and higher achievers. The inter-correlations of the 26 variables are also presented in Tables VII, VIII and IX.

**Computation of the Data**

As previously stated, the test results for each of the 168 students were transferred to IBM Computer punch cards. Each card contained 54 columns of data. A computer program to obtain the desired inter-correlations for the sub-variables and the major variables was then developed. The basic formula for this computation involves the use of the Pearson product moment inter-correlation formula.

The computations involved finding the means, the standard deviations, the covariances, the variances, and the inter-correlations for each of the 26 variables included in the data. Each of these steps was then computed for the total sample population, then for the higher achievers only, and finally for the lower achievers only. The same computations were also used for the sample populations of each of the
high schools separately. In this way, the findings of the total sample population could be compared and related to any one of the four schools or any one of the four schools could be studied individually or compared to any of the other three schools. The five-way breakdown and analysis of the data adds considerable depth and flexibility to the findings.

Reliability Testing

The "High School Questionnaire 1268" was tested for reliability and internal consistency by using the computed data from the total sample population. Two separate tests for reliability were made because the instrument actually consists of two self-contained parts, Part I and Part II.

The Kuder-Richardson Twenty-One (KR21) test was used. This coefficient method of testing the reliability and internal consistency is frequently used to obtain an estimate of the reliability of a test available in only one form, as in the case of the "High School Questionnaire 1268" (Greene, Jorgensen and Gerberich, 1954, 387).

The formula appears as follows:

\[
KR21 = \frac{K}{K-1} \left(1 - \frac{\bar{X} (K - \bar{X})}{K S^2}\right)
\]

In all cases, the K equals the total maximum score for the part of the instrument being computed.
Computation of Part I of the "High School Questionnaire 1268" involves the use of a $K$ equal to 102, a mean of 96.77, and a standard deviation of 17.31. The results of this computation show that Part I of "High School Questionnaire 1268" has a reliability coefficient of .99. This high reliability may be attributed to the nature of the questions which were factual. It further indicates that the students tended to be consistent in making their replies. The data from Part I can, therefore, be used with considerable confidence in making, relating, and comparing with other socio-cultural and sociological studies.

Part II of the "High School Questionnaire 1268" was also tested using a $K$ equal to 117, a mean of 10.97, and a standard deviation of 8.57. The computation of this reliability test shows that Part II has a reliability coefficient of .87. This high reliability coefficient adds greatly to the credence of the findings concerning each of the four independent variables measured by this research instrument.

It should be further noted that the Kuder-Richardson Twenty-One Test is the most conservative test for reliability, and, therefore, it may be assumed that the actual reliability for "High School Questionnaire 1268" may be even higher than indicated.

**Criteria Determining Significant Correlations**

In this study the .05 level of significance is used. Since a fundamental purpose of this study is to determine the significance of the
correlations as reflected by characteristics of the Mexican-American sample population, one must estimate the accuracy of the findings.

Correlations that are significant at the .05 level are not necessarily useful in group analysis. The reader should be conscious of the knowledge that correlation coefficients of less than .60 are frequently in error. For example, a correlation of .50 indicates only 25 per cent common variance; and a correlation of .20 indicates that only 4 per cent of the variance in the two measures that have been correlated is common to both (Borg, 1963, 283).

Correlations ranging from .65 to .85 are usually considered quite accurate and correlations over .85 indicate a close relationship between the two variables correlated. A correlation of .85 indicates 72 per cent common variance. There are very few correlations over .85, but those that do exceed this level are very useful (Borg, 1963, 283-284).

Although all correlations significant at the .05 level are specifically designated in the tables presented in this chapter, only those correlations of .60 and higher are discussed.

Although there are eleven significant correlations for the combined total population and six more shown for the higher achievers of the total population, none of these significant correlations are high enough (.60 or higher) to be discussed. Rather, it is the absence of strong positive correlations that may provide the greater insights.
Correlations with Grade Point Average

As previously discussed, the one dependent variable of this research study is referred to as "Academic Achievement." It is based upon the student's cumulative grade point average (GPA) through the junior year of high school.

Each of the 26 variables, as programmed for the computer, was correlated with the grade point average. This computation was done separately for each particular division of the population.

Table I illustrates the correlations for the total Mexican-American sample population as a whole and as computed separately for the lower and higher achievers of the total population. This same format is used in Tables II, III, IV, and V. Table I, however, is the most important for this research since it deals with the total sample population and, therefore, relates directly to hypotheses 1, 2, 4, and 5, as stated in Chapter I. The hypotheses are repeated to provide a ready source of reference.

1. The tendency to delay gratification by male, Mexican-American, high school seniors is not significantly related to their academic achievement.

2. Feelings of personal control by male, Mexican-American, high school seniors is not significantly related to their academic achievement.
TABLE I
TOTAL MEXICAN-AMERICAN SAMPLE POPULATION

Correlations of Twenty-Six Variables with Grade Point Average. Significant Correlations at the .05 Level Are Underlined.

<table>
<thead>
<tr>
<th>Print-Out Number</th>
<th>Variables</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All Male Mexican-Americans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N = 168</td>
</tr>
<tr>
<td>1</td>
<td>Cumulative Grade Point Average</td>
<td>-.01</td>
</tr>
<tr>
<td>2</td>
<td>Father's Occupation</td>
<td>.00</td>
</tr>
<tr>
<td>3</td>
<td>Mother's Occupation</td>
<td>.02</td>
</tr>
<tr>
<td>4</td>
<td>Father's Educational Level</td>
<td>-.07</td>
</tr>
<tr>
<td>5</td>
<td>Mother's Educational Level</td>
<td>-.15</td>
</tr>
<tr>
<td>6</td>
<td>Family Income</td>
<td>.18</td>
</tr>
<tr>
<td>7</td>
<td>Real Job expected at age 25</td>
<td>.29</td>
</tr>
<tr>
<td>8</td>
<td>Graduate from High School</td>
<td>.00</td>
</tr>
<tr>
<td>9</td>
<td>Graduate from Business or Trade School</td>
<td>.15</td>
</tr>
<tr>
<td>10</td>
<td>Graduate from 2 years College</td>
<td>.18</td>
</tr>
<tr>
<td>11</td>
<td>Graduate from 4 years College</td>
<td>.18</td>
</tr>
<tr>
<td>12</td>
<td>Talk to parents about future plans</td>
<td>.23</td>
</tr>
<tr>
<td>13</td>
<td>Talk to counselors about future plans</td>
<td>.21</td>
</tr>
<tr>
<td>14</td>
<td>Actual access to rewards of dominant culture</td>
<td>-.04</td>
</tr>
<tr>
<td>15</td>
<td>Perceived access to rewards of dominant culture</td>
<td>.21</td>
</tr>
<tr>
<td>16</td>
<td>Job Expectations Index Total</td>
<td>.22</td>
</tr>
<tr>
<td>17</td>
<td>Educational goals and expectations Index Total</td>
<td>.21</td>
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<tr>
<td>18</td>
<td>Combined Total Part I - Access to Rewards</td>
<td>.22</td>
</tr>
<tr>
<td>19</td>
<td>Feeling of Personal Control Index</td>
<td>.00</td>
</tr>
<tr>
<td>20</td>
<td>Willingness to delay gratification</td>
<td>-.06</td>
</tr>
<tr>
<td>21</td>
<td>Planning Index</td>
<td>.03</td>
</tr>
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<td>Print-Out Number</td>
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<td>Grade Point Average</td>
</tr>
<tr>
<td>------------------</td>
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<td>---------------------</td>
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<td></td>
<td>All Male Mexican-American Seniors N = 168</td>
<td>Lower Achievers N = 115</td>
</tr>
<tr>
<td>22</td>
<td>Delay of Gratification Index Total</td>
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<tr>
<td>23</td>
<td>Ethnic Exposure</td>
<td>-.05</td>
</tr>
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<td>24</td>
<td>Mass Media EIndex</td>
<td>.04</td>
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<tr>
<td>25</td>
<td>Language Index</td>
<td>.00</td>
</tr>
<tr>
<td>26</td>
<td>Exposure to Dominant Culture, Total Index</td>
<td>.01</td>
</tr>
</tbody>
</table>
3. Feelings of personal control by male, Mexican-American, high school seniors is not significantly related to their tendency to delay gratification.

4. Exposure to the dominant culture by male, Mexican-American, high school seniors is not significantly related to academic achievement.

5. Access to the rewards of the dominant culture by male, Mexican-American, high school seniors is not significantly related to their academic achievement.

6. Access to the rewards of the dominant culture by male, Mexican-American, high school seniors is not significantly related to their feelings of personal control.

It should be noted that each hypothesis will be referred to by its number as listed above.

Examination of Table I shows that Variable No. 8, the relationship of plans to graduate from high school and academic achievement, has a correlation of .29. This positive relationship comes as no surprise, since the sample population was made up entirely of second semester seniors. It is surprising, however, that this correlation was not much higher. Perhaps these students are not very sure of themselves and are very cautious about predicting the future, even a future event only four months distant. In keeping with the findings in the last discussed correlation, one finds that only a marginally significant
correlation exists between the student's plans to complete two years of college and his academic achievement. A relationship of .18 exists between academic achievement and plans to complete four years of college. However, none of these correlations could be used for predictions.

There is no correlation between the student's academic achievement and plans to graduate from business or trade schools. It may be that these students preferred to choose two years of college over business or trade school graduation. Nevertheless, one may have expected at least a small correlation coefficient to have been shown.

