

1990

A comparison of concerns perceived by international and minority students enrolled at Iowa State University

Anna Marie Evans
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**A comparison of concerns perceived by international and
minority students enrolled at Iowa State University**

Evans, Anna Marie, Ph.D.

Iowa State University, 1990

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Ann Arbor, MI 48106



A comparison of concerns perceived
by international and minority students
enrolled at Iowa State University

by

Anna Marie Evans

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
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For the Graduate College

Iowa State University
Ames, Iowa

1990

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DEDICATION

I wish to dedicate this work to my father, who had dreams that his children would have more opportunities for higher education than he. Once he told me, "They haven't invented a game, yet, that I can't win at."

CHAPTER I. INTRODUCTION

The number of international and minority students studying in the United States has risen significantly over the past 25 years. During the 1965-66 academic year, colleges and universities in the United States accepted more than 82,700 international students (Miller, 1967). The enrollment of minority students working toward a bachelor or higher degree in the United States in the fall of 1965 was 305,641 (Simon and Grant, 1966). In 1988, the enrollment of all racial groups rose to record levels in United States colleges and universities. During the fall of 1988, the racial and ethnic group numbers were as follows: 1,130,000 Black students, 680,000 Hispanic students, 497,000 Asian students, 93,000 American Indian students, 361,000 foreign students (Evangelauf, 1990).

Webster et al. (1979) found that a number of university environmental problems were unique to racial/cultural groups, as well as several that were common to all students. These unique cultural groups may need assistance in adapting to the new predominantly white institution environment. The international student, while learning new skills, may be available to acclimate other individuals from the same country to life in the United States (Miller, 1967). Counseling for minority students by trained individuals who are themselves members of an ethnic minority group may

provide a type of mentoring, as well as assistance in adjusting to university life (Jackson, 1987).

Spaulding and Flack (1976) investigated the relationship between cultural and national backgrounds and environmental and social interactions as they relate to academic achievement at a college or university. Their study revealed that there was a significant relationship between the adaptation of different concerns by international and minority students matriculating in United States institutions of higher learning.

There is extensive research by Surdan and Collins, 1984; Webster et al., 1979a,b; and Pruitt, 1976 concerning the adjustment difficulties of international and minority students on United States college campuses. The problems common to many college students, including international students, are financial difficulties, communication, academic, and social insecurities, and immigrations (Miller, 1967). International students also experience problems that are directly related to their encounter with a new culture (Nickelly et al., 1964). They must become acclimated to many of the unresolved racial problems of the United States that are reflected in the concerns of individual students (Miller, 1965).

American higher education underwent rapid changes between 1965 and 1975. Astin (1982) found that one of the

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this study attempts to add to the understanding of these students.

Statement of the Problem

The problem of this study was to compare the perceptions of international students' and ethnic minority students' needs and concerns while attending Iowa State University located in Ames, Iowa, in the United States.

Purpose of the Study

The purpose of this study was to determine whether significant differences exist between the perceived concerns of international students and the perceived concerns of ethnic minority students at Iowa State University. Additionally, these students were asked to identify their problems and expectations while enrolled at Iowa State University.

Significance of the Study

Given the striking contrasts of international and minority students who are enrolled in a predominantly white university, are there significant differences in their needs and concerns? The review of literature revealed certain problems such as alienation, discrimination, language difficulties, cultural and ethnic concerns, and financial troubles encountered by both international and minority

students on the predominantly white university campus environment.

From all indications an ever increasing number of international and minority students will continue to enroll at Iowa State University. The reasons for the rise in enrollment are many, including expansion in technological advancements, improved world-wide communications, funding by public and private corporations and foundations, growth of exchange programs, an increased awareness of the responsibility to aid less developed countries, and a commitment to recruit minority students.

Because more international students and minority students are expected to enroll and because Iowa State University is committed to internationalism and to affirmative action, a study to determine the needs and concerns of international students is necessary. International and minority students' concerns would be an obvious source of information for the university. As the number of international and minority students of various cultures multiplies, it is expected that the different groups' experiences will need to be investigated thoroughly.

The following null hypotheses were formulated to be tested through the research:

1. There will be no significant differences between the perceived alienation concerns of international and

minority students at Iowa State University when age group, gender, ethnicity, classification, number of years enrolled, and the number of years resided in the United States are used as variables.

2. There will be no significant differences between the perceived cultural and ethnic concerns of international and ethnic minority students at a selected predominately white university when age group, gender, ethnicity, classification, number of years enrolled, and the number of years resided in the United States are considered as variables.
3. There will be no significant differences in the perceived discrimination concerns between international and minority students at Iowa State University when age group, gender, ethnicity, classification, and the number of years resided in the United States are considered as variables.
4. There will be no significant differences in perceived educational environment between international and minority students at Iowa State University when age group, gender, ethnicity, classifications, and the number of years resided in the United States are considered as variables.
5. There will be no significant differences in the perceived social and community concerns between

international and minority students at Iowa State University when age group, gender, ethnicity, classification, and the number of years resided in the United States are considered as variables.

6. There will be no significant differences in the perceived resident-related concerns between international and minority students at Iowa State University when age group, gender, ethnicity, classification, and the number of years resided in the United States are considered as variables.
7. There will be no significant differences between the perceived concerns of international and ethnic minority students negotiating the university system at Iowa State University when age group, gender, ethnicity, classification, and the number of years resided in the United States are considered as variables.

Basic Assumptions

The following assumptions were made regarding this study:

1. A sufficient number of international students will answer all questions truthfully.
2. A sufficient number of minority students will answer all questions truthfully.

3. The findings of this study will be of value to universities which recruit international and minority students.
4. The students will accurately identify their ethnic origin(s).

Delimitation of the Problem

This study was limited by the following criteria:

1. Although it is important to understand how international and ethnic minority students perceive the university, their perceptions do not, in all cases, reflect reality. Certain conditions such as attitudes, race, and past experiences can have a significant impact on perceptions.
2. Some students who are classified as international students do not or may choose not to identify themselves as a foreign student. Likewise, some minority students may elect, for one reason or another, not to identify themselves as "minority students." As such, one can only assume ethnic identification is accurately reported.
3. International and minority students are more likely to recognize specific programs and personalities than office names. Consequently, when students respond to the questionnaire statements concerning the impact of some concerns, their answers may vary depending on the

amount of contact they may have had with faculty, staff, and students.

Delimitations related to the questionnaire and responses are as follows:

1. The use of volunteer subjects for this questionnaire may result in response rate problems and call-back problems;
2. The questionnaire constructed for this study was limited by a lack of personal contact and interaction with the students;
3. A possible ordering effect of questions on the questionnaire may cause some subjects to return incomplete questionnaires;
4. The inability to ascertain who completed the questionnaire also represents a weakness of this instrument; and
5. The questionnaire survey methods may have been the more suitable means for some of the students who participated in this study.

Operational Definitions

The following terms were used throughout this study:

African - A member of one of the indigenous people of Africa (American Heritage Dictionary, 1988).

African-American - Any individual with descendants from any group of people from Africa and who is a citizen of the

United States. Also known as Afro-American and Black American.

Alienation Concerns - Concerns involving the state of being estranged or divorced from a person's environment.

Black - Any individual with descendants from a group of peoples originating from Africa. Citizenship may include any country of the world.

Caucasian - A member of the Caucasoid ethnic division (American Heritage Dictionary, 1988).

Cultural and Ethnic Concerns - Beliefs, customs, and other products created by a group of people that contribute to their uniqueness, such as, race, language, national origin, religion and color, in comparison to the larger group. These concerns are usually voiced by international and minority students.

Dark Skinned - Any individual bearing a resemblance to a member of the Black race or dark skin of any hue or appearance.

Developing Countries - Poorer countries or less affluent countries that received their independence from the European colonial powers in the 1950s, '60s, and '70s (see Figure 1) (Dickerson et al., 1983).

Discrimination Concerns - Concerns sometimes voiced by a sub-cultural group when feeling that the power structure in place acts hostile toward them solely based upon their

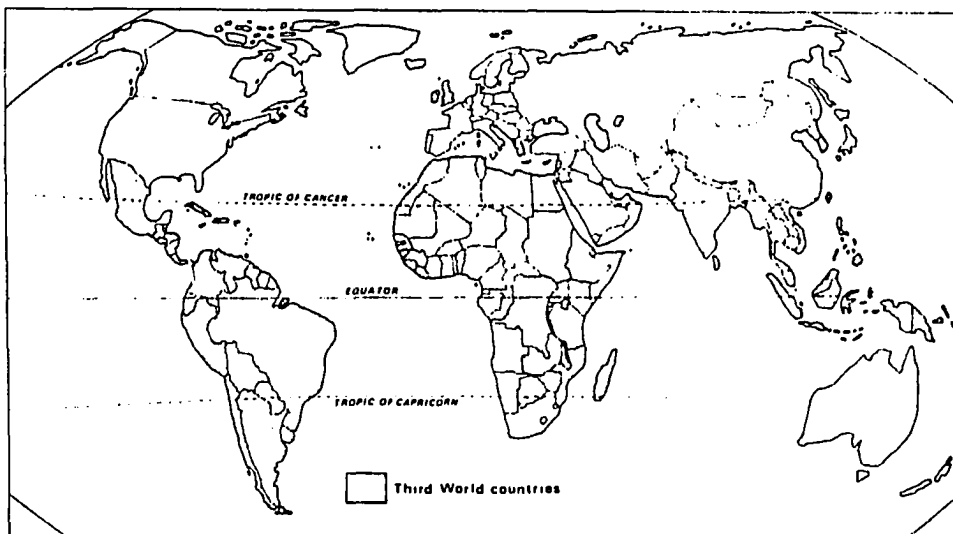


Figure 1. Map of developing countries

ethnic, cultural, or racial nonconformity (within the confines of the university).

Educational Environment - The environment in which a student labors and functions to complete the requirements toward his/her given program of study at a selected university.

Ethnic Minority - Any individual belonging to a culture or subcultural group that is separate from the dominant European descendants culture in the United States. Also, individuals in protected classes such as Blacks, Hispanics, Asian American, and Native American. These individuals are sometimes referred to as minority students.

Financial Concerns - Financial problems confronted by the international and minority students that may involve foreign currency exchange, inability or unavailability of funds for school fees, and other expenses.

Hispanic - Of or pertaining to the language, people, and culture of Latin America, Portugal, and Spain (American Heritage Dictionary, 1988).

Immigration Counseling - Counseling provided to the international student taking up residence in the university environment and city, with proper initiation to whatever rights and privileges they may have in the United States.

International Student - Any student enrolled in a United States institution of higher education entering the United States on a student visa (F-1, J-1) and originating from a developing country.

Minority Student Counseling - Counseling provided to minority students by trained individuals who are familiar with the problems and concerns of minority students. These trained individuals who counsel the minority student may themselves be a member of an ethnic minority group.

Native American - Any individual who holds a membership in a tribe that is indigenous to the United States and original inhabitants of the Western Hemisphere.

Negotiating the University System - Term used to describe the entire adjustment to college life, including

financial support availability, satisfaction in and with campus facilities, personal goal setting, and general university environment.

Predominantly White College - A post secondary institution whose student population is comprised primarily of white or Caucasian students.

Racism - The Merriam-Webster Dictionary (1973) defines racism as a belief that some races are superior to others; also discrimination based on such belief. Racism and a sense of superiority became factors to justify colonization (Dickerson et al., 1983).

Racist Belief - Belief that indigenous people of former European Colonies are inferior, stupid, lazy, improvident and dissolute (Chambers, 1983).

Residence-Related Concerns - Concerns any student may have pertaining to his or her living arrangements while attending school, including off-campus living schemes.

Self Perception - How an individual views her or himself in relation to the rest of her or his environment.

Social Environment - Of or related to human society and the interaction of the international and minority student with the other university students and the welfare of these members.

Traditional Student - The majority of higher education students matriculating in colleges and universities in the

United States, 18-22 years old, middle to upper socio-economic status, and a full-time student (Tinto, 1987).

University Concerns - The international and minority students may be confronted with one or more of the following factors that may be a barrier to education:

1. alienation concerns;
2. cultural and ethnic concerns;
3. discrimination concerns;
4. educational environment;
5. negotiating the university system;
6. residential related concerns; and
7. social and community interaction.

CHAPTER II. REVIEW OF THE LITERATURE

The review of literature is divided into two sections. The first section is a review of research pertinent to adjustment problems of international students. The second section is devoted to a review of the research pertinent to ethnic minority student problems attending predominantly white universities.

Studies on International Students

A number of studies have examined the adjustment problems of international students with the intent of finding solutions to them. Burke (1968) conducted a survey of the status and problems of international students in the United States. He found that 36 percent of the international students came from Asian countries, 17 percent from Latin America, 14 percent from the Middle East, 12 percent from Europe, and 11 percent from Canada. The Burke study pointed out that many of the international students attended universities in California or New York, and that the most popular areas of study were engineering, humanities, and natural and physical sciences. The study further showed that most international students faced problems of insecurity about admission procedures, housing discrimination, communication problems, social life,

finances, employment, cultural differences, governmental regulations, and health.

Ohuche (1967) investigated the scholastic factors pertaining to the academic achievement of 1,882 Nigerian students in the United States. Of this number, 1,426 were undergraduates and the rest were graduate students. The following conclusions were drawn from the findings of his study:

1. Previous educational experience, as measured by the grade in the school certificate examinations, of Nigerian undergraduates attending institutions of higher learning in the United States could not be used to predict satisfactorily the academic achievement of such students as measured by their cumulative grade point averages.
2. Nigerian undergraduates who completed the equivalent of the higher school certificate examinations performed better academically than those who did not.

In another study, Zain (1966) investigated the adjustment problems of international students. The study was comprised of 147 international students from 50 countries of the non-English speaking world. The students identified difficulties that were analyzed in terms of background variables such as national origin, duration of stay in the United States, academic classification, age,

sex, previous travel experience, and religion. The study revealed that international students experience academic difficulties which mainly stem from an inability to use the English language.

Hagey (1966) studied the academic and social adjustment of Middle Eastern students attending colleges and universities in the State of Oregon. The primary purpose of the study was to examine the extent to which academic and social adjustment of Middle Eastern students was related to selected factors in the student's past and immediate environment. The sample included 272 students from nine Middle Eastern countries enrolled in colleges and universities in Oregon. Significant differences were found in academic and social adjustment of the students as they related to their past and immediate environment, national origin, and the type of school they attended.

Moghrabi (1966) studied the factors that influenced the degree of success or failure of international students enrolled at Texas A & M University. This study was based on 450 international students enrolled at that institution. The findings revealed that such factors as academic classification, marital status, and competence in the use of the English language were significant in the success or failure of international students. There was, however, no relationship found between academic success, national

origin, and field of study at the graduate level. At the undergraduate level the field of study appeared to be significant. Additionally, financial support received from the family showed a negative relationship with academic success. Other contributing factors related were emotional anxiety, lack of social life on campus, feeling of being placed in the wrong program, and diet offensive to their beliefs.

Wilkening (1965) conducted a study to identify factors associated with adjustment of international students at selected land grant institutions. Eighty students from five institutions participated in the study which revealed that certain special academic adjustment problems were typical of the international student majoring in agriculture education. The investigator pointed out that the American education system, separation from friends and family, use of the English language, and cultural barriers were major adjustment problems. Wilkening concluded that satisfaction with the preparation of study experience, housing, and attitudes toward their graduate study were significant factors in determining personal adjustment of international students.

According to Martindale (1960) adjustment is a state of equilibrium. In fact, the concept of adjustment represents the state of experience that terminates an imbalance or

tension. Given this premise, maladjustment is based on conflict (Coser, 1956). Boddy (1965) reported that foreign students from Africa, the Far East, South Asia, the Middle East, and Latin America face greater problems with adjusting to graduate school than do students from the United Kingdom and Northern Europe whose culture is more similar to the American culture.

Lloyd (1965) observed that language proficiency concerns of international students tends to supersede concern with other areas of academic life. The thinking of international students is dominated by political philosophies and activities in contrast to that of most American students who still regard the university as a center of learning rather than a place of political activity. International students have difficulty in adapting to the freedom of graduate school and the typically American style of informality in relationships between students and professors. In addition, large open-stack libraries in American universities make students rely less upon professors' lectures and more on their own investigation of a situation, requiring tremendous adjustment on the part of foreign students who have depended almost exclusively on lectures to acquire information.

Galichia (1966) reported that foreigners in the United States exhibit four common adjustment patterns. They may remain detached observers, actively promote their own home

cultures, become enthusiastic participants in the new culture, or adjust easily as permanent immigrants.

Americans accept most readily those foreign nationals who have a good command of English, are of higher socio-economic status and from an urban background, and who have had previous informal contact with Americans. Social adjustment is best in a university or community having few foreigners because this setting does not provide opportunities to band together in social isolation. Foreign nationals become active participants in settings where factors that impair smooth adjustment, such as social isolation, racial prejudice, and the informality of most Americans, are minimized. The foreign national's personality is important, with open-mindedness, flexibility, and a predisposition to universalism among the characteristics that aid in the adjustment process.

Inaccessibility of educational opportunities in most of the underdeveloped countries plus class, cultural, and economic handicaps result in students from these areas being members of a small elite group. Yet even in this elite group, the level of undergraduate training is lower than that for Western countries. International students from developing countries face the problem of adapting to a new culture and unfamiliar institutional procedures. For many international graduate students, professions with a high

prestige value are the most popular, and few students enter the basic sciences, social sciences, or the humanities, even though they may be better prepared for these fields.

International students need counseling to enable them to adapt to American universities and to choose the course most suitable to them.

A study was conducted by Santos (1959) to ascertain the problems of seven groups of international students enrolled at Indiana University. The academic, financial, personal, religious, emotional, and social aspects of adjustment to college life were analyzed. The sample was limited to non-English speaking countries in seven geographic areas, namely: Latin America, Europe, Southeast Asia, Southwest Asia, Southern Asia, Central Africa, and North Africa. The following conclusions were drawn: (1) academic, financial, and social problems seemed to give the most trouble to foreign students, and religious and personal problems appeared to cause the least trouble; (2) the seven groups varied widely with regard to general characteristics and to the six problem areas; (3) Christian international students with travel experience appeared to be better adjusted than their counterparts; and (4) the ability to speak English before coming to the United States was not a factor in total adjustment of the students.

In another study, Hill (1963) attempted to identify the problems of 78 international students enrolled at Indiana University. A secondary purpose of the study was to determine if any of the students' problems were related to either their nationality or sex. The students were from India, Indonesia, Pakistan, and Thailand. The six problems investigated included academic, financial, housing, religious, personal, and social concerns.

The results of the study indicated the following: (1) As a group, the Indonesian, Thai, Indian, and Pakistani students experienced substantial difficulties with academic, personal, and financial problems. Of these, the academic problems were the greatest and were largely related to a lack of proficiency in the English language. The students experienced no substantial difficulty with housing, religious, or social adjustment. (2) Women experienced substantially greater difficulties with academic problems than men. (3) Thai students experienced substantially more difficulties with academic problems which involved English proficiency than students from Indonesia, India, or Pakistan. Thai and Indian students experienced substantially greater difficulties in getting acquainted with American educational methods than Indonesian and Pakistani students.

Concerning the language factors of international students, a study was conducted by Spencer and Awe (1967) for the Department of Health, Education and Welfare, Office of Education. It was revealed that although sex, age, and previous education were common variables through the literature on international students, there was an evident emphasis on English language proficiency but with concurrent lack of exploring the native language factor.

The relationship between international students' personal factors and academic achievement was explored in a study by Hattari (1966). The study included 53 international students representing 25 different countries who had studied for at least two years at the University of Nebraska. The personal and social factors included: (1) educational background, (2) English proficiency, (3) past background, (4) scholastic ability, and (5) the ability to establish effective interpersonal relationships on campus. The findings revealed no significant relationship between academic achievement and personal and social variables of foreign students.

Gezi (1967) conducted a study to identify factors associated with students' adjustment in cross cultural contact. The subjects were 62 Middle-Eastern students enrolled in 11 colleges in California. Gezi reported that four factors were significant in the students' adjustment to

the United States. (1) Students who came to the United States with favorable or unfavorable attitudes toward this country tend to reinforce these attitudes. (2) The length of time the students are here is not related to the quality of their adjustment; however, the type and quality of their experiences are related. (3) When international students feel that American students are downgrading their homelands, they become antagonistic, thus making adjustment more difficult. (4) Finally, academic success is closely related to satisfaction with international students' experiences in the United States.

Clark (1963) investigated the cross-cultural academic experience of Ghanaian students in the United States during the 1959-1960 academic year. Academic achievement was defined as the rating of the student on a pass or fail basis by the educational institution attended and academic satisfaction of the student with the academic standing assigned by the institution. Clark sampled Ghanaian students in the United States and the educational institution they were attending. Ninety-eight questionnaires from educational institutions were returned. Seventy-six percent of 190 students who were mailed questionnaires participated in the study. Clark investigated factors selected from the educational background of the Ghanaian students and the characteristics

of the responding students and the educational institutions. Clark discovered that significantly more students were passing who:

1. held government grants than those who did not;
2. attended accredited institutions; and
3. held the equivalent of the advanced level general certificate of education.

In addition, the investigation revealed a significant difference in academic satisfaction between married and unmarried students. Significantly more of the former were satisfied than the latter. Also, students 30 years or older were more satisfied than those under 30.

Miller (1967) conducted a study of African students and their views on the racial attitudes and practices of Americans. A Likert-type scale questionnaire was mailed to 226 students; 130 were returned completed. The questions asked personal and demographic information, as well as factors believed to influence the students' perception of American racial attitudes and practices, such as: 1) previous contact with whites; 2) personal philosophy of life; 3) sources of information on American race relations; 4) impact of direct experiences with segregation in the United States; 5) perception of American attitudes to race relations in Africa; and 6) state of environment.

The results of this investigation disclosed that a) Africans tended to become more disillusioned over race relations in the North than in the South; b) the African student respondents tended to exhibit contempt for what they call "lip service" and "hypocrisy" identified with American racial habits; c) the students believed that Americans treated them better after learning they were not American Blacks; d) the subjects favorably rated democracy; e) the African respondents indicated that Americans are in favor of self-determination, but their policies toward South Africa, Rhodesia/Zimbabwe, and Portuguese Africa do not coincide; f) in many instances the respondents complained that whites pose as advocates of racial justice while doing the exact opposite in everyday life; g) Africans did not see the struggle for racial justice as being limited to the United States and Africa, but instead extended to the world; and h) the African participants indicated that if they had to make a choice regarding host country for study, the United States would still be their selection.

Borhanmanesh (1965) conducted a study of Iranian students in Southern California colleges and universities to determine what factors prompt them to study in the United States, the nature of their American experiences, and the reasons why they intended either to remain abroad or to return home. The findings revealed that students from

lower-class families, those working toward advanced degrees, those longest in the United States, and those dissatisfied with employment opportunities in Iran tend to remain in the United States after graduation. Most students were satisfied with their social experiences in the United States but had some problems with acculturation. Single female students were more dissatisfied with their social life than were single male students.

Ellakany (1970) conducted a study on adjustment of foreign students from developed and developing nations to the American culture. The study was based on a total sample of 70 male foreign students attending Iowa State University during the spring of 1971.

The students answered a questionnaire that contained a scale devised by Noury (1970), which consisted of questions on socio-cultural and demographic background. A third section contained questions regarding patterns of cultural differences, preference for the United States culture, and anticipated difficulties in readjustment upon their return home. The statistical procedure used to test the hypotheses was Kendall's rank-order correlation coefficient, chi-square, gamma, and contingency coefficient.

The study revealed the following: 1) students from developed nations perceive less differences between their home culture and the host culture; 2) students from

developing nations have a higher preference for American culture than do students from developed nations; 3) students from developing nations have greater readjustment problems upon their return home; 4) differences in perceptions of cultural differences, preferences for American culture, and readjustment problems back home did exist between students from the developed and developing nations; and 5) students from developed nations scored as high as students from developing nations on the adjustment index. The researcher suggested that future research in the area of foreign students' adjustment involve more appropriate and precise instruments for research.

Kao (1987) investigated 747 Chinese students enrolled in 10 universities in the metropolitan Washington, D.C. area. The purpose of this study was twofold: (1) to identify Chinese students from Taiwan and mainland China; and (2) to determine if the problems perceived by the two groups differ according to age, sex, and marital status at the time in the United States. The study also attempted to compare the two groups of Chinese students' selection in seeking financial and support sources.

The major findings of the study were that (1) there was no significant difference regarding the total mean scores on the inventory used between the two groups; (2) significant differences were found between the two groups concerning the

mean score in the areas of academic record and financial aid; (3) students from Taiwan perceived the English language and academic records as their most severe problem areas, and religious service was their least concern; (4) students from mainland China reported the English language and financial aid as the greatest problematic areas, while religious service was listed as the least troublesome; (5) there was no significant difference between the two groups with regard to total mean scores on the MISPI based on age, sex, marital status, academic major, and academic level; (6) there was a significant relationship between ranked friends as the most preferred helping sources in solving their perceived problems; and (7) both groups ranked friends as the most preferred helping sources in solving their adjustment problems.