Hypothesis No. 5 was rejected at the .05 level of significance with a correlation of .22. However, this correlation is so small that relatively nothing can be inferred from it.

A correlation of .00 for the relationship between feelings of personal control and academic achievement failed to reject Hypothesis No. 2. Therefore, one can only conclude that neither good nor poor academic achievement in high school is in any way significantly related to either strong feelings of personal control or to a fatalistic attitude.

Results from the total population also failed to reject Hypothesis No. 1. Here, again, the coefficient was .00. Thus, it appears that neither past, present, nor future time orientation has any significant
relationship to the student's academic achievement. This is revealing since numerous informal discussions with educators indicate that they usually feel a sound future orientation is a necessary ingredient for success (Graves, 1962).

The computation of the scores measuring the student's exposure to the dominant society and his academic achievement was almost nil, resulting in a coefficient of .01. Therefore, Hypothesis No. 4 was not rejected. There appears to be no significance, probably because the degree of exposure is extremely diverse among the students tested. It should also be remembered that the sample population was made up largely of third and fourth generation Mexican-Americans. It may be assumed that they have had considerable exposure to both the Anglo and Mexican cultures since birth.

Significant Correlations from the Lower Achievers

A number of different and interesting results were obtained when the total population was divided into the lower achievers (grade point averages of 2.6 or lower) and the higher achievers (grade point averages of 1.0 to 2.5). This division was discussed in Chapter I. The same computations were made for all three divisions of the population to insure fair and accurate comparisons as illustrated in Table I.
Of the total sample population of 168, only 53 were higher achievers and the remaining 115 were lower achievers. Not a single significant correlation with academic achievement was obtained from the data collected from the 115 lower achievers. This analysis failed to reject any of the hypotheses. Attention should be given to the fact that the test scores from the lower achievers were so diverse and inconsistent that no significant correlations could be obtained.

**Significant Correlations from the Higher Achievers**

The 53 higher achievers showed higher correlations similar to those of the total population, and probably were responsible for many of the significant correlations in the total population.

Significant correlations were obtained for the real job expected at age 25 (.43) and for the overall job expectations (.41) with the student's academic achievement.

Hypothesis No. 5 was rejected at the .05 level by a correlation coefficient of .47. Thus, for the higher achievers, access to the rewards of the dominant culture is significantly related to the boy's academic achievement. This correlation, however, is too low to be of real use.

Although a coefficient of .18 was shown for the relationship of feelings of personal control and academic achievement, which was far greater than the total population (.00) and for the lower
achievers (.02), this failed to be significant at the .05 level. Thus, Hypothesis No. 2 was not rejected. There may be an indication that the higher achievers have greater feelings of personal control, but it is so slight that no constructive inferences can be made from it.

Once again, Hypothesis No. 1 and Hypothesis No. 4 failed to be rejected at the .05 level of significance.

The Total Population Results in Summary

Only one of the four hypotheses concerned with academic achievement was rejected. Hypothesis No. 5 concerning the relationship between the boys' access to the rewards of the dominant culture and their grades was significant at the .05 level for the total population (.22) and for the higher achievers (.47) but not for the lower achievers (.11). Hypotheses Numbers 1, 2 and 4 failed to be rejected.

Results from Sunnyside High School

Very little resemblance is observed when the results of the correlation coefficients from Sunnyside High School (SHS), presented in Table II, are compared with those of the total sample population shown in Table I. Only five significant correlations at the .05 level were obtained from the total sample population at Sunnyside High School, in contrast to the eleven significant correlations obtained from the combined total sample population for the entire study. The significant
TABLE II
SUNNYSIDE HIGH SCHOOL: MEXICAN-AMERICAN SAMPLE POPULATION

Correlations of Twenty-Six Variables with Grade Point Average. Significant Correlations at the .05 Level Are Underlined.

<table>
<thead>
<tr>
<th>Print-Out Number</th>
<th>Variables</th>
<th>All Male Mexican-American Seniors</th>
<th>Lower Achievers</th>
<th>Higher Achievers</th>
</tr>
</thead>
<tbody>
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<td>-.29</td>
<td>.17</td>
</tr>
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<td>2</td>
<td>Father's Occupation</td>
<td>-.26</td>
<td>.32</td>
<td>-.00</td>
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<tr>
<td>3</td>
<td>Mother's Occupation</td>
<td>.00</td>
<td>.25</td>
<td>-.20</td>
</tr>
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<td>4</td>
<td>Father's Educational Level</td>
<td>.06</td>
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<td>-.10</td>
</tr>
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<td>Mother's Educational Level</td>
<td>.04</td>
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<td>-.60</td>
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<td>Family Income</td>
<td>.16</td>
<td>.18</td>
<td>.40</td>
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<tr>
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<td>Real Job expected at age 25</td>
<td>.38</td>
<td>.31</td>
<td>.48</td>
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<td>8</td>
<td>Graduate from High School</td>
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<td>.37</td>
<td>.04</td>
</tr>
<tr>
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<td>Graduate from Business or Trade School</td>
<td>.18</td>
<td>.23</td>
<td>.04</td>
</tr>
<tr>
<td>10</td>
<td>Graduate from 2 years College</td>
<td>.39</td>
<td>.37</td>
<td>.28</td>
</tr>
<tr>
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<td>Graduate from 4 years College</td>
<td>.28</td>
<td>.06</td>
<td>-.11</td>
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<tr>
<td>12</td>
<td>Talk to parents about future plans</td>
<td>.09</td>
<td>.06</td>
<td>.01</td>
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<td>13</td>
<td>Talk to counselors about future plans</td>
<td>.11</td>
<td>.13</td>
<td>-.02</td>
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<td>.19</td>
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<tr>
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<td>Willingness to delay gratification</td>
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TABLE II. (Continued)

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<th>Print-Out Number</th>
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</tr>
<tr>
<td>22</td>
<td>Delay of Gratification Index Total</td>
<td>.15</td>
</tr>
<tr>
<td>23</td>
<td>Ethnic Exposure</td>
<td>.12</td>
</tr>
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<tr>
<td>25</td>
<td>Language Index</td>
<td>.05</td>
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<th>Variables</th>
<th>Grade Point Average</th>
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</tr>
<tr>
<td>23</td>
<td>Ethnic Exposure</td>
<td>.12</td>
</tr>
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<td>24</td>
<td>Mass Media Index</td>
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</tr>
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<td>25</td>
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</tr>
<tr>
<td>26</td>
<td>Exposure to Dominant Culture, Total Index</td>
<td>-.02</td>
</tr>
</tbody>
</table>
correlations were obtained on Variable 8, Graduate from High School, Variable 11, Graduate from 4 years College, Variable 15, Perceived Access to Rewards of Dominant Culture, Variable 17, Educational Goals and Expectations Index Total, and Variable 18, Combined Total Part I - Access to Rewards. It will be noted that five of these significant correlations were also significant in Table I.

Only Hypothesis No. 5 was rejected at the .05 level when using the results from the Sunnyside High School sample population. Results from the lower and higher achievers in this school failed to reject this hypothesis. The absence of a significant correlation with the higher achievers is in marked contrast to the r of .47 shown for this same group in Table II. Apparently, access to the rewards of the dominant culture has little relationship to the academic achievement of the male, Mexican-American seniors attending Sunnyside High School.

The lower achievers at Sunnyside High School provided four significant correlations but all these were too low to be of significant value.

Some very interesting results were obtained from the Sunnyside High School higher achievers. Not one of their significant correlations matched with those from the total sample population presented in Table I. There was a rather prominent negative correlation of -.60 for the relationship between family income and academic achievement.
It should be noted that non-significant negative correlations were also obtained on this same variable when dealing with the combined total sample population as shown in Table I.

The Sunnyside High School higher achievers just barely rejected Hypothesis No. 2. This might indicate that they have greater feelings of personal control than any other group tested. These same students showed a significant negative correlation of - .53 between exposure to the dominant culture and their academic achievement on Variable 23, Ethnic Exposure. This same trend was further supported by a - .67 on Variable 25, Language Index. Finally, a similar negative correlation of - .61 was obtained for Variable 26, Exposure to Dominant Culture, Total Index. These negative correlations may reflect feelings of resentment among the Mexican-Americans toward the dominant Anglos. There is also the possibility that these Mexican-American students underestimate the amount of contact they have with the dominant culture.

Results from Tucson High School

Results from the sample population of Tucson High School (THS) revealed only one significant correlation, and this one does not correspond to any of the significant correlations for the total combined population shown in Table I. The lone significant correlation of - .38 was obtained for the relationship between academic achievement and the mother's educational level.
The Tucson High School lower achievers showed a significant correlation of .48 on Variable 16, Job Expectations Index Total with academic achievement, as shown in Table III. Oddly enough, this was not a significant correlation for the higher achievers as one might have expected. The lower achievers went on to provide a significant correlation of -.45 on Variable 24, Mass Media Index. One might consider the possibility that these students spend too much time listening to radios, watching television, and reading materials not related to their school work. Whatever they get from these sources of mass media, it is evidently not related to their academic achievement.

The higher achievers at Tucson High School provided a strong positive correlation coefficient of .84 in their relationship between their academic achievement (GPA) and their father's educational level. Although this might be normally assumed, it should be noted that an extremely low correlation of .03 was obtained for this same computation taken for the combined total population of higher achievers, as shown in Table I.

There were no other significant correlations for the higher achievers. Analysis of the data taken from Tucson High School sample population failed to reject any of the hypotheses. One might conclude that the male, Mexican-American seniors at Tucson High School are
TABLE III

TUCSON HIGH SCHOOL: MEXICAN-AMERICAN SAMPLE POPULATION

Correlations of Twenty-Six Variables with Grade Point Average. Significant Correlations at the .05 Level Are Underlined.