Rad (1986) studied the relationship between selected characteristics of nonnative English-speaking international students. One hundred forty-two participants completed a questionnaire and 10 volunteers from the group were interviewed. Subjects were undergraduate and graduate students from various countries in a large urban university.

The results of the study indicated that personal background and length of stay in the United States had no bearing on academic performance or personal and interpersonal adjustment of the participants. Students with

higher levels of conversational language proficiency were better adjusted in academic areas as were students with less serious academic problems.

The adjustment of African students enrolled at Michigan State University was studied by Okafor (1986). The specific purpose was to examine the extent to which students' adjustment problems were related to their background characteristics. The sample consisted of 210 African students from 12 African countries. Only students from countries represented by more than five students during the spring and summer terms in 1985 were included in the study. A modified version of the Foreign Student Problem Check List and a background information questionnaire were the instruments used.

The results of the analyses indicated that most of the African students at Michigan State University did not experience many serious adjustment problems. However, several cited some very critical problems in some areas of adjustment, while the social, academic, and religious aspects of adjustment gave the least problems. The findings of this study indicated the following: (a) educational background was connected with difficulty in evaluating transferred course credits, having enough money for school tuition and fees, and feeling homesick; (b) length of stay in the United States was related to becoming familiar with

the educational system as well as acquiring a taste for American food; (c) geographic sub-region was associated with difficulty in making foreign currency exchange from the home country; and (d) source of financial support was not related to high cumulative grade point average.

In a case study, Hamonda (1986) investigated the academic and socio-cultural adjustment problems of international students. This study used a triangulation of data to gain an understanding of the academic and socio-cultural adjustment problems experienced by international students. A questionnaire was developed and administered to 194 international students; 64 personal narrative stories were collected.

The study revealed seven categories of academic adjustment problems: (1) advisor-related difficulties; (2) curriculum/program relevance; (3) discrimination; (4) educational system differences; (5) instructor-related difficulties; (6) language proficiency; and (7) university system difficulties.

In an unpublished doctoral dissertation, Mubarak (1984) attempted to identify areas of American culture that cause Kuwaiti students greater difficulty than other Middle Eastern students and those areas most compatible with their beliefs and life style. In order to collect enough information about the areas of difficulty, a sample of 60

students from relatively homogeneous cultural backgrounds participated. The findings of this study showed that the majority of the subjects believed that Kuwaiti culture is very different from American culture. They felt that there are many cultural differences stemming from the family setting. The educational system, sex relationships, religious practices, American family life styles, and race relations were areas which caused Kuwaiti students the most difficulties.

Ramos (1985) conducted a survey of 51 Spanish-speaking international students to determine adjustment problems they faced at the University of Cincinnati. Eight of the surveyed students were also interviewed to illustrate survey results with anecdotes and personal experiences. The predominant adjustment problems discovered in this study stemmed from a lack of familiarity with the English language and a lack of social contact with Americans. Some differences in adjustment problems were attributable to age, length of time in the United States, degree being sought, sex, whether it was a first trip away from home, and how long previous trips away from home had been. Recommendations concerning ways to improve the language training and social integration of international students were suggested.

In an unpublished doctoral dissertation, Vekeh (1985) investigated the written and oral communication difficulties that West African students encountered at the University of Minnesota. The author explored actions these students took to resolve communication problems and attempts to resolve these problems by the University of Minnesota and West African countries. Data were obtained by using 92 forced choice and open-ended questions on general difficulties of international students.

The results indicated that these students encounter more social and personal adjustment problems than academic problems. Students from Francophone (French speaking) African countries encountered more communication problems than those from English-speaking countries. These students also reported that being stereotyped by Americans on and off campus in all aspects of life made communication difficult. Some students took action to resolve communication difficulties. Students from nonEnglish speaking nations faced more problems than those from English speaking ones. They frequently sought help from the following people (in order of preference): (1) student from home country, (2) faculty advisor, (3) international student advisor, (4) counselors.

Edemobi (1986) attempted to identify the social adjustment problems experienced by Nigerian students at a

land-grant university in the United States. A questionnaire of 28 items was sent to a sample of 500 Nigerian students. Of these 500, a usable return of 337 (67.4%) was fulfilled. A factor analysis was applied to 28 items, and six factors were extracted: feelings of discrimination, feelings of adequacy, feelings of belonging, establishment of relationships, feelings of loneliness, and absence of home news.

The major findings were the following: (1) of the 28 problems identified in the questionnaire, 17 problems elicited high concern and 11 areas elicited low concern; (2) undergraduates and students with English language proficiency, no transportation, and longer duration of stay in the United States tended to identify discrimination as a greater problem; (3) those with less English proficiency, no personal transportation, married, and single females living without a spouse or intimate friend tended to identify feelings of belonging as a problem; (4) students with less English proficiency and no personal transportation, females, self-supporting students, those with longer duration of stay in the United States, and undergraduates tended to identify feelings of adequacy as a greater problem; (5) the younger undergraduates, females, and married or single students living without a spouse or intimate friend tended to identify feelings of loneliness as a greater problem; (6)

the older, self-supporting students, undergraduates, and those with a longer duration of stay in the United States tended to identify absence of news from home as a greater problem.

Mtebe (1984) examined adjustment problems perceived by African students and international student advisors. The purpose of the study was to identify and compare perceived hierarchical adjustment rankings by African students with perceived hierarchical rankings by international student advisors.

The data were collected by questionnaire from 296 of the 480 sampled African students and 16 international student advisors of the same institutions and were ranked and computed to generate respective hierarchies of adjustment problems. A subset of 12 items ranked in the top 10 most severe problems by either students or advisors was selected and analyzed.

The major findings indicated that the most severe problem faced by African student respondents was acquiring work permits for off-campus jobs. Other problems ranked in descending order were finding part-time jobs at the university related to their degree program; getting work experience in the field of study before returning home; cultural differences; adjusting to climate; homesickness; having enough money for basic living expenses; sponsorship;

receiving money from the sponsor without delay; and being accepted by social groups.

Eighty percent of the African students and international student advisors were in agreement on the top 10 most severe adjustment problems. The most severe adjustment problems as perceived by African students were English proficiency; understanding lectures; adjusting to housing; academic achievement; participating in class discussion; obtaining housing; academic course work; giving oral reports in class; the examination system; and acquiring a taste for the American menu.

There was a 50 percent agreement between African students and international student advisors concerning the 10 least severe adjustment problems. These items related to racial/social discrimination and were ranked in the middle of the hierarchical rankings by both African students and international student advisors. However, the general agreement between African students and international student advisors tended to underrate the severity of the problems listed by the students.

In a study of the adjustment problems of Malaysian students at Western Michigan State University, Salim (1984) sampled all Malaysian students enrolled at that university. The study attempted to determine if there were significant differences in adjustment problems among respondents in the

numerous variables and subgroups identified. The following demographic and personal data, and patterns of social integration were treated as independent variables: age; sex; marital status; academic classification; setting of home residence; duration of stay in the United States; major field of study; financial sponsorship; entry qualifications; work experience; English language proficiency; frequency of interaction with American students; non-Malaysian foreign students and Malaysian students; participation in activities organized by student organizations or Office of International Student Services; religious services attendance; types of residence; frequency of consulting advisors; and international student counselors or student counselors.

The major findings of the study were as follows: (1) Malaysian students at Western Michigan State University identified financial aid and the English language as the two most serious problem areas with academic advising and records, living and dining, social-personal, health services, orientation services, admission and selection, placement services, student activities, and religious services following respectively; (2) male students and students who worked experienced more problems in the financial aid area; (3) undergraduate students, students from rural backgrounds, government-sponsored students,

students with HSC/MCE entry qualification, students who interact more frequently with other Malaysian students each week, and students who obtained low TOEFL scores were having more difficulties in the English language area; (4) students who interact more frequently with Malaysian students and students who participate in activities organized by Malaysian student organizations and other organizations two or more times a semester reported experiencing more problems in the academic advising and records areas; (5) the involvement of Malaysian students in various activities whether on or off campus was limited and generally, Malaysian students interact more frequently with fellow Malaysians than with Americans or other international students.

Pendar (1987) conducted a study of the adjustment problems of Cameroonian students attending universities in the San Francisco Bay area of Northern California. The sampling procedure entailed surveying a total of 50 Cameroonian students. Statistical analyses of the various data included descriptive statistics, parametric tests, t-tests, one-way ANOVA, and Spearman correlations.

Major conclusions were that (1) Cameroonian students were mostly concerned with financial, social, personal, language, and academic problems; (2) female Cameroonian students aged 26-29 reported having more problems in the

health area than male Cameroonian students; (3) graduate students reported more adjustment problems than undergraduate students; (4) no statistical difference was found among the three work status groups, those working full-time, part-time, or not at all, and in the perception of problems with adjustment to life in the United States; (5) no differences were found among the four groups of Cameroonian students based on the length of stay, marital status, or tribal groups.

Among the major recommendations, scholarship awards by the government of Cameroon for their students to minimize adjustment problems figured prominently. In addition, there should be continuous orientation for international students by American colleges and universities. Future research should reflect cultural descriptions of what Cameroonian students perceive to be their adjustment problems in colleges and universities in the United States.

Khayat (1984) studied the adjustment problems of four groups of Iranian students after the 1978 revolution. The basic premise of this study was that Iranian students are not homogeneous in either their backgrounds or needs; consequently, problems of adjustment would vary according to their political and religious orientation.

A questionnaire was developed and administered through interviews and mailed to 40 American university graduate and

undergraduate students in the spring 1983 and fall 1983 terms. All respondents were volunteers who were on F-1 visas.

The sample was evenly divided into four politically-oriented groups: Islamists, who adhere to the practices of the Muslim religion and are devoted to Khomeini and his government; Mujaheddin, who are pro-Islamic and neither uphold the principles of the Khomeini regime nor strictly adhere to Islam; leftists, who have adopted Marxist or Communist ideologies and view the Revolution as having failed them; and others, who are monarchists and pro-Shah, strongly anti-Khomeini, and oppose the present Islamic republic.

The research approach employed both a descriptive comparison and a case study. The dependent variables were arranged in three categories: social adjustment, economic adjustment, and psychological (stress-related) adjustment. The basic findings showed there were varying degrees of social, emotional, and psychological problems following the revolution among the four student groups.

The Islamists were the most well-adjusted of the four groups while those classified as other were the least well-adjusted. The other two groups, Mujaheddin and leftist, displayed adjustment patterns between these two extremes.

Moss (1985) compared the college adjustment problems of missionary children with those of foreign students. The study compared the degree of loneliness experienced by "missionary kids" with that experienced by Iranian students and American students. Specifically, the study asked two questions: (1) How do "missionary kids" differ from international students? and (2) How do "missionary kids" differ from American students with respect to loneliness.

Analysis of variance was utilized to compare the loneliness scores of missionary children, Iranian students, and American students. The findings indicated no difference in the loneliness scores of Iranian students and "missionary kids", albeit a significant difference was found between loneliness scores of American students and "missionary kids".

In order to compare the college adjustment of missionary children with those of international students, the raw scores of the respondents were converted into percentages. These reflected the number of students in each sample who considered specific areas to be a problem. For the purposes of the study the term "significant" referred to a 10% difference in responses rather than to a statistical difference. On 8 of the 11 subscales of the Michigan International Student Problem Inventory, significantly more

"missionary kids" than international students indicated problems.

The investigator concluded that the findings seem to confirm observations relative to the college adjustment problems and loneliness experienced by "missionary kids" upon their transition to higher education in the United States. This seems to imply a need to provide explicit orientation services for those raised in a third culture setting upon their return to the United States

Summary

All of the many different studies highlighted in this literature review focused on general problems, as well as specific or known problems. Concerns registered by the researchers who polled international students from many geographical areas can be categorized as follows: 1) financial - not having access to securing more financial funds from private, university-wide, and international agencies; 2) social - not being socially accepted by the general university population, being alienated from school activities, and learning the proper behavior; 3) personal - separation from friends and family, making new friends, and emotional anxiety; and 4) academic and language difficulties - communicating in a different language, inability to understand the use of the English language, feeling of being

placed in the wrong academic program, and the pressure of competing in a new environment.

As world interdependence grows through communication, technology transfers, and transportation innovations, students from other cultures, countries, and colors will continue to matriculate in United States colleges and universities. This means that many of the concerns cited should be addressed with more vigor by those in student services personnel in higher education.

Studies on Minority Students

Some studies have been conducted concerning minority students in predominantly white universities. These studies focus on identifying problems that minority students experience while attending these types of institutions. Although much attention has been given to this area of research, little has accurately described typical student problems.

Gibbs (1974) specifically mentioned the increasing African American student population at predominantly white universities and suggested that African American students experience a greater range of problems than do majority student populations. Moreover, she asserted that "the sudden growth of a group of a different racial and cultural background was accompanied by problems of academic, social

and psychological adaptation to the university milieu" (728).

In an article, Wilson and Justiz (1988) commented that the demographics within America's colleges and universities is rapidly changing. This new dilemma has occurred because these institutions of higher learning have brought minority populations to their campuses, but not in numbers comparable to their representation in the greater society. The declining participation of minorities will have severe repercussions for the future.

Miyares et al. (1973) have conducted national surveys of admissions of Black Americans at large universities for entering fall semester classes. The investigators reported that the median percent of Black freshmen in large institutions went from three percent in 1960 to four percent in 1970. In 1970 more predominantly white universities used recommendations, extracurricular activities, and interviews, and fewer used standardized tests and high school grades as predictors of success for all students including Blacks, compared to 1969.

Monitoring the entry of Black and other minority student enrollment in large white universities is particularly important for two reasons. First, the number of Black students entering these universities as freshmen is a barometer of change in the society. It is important to

watch changes in enrollment at large universities since, as a group, they enroll 35 percent of the nation's undergraduates (U.S. Office of Education, 1980). Also, large universities are traditionally white institutions. A second important reason for studying Blacks and other minorities admitted to universities is to examine the predictors used in admitting such students.

Webster et al. (1979a,b) investigated the problems perceived by minority and white students at a university. A stratified random sample of 200 upperclass undergraduate students at the University of Maryland served as the subjects for their study. Students were mailed a 51-item check list developed by Westbrook and Smith (1979a,b) and Westbrook et al. (1977), concerning six areas (typical university concerns, psychological concerns, cultural concerns, sexual concerns, racial concerns, and group living concerns). A rate of 74 percent (N = 148) was achieved (29 American Indians, 30 Asian Americans, 26 Black Americans, 32 white Americans, 8 unspecified). The investigators reported that no differences existed between Black and white students on the perceived concerns. Interestingly, all students regarded academic-vocational issues and negotiating the university system as the biggest problems.

The concept of equal access to higher education together with the rapid acceleration of minority enrollment is

creating a myriad of problems for the university. Many problems arise from the fact that minority students encounter within the microcosm of the university the same problems that they confront in the larger society. In fact, many universities are becoming increasingly sensitized to these issues. The universities' response can be observed in increased specialized services, financial assistance, and academic programs together with vigorous campaigns to recruit professional staff from among the ranks of minority groups. One of the many concepts in developing an understanding of the complex world of Black and Hispanic college students is that of alienation.

In a study to investigate the alienation of Black, white, and Hispanic students, Burbach and Thompson (1971) used a 24-item multidimensional measure which was comprised of three subscales. The subjects selected were from a group of students admitted as incoming freshmen. A total of 725 subjects was selected from Black, white, and Hispanic students. The subjects were 145 Black students, 525 white students, and 55 Hispanic students. The comparison between the two minority groups produced more significant differences on social isolation and general alienation. When Black and white students were compared, the Black students admitted feelings of alienation more than did the white students.

In her book, Blacks in College, Flemming (1984) confirms that predominantly white institutions need to find better ways of creating and fostering a more supportive environment for Black students who attend those schools. From her study, she suggests that, in addition to academics, predominantly white institutions should be conducive in enhancing diverse group participation in campus activities and should encourage more ways for a positive attitude toward academic accomplishments. Also, these institutions should provide a better climate for social interaction, which is most vital. Furthermore, historical Black colleges are better at providing these services than predominantly white institutions.

Smith (1987) attempted to determine whether differences exist between Black, Caucasian, and Hispanic students' range of involvement in academic-related and socio-cultural activities, utilization of support services, and the relationship between involvement, use of service, and satisfaction with the university environment.

Complete data were obtained from 121 Black, 373 Caucasian, and 206 Hispanic students, who constituted the final sample of 700 students. The data were subjected to an analysis of variance and multiple regression analysis procedures.

The results indicated that, overall, undergraduate students were more frequently involved in socio-cultural activities than academically-related support activities. The Black students were more likely involved in both academic-related and socio-cultural activities than their Caucasian and Hispanic counterparts. There were no significant differences between Caucasian and Hispanic students. Of the 11 support services investigated, data indicated a higher frequency of use of the services offered by undergraduate studies, university center, and housing services.

Overall, a positive relationship did exist between the use of support services and satisfaction with socio-cultural activities. Students who utilized the counseling center and special services reported a higher degree of satisfaction with the total university environment. The investigator concluded that Black students had the least opportunities to meet socially.

In a case study, Styles (1969) researched whether comparable freshmen in a predominantly Black university and a predominantly white institution setting reflect similarities or differences upon initial enrollment.

To assess the effects of segregation and desegregation, the investigator used a semantic differential type questionnaire, with questions important to the investigator.

The respondents were 14 females and 8 males from Florida A & M University (FAMU) and 3 females and 10 males from Florida State University (FSU) who were high risk students; and 15 females and 17 males from Florida A & M University and 8 females and 4 male students from Florida State University who were regularly admitted students.

The results of this study are the following:

- 1) The high risk females, regular females, and regular males at FAMU scored higher values than the matched groups at FSU on a) self assurance in relation to adults, b) feeling of belonging, and (c) total personal adjustment, community relation, total social adjustment, and total adjustment.
- 2) The FAMU and FSU high risk males scored with very close range on the preceding areas. The university attended was also a significant factor for both fall and winter academic performance.
- 3) All FAMU groups, when compared with matched FSU groups, possessed higher grade point averages, greater freedom from withdrawal tendencies, better adjustment in family relations, and more acceptable social skills.
- 4) Except for regular males at FAMU, all other groups had notably higher grade point averages during the winter than their matched counterparts at FSU.

The findings indicated that more research in this area would particularly hold significance for the study of Blacks in higher education.

Hair (1986) studied 266 Black American students who entered Western Michigan University during the fall terms of 1983-84 and 1984-85. The purpose of the study was to analyze cognitive and demographic factors which predict academic success at predominantly white colleges. The dependent variable was cumulative college GPA and the independent variables were (a) high school GPA, (b) college assessment tests, (c) sex, (d) type of curriculum enrolled in, (e) remedial course(s) taken, (f) residential experience, (g) location of high school attended, and (h) type of college attended, whether it was a two-year private business, two-year public community college, or public undergraduate/graduate university. The results indicated that the most significant predictor of academic success for Black students was high school GPA.

The phenomenon of declining enrollments of minority students in post secondary education and the declining numbers of enrolled African American students who persist to graduate is regarded by many educators as a problem in American higher education. This problem is felt most keenly by predominantly white institutions where the majority of African American minority students are enrolled. Financial

and academic difficulties are the most frequently cited reasons given by students who do not persist to graduate.

In an unpublished doctoral dissertation, Penn (1987) investigated the relationship between financial aid package characteristics, attitudes, and persistence or non-persistence to graduate of African American students attending a predominantly white selective liberal arts college.

The research design used in this study was an ex-post facto, guided by previous theoretical and empirical findings. The subjects included all Black students who received financial aid, were United States citizens, and enrolled some time during the 1975-76 through 1985-86 academic years at Oberlin College. A total of 427 subjects were included in the study.

The research hypotheses of this study were tested utilizing regression models that reflected the specific research questions asked. The criterion variable in the regression models was persistence for graduation; the predictor factors included measures of aptitude, financial aid package characteristics, and the academic divisions represented by intended major field of study. Twenty specific research hypotheses were examined. The testing of 10 research hypotheses of this study was significant at the .05 level.

Some conclusions drawn from this study suggested that adequate financial aid packaging which emphasized a balance between loans, work-study awards, and grant in aids was significantly related to persistence to graduation for Black students attending predominantly white colleges. Further research was recommended that would utilize the same within-group in a comparative study design on other predominantly white campuses.

Lan (1985) assessed the achievement performance of Hispanic students. Seventeen variables were identified and used to investigate the personal characteristics of two groups of Hispanic students.

The identified variables were drawn from education, psychological, sociological, and organizational literature as well as from professional experience in these fields. They all comprise the theoretical and conceptual background of the study.

Data were collected by a semi-open field observation method. The data were analyzed by the use of a t-test. The variables that appeared as significant characteristics for the Hispanic students with high GPAs were (1) responsibility, (2) internal locus control, (3) straight talk, (4) priority setting, (5) concrete long-term goals, and (6) object orientation. Students with low GPAs scored highly on "powerful other." The investigator converted the variables

to organizational dimensions and presented a series of recommendations to the university with the hope that these findings will help the predominantly white universities to adequately meet the needs of the minority populations in general.

Ramires (1984) examined the environmental perceptions of Mexican-American and Anglo upperclassmen at the University of Nebraská at Omaha. The purpose of this study was to determine if any significant differences existed between the two groups on the seven environmental scales in relation to the independent variables of ethnicity, sex, and grade level.

The instrument used measured the college environment on the dimensions of practicality, community, awareness, propriety, scholarship, campus morale, and quality of teaching/faculty-student relationships.

The population sample for this study was selected from upperclassmen from the colleges of Arts and Sciences, Business Administration, and Public Affairs at the University of Nebraska-Omaha. The white student population was administered the instrument in upper-level classes to ensure the inclusion of upperclassmen only. The Hispanic students eligible to participate (upperclassmen) were sent letters requesting them to complete the questionnaire at the testing center, which yielded a 60 percent return.

A three-way analysis of variance was used to compare responses on the seven scales of the instrument. The findings revealed that (1) Hispanics differed from whites in the positive direction in their perceptions of the University of Nebraska at Omaha environment and (2) when the independent variables of sex, ethnicity, and grade level were introduced, significant differences existed.

In an unpublished doctoral dissertation, Epps (1984) investigated the minority student retention trends in four selected New Jersey colleges and universities. To gain enough data to complete a comparative analysis of student retention rates at two private and public colleges and universities in New Jersey, Epps employed a retention checklist, examining school philosophies, student personnel services programs, curricula, and other retention programs.

The author found that the two private institutions, Seton Hall and St. Peters, had significantly higher minority student retention rates than the two public institutions, Kean College and Jersey City College. Some of the contributing factors to this phenomenon at Seton Hall and St. Peters included a more effective counseling program that utilized faculty with a history of successful work with minority students. The two public institutions were more interested in meeting numerical standards and requirements established by state and federal agencies. Even though

programs among the four schools were similar, implementation was immensely different.

In conclusion, the investigator determined that in order to improve student retention rates, educational planners involved in higher education must develop more sensitive policies and programs that focus on a broad range of problems confronting Blacks at institutions of higher learning. This is in staunch contrast to programs that focus on singular programs such as academic deficiencies or financial problems. The investigator also suggested that the student personnel services utilize the services of outside or external faculty members to supplement the level of retention services made available to Black students.

Ruiz (1987), in his doctoral dissertation study, examined the relationship between college selectivity and other institutional characteristics of Hispanic students in public institutions in the Southwest. The variables used were Hispanic enrollment, graduation rates, and faculty members.

The results reported were as follows: (1) A total of 96,845 Hispanic students was attending the 80 institutions in this region in Fall 1984. That figure represented 9.1% of the total full-time students. (2) A total of 1,559 Hispanics was employed as full-time faculty members. That figure represented 3.5% of the total of full-time faculty

members. (3) Hispanic students received a total of 9,123 bachelor degrees awarded by 80 institutions. (4) There was a negative relationship between the selectivity index of the institution and Hispanic participation. (5) A relationship was found between the presence of bilingual education programs and total Hispanic participation. (6) A relationship was found between Mexican American studies major and Hispanic participation.

Bocanegra (1986) conducted an ethnographic investigation of the self-esteem and occupational aspirations of Hispanic students who have been directly but differently exposed to the American culture and who were actively enrolled at Loop College, an urban community college. Variables selected for the investigation were sex, family socioeconomic status, level of exposure to the United States society, language spoken in public, ethnic identification, and the importance given to a college education. A unique feature of this study was that Hispanic students were compared among themselves according to their time of residence in the continental United States rather than with any other ethnic group.

The results indicated that neither the occupational aspirations or the self-esteem of adult Hispanic students in the study was affected by the different levels of exposure to the continental United States society. However, the

socioeconomic statuses of the Hispanic students in the sample interacting with different levels of exposure to the continental United States society, tended to significantly affect their occupational aspirations. The importance these students attributed to a college education, as a main effect, produced substantial differences on their occupational aspirations. In considering self-esteem, it was found that both the socioeconomic statuses of the Hispanic students, as well as the language spoken in public by these students, produced a moderate degree of association.