<table>
<thead>
<tr>
<th>Print-Out Number</th>
<th>Variables</th>
<th>Grade Point Average</th>
</tr>
</thead>
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<td></td>
<td></td>
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<td>8</td>
<td>Graduate from High School</td>
<td>.07</td>
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<td>9</td>
<td>Graduate from Business or Trade School</td>
<td>.07</td>
</tr>
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<tr>
<td>16</td>
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<tr>
<td>17</td>
<td>Educational goals and expectations Index Total</td>
<td>.08</td>
</tr>
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<td>26</td>
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<td>-.35</td>
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<tr>
<td></td>
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</tr>
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</table>
an extremely varied group in relationship to the variables tested by this study.

Results from Pueblo High School

Variable 7, Real Job Expected at Age 25, Variable 8, Graduate from High School, Variable 10, Graduate from 2 years College, Variable 13, Talk to Counselors about Future Plans, Variable 16, Job Expectations Index Total, and Variable 18, Combined Total Part I - Access to Rewards, showed significant correlation with academic achievement as taken from the total Pueblo High School (PHS) sample population. Each of these variables also matched with the same significant correlations obtained from the combined total population illustrated in Table I.

The lower achievers at Pueblo High School failed to turn up any significant correlations and, therefore, are representative of the combined total population of this study.

The Pueblo High School higher achievers, on the other hand, revealed significant correlations with academic achievement on Variable 7, Real Job Expected at Age 25, Variable 10, Graduate from 2 years College, Variable 15, Perceived Access to Rewards of Dominant Culture, Variable 16, Job Expectations Index Total, Variable 17, Educational Goals and Expectations Index Total, and Variable 18, Combined Total Part I - Access to Rewards. Variable 7,
TABLE IV

PUEBLO HIGH SCHOOL: MEXICAN-AMERICAN SAMPLE POPULATION

Correlations of Twenty-Six Variables with Grade Point Average. Significant Correlations at the .05 Level Are Underlined.

<table>
<thead>
<tr>
<th>Print-Out Number</th>
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<th></th>
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</thead>
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<td>15</td>
<td>Perceived access to rewards of dominant culture</td>
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<td>.15</td>
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TABLE IV. (Continued)

<table>
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<th>Print-Out Number</th>
<th>Variables</th>
<th>Grade Point Average</th>
</tr>
</thead>
<tbody>
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<td>All Male Mexican-American Seniors</td>
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<td></td>
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<td>Ethnic Exposure</td>
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<td>24</td>
<td>Mass Media Index</td>
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</tr>
<tr>
<td>25</td>
<td>Language Index</td>
<td>.14</td>
</tr>
<tr>
<td>26</td>
<td>Exposure to Dominant Culture, Total Index</td>
<td>.14</td>
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</table>
Real Job Expected at Age 25, Variable 15, Perceived Access to Rewards of Dominant Culture, Variable 16, Job Expectations Index Total, Variable 17, Educational Goals and Expectations Index Total, and Variable 18, Combined Total Part I - Access to Rewards, matched with those on Table I. These significant correlations might, to some small degree, indicate that these students appeared to be reasonably confident of graduating from high school, finishing two years of college, getting good jobs, and participating in the rewards of the dominant culture.

Only Hypothesis No. 5 was rejected by a significant correlation (.22) taken from the Pueblo High School population and from the school's higher achievers (.62), but not by the lower achievers (.00). One can conclude, then, that access to the rewards of the dominant culture by the higher achieving male, Mexican-American boys at Pueblo High School is significantly related to their academic achievement as shown by the correlation of .62 on Variable 18, Combined Total Part I - Access to Rewards.

Results from Amphitheater High School

The total population at Amphitheater High School (AHS) provided four significant correlations. Each of these was unique. Variable 19, Feeling of Personal Control Index, as related to academic achievement, produced an unusual coefficient of -.65. A negative correlation of -.86
TABLE V
AMPHITHEATER HIGH SCHOOL: MEXICAN-AMERICAN
SAMPLE POPULATION

Correlations of Twenty-Six Variables with Grade Point Average.
Significant Correlations at the .05 Level Are Underlined.

<table>
<thead>
<tr>
<th>Print-Out Number</th>
<th>Variables</th>
<th>Grade Point Average</th>
</tr>
</thead>
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<td>American Seniors</td>
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<td>Higher Achievers</td>
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<td>13</td>
<td>Talk to counselors about future plans</td>
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*Note: Significant correlations at the .05 level are underlined.*
## TABLE V. (Continued)

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<td>.00</td>
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<td>Delay of Gratification Index Total</td>
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<td>.38</td>
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was obtained on Variable 23, Ethnic Exposure, with academic achievement, and Variable 25, Language Index, was -.60 with academic achievement. Only Variable 24, Mass Media Index, showed a positive correlation of .73. The above mentioned significant correlations at the .05 level fail to reject any of the study's hypotheses. Hypothesis No. 2 was actually supported by the negative correlation for Variable 19, Feeling of Personal Control Index, with academic achievement. Since the sample population consisted of only 12 students, considerable reservation should be used before drawing any conclusions from the data. Therefore, no attempt is made to analyze the significance of the correlations obtained from the 9 lower achievers or the 3 higher achievers. It should be noted also that the Mexican-American, male seniors represent less than 10 per cent of the senior boys at Amphi-theater High School. They are a very small minority, generally live in Anglo neighborhood, and tend to be more self-conscious of their Mexican background than those from schools with considerably larger Mexican-American enrollments.

**Summary of Inter-School Comparisons**

Inter-school comparisons of the significant correlations at the .05 level indicate that Pueblo High School most closely resembles the combined total population for this study, with Sunnyside High School second. This might be expected since Pueblo High School
contributed nearly half of the combined total population and Sunnyside High School had the second largest sample population. Pueblo High School compares most closely with Sunnyside High School while Tucson High School and Amphitheater High School stand by themselves. Overall, it is difficult to find close comparisons between the schools or with the combined sample population.

**Significant Inter-Correlations from the Total Population**

Table VI shows the inter-correlations of all 26 variables that prove to be significant at the .05 level. Because the N was 168, the .05 significance level was .15. Therefore, very low correlations are included and caution should be used when referring to them. A number of very good coefficients are presented, however, and special attention is given to their interpretation. Academic achievement, represented in Variable 1 as Cumulative Grade Point Average, showed eleven significant correlations. Each of these was previously discussed in this chapter and, therefore, they are not included here.

While a significant correlation of .35 is shown for the relationship between the father's occupation and the actual access to the rewards of the dominant culture, the correlation of Variable 14, Actual Access to rewards of dominant culture, with the mother's occupation is more than twice as high at .73. This could indicate that most of the material rewards in the home are provided for by the
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### TABLE VI

**TOTAL MEXICAN-AMERICANS**

nts of the Twenty-Six Variables Significant at the .05 Level

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|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
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| 17 | 54 18 | 19 31 |
| 35 15 17 | 51 | -15 15 18 19 |
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| 19 16 20 | 56 78 54 |
| 26 19 | 39 45 38 |
| 22 43 | 61 73 54 |
| 58 20 16 | 58 21 65 58 |
| 64 24 69 61 |
| 34 | 27 22 17 | 20 19 25 |
| 21 41 30 31 |
| 17 | 42 |
| 67 81 94 | 15 |
| 25 68 15 | 15 |
| 79 | 16 |
| 28 21 29 |
| 31 68 |
| 90 | 19 |
| 49 69 |
| 21 60 |
| 79 |
mother. At least, the boys appear to interpret this to be the case. However, when other factors such as future plans for education and occupations are included, it is the father who appears to show the greater influence.

The real job expected by the boys at age 25 is related to their discussions with their counselors but a great deal more than a .20 correlation could be desired in this area. Correlations of .56, .78, and .54, respectively, for Variables 15, Perceived access to rewards of dominant culture, Variable 16, Job expectations index total, and Variable 18, Combined Total Part I - Access to Rewards, with Variable 7, Real job expected at age 25, might indicate that the boys are somewhat aware that good jobs are related to access to the rewards of the dominant culture. Fortunately, too, they appear to see the close relationship between education, Variable 17, and access to the rewards, Variable 18. This is further evidenced by the significant correlations for Variable 9, Graduate from business or trade school, Variable 10, Graduate from two years college, and Variable 11, Graduate from four years college, with Variable 15, Perceived access to rewards of dominant culture, Variable 17, Educational goals and expectations index total, and Variable 18, Combined Total Part I - Access to Rewards.
The perceived access to the rewards of the dominant culture, Variable 15, provides some of the highest correlations as shown in the relationships with Variable 16, Job Expectations Index Total, Variable 17, Educational goals and expectations Index Total, and Variable 18, Combined Total Part I - Access to Rewards.

**Inter-Correlations from the Lower Achievers**

Table VII presents the correlation coefficients which are significant at the .05 level. However, only the 21 correlations of .60 or greater are generally considered statistically sound; and, therefore, they are the only ones included for discussion.

A good correlation of .72 is shown for the relationship between the mother's occupation and the actual access to the rewards of the dominant culture. It is interesting to note, however, that the correlation of Variable 14, Actual access to rewards of dominant culture, with the father's occupation was only .42. These figures may lend support to the findings of Officer (1964) that frequently the mother of the Mexican-American family is the parent who has the higher occupational status.

The correlation of Variable 7, Real Job expected at age 25, with Variable 16, Job Expectations Index Total, is .72. This good relationship might be expected since Variable 7 is a subsection of 16. Similar relationships are to be found for Variable 9, Graduate from business or trade school, with Variable 15, Perceived access to rewards of
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TABLE VII

AMERICAN LOWER ACHIEVERS

of the Twenty-Six Variables Significant at the .05 Level

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| 47| 25| 52| 21| 21| 34| 20| 22| 54| 22| 25| 23| 19| 18| 18| 23| 20| 18| 49| 72| 48| 38| 43| 35| 65| 76| 57| 18| 19| 20| 64| 61| 71| 61| 26| 19| 18| 24| 25| 22| 29| 64| 35| 61| 61| 29| 64| 80| 80| 80| 80|

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dominant culture, and Variable 17, Educational goals and expectations Index Total; Variable 10, Graduate from 2 years college, with Variable 11, Graduate from 4 years college, Variable 15, Perceived access to rewards of dominant culture, Variable 17, Educational goals and expectations Index Total, and Variable 18, Combined Total Part I - Access to rewards; and, Variable 11, Graduate from 4 years college, with Variable 15, Perceived access to rewards of dominant culture, Variable 17, Educational goals and expectations Index Total, and Variable 18, Combined Total Part I - Access to rewards.

Further examination of the above high correlations may indicate that these boys have set rather high educational goals for themselves. Since their cumulative grade point averages for three years of high school are only average or less, their goals may be unrealistically high. There is the possibility, too, that many of these same boys are aware of the fact that they are a select group of achievers in relationship to their many friends who have already dropped out of high school. Within this frame of reference, their self concepts and goals may have been bolstered artificially.

Another set of high correlations is found for Variable 15, Perceived access to rewards of dominant culture, with Variable 16, Job expectations Index Total, Variable 17, Educational goals and expectations Index Total, and Variable 18, Combined Total Part I - Access to rewards.
Rewards; and, Variable 16, Job expectations Index Total, and Variable 17, Educational goals and expectations Index Total, with Variable 18, Combined Total Part I - Access to Rewards. Again, this could be assumed since the first four are parts of 18. As with the previously discussed correlations, one may again speculate that perhaps these boys are quite optimistic; not only about their future educations, but also about their future occupations. There may be reason for concern in relationship to all this optimism. One might contemplate the disappointment and destructive personal and social consequences that may ensue if a substantial number of these lower achieving boys should fall short of their goals.

The remaining correlations exceeding .60 in Table VII are further examples of sub-variables relating to their larger variable or total index.

Results from the lower achievers fail to reject Hypothesis No. 6. Hypothesis No. 3 was rejected by a correlation of .22, which was significant at the .05 level. However, this correlation falls far short of the .60 used in this study for prediction.

Essentially, therefore, one can conclude that no significant relationship exists between the male, Mexican-American senior's access to the rewards of the dominant culture and their feelings of personal control. For statistical purposes, basically the same conclusion can be assumed for the relationship between feelings of personal control
and a tendency to delay gratification on the part of the male, Mexican-American seniors attending the four urban high schools included in this study.

The extremely low correlations on the variables measuring feelings of personal control and delay of gratification could lead one to hypothesize that these lower achievers have moved very little from the present-time oriented, fatalistic characteristics of the Mexican folk culture.

**Inter-Correlations from the Higher Achievers**

Table VIII presents the correlation coefficients significant at the .05 level. Only those correlations of .60 or greater are referred to in this section.

The relationship between the father's educational level and the actual access to the rewards of the dominant culture is shown by a coefficient of .61. The lower achievers showed a correlation of only .52 for this same relationship. It appears that the higher achievers place greater emphasis upon their father's educational level as it relates to the actual access to the rewards of the dominant culture. The higher achievers, however, fail to show a significant correlation between Variable 2, father's occupation, and Variable 3, mother's occupation, with Variable 4, father's educational level, Variable 5, mother's educational level, Variable 6, family income, Variable 14,
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<td>19 Feeling of Personal Control Index</td>
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<td>20 Willingness to delay gratification</td>
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<td>24 Mass Media Index</td>
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<td>25 Language Index</td>
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<td>26 Exposure to Dominant Culture, Total Index</td>
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TABLE VIII

AMERICAN HIGHER ACHIEVERS
the Twenty-Six Variables Significant at the .05 Level

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actual access to rewards of dominant culture, Variable 15, perceived access to rewards of dominant culture, or Variable 18, combined total Part I - access to rewards, which may indicate that they do not see a significant relationship between such things as education, occupation, family income, and access to the rewards of the dominant culture.

The high correlations for Variable 7, real job expected at age 25, with Variable 15, perceived access to rewards of dominant culture, Variable 16, job expectations index total, and Variable 18, combined total Part I - access to rewards, are attributed to the fact that each of these is a part of the other.

The close relationship between Variable 9, graduate from business or trade school, and Variable 17, educational goals and expectations index total (.71) could possibly indicate that these higher achievers have strong intentions of graduating from business or trade school even more so than graduating from college. It is interesting to note that the lower achievers showed higher correlations in the area of educational goals. Perhaps, the higher achievers take a more modest or realistic view of their futures.

The very high correlations for Variable 15, perceived access to rewards of dominant culture, with Variable 16, job expectations index total, Variable 17, educational goals and expectations index total, and Variable 18, combined total Part I - access to rewards, are another case of each being a part of the other. This is also the situation for the
correlations involving Variable 16, job expectations index total, and Variable 17, educational goals and expectations index total, with Variable 18, combined total Part I - access to rewards; Variable 20, willingness to delay gratification, and Variable 21, planning index, with Variable 22, delay of gratification index total; and, Variable 23, ethnic exposure, and Variable 25, language index, with Variable 26, exposure to dominant culture, total index.

Results from the higher achievers fail to reject either Hypotheses No. 3 or No. 6. Therefore, one can conclude that among the male, Mexican-American seniors, feelings of personal control are not significantly related to their tendency to delay gratification and that access to the rewards of the dominant culture is not significantly related to their feelings of personal control.

Summary of the Inter-Correlations

Two hypotheses not related to academic achievement were tested by the inter-correlations shown in Table VI.

Hypothesis No. 3 was rejected at the .05 level of significance by a correlation of .29. This is a very weak correlation. Such a poor relationship may indicate that, although a relationship does exist between the boys' feelings of personal control and their tendencies to delay gratification, the relationship is not predictable. These findings are comparable to other results which indicate that among the
Mexican-American, senior boys characteristics of personal control and future orientation are very slight.

Hypothesis No. 6 was not rejected. Analysis of the data failed to disclose any significant relationship between access to the rewards of the dominant culture by the male, Mexican-American seniors and their feelings of personal control. One may speculate that the data may indicate that these boys do not hold to strong feelings of personal control. It would appear, however, that they have had, and expect to have, ample access to the rewards of the dominant Anglo culture.

Hypotheses No. 2, No. 3, and No. 6 all concern the relationships of feelings of personal control to the variables of academic achievement, tendencies to delay gratification, and access to the rewards of the dominant culture, respectively. Both Hypotheses No. 2 and No. 6 failed to be rejected.

**Conclusion**

The analysis of the data from the total sample population failed to reject Hypotheses No. 1, No. 2, No. 4, and No. 6. Only Hypotheses No. 3 and No. 5 were rejected at the .05 level of significance. It appears that feelings of personal control are related to the tendency to delay gratification by male, Mexican-American high school seniors; and that access to the rewards of the dominant culture are related to the boys' academic achievement. However, the correlation coefficients
rejecting Hypotheses No. 3 and No. 5 were so meager that for all practical purposes these hypotheses were actually supported by the findings.

The implications of these findings upon educational concerns and future research will be discussed in the following chapter.

Post Hoc Analysis: Significant Socio-Cultural Characteristics When Mexican-Americans Are Compared with Anglos

The following statistics, evaluations, and interpretations have been added to this study in an attempt to shed light on several questions that developed in reference to testing the original hypotheses.

Since a correlation only shows relationship, one must be cautious not to interpret these relationships as cause and effect factors.

For interpretive and predictive purposes, not one of the six hypotheses in this study was significantly rejected by correlation coefficients exceeding .60. These relatively low correlations could not provide strong evidence for culture change or the measurement of the characteristics involving feelings of personal control (fatalism), access to the rewards of the dominant culture, delay of gratification (future orientation), and exposure to the dominant culture.

Of particular interest, relating to culture change, are the two characteristics or variables concerned with feelings of personal control and delay of gratification. Therefore, answers to the following questions are important. Are the Mexican-American, male seniors
represented in this study more fatalistic (lack feelings of personal control) and more present-time oriented (generally not concerned with delayed gratification) than are their Anglo peers? Do these Mexican-Americans consider their access to the rewards of the dominant culture greater than their Anglo peers? Which of these two groups rates itself highest on exposure to the dominant culture? The answers to these questions may provide valuable information for those dealing with Mexican-Americans, especially educators, sociologists, and anthropologists. To obtain these answers a great deal of additional research was carried out.

An identical companion study was made with a sample population of 209 Anglo, male high school seniors selected from the same school populations, using the same methods, instrument, and procedures. Since these factors are all identical to the study conducted with the Mexican-American sample population of male, seniors, the details will not be repeated here. Specifics may be found in Chapter III.