Rinnander (1985) attempted to evaluate the Bureau of Indian Affairs Higher Education Assistance Program (HEAP). The Bureau of Indian Affairs (BIA) establishes the legislation and regulations which govern the program, perceptions of BIA, and college financial aid staff. Perceived needs of Indian students were described, using historical, legal, and survey research. A survey of all full-time Indian undergraduates in Los Angeles and Orange counties was made. The survey yielded 162 responses.

The findings indicated that HEAP is a loosely structured program which probably originated with the Indian Reorganization Act of 1934. Some tribes now contract to award their own HEAP grants, but most are still administered by the BIA. The Bureau has many problems, including high

staff turnover, underfunding, and inconsistent direction from Washington, which impacts on HEAP. Part of the Indian community has clamored for BIA-funded counselors to supplement the services available on the campuses; however, study findings indicated that the vast majority of Indian students preferred increased direct funding over augmented services.

The lack of communication between the BIA and the campus financial aid offices is a problem. Over the years, Indians have been denied their fair share of USOE student aid. It took 17 lawsuits, Office of Civil Rights intervention, and a memorandum of understanding to eliminate discrimination against Indians in the awarding of aid. Although the financial aid staff were well acquainted with USOE programs, few had adequate knowledge of the Higher Education Assistance Program.

The survey revealed the typical Indian female student as a single mother, age 28, who lives off campus with her children. HEAP students tended to be from lower social economical status, with higher Indian blood quantum, than other Indian students. Most of the students were from urban centers, and few spoke their tribal languages. Unlike in previous studies, business, computer science, engineering, and the physical and life sciences emerged as popular majors. Almost all planned at least a B.A. and about 40

percent planned graduate work. Parents were supportive of higher education, but lack of finances and poor study habits were common barriers. Somewhat more than half of the respondents felt that they were adequately funded by HEAP, but late checks and rude BIA staff were cited by many as problems.

Belin (1986) examined specific variables within the acculturation process as measured by the Children's Hispanic Background Scale (CHBS) in relationship to specific categories of behavior disorders, acculturation, reading achievement, family income levels, and age for a population of Hispanic American students enrolled in behavior disorder special education classes.

The investigator used the Pearson product-moment correlations coefficient (r) which was used to determine if there were relationships among behavior disorders, acculturation, reading achievement, and family level of income. Forty subjects ranging from 10 to 14 years of age were randomly selected from six classrooms. Subjects were individually rated on the CHBS. Reading scores and family income levels were obtained from each subject's school records.

This study's findings indicate there was no significant correlation between acculturation and behavior disorders. However, individual correlations between the subscales of

the CHBS yielded significant relationships. The major implication of this study is that some Hispanic American students who incorporate behavioral aspects of American culture to the total exclusion of Hispanic culture may have in-school adjustment problems. Hispanic American students who incorporate both cultures simultaneously may experience better in-school adjustment.

Pearson (1984) attempted to determine the effect of institutionally proven peer tutoring on student academic achievement/graduation and retention/persistence at a four year, open admissions university having a preponderance of minority ethnic (Hispanic) students.

Data were obtained from 291 randomly selected freshmen and were analyzed using the chi-square. Descriptive measures appeared for composite ACT scores, cumulative GPA, financial aid, and course grades. Composite ACT scores appear to be as significant as tutoring in attaining academic success. The prototypical tutored student was Hispanic, received financial aid, had slightly below average entering qualifications, continued enrollment two to three semesters after tutoring, completed remedial courses, had a composite ACT score of 11-14, and a cumulative GPA of 2.00 to 2.99. Tutoring per se, did not compensate for academic preparation or reduce the revolving door effect. Open admissions institutions should consider differentiated

enrollment criteria for entering students based on high school quartile and composite ACT scores.

In a doctoral dissertation, Khozam (1986) investigated the area of adjustment of Hispanic students at a predominantly white university. The purpose of the research was to explore the adjustment process of Hispanic students at the University of Florida and determine the degree of their behavioral and value acculturation into the US/American society.

A biographical information sheet and questions developed by various authors were administered to 108 Hispanic students at the University of Florida. Statistical analysis of the data revealed that Hispanic students acculturate behaviorally to the US/American culture but they do not adjust in their values acculturation.

Variables of age, gender, and length of time in the United States were found to be significant factors in behavioral adjustment while socioeconomic status, nationality of the students' friends and roommates, and intent of permanent residence did not affect behavioral acculturation. Younger students acculturated more quickly than older ones, males adjusted faster than females, and individuals who resided in the United States longer incorporated more into American society.

With respect to value acculturation, Hispanic students retained their traditional beliefs of linearity, subjugation to nature, values of present time, an activity orientation, and low endorsement of idealized humanistic values. The investigator strongly recommended that counseling sessions are an invaluable tool in helping such individuals deal with their conflicts.

A study on minority academic and social integration competency by McCurdy (1985) at Bowling Green State University compared and contrasted the extent to which Bowling Green State University undergraduate Black, white, and Hispanic students perceived themselves to be integrated into collegiate life. The investigation also attempted to determine the relationship that race, parental education, gender, academic level, and participation in student development had on measures of academic and social integration. Data were collected during the Spring Semester of 1984 at Bowling Green State University. The sample consisted of 387 white, 197 Black, and 35 Hispanic students.

Descriptive statistics were used as a source of information based on the demographic data that were collected. The procedures for One-Way and Two-Way Analysis of Variance were used to determine if any significant differences existed between the responses of Black, white, and Hispanic students as indicated on the various academic

and social integration subscales. Where the F-ratio indicated appropriate levels of significance, a posttest for significance between any mean values was utilized.

It was found that race was significant on each of the five hypotheses. The analyses revealed that there were significant differences between Black, white, and Hispanic students' perceptions of academic and social integration at Bowling Green State University.

Hawkins (1985) attempted to identify characteristics which effect the prediction of performance by minorities in the State University of New York Agricultural and Technical Colleges' Educational Opportunity Programs and which aid the colleges' administration. The population included 99 subjects in 1979, 104 in 1980, and 84 in 1981. The ethnic breakdown included 231 Blacks, 45 Spanish surname, and 11 Native Americans.

The data were collected by campus visits and receipt of information from the colleges. SUNY verified enrollment, and reports and academic records were analyzed for predictor variables and performance of variables area related to students' success. Selected variables were examined using a multiple regression analysis.

An analysis resulted in the following findings: (1) Few minority disadvantaged students were successful. (2) Spanish surname students experienced the greatest success.

(3) High school grade point average was a positive indicator for success. (4) College major showed a positive relationship to success. (5) Uses of EOP admissions interview showed a relationship to success. (6) Geographical area, sex, age, units of high school mathematics and science, SAT mathematics/verbal, high school diploma type, and years between high school and college were not significant. (7) The best model to predict college grade point average from relevant variables was too poor to be practical.

Based on this study the writer recommended that SUNY review programs for these minority students; the students receive academic advisement from personnel familiar with them; there be an increase in remediation before entering college; recruiters identify students with best chances of success; applicants receive personal interviews so the Educational Opportunity Programs can be strengthened; more should be done to retain and graduate students in these kinds of programs; existing programs need better management; and these colleges need to consider specialized curriculum for these students.

O'Callaghan (1987) compared the entering Black and white freshmen at the Air Force Academy to those at a predominantly white university. Subjects consisted of 122 randomly selected undergraduates at the academy (62 Blacks

and 60 whites) in their freshman and senior years. Data were obtained from a noncognitive questionnaire.

The data were analyzed utilizing the ANOVA technique and t-test. The results indicated that entering Black and white freshman at the Academy were significantly different from their counterparts at the state university. White students at the Academy scored significantly higher (.01) on all seven noncognitive variables than did their civilian counterparts, while Black students at the Academy scored significantly different on six of the seven noncognitive variables. Additionally, a significant difference existed between Black and white seniors on the racism variable. No significant differences were found between Black and white subjects on the locus of control variable. The investigator concluded that no significant differences existed in the selection and admissions process of students at the Air Force Academy.

Coser (1985) delineated how Native Americans' values and cultural factors affected academic achievement of Native American students who attended the University of Arkansas from the fall of 1980 through the spring of 1984. The study consisted of two groups, Native American students and white American students (comparison group), who attended the University of Arkansas.

Data were collected through a survey instrument and information from the Registrar's Office. Chi-square, t-test, and a correlation matrix were used to examine and statistically compare the two groups of Native American students and white American students.

The following findings are based on the data of the study: (1) There was a significant relationship between high school rank and adopting the dominant culture with a correlation coefficient of 0.38 at the .05 level of significance. (2) There was a significant relationship between high school rank and children disciplined by their uncles with a correlation of 0.33 at the .05 level of significance. (3) There was a significant relationship between high school rank and substituting other cultures for the Native American culture with a correlation coefficient of 0.39 at the .05 level of significance. (4) The undergraduate white American students possessed higher cumulative grade point averages (2.73) than undergraduate Native American students (2.34). The data indicated the opposite for grade point averages for graduate students.

The investigator concluded that Native American cultural values do affect academic achievement of Native American students at the secondary level. However, the data also indicated that Native American values did not affect academic achievement at the college level. Undergraduate

Native American students had lower cumulative grade point averages than undergraduate white American students. However, Native American graduate students had higher cumulative grade point averages than their fellow white American classmates.

Abdul-Khabir (1988) surveyed the perceptions that Black alumni had concerning their experiences on a predominantly white college campus. From the University of Akron, 260 Black graduates were randomly selected from the total Black alumni population of 804.

The review of literature regarding Blacks at predominantly white colleges revealed that racial discrimination was the biggest problem confronting these students. A 21-item questionnaire was developed to gather data to determine differences between the gender, college, and year of graduation, and the amount of perceived discrimination.

Three hypotheses were tested at the .05 level of significance: (a) Black female graduates perceive significantly more discrimination than Black male graduates. (b) Black graduates perceive significantly less discrimination in the College of Education than in other colleges. (c) Former graduates (1967-71) perceived significantly more discrimination than recent graduates (1982-86).

One hundred sixty-two (62.3%) responses to the mailed questionnaire revealed that there were no statistically significant differences in the perceptions of the Black alumni at the University of Akron.

The investigator concluded that the perceptions among the Black alumni were evenly distributed regarding their alma mater. Some Black alumni perceived that the university racially discriminates while others perceive that it does not. Additionally, the findings suggest that Black students bring with them to college pre-conditions that influence their perceptions of the college experience in the forms of characteristics, goals, expectations, and preferences. The study concluded by listing recommendations for increased Black faculty, counselors, recruitment of minority students, and a human affairs commission.

Tatum (1984) investigated the degree of "blackness" in Black families that reside in predominantly white communities. She further researched the lack of traditional Black support systems, how these families respond to their social environment, and whether they are able to maintain a sense of family within.

The results revealed that the parents, who were from the Southern states, had traditional Black values in their emphasis on the importance of children, respect for elders, family unity, and mutual support. Additionally, most

families maintained ties with Black churches, relationships with long distance extended family members, and a knowledge of oral family history.

The impact of exposure to racism without the buffer of extended family or Black community on developing social identify was unknown. Moreover, these Black families had little involvement with civic organizations and made little or no use at all of formal community support systems. This study indicates a need for clinicians to reorganize the environmental stress of racism even for successful Black families.

Summary

Throughout this section of the literature review, most studies on ethnic minorities have revealed the same basic theme - that adapting and or adjusting to a predominantly white institution can be very problematic. From the examination of the literature the most commonly found dilemmas among the minority students were as follows: a) alienation and social isolation, b) lack of involvement in academic-related and socio-cultural activities, c) lack of adequate financial aid packages, d) racism on campus, and e) lack of student service programs.

More research is needed on the subject of cultural, academic, and social adjustments of minority students attending predominantly white institutions. Student

services personnel need to better address their concerns particularly since the minority population of the United States continues to increase.

Overview of Literature

The review of the literature fails to provide a configuration of concerted and coordinated efforts to study the problems of international and minority students at predominantly white universities. The studies cited identify the concerns of international and minority students with almost no follow-up to their improvement.

The literature reveals certain common concerns of international and minority students attending predominantly white universities (See Figure 2). Therefore, the need for a systematic, well coordinated investigation of these concerns cannot be overemphasized. The present investigator has endeavored to find answers to certain questions from the responses of international and minority students attending predominantly white universities. The review of the literature provided the researcher with greater insights into previous research designs, analyses, findings, and needed areas of further research.

Type of Difficulty	International Students	Minority Students
1. Pressure of competing in new environment	X	X
2. Difficulty in making new friends	X	
3. Inability to comprehend the English language	X	
4. Learning appropriate behavior	X	
5. Separation from family and friends	X	X
6. Racism on campus and within the university environment		X
7. Lack of financial aid	X	X
8. Lack of involvement in academic related activities	X	X
9. Lack of involvement in social/cultural activities	X	X

Figure 2. Comparison of findings from literature review

CHAPTER III. PROCEDURE AND DESIGN OF THE STUDY

The methods and procedures that were employed in conducting the study are described in this chapter under the following subheadings: (1) Design of the Study, (2) Population and Sample, (3) Instrumentation, (4) Selection of Scale, (5) Pilot Study, and (6) Analysis of Data.

Design of the Study

The design for this study falls into the category of descriptive research. Descriptive research involves collecting data to test hypotheses or answer questions concerning the current status of a study. A descriptive study determines and reports the way things are (Gay, 1981). According to Slavin (1984), descriptive research utilizes surveys and other self-reported data in order to describe particular phenomena as they exist, rather than attempting to manipulate variables. He further points out that questionnaires are typically used in descriptive research in order to ascertain ideals and/or perceptions of interest to the research. For the purpose of this study, the questionnaire was adopted because it would reach more students quickly and at a relatively low cost.

Population and Sample

The population for this study consists of international and minority graduate and undergraduate students enrolled at

Iowa State University during the Fall 1989 semester. At the time of the survey, the Office of International Services reported that there were 2,400 international students and the Office of Minority Student Affairs indicated that approximately 890 minority students registered during the Fall 1989 semester. A current alpha list of these individuals and their respective residences was obtained from both the Office of International Services and the Office of Minority Students Affairs.

A simple sampling technique was employed to develop the sample. Each name appearing on the lists was given a consecutive number. A table of random numbers was used to generate random three-digit numbers. These numbers were then matched with the number and corresponding individuals on the mailing lists. After considering the characteristics of international students enrolled in consultation with Iowa State University sampling personnel, a mailing of 500 was considered sufficient in order to attain an adequate return of 250. According to Van Dalen (1979), a sample size of 10 to 20 percent of a population is sufficient for descriptive research.

Instrumentation

The instrument for this study was divided into two sections. Section one consisted of a personal data sheet that was designed to gather basic demographic data

concerning the variables most often cited in the literature on college students: age, ethnic background, classification, years in the United States, years at the institution, and national origin (see Appendix C).

Section two consisted of a questionnaire adapted from the Webster, Sedlacek and Miyares Inventory (1979a,b) and other questions of interest to the investigator. The questionnaire consisted of 48 items covering seven areas: (a) alienation concerns; (b) educational environment; (c) social and community concerns; (d) discrimination concerns; (e) resident related concerns; (f) cultural and ethnic concerns, and (g) negotiating the university system concerns (see Appendix C). The questionnaire included a Likert-type scale ranging from one to five with a negative side of each item being marked one and two, a neutral score being three, and a positive score being four and five. A high score indicates high positive concerns. The subjects were directed to indicate their perception of each statement by checking the number which corresponds to either "not a problem," "hardly a problem," "somewhat a problem," "quite a problem," or "very much a problem." The reliability of the questionnaire was computed to be $r = .82$.

Selection of Scale

The five-point Likert-type scale was used for this study because it seemed most appropriate. It is the belief of the

investigator that it is easier for students to conceptualize when responding to questionnaire items with a moderate interval scale. Liu (1971) infers that the number of units in a measurement scale depends on the well defined traits and individual backgrounds present in the population. The literature indicates that traits which are well defined and individuals (such as college students who are not a part of the majority student population) who have similar backgrounds are allowed the use of fewer units in the measurement scale (Tillery, 1989).

Pilot Study

A preliminary trial of the research measure and techniques was conducted in order to establish internal consistency since several items were never constituted in a whole test previously. The pilot test also served the purposes of improving data collection, coding, and scoring techniques.

The instrument was validated during the Fall 1989 semester by a committee of experts to determine the content validity. The committee of experts consisted of teachers, counselors, and student affair coordinators. Expert opinions regarding the questionnaire design included the following:

1. The questionnaire provided ease in surveying large groups of subjects.

2. The questions asked on the questionnaire appeared to be adequate and appropriate for the study.
3. A previous question does not bias the next question, nor any succeeding ones.
4. The questions appeared to be clear, specific, and direct.
5. The questions were not too repetitious.

Even though Borg and Gall (1979) contended that it is rarely necessary to include more than 20 subjects when conducting a pilot study, 41 international and minority students who were currently enrolled in Iowa State University were administered the instrument and asked to complete it in two classes within the College of Education. The alpha coefficient was computed for the group at .87. The reliability statistics were regarded as acceptable. It was decided that the students used in the pilot test could also be included in the main testing with no fear of test-retest bias.

The questionnaires were coded with three numbers placed on the front panel of the questionnaire to identify non-respondents. The questionnaires were then mailed to the potential respondents on November 15, 1989. The subjects were instructed in the cover letter to complete the questionnaire and return it within seven days (see Appendix B). Those individuals who did not respond by the expected

date were again reminded of the importance of the study and their participation by being sent a follow-up letter and a second questionnaire. As further indicated on the cover letter, whenever necessary a third follow-up procedure was enacted via telephone.

Analysis of Data

The demographic data of the students were analyzed using descriptive statistics. The student responses concerning (a) alienation concerns; (b) educational environment; (c) social and community concerns; (d) discrimination concerns; (e) residence-related concerns; (f) cultural and ethnic concerns, and (g) negotiating the university system concerns were analyzed by means of an analysis of variance. The Scheffe Range Test, which allows for the comparison of a range of means, was employed to determine specific significant mean differences.

The design of the study included testing the statistical hypotheses at the .05 level of significance for the means for (a) alienation concerns; (b) educational environment; (c) social and community concerns; (d) discrimination concerns; (e) residence-related concerns; (f) cultural and ethnic concerns, and (g) negotiating the university system concerns. The hypotheses tested were as follows:

1. There will be no significant difference between the perceived alienation concerns of the international and

minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.

2. There will be no significant difference between the perceived cultural and ethnic concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.
3. There will be no significant difference between the perceived discrimination concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.
4. There will be no significant difference between the perceived educational environment concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.
5. There will be no significant difference between the perceived social and community concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA,

classification, and national origin are used as variables.

6. There will be no significant difference between the perceived residence related concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.
7. There will be no significant difference between the perceived negotiation of the system concerns of the international and minority students when age, sex, ethnicity, enrollment, length of stay in the USA, classification, and national origin are used as variables.

CHAPTER IV. FINDINGS, RESULTS, AND DISCUSSION

The data were compiled from a questionnaire submitted by 253 students attending Iowa State University during the 1989 Fall semester. Of the 253 respondents, 162 or 64 percent were male and 91 or 36 percent were female. The return rate was 50.6 percent. According to Van Dalen (1979) a return rate of 50 percent should suffice for a mail survey.

The organization of this chapter follows the scope of the questionnaire and contains the following major sub-headings: (1) personal characteristics, (2) alienation concerns, (3) cultural and ethnic concerns, (4) discrimination concerns, (5) educational concerns, (6) social and community concerns, (7) residence-related concerns, and (8) negotiating the system.

The purpose of this study was to compare the perceived concerns of international and minority students at Iowa State University. More specifically, the purpose of this study was to compare the perceived concerns of Asian, African-American, Native American, Caucasian, Hispanic, and other international students at Iowa State University. A stratified random sample of 500 undergraduate and graduate students enrolled at Iowa State University during the 1989 Fall semester was mailed a 56-item questionnaire adapted from the Westbrook, Miyares and Roberts study (1978) and other questions developed by the principal investigator

which covered typical university concerns. Six independent raters judged the items from this study to be representative of concerns of students. A reliability was calculated at .82.

Personal Characteristics

The data were analyzed using descriptive statistics and the analysis of variance. The Scheffe Multiple Range Test was employed to ascertain mean differences. Table 1 contains the personal characteristics of the 253 international and minority students.

As shown in Table 1, approximately 40 percent or 102 students were in the 20-25 age group category. Of the 253 students, nearly 64 percent or 162 were male students. The ethnic backgrounds consisted of Asian (32 percent), Black (39 percent), Caucasian (15 percent), Hispanic (10 percent), Native American (2 percent), and others (2 percent). About 60 percent or 153 of the 253 students had been enrolled at Iowa State University between one and four years. The majority or 56 percent of the 253 students indicated graduate as their classification while approximately 40 percent or 100 students had a length of stay of one to four years in the United States. The sample included 81 students from the United States, while the same number, 81 or 32 percent were from Asia.

Table 1. Personal characteristics of students: age, sex, ethnicity, years enrolled at Iowa State University, and length of stay in the USA

Demographical Variables	N	Percent
<u>Age Group</u>		
19 and under	22	8.70
20 - 25	102	33.92
26 - 30	65	26.07
31 - 35	31	12.25
36 - 40	28	11.17
41 - 45	2	.79
46 - 50	3	1.19
<u>Sex</u>		
Female	91	32.02
Male	162	64.97
<u>Ethnicity</u>		
Asian	81	32.02
Black	98	15.02
Caucasian	38	15.02
Hispanic	25	9.88
Native American	6	2.37
Others	5	1.97
<u>Years enrolled at Iowa State</u>		
1 year or less	54	21.34
1 - 4 years	151	59.68
5 - 7 years	33	13.04
Over 8 years	13	5.94
<u>Classification</u>		
Freshman	26	10.28
Sophomore	16	6.32
Junior	26	10.28
Senior	43	17.00
Graduate Student	142	56.12
<u>Length of Stay in the USA</u>		
1 or less	25	9.28
1 - 4 years	100	39.53
5 - 7 years	38	15.02
8 years and over	13	5.93
USA citizens	75	29.64

Table 1. Continued

Demographical Variables	N	Percent
<u>Geographical Areas</u>		
United States	81	32.02
Asia	81	32.02
Africa	48	18.97
Middle East	17	6.72
Caribbean	5	1.97
Europe	14	5.53
Latin America	7	2.77

Alienation Concerns

The design of this study focused on seven hypotheses which were stated in the null form. Hypothesis one: there will be no significant difference between international and minority students' alienation concerns when age, sex, ethnicity, years enrolled at the university, classification, length of stay in the USA, and geographical area are considered as variables. The means and standard deviations for the students' alienation concerns appear in Table 2.

As shown in Table 2, the mean scores on the alienation concerns for age groups indicate that older age groups had a higher alienation score than the younger students. The mean score for females on alienation concerns was 8.77 while the males scored 8.66. Among the ethnic backgrounds, the students who had been enrolled at Iowa State University

Table 2. Means and standard deviations of international and minority students' alienation concerns

Demographical Variables	N	Mean Score	Standard Deviation
<u>Age Group</u>			
19 and under	22	8.59	2.13
20 - 25	102	8.48	2.51
26 - 30	65	8.72	2.77
31 - 35	31	9.29	2.66
36 - 40	28	8.64	2.21
41 - 45	2	8.00	1.01
46 - 50	3	10.33	2.52
<u>Sex</u>			
Female	91	8.77	2.31
Male	162	8.66	2.60
<u>Ethnicity</u>			
Asian	81	8.77	2.49
Black	98	8.98	2.67
Caucasian	38	8.11	2.39
Hispanic	25	8.52	2.40
Native American	6	8.33	1.51
Others	5	8.20	2.77
<u>Years enrolled at Iowa State</u>			
1 year or less	54	8.83	2.21
1 - 4 years	153	8.84	2.65
5 - 7 years	33	8.15	2.45
Over 8 years	15	7.75	2.38
<u>Classification</u>			
Freshman	26	8.43	2.24
Sophomore	16	7.88	2.45
Junior	26	7.88	1.97
Senior	43	8.60	2.77
Graduate	142	8.97	2.54
<u>Length of Stay in the USA</u>			
1 or less	25	8.20	2.24
1 - 4 years	100	9.40	2.45
5 - 7 years	38	8.13	2.69
8 years and over	13	8.13	2.77
USA citizens	75	8.38	2.44

Table 2. Continued

Demographical Variables	N	Mean Score	Standard Deviation
<u>Geographical Areas</u>			
United States	81	8.27	2.53
Asia	81	9.16	2.41
Africa	48	9.06	2.63
Middle East	17	8.29	2.85
Caribbean	5	10.40	2.88
Europe	14	8.27	2.39
Latin America	7	8.53	2.37

between one and four years achieved a mean score of 8.84. Students who had lived in the United States between one year and four years achieved a mean score of 9.40. Students who lived in the Caribbean areas had a mean score of 10.40 on the variable of alienation concerns.