The Mexican-Americans and Anglos were combined into various population groups, as shown in the left hand column of Table IX. These samples were then statistically analyzed. Computations were made to obtain the means, standard errors, and to determine the significance between their means by use of independent t-tests for each of the following variables: (a) feelings of personal control, (b) access to the
TABLE IX

PRESENTATION OF MEANS, STANDARD ERROR

Minimum Significance at the .05 Level was 1.96 a

<table>
<thead>
<tr>
<th>Population Groups Compared</th>
<th>N</th>
<th>Feelings of Personal Control (Fatalism)</th>
<th>Access to R of the Dom Culture</th>
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<tr>
<td></td>
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<td>SE</td>
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<tr>
<td>A</td>
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<tr>
<td>Total Mexican-Americans</td>
<td>168</td>
<td>6.90</td>
<td>.12</td>
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<tr>
<td>Total Anglos</td>
<td>209</td>
<td>8.51</td>
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<td>B</td>
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</tr>
<tr>
<td>Mexican-American Lower Achiever</td>
<td>115</td>
<td>6.77</td>
<td>.28</td>
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<td>Mexican-American Higher Achiever</td>
<td>53</td>
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<td>93.23</td>
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<td>Anglo Lower Achiever</td>
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<td>.25</td>
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<tr>
<td>Anglo Higher Achiever</td>
<td>87</td>
<td>8.45</td>
<td>78.99</td>
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<tr>
<td>Mexican-American Lower Achievers</td>
<td>115</td>
<td>6.77</td>
<td>.20</td>
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<td>122</td>
<td>8.56</td>
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<tr>
<td>Mexican-American Higher Achievers</td>
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<td>93.23</td>
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<tr>
<td>Anglo Higher Achievers</td>
<td>87</td>
<td>8.45</td>
<td>78.99</td>
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</table>

x = Mean; SE = Standard Error; t = t-Test Score.
TABLE IX

ANS, STANDARD ERRORS, AND t-TEST SCORES

At the .05 Level was 1.96 and 2.60 at the .01 Level

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
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<tr>
<td>of Personal Fatalism)</td>
<td>Access to Rewards of the Dominant Culture</td>
<td>Delay of Gratification (Future Orientation)</td>
<td>Exposure to Dominant Culture</td>
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<tr>
<td>SE</td>
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<td>78.99</td>
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Test Score.
rewards of the dominant culture, (c) delay of gratification, (d) exposure to the dominant culture.

The results of these computations are presented in Table IX. The first sample population group comparisons are between the total Mexican-Americans and the total Anglos. The independent t-tests reveal that there are significant differences between the Mexican-Americans and the Anglos for each of the four major variables tested. These differences are considerably higher than the minimum significance required for the .05 level. In addition, the standard error of measurement for each variable was very low. The combination of these two results adds considerable strength to the data.

Conclusions

The significant differences between the means supports the following conclusions:

(1) The Mexican-American, male seniors exhibit significantly less feelings of personal control than do their Anglo peers.

(2) The Mexican-American, male seniors are significantly more favorable in evaluating their access to the rewards of the dominant culture than are their Anglo peers.

(3) The Mexican-American, male seniors are significantly less concerned with delayed gratification than are their Anglo peers.
(4) The Mexican-American, male seniors rate themselves as having significantly greater exposure to the dominant culture than do their Anglo peers.

(5) There are no significant differences between the mean scores of the lower and higher achieving Mexican-Americans when measuring any of the four variables included in the post hoc analysis.

(6) There are no significant differences between the mean scores of the lower and higher achieving Anglos when measuring any of the four variables included in the post hoc analysis.

(7) Significant differences were found between the mean scores of the four variables when the Mexican-American lower achievers were compared with the Anglo lower achievers.

(8) Significant differences were found between the mean scores of variables (a), (b), and (d), as shown in Table IX, when the Mexican-American higher achievers were compared with the Anglo higher achievers.
CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

The major problem of this exploratory study was to determine the relationships of four socio-cultural variables to the academic achievement of male, Mexican-American, high school seniors. The four socio-cultural variables dealt with the measurement of: (1) delay of gratification (time orientation), (2) feelings of personal control (fatalism), (3) access to the rewards of the dominant culture, (4) exposure to the dominant culture. Of further concern to this problem was the determination of the inter-relationships of these variables and inferring from them indications of culture change.

One hundred sixty-eight male, Mexican-American seniors were randomly selected from four, urban, Tucson, Arizona, high schools. Three of these schools had large minorities of Mexican-American students. The fourth school was representative of other Tucson high schools having very small Mexican-American enrollments.

"High School Questionnaire 1268" was used as the instrument to collect the data. This questionnaire was an adaptation of a similar
instrument developed at the University of Colorado, Institute of Behavioral Science.

The Kuder-Richardson Twenty-One Test for internal reliability produced coefficients of .99 for Part I and .87 for Part II. The instrument was also subjected to the critical judgment of nine university and public school educators in reestablishing the content validity during its adaptation for use with Mexican-Americans.

Uniformity was stressed throughout the administration of the instrument, and close cooperation with the school administrators and teachers involved was maintained at all times.

The data was processed and programmed for statistical computation at the computer center of Project EPIC (Evaluative Programs for Innovative Curriculums), Tucson, Arizona. Computations were made for: (1) The total sample population; (2) The higher achievers only (students with cumulative grade point averages ranging from 1.0 to 2.5); and (3) The lower achievers (those students having grade point averages ranging from 2.6 to 5.0). Correlation coefficients were obtained by using the Pearson "r" formula.

Throughout this study the .05 level of significance was used. In addition, only those correlation coefficients exceeding .60 have been included for discussion. The hypotheses tested in this exploratory study are:
1. The tendency to delay gratification by male, Mexican-American, high school seniors is not significantly related to their academic achievement.

2. Feelings of personal control by male, Mexican-American, high school seniors is not significantly related to their academic achievement.

3. Feelings of personal control by male, Mexican-American, high school seniors is not significantly related to their tendency to delay gratification.

4. Exposure to the dominant culture by male, Mexican-American, high school seniors is not significantly related to academic achievement.

5. Access to the rewards of the dominant culture by male, Mexican-American, high school seniors is not significantly related to their academic achievement.

6. Access to the rewards of the dominant culture by male, Mexican-American, high school seniors is not significantly related to their feelings of personal control.

Analysis of the total population showed that only one of the four hypotheses concerned with academic achievement was rejected. Significant correlations of .22 for the total population and .47 for the higher achievers rejected Hypothesis No. 5. This hypothesis, however, was not rejected when the lower achievers were computed separately.
Hypotheses No. 1, No. 2, and No. 4 were not rejected by any of the population samples. Analysis of the total population disclosed that Hypothesis No. 3 was rejected by a correlation of .29, and that Hypothesis No. 6 was not rejected. Data from the higher achievers failed to reject either Hypothesis No. 3 or No. 6. Data from the lower achievers did reject Hypothesis No. 3, but not Hypothesis No. 6.

**Conclusions**

These results lead to the following conclusions: (1) That feelings of personal control are related to the tendency to delay gratification by male, Mexican-American high school seniors; (2) That access to the rewards of the dominant culture are related to the academic achievement of male, Mexican-American high school seniors.

It should be noted, however, that the correlation coefficient rejecting Hypothesis No. 3 and No. 5 are far below the .60 figure used in this study for prediction. Therefore, for all practical purposes, these hypotheses were actually supported by the results.

**Implications**

The interpretations, speculations, and ideas for applications in this section are presented in the hope that they will stimulate new ideas that will, in turn, lead to better educational programs for Mexican-American youth.
Each hypothesis will be referred to by its number, as previously listed.

1. Results from the total population fail to reject Hypothesis No. 1. The coefficient was .00. Thus, it appears that neither past, present, nor future orientation has any significant relationship to the student's academic achievement. This is interesting, since numerous informal discussions with educators indicate that they usually believe a sound, future orientation is a necessary ingredient for success (Graves, 1962). On the other hand, a study by Raymond Hummel and Norman Sprinthall (1965, 389) indicates that a planful orientation toward the future and a willingness to postpone enjoyable activities in pursuit of a distant goal (delayed gratification) are closely related to an adaptive ego structure. However, there is a very uncertain relationship between academic achievement and ego adaptiveness.

The difficulty in determining the relationship of time orientation and academic achievement may stem from the fact that many other conditions enter in determining an individual's level of academic achievement. Teachers' grades may not be always objective. Some courses do not demand maximum effort, and students may often give priority to interests and activities outside the classroom.

One might speculate that perhaps high school work does not require much in the way of future orientation and delay gratification. Since many tests cover only one week's work, the student may need to
do very little long range studying or planning to achieve. It may be
that there is very little in the high school curriculum that calls for
long range plans or work. In fact, there was almost no relationship
(.03) between the scores on the planning index and academic achieve­
ment.

2. Computation of the scores measuring the student's exposure
to the dominant society and his academic achievement was almost nil
(.01). Therefore, Hypothesis No. 4 was not rejected. There appears
to be no significance, probably because the degree of exposure is
extremely diverse among the students tested. It should be remembered
that the population consisted largely of third and fourth generation
Mexican-Americans. It may be assumed that they have had consider­
able exposure to both the Anglo and Mexican cultures since birth.

3. Of the total sample population of 168 boys, only 53 seniors were
higher achievers and the remaining 115 were lower achievers.