In an effort to ascertain whether there were significant differences between international and minority students' alienation concerns when age, sex, ethnicity, number of years enrolled at Iowa State University, classification, length of stay, and geographical areas as variables, an analysis of variance was computed. The results of this analysis are displayed in Table 3.

It was hypothesized that there would be no significant difference between the mean scores of the international and minority students' alienation concerns when age, sex,

Table 3. Analysis of variance of students' alienation concerns by age, sex, ethnicity, years enrolled at ISU, classification, length of stay, and geographical areas

Source of variation	df	SS	MS	F-ratio	Prob
Age Group	5	25.23	4.21	.65	.6891
Sex	1	.72	.72	.11	.7346
Ethnicity	5	23.33	4.67	.73	.6044
Years Enrolled	3	108.61	36.20	5.23	.0100**
Classification	4	41.63	10.41	1.64	.1641
Length of Stay	4	79.58	19.90	3.23	.0133*
Geographical Areas	6	57.72	9.62	1.51	.1753

*Significant at the .05 level of confidence.

**Significant beyond the .01 level of confidence.

ethnicity, years enrolled at Iowa State University (ISU), classification, length of stay in the USA and geographical areas are the variables. The data in Table 3 revealed that a significant difference exists between the mean scores of the international and minority students on alienation concerns when the number of years enrolled at Iowa State University and length of stay in the United States are considered. The F-ratios of 5.23 and 3.23 were significant at .01 and .05 levels of confidence respectively. No

differences existed between the international and minority students' alienation concerns when age groups, sex, ethnicity, classification, and geographical areas were considered.

Cultural and Ethnic Concerns

To determine whether significant differences exist between the international and minority students' mean scores on cultural and ethnic concerns, the analysis of variance was computed. The results of this analysis are in Tables 4 and 5.

The data in Table 4 reveal that students in the 26-30 age group achieved a mean of 24.68. The female students had a mean score of 24.33. Among the different ethnic groups, Blacks had a mean score of 25.23. Although the Native Americans had a mean score of 21.67, the variability among the group was apparent. Students who had enrolled at Iowa State University over eight years achieved a mean score of 26.20 on cultural and ethnic concerns. Results indicate that students who were juniors had a greater mean score than freshmen, sophomores, seniors, and graduates on cultural and ethnic concerns, whereas, students who lived in the United States over eight years had a greater mean score than those who were citizens. Students from the Caribbean region achieved a higher mean score on cultural and ethnic concerns than students from other geographical areas in the study.

Table 4. Means and standard deviations of international and minority students' cultural and ethnic concerns

Demographical Variables	N	Mean Score	Standard Deviation
<u>Age Group</u>			
19 and under	22	20.05	5.04
20 - 25	102	23.47	6.67
26 - 30	65	24.68	7.50
31 - 35	31	23.61	5.63
36 - 40	28	23.93	5.31
41 & up	5	21.50	.71
<u>Sex</u>			
Female	91	24.33	6.12
Male	162	22.97	6.74
<u>Ethnicity</u>			
Asian	81	22.47	5.71
Black	98	25.23	6.34
Caucasian	38	22.63	7.76
Hispanic	25	22.48	5.27
Native American	6	21.67	10.60
Others	5	19.00	9.11
<u>Years enrolled at Iowa State</u>			
1 year or less	54	21.44	6.69
1 - 4 years	153	23.86	6.66
5 - 7 years	33	23.64	5.98
Over 8 years	13	26.58	6.32
<u>Classification</u>			
Freshman	26	21.39	6.69
Sophomore	16	22.94	6.37
Junior	26	25.12	7.02
Senior	43	22.79	6.25
Graduate	142	23.38	6.32
<u>Length of Stay in the USA</u>			
1 or less	25	19.60	6.58
1 - 4 years	100	22.89	5.39
5 - 7 years	38	24.13	6.82
8 years and over	13	26.20	8.31
USA citizens	75	24.79	6.92

Table 4. Continued

Demographical Variables	N	Mean Score	Standard Deviation
<u>Geographical Areas</u>			
United States	81	24.86	7.43
Asia	81	22.23	5.35
Africa	48	24.14	5.92
Middle East	17	21.76	7.01
Caribbean	5	27.60	6.47
Europe	14	19.00	7.65
Latin America	7	23.53	4.95

Table 5. Analysis of variance of cultural and ethnic concerns by age, sex, ethnicity, number of years enrolled at ISU, classification, length of stay, and geographical areas

Source of Variation	df	SS	MS	F-ratio	Prob
Age Group	5	365.95	73.19	1.73	.1282
Sex	1	105.54	105.54	2.47	.1130
Ethnicity	5	551.15	110.23	2.65	.0235*
Years Enrolled	3	73.13	24.38	.55	.0100**
Classification	4	183.06	45.76	1.10	.3559
Length of Stay	4	664.30	166.07	4.06	.0037**
Geographical Areas	6	686.83	114.47	2.79	.0121*

*Significant at the .05 level of confidence.

**Significant beyond the .01 level of confidence.

To determine whether significant differences existed between the international and minority students' mean scores on cultural and ethnic concerns, a one-way ANOVA was computed. The results of this computation are summarized in Table 5.

The hypothesis that there is no difference between the cultural and ethnic concerns of international and minority students when age, sex, years enrolled at Iowa State University, and classification are considered was accepted with a confidence interval at the .05 level. However, the hypothesis that there is no difference between cultural and ethnic concerns of international and minority students when ethnicity, length of stay in the United States, and geographical areas are considered was rejected with a confidence level at .05. The F-ratios of 2.65 and 2.79 were significant at the .05 level of confidence. The Scheffe multiple comparisons indicated that the mean scores of 25.23, 22.67, 22.63, 22.48 and 22.47 were significantly different from the mean score of 19.00. Moreover, a Scheffe comparison of mean scores 26, 20, 24.79 and 24.79 were significantly different from the other mean scores of the students' length of stay in the United States. Students who stayed in the United States over eight years achieved high scores on cultural and ethnic concerns. This analysis

revealed results of significant difference at .01 level of confidence.

Discrimination Concerns

To test the hypothesis that no significant difference exists between the international and minority students' mean scores on discrimination concerns when age, sex, ethnicity, number of years enrolled at Iowa State University, classification, length of stay in the USA, and geographical areas are considered, a one way ANOVA was computed and the results are reported in Tables 6 and 7.

Shown in Table 6 are the mean scores for the demographical variable of the students' discrimination concerns. It is of particular interest that high mean scores did exist among age groups and between genders. The interpretation of the mean scores 12 to 15 would indicate "somewhat a problem" with discrimination concerns at Iowa State University. Among the ethnic backgrounds, Caucasian students achieved a mean score of 14.05. The score of 14.05 was interpreted to mean that the Caucasian students viewed discrimination on the campus as somewhat of a problem. A further examination of the Caucasian-students-scored questionnaire would indicate that many of the students had comments concerning language barriers in the classroom and other problems stemming from interactions with university professors and other staff.

Table 6. Means and standard deviations of international and minority students' discrimination concerns

Demographical Variables	N	Mean Score	Standard Deviation
<u>Age Group</u>			
19 and under	22	10.68	4.37
20 - 25	102	12.44	4.93
26 - 30	65	12.25	4.07
31 - 35	31	13.29	5.11
36 - 40	28	12.39	4.54
41 - 45	2	12.50	1.71
46 - 50	3	12.67	6.66
<u>Sex</u>			
Female	91	12.14	4.46
Male	162	12.57	4.78
<u>Ethnicity</u>			
Asian	81	11.72	4.39
Black	98	10.81	4.95
Caucasian	38	14.05	4.25
Hispanic	25	11.00	4.71
Native American	6	8.50	4.46
Others	5	12.20	3.19
<u>Years enrolled at Iowa State</u>			
1 year or less	54	10.72	4.72
1 - 4 years	153	12.59	4.51
5 - 7 years	33	13.70	5.21
Over 8 years	15	12.58	2.84
<u>Classification</u>			
Freshman	26	10.83	4.74
Sophomore	16	13.44	5.32
Junior	26	12.85	4.69
Senior	43	13.09	4.64
Graduate	142	11.96	4.51
<u>Length of Stay in the USA</u>			
1 or less	25	9.76	5.55
1 - 4 years	100	11.44	4.12
5 - 7 years	38	13.45	4.88
8 years and over	13	14.53	3.56
USA citizens	75	13.27	4.61

Table 6. Continued

Demographical Variables	N	Mean Score	Standard Deviation
<u>Geographical Areas</u>			
United States	81	13.62	4.45
Asia	81	11.29	4.25
Africa	48	12.94	4.10
Middle East	17	12.65	5.02
Caribbean	5	15.00	3.00
Europe	14	7.00	3.11
Latin America	7	12.00	5.21

Table 7. Analysis of variance of discrimination concerns by age, sex, ethnicity, number of years enrolled at Iowa State University, classification, length of stay, and geographical areas

Source of Variation	df	SS	MS	F-ratio	Prob
Age Group	5	90.05	18.01	.84	.5267
Sex	1	10.29	10.29	.47	.4996
Ethnicity	5	535.66	107.13	5.43	.01**
Years Enrolled	3	190.15	63.38	2.99	.05*
Classification	4	120.41	30.10	1.41	.2309
Length of Stay	4	419.04	104.76	5.16	.01**
Geographical Areas	6	651.76	108.63	5.78	.01**

*Significant at the .05 level of confidence.

**Significant beyond the .01 level of the confidence.

Native Americans achieved a score of 8.50 which was interpreted to mean that discrimination at Iowa State University is not a problem for this group of students. All students surveyed in this study had a mean of 13.70. This could be interpreted to mean that the longer that students stayed at Iowa State University, the more discrimination concerns appeared to be somewhat of a problem. Sophomores had a mean score of 13.44. Students who lived in the United States over eight years achieved a mean score of 14.53, and students from the Caribbean region had a mean score of 15.00 on discrimination at the university.

Overall, the mean score of the international and minority students indicated somewhat of a problem existed with discrimination concerns at Iowa State University. In an effort to determine whether significant differences exist between the mean scores of the international and minority students, a one-way analysis of variance was computed and the results are reported in Table 7.

As shown in Table 7, there was no significant difference between the age, sex, and classification of the international and minority students' mean score. However, significant differences were found between the international and minority students' mean scores in ethnicity, years enrolled at Iowa State University, length of stay in the USA, and geographical areas. An analysis of the means by

the Scheffe' Multiple Range Test revealed that the Caucasian students had an extremely high mean score which accounted for the mean difference among the ethnic groups. In fact, the F-ratio of 5.43 reveals a significant difference in discrimination between mean scores regarding ethnicity. The F-ratio 2.99 was significant at the .05 level of confidence regarding number of years enrolled at Iowa State University.

Further analysis of the mean scores revealed that the length of stay and geographical areas were also significant at the .01 level of confidence. The Scheffe' Test revealed that the mean scores of students who lived in the United States over eight years, particularly students from the Caribbean region, were also high. An inspection of mean scores reveals "somewhat of a problem" with discrimination at the university.

Educational Concerns

To test the hypothesis that no significant difference exists between the international and minority students' mean scores on educational concerns, an ANOVA was computed. The results of this analysis are shown in Tables 8 and 9.