Not a single significant correlation with academic achievement
was obtained from the 115 lower achievers. Attention should be given
to the fact that the test scores from the lower achievers was quite
diverse. They may be a reflection upon their school work also. Per­
haps special emphasis on setting goals, organizing work and plans, and
being consistent, would be beneficial to the lower achievers in
particular.
4. The absence of a large percentage of significantly positive or negative correlations for the independent variables and their sub-variables could indicate that the male, Mexican-American seniors of Tucson are widely diversified in their experiences, expectations, and feelings. Only the relationship that those who have enjoyed more of the dominant Anglo culture also have better academic achievement records is significantly shown. This lone relationship, however, should not be passed off lightly. It may provide encouragement to all of those who are working to improve the lives of our Mexican-American citizens and their children. This is the ultimate goal of such programs as adult education, Manpower Development, the Domestic Peace Corps, and youth opportunity programs. These programs seek to open new avenues through which the disadvantaged Americans can attain the rewards of the dominant culture. By so doing, it is hoped that future generations will make greater achievements and thus break the cycle of poverty. The findings of this study indicate that this theory may be working.

5. Analysis of the data indicates that Mexican-American parents may have very little influence upon their sons in such matters as educational goals, job expectations, future plans, and their exposure to mass media. Counselors also seem to have very little influence in these areas. This is especially disturbing in relationship to the importance
of parents and counselors for influencing educational and occupational
goals.

6. The perceived access to the rewards of the dominant culture
measures fairly high, although the boys do not seem to be very aware
that a good education and sharing in the rewards of a dominant culture
probably requires considerable delayed gratification.

7. Examination of the data from the higher and lower achievers
indicates that the lower achievers have set higher educational and
occupational goals for themselves. Since the cumulative grade point
averages for three years of high school are only average, or less,
their goals may be unrealistically high. William S. Svoboda (1966,
388) writes:

Young people are constantly told in unnumerable ways that they
can never really succeed without an adequate education, and
adequate is coming to mean a college education. Most youngsters
have also been inculcated with the idea that America is a place
where anything is possible, if you only work hard enough. Add
to this an enthusiastic and well-meaning teacher who advises
Johnny to set his goals high, and not sell himself short, and it
is quite probable that Johnny will dream lofty dreams and set
himself lofty goals.

There is the probability too, that many of these boys are aware of
the fact that they are a select group in relationship to their many friends
who have already dropped out of high school. Within this frame of
reference, their self-concepts and goals may have been artificially
bolstered.
There may be reason for concern in relationship to all this optimism. One may contemplate the disappointment, frustration, and destructive personal and social consequences that may ensue if a substantial percentage of these lower achievers should fall short of their goals.

Success cannot be built on hope, motivation, and determination alone. It must include knowledge and appropriate skills. Providing these means is both a social and educational responsibility. We must design schemes to combine, coordinate, and insure these student goals with the educational means and environmental opportunities for their attainment.

8. No appreciable difference in results was disclosed when the population was divided into higher and lower achievers. Scores from the lower achievers produced twenty correlations of .60 or greater, while the higher achievers had fourteen. Closer examination of these correlations may lead one to hypothesize that the higher achievers are more cautious about their answers than the lower achievers, which may reflect modesty, realism, or perhaps pessimism. Furthermore, these two groups do not appear to see substantial relationships between education, occupation, and income. This could lead to some interesting questions regarding motivation. What factors have kept these boys in school? Did their peers, who dropped out of high school, also fail to see the relationships between education, occupation, and income? If
high school students could be oriented to strongly believe in the positive relationships of these factors, would more of them continue their educations and thereby reduce the drop-out rate? These are questions that may deserve the consideration of those concerned with the education of Mexican-American youngsters.

9. The extremely low correlations on the variables measuring feelings of personal control and delay of gratification from each of the population samples could lead one to hypothesize that the Mexican-American, male high school seniors have moved very little from the present-time oriented, fatalistic characteristics, of the Mexican folk culture.

Correlations obtained from the total population may also be indicators of culture change among the Mexican-Americans. Two prominent characteristics ascribed to the Mexican folk culture are present-time orientation and fatalism. Both of these are important in this study. Time orientation being referred to as the independent variable relating to deferred or delayed gratification, while fatalism is referred to as feelings of personal control.

Indications of culture change may be disclosed in the positive correlations between feelings of personal control (Variable 19) and ideas of planning (Variable 20) and delayed gratification (Variables 20 and 22). However, the very slight correlations of .28, .21, and .29, respectively, may indicate that these characteristics are not yet
prominent among the current Mexican-American boys. Nevertheless, these findings may lend support to the theory that the Mexican-American culture is changing from the fatalistic, present-time oriented, Mexican folk culture to the mirror image of the dominant Anglo-American culture.

It may be concluded that these students, who are mostly third and fourth generation Mexican-Americans, are slowly moving away from the two Mexican folk culture characteristics of present-time orientation and fatalism. However, the cultural change in reference to these two characteristics is, indeed, very slight.

**Post Hoc Analysis**

A post hoc analysis was made to determine the significance of the socio-cultural characteristics when Mexican-Americans are compared with Anglos. This called for a companion study conducted with 209 male, Anglo high school seniors selected from the same school populations, using the same methods, instrument, and procedures as were used with the male, Mexican-American seniors. The means obtained from the Mexican-Americans and the Anglos on the four major variables were then tested for significant differences by use of independent t-tests. Computations were made from the data collected on the following four variables: (1) feelings of personal control, (2) access to the rewards of the dominant culture, (3) delay of gratification, and (4) exposure to the dominant culture.
The independent t-tests revealed that there are definite, significant differences between the Mexican-Americans and the Anglo Americans for each of the four variables.

**Implications from the Post Hoc Analysis**

Each of the significant differences is presented and discussed as follows:

1. The Mexican-American, male high school seniors exhibit significantly less feelings of personal control than do their Anglo peers. In other words, the Mexican-Americans appear to be significantly more fatalistic than the Anglos.

These findings substantiate the study by Ozzie Simmons (1966, 203) in which the conclusion is made that no matter how acculturated the Mexican-American may be to the dominant culture, he will retain, to some degree, the more subtle characteristics of his Mexican heritage, particularly in his conception of time and fatalism. This basic viewpoint is also expressed by Chilcott (1968, 359). He believes that as a group the Mexican-Americans remain closer to their Mexican heritage than to the Anglo-American culture. The findings of this study complement these views.

Examination of the results of this study may question the notion expressed by Horacio Ulibarri (1958) who believes that the alleged fatalistic attitude of the Spanish-Americans is a misinterpretation of
their behavior. Ulibarri thinks the Spanish-American does what he can within the limits of his knowledge and "as a matter of mental hygiene therapy" explains, "God wills it," only after he has "exhausted all the possibilities at his disposal."

One might then ask, why are these third and fourth generation Mexican-American, male seniors more fatalistic than their Anglo peers? Practically speaking, they have completed their secondary educations in fully accredited American high schools in which they have associated with a majority of Anglo students. How then can one explain their fatalistic attitudes as a matter of mental-hygiene therapy? This author believes these attitudes of fatalism are more the manifestations of a cultural heritage. As far as the characteristics of fatalism are concerned, it appears that the Mexican-American boys in this study have not traveled far on the cultural continuum toward acculturation to the dominant Anglo culture.

2. The Mexican-American, male high school seniors are significantly more favorable in evaluating their access to the rewards of the dominant culture than are their Anglo peers. This may indicate a number of factors. Perhaps these Mexican-American boys are more impressed by their families' socio-economic status, as measured by such things as income, occupations, and educational levels. It could be that their close contacts with Mexico and the Mexican-American barrios have provided them with a much closer view of poverty and,
therefore, the success of their families and themselves may be viewed as proportionately great. These findings could indicate that the Mexican-Americans consider themselves more advantaged than do the Anglos. It is possible that they are more aware and appreciative of rewards of the dominant Anglo culture. These may be important motivational factors; and may have played significant roles in keeping these boys in school and may have prompted their aspirations for continued educations beyond high school.

3. The Mexican-American, male seniors are significantly less concerned with delayed gratification than are their Anglo peers. More directly, it appears that the Anglos are significantly more future oriented; while, conversely, the Mexican-Americans are significantly more present oriented.

It should be remembered that the Mexican-American, male seniors represented in this study have almost completed their secondary educations and are, therefore, a select group in comparison to the large numbers of their peers who have dropped out of school.

If these Mexican-American seniors are significantly less future oriented and yet they have reasonably succeeded in high school, one might contemplate how little concern with future plans the Mexican-American drop-outs may have been. One might speculate as to whether or not many of the drop-outs would have remained in school if they had been more future oriented.
Although there was no correlation between grade point average and delayed gratification (0.00), we cannot rule out the possible importance of future orientation upon motivation and success.

If we are to put any stock in the idea that an important Anglo cultural characteristic is delayed gratification, then we may be concerned with the obvious absence of this characteristic among the Mexican-Americans.

4. The Mexican-American, male seniors rate themselves as having significantly greater exposure to the dominant culture than do their Anglo peers. At first glance this may appear to be an unusual finding. One might ask, why, then, are they so fatalistic and how is it that they have not yet adopted the Anglo concept of future orientation if their exposure to our culture has been so great? The answer to this question probably lies in the strong possibility that the Mexican-Americans are far more conscious of their exposure to the mass media produced by the Anglos in English and to our culture in most respects. The Anglos, on the other hand, may have responded similarly if the question had been about their exposure to the mass media and Mexican culture had they been living in Mexico at the time. Since the Anglos are members of the dominant culture, they probably are not as consciously aware of their exposure to their own culture.

5. Results from the two populations of Mexican-Americans lower achievers versus the Mexican-American higher achievers revealed
that there are no significant differences on any of the four variables tested.

These results may indicate that these Mexican-Americans are a rather homogeneous group. Again, one should remember that these are seniors and are generally a select population. What the statistics would show if they were obtained from younger age groups would be an interesting subject for further research.

6. No significant differences were obtained when the Anglo lower and higher achievers were compared.

Perhaps the same general conclusions are appropriate here as were given for the preceding comparisons with Mexican-Americans.

7. Significant differences were found for each of the four variables when the means of the Mexican-American lower achievers were compared with the means of the Anglo lower achievers. This would tend to substantiate the previous findings that there are significant differences between the Mexican-Americans and Anglos. It further points out that these differences exist regardless of the student's academic achievement level. However, the differences are more pronounced among the lower achievers.

8. It was only among the higher achieving Mexican-Americans and Anglos that the differences on the mean scores from the four variables were less pronounced. Interestingly, it was discovered that no significant difference exists between these two population
samples when delayed gratification was measured. Presumably, the higher achievers, regardless of their ethnic group, are somewhat homogeneous in this respect. One may speculate that their greater willingness to delay gratification could be a positive factor in their academic achievement. In any case, this is the only comparison on this variable between Mexican-Americans and Anglos that fails to show a significant difference. It appears that the higher achieving Mexican-Americans most closely approximate the Anglo cultural characteristic of future orientation.

9. Marked contrast is seen between the Mexican-Americans and the Anglos when the two characteristics dealing with feelings of personal control and delayed gratification are considered. The Mexican-Americans are significantly lacking in feelings of personal control and concerns with delayed gratification when compared to their Anglo peers. These findings could indicate that whatever culture change has taken place among the second, third, and fourth generation Mexican-Americans, it has not been great with reference to these two characteristics. It remains for further studies to lend additional data which may eventually substantiate any particular culture change theory. The results of this study clearly indicate the dissimilarities between the Mexican-Americans and the Anglos but it cannot determine the existence of fusion resulting in a third culture. These findings could more readily be related to the idea of syncretism involving the mutual compromise
of cultures but even such an assumption would necessarily have to be based more on speculation than fact.

Assuming that most of our school curriculums are constructed by Anglos who apparently have significantly greater feelings of personal control and who are future oriented; then, what overall effect would this have upon the Mexican-American youngsters? What conflicts may be built into the curriculum that could permeate the whole subculture of education of which the practicing educator may be generally unaware? Perhaps we should more closely consider the following remarks made by the well known anthropologist, George Kneller (1965, 14-21):

If we are to insure that education attains its acknowledged goals, we need the anthropologist to tell us where internalized antagonisms of the culture are thwarting the teachers' efforts. . . . Again, if culture determines the behavior of its members, the curriculum must be built on a forthright study of the state of culture now and to come.

Could it be that our Anglo-dominated curriculum inadvertently thwarts the efforts of both the students and the teachers? There may be good reason to consider the findings of this study as we examine the appropriateness of our curriculums as they apply to the Mexican-American students.
Recommendations for Additional Research

The following topics, related to the present study but beyond its scope, are recommended for further research.

1. The present study, being exploratory, used a sample population confined to one particular area. Assuming that Mexican-Americans may differ in different parts of the country, samples might be chosen from a wide number of regions in the United States, and especially the Southwest. A regional approach might provide more definitive data.

2. Similar studies should be made with younger age groups in order to avoid the selectiveness of the population used in this study.

3. An adaptation of the study could be made to include girls. This could provide opportunities for comparing Mexican-American males with Mexican-American females. The same could be done with the Anglos. A cross cultural study could then be made for comparative purposes.

4. A larger comparative study between Mexican-Americans and Anglos could be made exploring a greater number of socio-cultural characteristics.

5. Similar studies could include the relationships of socio-cultural factors to motivation, ego adaptiveness, and self concepts.

6. A special study could be made using a control group of students subjected to special orientation programs aimed at changing their time orientations and feelings of personal control. The results of such
programs could then be related to their academic achievement, educational attainment, and success beyond high school.

7. A selected population of Mexican-American youngsters in junior high school could be tested and then observed to determine the relationship of such characteristics as feelings of personal control and time orientation upon their educational attainment.

8. Studies could be made to explore the school curriculums, both elementary and secondary, to determine the degree that such a factor as future orientation has in relationship to assignments, testing, goal setting, student achievement, and general expectations of the teachers. Emphasis could be placed upon the determination of whether or not the school curriculums are future oriented and whether or not this is of significance to the student's education.

9. Comparative studies could be made to determine the similarities of various minority and majority group students who become dropouts in an attempt to determine if there are basic socio-cultural factors and patterns in common among all students who fail to complete their secondary educations.

10. Measurement of culture change among the Mexican-Americans could include statistical studies involving such factors as:

(a) the adoption of English and the loss of the Spanish language;

(b) occupational aspirations and attainment;
(c) contact with friends and relatives living in Mexico;
(d) dating and marriage patterns;
(e) religious preferences;
(f) medical practices;
(g) educational interests and attainments;
(h) voluntary associations.

Intercorrelations and correlations with variables such as those included in this study could then be made in order to broaden the measurement of culture change. Similar studies could be made with other minority groups and with Anglos in order to provide a substantial frame of reference and comparative data for the assessment of culture change.

11. A study could be made to explore the degree of influence upon students by their parents, teachers, counselors, and others with whom they come in regular contact. Particular areas of influence could include such things as occupational and educational goals, attitudes toward school and teachers, peer group preferences, concern for academic achievement, reading habits and preferences for various forms of mass media, athletic interests and participation in extra-curricular activities.

12. A study concerning the role of the public schools in bringing about directed culture change as part of the educational program for minority group pupils, especially Mexican-Americans, should be made.
APPENDIX
APPENDIX A

HIGH SCHOOL QUESTIONNAIRE 1268

PART I

This questionnaire is being used among high school students in several parts of the country in order to learn how we can help your schools do a better job for you. It is important, therefore, that you be careful and honest in your answers. The information which you give will be combined with that of hundreds of other high school students by use of data processing machines for statistical analysis. **ALL ANSWERS ARE CONFIDENTIAL. YOUR NAME WILL NOT BE GIVEN TO ANYONE AND IT WILL NOT BE USED IN THE REPORT.**

Some of the items in this questionnaire refer to Mexican Americans or to Anglo Americans. Because these questions have to do with two cultural backgrounds that are widely represented in the Southwest, we will define Mexican American as any one who was born in Mexico or has one or both parents that are of Mexican descent. Anglo American means persons who are not related to persons of Mexican, Spanish, Oriental, Negro, or Indian descent.

There are no "right" or "wrong," "good" or "bad" answers to these questions.
All answers for Part I are to be written on the Questionnaire.
You will use the machine scoring answer sheets later for Part II.
Please be brief but complete with your answers.

YOU MAY BEGIN ..........

NAME

Last First Middle

ADDRESS

AGE SCHOOL

PART I

1. What do your parents, or the persons who raised you, do for a living?
   Describe what they do for a living in a sentence or two.
   Father:
   Mother: (If other than a housewife and mother)

2. What was the highest grade in school completed by your parents or the persons who raised you during most of your life:
   Father: 0 1 2 3 4 5 6 7 8 9 10 11 12 Over 12
   Mother: 0 1 2 3 4 5 6 7 8 9 10 11 12 Over 12

3. Which of the following best represents your family income per year?
   (1) Under $3,000
   (2) Between $3,000 and $5,000
   (3) Between $5,000 and $7,000
(4) Between $7,000 and $10,000
(5) Over $10,000

4. How many persons in your home help to earn the family income?

5. Who earns most of the money in your home?

6. Compared to other families in your neighborhood would you say that your family was ....
   (1) richer
   (2) about the same
   (3) poorer

Please answer these questions about your own future as realistically and honestly as you can.

7. What job would you like to have when you are about 25 years old?
   Give the name of a job or occupation and say what you'd be doing on the job.

8. Assuming that wages then will be about the same as they are now, about how much money will you be making per year if you have this job?
   (1) 0 to $2,000
   (2) $2,000 to $4,000
   (3) $4,000 to $6,000
   (4) $6,000 to $8,000
   (5) $8,000 to $10,000
   (6) $10,000 to $12,000
9. There are many things which might keep a person from getting the job he would like to have. What are the things you feel might stand in the way of your getting this job? Write your reason briefly.

10. Taking account of the things you have just written and the things that could stand in your way, what do you think your chances really are of having this job some day?

   (1) Excellent
   (2) Good
   (3) Fair
   (4) Poor

11. You have written some things which might stand in the way of your getting the job you would like to have in Item 9. Taking account of things like this, and really being honest about it, what job do you really expect to have when you are 25? (Again, give the name of a job and say what you will be going.)

12. Assuming wages then would be about the same as they are now, about how much money will you be making per year if you have this job?
13. Read the following two statements. Choose the statement you most strongly believe to be true.

(1) In order to get ahead, it's most important to have a good education.
(2) In order to get ahead, it's most important to have practical experience.

14. Which of the following do you really expect to do after you leave high school?

<table>
<thead>
<tr>
<th>Option</th>
<th>RIGHT AWAY</th>
<th>LATER ON</th>
<th>NOT AT ALL</th>
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</thead>
<tbody>
<tr>
<td>(a) Get a job in a city</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Go to a business school or to vocational training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Go to college</td>
<td></td>
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</tbody>
</table>
15. How much schooling do you really expect to finish?

(a) Graduate from High School
   (1) Very Sure
   (2) Pretty Sure
   (3) Probably will not graduate

(b) Finish Business or Trade School
   (1) Very Sure
   (2) Pretty Sure
   (3) Probably will not

(c) Finish at least 2 years of College or Jr. College
   (1) Very Sure
   (2) Pretty Sure
   (3) Not Too Sure

(d) Finish 4 years of College
   (1) Very Sure
   (2) Pretty Sure
   (3) Probably will not

16. What are the most important reasons that might keep you from going to College?
17. Which of the following do your parents or the people who are raising you want you to do after you finish high school?

<table>
<thead>
<tr>
<th></th>
<th>RIGHT AWAY</th>
<th>LATER ON</th>
<th>NOT AT ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Get a job in the city</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>(b) Go to a business school or to vocational training</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>(c) Go to college</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>(d) Go into the Service</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>(e) Get a job around home</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>

18. How often have you talked with your parents or the people who are raising you about your plans for the future?

(1) Never
(2) Once or Twice
(3) Four or Five Times
(4) Many Times

19. How often have you talked with your teachers and counselors about your plans for the future?

(1) Never
(2) Once or Twice
(3) Four or Five Times
(4) Many Times
PLEASE GO RIGHT ON TO PART II. REMEMBER THAT ALL THE ANSWERS FOR PART II ARE TO BE MARKED ON THE MACHINE ANSWER SHEET.

BE SURE TO READ THE INSTRUCTIONS BEFORE YOU MARK ANY ANSWERS ON THE ANSWER SHEET.
REMEMBER -- PUT ALL ANSWERS ON THE ANSWER SHEET

Read both parts of each question. Then indicate the number (1) or (2), for whichever part you believe is more true. Each question should be answered by itself. Don't worry about how you have answered the others. Be sure to answer all the questions. There are no "right" or "wrong" answers.

REMEMBER! PLEASE DO NOT MARK ON THE QUESTIONNAIRE.

PUT ALL YOUR ANSWERS ON THE "ANSWER SHEET."

Place all answer marks between the dotted lines, but not beyond them.

1..... 2..... 3..... 4..... 5.....
EXAMPLE: 1..... 2..... 3..... 4..... 5.....

Make clean erasures when needed. Be sure your question and answer numbers correspond. Please note that the numbers on the "Answer Sheet" go from left to right.

There are no right or wrong answers. Make the choice which you believe to be more true on the "Answer Sheet."

Please begin ........
REMEMBER -- PUT ALL ANSWERS ON THE ANSWER SHEET

I more strongly believe that:

1. (1) No matter how much a person tries, it's hard to change the way things are going to turn out.

(2) A person can usually make whatever he wants out of his life.

2. (1) It's really easy to have friends; a person just needs to try to be friendly.

(2) Sometimes making friends is a matter of being lucky enough to meet the right people.

3. (1) In the long run, we ourselves are responsible for bad government.

(2) There's not much the average person can do about the government.

4. (1) Most people who get in trouble start out looking for it.

(2) Often trouble starts because a person happens to be in the wrong place at the wrong time.

5. (1) Taking a true-false test is a lot like gambling; if you're lucky, you might make the right choices.

(2) The kid who studies can always do well on any test.

6. (1) There's not much use in trying to change a person's basic attitudes.

(2) With the right approach, you can usually influence the way a person thinks.

7. (1) When I make plans, I am almost certain that I can make them work.

(2) I have usually found that what is going to happen will happen regardless of my plans.
8. (1) If people don't like you, it means that you don't know how to get along with others.

(2) It's impossible to figure out how to please some people.

9. (1) Getting a job depends partly on being in the right place at the right time.

(2) If you're a good worker, you can always get a job.

10. (1) Not everyone can be popular; so there's no use worrying about it.

(2) In the long run, popularity comes to those who work for it.

I more strongly believe that:

11. (1) Getting into trouble depends completely on the kind of life you lead.

(2) If the breaks are against you, you can get into trouble.

12. (1) Sometimes no matter how much you've thought something out, you can't get it across to other people.

(2) If you know what's on your mind, it's easy to explain it to others.

13. (1) A major cause of wars is that people do not take enough interest in world events.

(2) I feel more and more helpless in the face of what is happening in the world today.

14. (1) My own efforts alone determine how successful I am as a leader.

(2) Without the right breaks you can't expect to be an effective leader.

15. (1) If you aren't popular you haven't learned how to get along with others.

(2) Popularity depends a lot on what group you happen to get into.
16. (1) Because of human nature, people can't change very much.

(2) If they work at it, people can make what they want of themselves.

17. (1) There is no guarantee that a marriage will be happy; it depends in part on the breaks.

(2) You can always have a happy marriage if you work hard at it.

18. (1) Becoming successful is sometimes a matter of getting the right breaks.

(2) Getting ahead in life depends entirely upon a person's ability.

19. (1) It is usually good luck that gets a man a job.

(2) When a man finds a job, it is because he spent a lot of time looking for one.

20. (1) How well you do in school depends on how hard you work.

(2) The grades you get in school depend partly on how much brains you were born with.

**I more strongly believe that:**

21. (1) If you get into trouble, it's your own fault.

(2) Many people are victims of circumstances beyond their control.

22. (1) Usually when I don't understand something in school, it's because the teacher did not explain it well.

(2) Not paying attention in class is the main reason for not understanding the work.

23. (1) When a boy gets good marks in school, it is usually because he was born with intelligence.

(2) Those students who do well in school are the ones who study hard.
24. (1) No matter how hard a person tries, some people may not like him.
   (2) When a person isn't liked, it's because of the way he does things.

25. (1) Working hard and steady is the way to get ahead in a job.
   (2) Getting ahead in a job often depends on what kind of boss you happen to have.

26. (1) It's best to spend money when you have it, and let the future take care of itself.
   (2) It's better to put money aside so you'll have it when you really need it.

27. (1) It's very important to have your life laid out several years in advance.
   (2) It's really not possible to see your life more than a year ahead.

28. (1) The best way to get ahead in life is to move wherever you can get the best job.
   (2) Nothing in life is worth the sacrifice of moving away from your parents.

29. (1) Live in the present; the future will take care of itself.
   (2) The future must be planned and prepared for.

30. (1) I like to do things on the spur of the moment.
   (2) I prefer to have things all planned out in advance.

31. (1) It is possible to make plans and have them work.
   (2) It is not possible to plan successfully.

32. In the morning, do you generally plan what you're going to do for the day?
   (1) Yes
   (2) No
33. Do you generally plan what you're going to do the next day a day ahead of time?
   (1) Yes
   (2) No

34. Do you generally plan how you're going to spend you weekends a week or so in advance?
   (1) Yes
   (2) No

35. Do you spend much time thinking about your future and planning what you will do in the future?
   (1) Yes
   (2) No

36. How much of what a person does do you think can be planned out in advance?
   (1) More than half
   (2) Less than half

37. When you do make plans, do they generally work out more than half of the time, or less than half of the time?
   (1) More than half
   (2) Less than half

38. How about a person's day-to-day activities? How important do you think it is to plan these day-to-day activities ahead of time?
   (1) Very Important
   (2) Pretty Important
   (3) Not Too Important
   (4) Not Important At All

39. How important or valuable do you think it is for a person to plan out his life well in advance?
   (1) Very Important
   (2) Pretty Important
   (3) Not Too Important
   (4) Not Important At All

40. Would you say your contacts and friendships are:
   (1) Nearly all with Mexican Americans
   (2) Mostly with Mexican Americans
   (3) Nearly all with Anglo Americans
   (4) Mostly with Anglo Americans
   (5) Well mixed with persons of many origins and races
41. How often do you read newspapers?
   (1) Every day
   (2) Almost every day
   (3) About once or twice a week
   (4) Very seldom
   (5) Never

42. How often do you read magazines?
   (1) Every day
   (2) Almost every day
   (3) About once or twice a week
   (4) Very seldom
   (5) Never

43. How often do you watch TV?
   (1) Every day
   (2) Almost every day
   (3) About once or twice a week
   (4) Very seldom
   (5) Never

44. How often do you read books (other than for school assignments)?
   (1) Almost every day
   (2) About once a week
   (3) About once or twice a month
   (4) Very seldom
   (5) Never

45. About how often do you attend church?
   (1) More than once a week
   (2) Almost every week
   (3) About once or twice a month
   (4) A few times a year
   (5) Almost never

46. Which language is spoken on most of the radio programs you listen to?
   (1) English
   (2) Spanish

47. In which language are most of the reading materials (newspapers, magazines, and books) in your home written?
   (1) English
   (2) Spanish
48. Which language is spoken in most of the movies you see?
   (1) English
   (2) Spanish

49. Which language do you mostly speak when you are with your friends?
   (1) English
   (2) Spanish
   (3) Combination of English and Spanish

50. What language is usually spoken in your home?
   (1) English
   (2) Spanish
   (3) Combination of Spanish and English
   (4) Other (Please Explain)

51. Which of the following best describes your neighborhood?
   (1) Mostly Mexican American
   (2) Mostly Anglo American
   (3) Mostly Negro
   (4) A Mixed Neighborhood

52. In what country did your parents, or the persons who raised you, receive most of their education?
   (1) United States
   (2) Mexico
   (3) Other (Please Explain)

Please be sure that your name is on the "Answer Sheet." Put the "Answer Sheet" for Part II on top of Part I and turn these two in together. Part II of the Questionnaire will be turned in separately.

Thank you for your help and cooperation. We hope that your efforts will lead to even better schools in the future.
LIST OF REFERENCES


Officer, James E. "Barriers to Mexican Integration in Tucson," *The Kiva,* 17 (July 1951), 5-14.


Sanchez, George. Forgotten People. Albuquerque: University of New Mexico Press, 1940.