The mean score inspection in Table 8 reveals that age group 19 and under achieved a score of 24.50. This score would be interpreted to mean that the educational environment at Iowa State University is hardly a problem. Likewise, the results of the analysis for the variables of

Table 8. Means and standard deviations of international and minority students' educational concerns

Demographical Variables	N	Mean Score	Standard Deviation
<u>Age Group</u>			
19 and under	22	24.50	6.64
20 - 25	102	21.76	6.95
26 - 30	65	20.25	7.36
31 - 35	31	21.87	5.32
36 - 40	28	21.93	7.13
41 - 45	2	22.50	.71
46 - 50	3	21.47	2.19
<u>Sex</u>			
Female	91	21.99	6.51
Male	162	21.32	6.91
<u>Ethnicity</u>			
Asian	81	21.20	5.91
Black	98	22.69	6.70
Caucasian	38	18.79	7.92
Hispanic	25	24.12	7.15
Native American	6	22.17	7.65
Others	5	15.40	6.77
<u>Years enrolled at Iowa State</u>			
1 year or less	54	20.94	6.99
1 - 4 years	153	21.62	6.58
5 - 7 years	33	22.42	8.75
Over 8 years	13	22.42	7.64
<u>Classification</u>			
Freshman	26	23.35	6.74
Sophomore	16	25.35	9.02
Junior	26	24.50	5.49
Senior	43	20.47	6.23
Graduate	142	20.50	6.83
<u>Length of Stay in the USA</u>			
1 or less	25	17.16	6.88
1 - 4 years	100	21.40	5.95
5 - 7 years	38	21.05	7.29
8 years and over	13	19.33	8.29
USA citizens	75	24.26	6.63

Table 8. Continued

Demographical Variables	N	Mean Score	Standard Deviation
<u>Geographical Areas</u>			
United States	81	23.32	7.70
Asia	81	21.20	5.17
Africa	48	20.57	6.88
Middle East	17	21.65	7.61
Caribbean	5	23.20	5.40
Europe	14	14.57	4.89
Latin America	7	23.29	6.78

Table 9. Analysis of variance of educational concerns by age, sex, ethnicity, number of years enrolled at ISU, classification, length of stay, and geographical areas

Source of Variation	df	SS	MS	F-ratio	Prob
Age Group	5	313.20	62.64	1.33	.2506
Sex	1	25.42	25.42	.55	.4649
Ethnicity	5	781.56	156.81	3.46	.0052*
Years Enrolled	3	44.89	14.96	.31	.8199
Classification	4	740.79	185.20	4.06	.0037**
Length of Stay	4	1101.64	275.41	6.32	.0002**
Geographical Areas	6	1035.76	172.63	3.89	.0013*

*Significant at the .05 level of confidence.

**Significant beyond the .01 level of the confidence.

females, males, and the ethnic backgrounds of the students indicated that the educational environment at the university was "not a problem."

A further inspection of the number of years enrolled at Iowa State University, classification, length of stay in the USA, and geographical areas indicated that the educational environment at Iowa State University was "not a problem."

To determine whether a significant difference exists between the international and minority students when age, sex, ethnicity, years enrolled at ISU, classification, length of stay in the United States are variables, a one-way analysis of variance was computed. The results of the analysis are reported in Table 9.

As shown in Table 9, no significant mean differences were found between the students' age groups, sex, and number of years enrolled at Iowa State University. However, the comparison of mean scores between the international and minority students on educational environment concerns when ethnicity, classification, length of stay in the United States, and geographical areas were analyzed revealed significant results.

As indicated in Table 9, a F-value of 3.46 for ethnicity exceeded the .05 level of confidence. The Scheffe' Test was computed and the mean scores of Hispanics (24.12), Blacks (22.69), Asians (21.20), and Native Americans (22.17) were

significantly different. This was interpreted to mean that each of the included ethnic groups indicated "somewhat a problem" with the educational environment at ISU. A further analysis of the educational environment was computed using classification, length of stay in the United States, and geographical areas as variables. This computation yielded F-ratios of 4.06, 6.32, and 3.89 which were significant at the .01 level of confidence.

The Scheffe' Test revealed that students classified as sophomores (25.35) and juniors (24.50) had means that were significantly different at the .01 level of confidence from the other reported means among the students' classifications.

The mean scores that were significantly different in Table 9 were the length of stay in the United States and geographical areas. The F-ratio of 6.32 and 3.89 exceeded the table values at the .01 level of confidence. The Scheffe' Test had a mean score that was significantly different.

The interpretation of this 6.32 F-value would indicate that mean differences were apparent with students from the United States (23.32), Caribbean (23.20), and Latin American (23.29). The interpretation of this analysis would suggest that these students from the above geographical areas

perceived that the educational environment is "somewhat of a problem" at the university.

Social and Community Concerns

To test the hypothesis that there will be no significant difference between international and minority students' social and community concerns when age, sex, ethnicity, years enrolled at ISU, classification, length of stay in the USA, and the geographical areas are compared, a one-way ANOVA was computed. The results of this computation have been compiled in Tables 10 and 11.

Indicated in Table 10 are the means and standard deviations for demographical variables. Students in the 31-35 age group achieved a mean of 16.65. This was interpreted to mean that social and community interactions concerns were "somewhat of a problem" for this age group. The females had a mean score of 15.73 and the males' mean score was 15.88. An analysis of the ethnic backgrounds of students indicated a 17.10 mean score for the Asians and a 12.00 mean score for the Native Americans. Students who enrolled at Iowa State University between one and four years had a mean score of 16.45 on social and community interaction concerns.

A further inspection of Table 10 revealed that the freshmen achieved a mean score of 16.72. This score was interpreted to mean that freshmen had "somewhat of a

Table 10. Means and standard deviations of international and minority students' social and community concerns

Demographical Variables	N	Mean Score	Standard Deviations
<u>Age Group</u>			
19 and under	22	16.59	6.05
20-25	102	15.79	5.18
26-30	65	15.70	5.23
31-35	31	16.65	6.77
36-40	28	15.68	5.65
41-45	2	12.50	.71
46-50	3	11.47	5.51
<u>Sex</u>			
Female	91	15.73	5.67
Male	162	15.88	5.46
<u>Ethnicity</u>			
Asian	81	17.10	5.43
Black	98	13.24	3.79
Caucasian	38	16.31	5.42
Hispanic	25	15.24	6.56
Native American	6	12.00	6.69
Others	5	14.20	4.97
<u>Years enrolled at Iowa State</u>			
1 year or less	54	15.09	5.45
1-4 years	153	16.45	5.63
5-7 years	33	14.52	4.76
Over 8 years	13	15.67	5.73
<u>Classification</u>			
Freshman	26	16.42	6.62
Sophomore	16	16.63	5.08
Junior	26	16.19	5.62
Senior	43	14.72	4.63
Graduate	142	15.84	5.56
<u>Length of Stay in the USA</u>			
1 or less	25	14.54	4.85
1-4 years	100	16.33	5.28
5-7 years	38	14.42	5.91
8 years and over	13	16.33	4.93
USA citizens	75	15.99	5.74

Table 10. Continued

Demographical Variables	N	Mean Score	Standard Deviations
<u>Geographical Areas</u>			
United States	81	15.97	5.65
Asia	81	16.90	5.74
Africa	48	15.33	4.69
Middle East	17	14.35	5.09
Caribbean	5	21.40	3.44
Europe	14	16.71	3.24
Latin America	7	16.41	6.54

Table 11. Analysis of variance of social and community concerns by age, sex, ethnicity, number of years enrolled at ISU, classification, length of stay, and geographical areas

Source of variation	df	SS	MS	F-ratio	Prob
Age group	5	109.15	18.19	.59	.7369
Sex	1	1.36	1.36	.04	.8277
Ethnicity	5	510.02	102.00	3.54	.0045*
Years enrolled	3	79.13	26.38	.87	.4621
Classification	4	83.62	20.90	.69	.6007
Length of stay	4	1101.64	275.41	6.32	.1889
Geographical areas	6	529.25	88.21	3.04	.0072*

*Significant beyond the .01 level of the confidence.

problem" with social and community interaction concerns in Ames, Iowa.

Additionally, students who resided in the United States one to four years or over eight years had mean scores of 16.33 and 16.33 respectively. Students from the Caribbean had a mean score of 21.40. This would suggest that these students had "quite a problem" with the social and community interaction concerns within the Ames community.

To ascertain whether a significant difference of the mean score exists between the international and minority students on social and community interaction when age, sex, ethnicity, years enrolled at Iowa State University, classification, length of stay in the United States, and geographical areas are considered, an analysis of variance was computed and the results of this analysis are shown in Table 11.

As shown in Table 11, no significant difference was apparent between the mean scores for variables age groups, sex, years enrolled at ISU, classification, and the length of stay in the United States. However, one may infer from the F-ratios of 3.54 and 3.04 that there were significant differences among the international and minority students on social and community concerns.

A further analysis of the F-values of 3.54 revealed that mean differences existed between Caucasians (16.31),

Hispanics (15.24), and Asians (17.10) on the social and community concerns. Additionally, students from the Caribbean (21.40) and Asia (16.90) had high mean scores on social and community interaction concerns. In particular, these students perceived "quite a problem" with social and community interaction concerns.

Residence-Related Concerns

To test the hypothesis that no significant differences exist between the international and minority students on residence-related concerns when age, sex, ethnicity, years enrolled at ISU, classification, length of stay in the USA, and geographical areas are compared, a one-way analysis of variance was computed. The means and standard deviation of this analysis are reported in Table 12.

The data in Table 12 show that the students responses reported by 19 and under age group had a mean score of 14.00 on residence-related concerns. A mean score of 14.00 could be interpreted that students had "somewhat of a problem" with the residence-related concerns. Means scores of 5 indicated that residence-related concerns were "not a problem."

On the other hand, scores of 10 through 12.4 would be interpreted as "somewhat of a problem" and a mean score of 12.5 through 15.5 would indicate that students perceived the residence-related concerns at the university as "quite a

Table 12. Means and standard deviations of international and minority students' residence-related concerns

Demographical Variables	N	Mean Score	Standard Deviations
<u>Age Group</u>			
19 and under	22	14.00	5.35
20-25	102	13.32	4.93
26-30	65	11.82	5.30
31-35	31	13.71	5.83
36-40	28	10.93	5.96
41-45	2	7.00	2.83
46-50	3	10.00	4.00
<u>Sex</u>			
Female	91	12.91	5.31
Male	162	12.53	4.89
<u>Ethnicity</u>			
Asian	81	13.01	4.79
Black	98	11.34	5.39
Caucasian	38	13.24	5.01
Hispanic	25	12.64	5.59
Native American	6	7.83	4.02
Others	5	10.40	4.10
<u>Years enrolled at Iowa State</u>			
1 year or less	54	12.22	3.91
1-4 years	153	13.13	5.38
5-7 years	33	12.09	5.41
Over 8 years	13	10.33	4.33
<u>Classification</u>			
Freshman	26	13.09	4.56
Sophomore	16	12.44	4.76
Junior	26	12.27	4.15
Senior	43	13.63	5.14
Graduate	142	12.32	5.31
<u>Length of Stay in the USA</u>			
1 or less	25	12.32	5.48
1-4 years	100	13.11	5.21
5-7 years	38	12.42	4.73
8 years and over	13	10.40	4.60
USA citizens	75	12.67	4.98

Table 12. Continued

Demographical Variables	N	Mean Score	Standard Deviations
<u>Geographical Areas</u>			
United States	81	12.55	5.01
Asia	81	12.91	4.82
Africa	48	12.10	4.31
Middle East	17	12.06	6.35
Caribbean	5	18.80	6.26
Europe	14	11.86	5.76
Latin America	7	13.65	6.28

problem." In this case, students from the Caribbean had a mean score of 18.80 on residence-related concerns at the university.

To ascertain whether significant differences exist between the international and minority students on this variable, a one-way ANOVA was computed. A summary of this analysis is reported in Table 13.

A visual inspection of age group, sex, ethnicity, years enrolled at Iowa State University, classification, and geographical areas in Table 13 revealed no significant differences between the international and minority students mean scores on residence-related concerns.

The hypothesis of no difference was accepted. One may infer from the calculations in Table 13 that the international and minority students perceived no difference

Table 13. Analysis of variance of residence-related concerns by age, sex, ethnicity, number of years enrolled at ISU, classification, length of stay, and geographical areas

Source of variation	df	SS	MS	F-ratio	Prob
Age group	5	332.71	55.45	2.22	.0412
Sex	1	8.16	8.16	.32	.5785
Ethnicity	5	273.53	54.71	2.17	.0578
Years enrolled	3	148.89	49.63	1.97	.1227
Classification	4	65.19	16.30	.63	.6434
Length of stay	4	101.81	25.45	.99	.4176
Geographical areas	6	240.54	40.09	1.55	.1628

in their residence-related concerns. However, it may be helpful to point out that the majority of respondents for this study were graduate students who lived in university housing. Although differences were revealed in the mean scores between the classification of students, the variability was not significantly different.

Negotiating the University System

To determine whether there are significant differences between the international and minority students' perceptions on negotiating the system concerns when age, sex, ethnicity, years enrolled at Iowa State University, length of stay in

the United States, and geographical region are considered, a one-way analysis of variance was computed. The mean scores and standard deviations of this analysis have been placed in Table 14.

An examination of Table 14 disclosed that the 41-45 age group had a mean score of 23.50. The Caucasians had a 24.72 mean score for negotiating the system. In fact, mean scores of 16.5 through 24.50 were interpreted as "somewhat of a problem." Students who had been enrolled at Iowa State between five and seven years had "somewhat of a problem" with negotiating the system.

An inspection of the classifications revealed that the students at the junior level (27.00) had "quite a problem" with negotiating the university system. It appeared that students who stay in the United States over eight years also experienced "somewhat of a problem" at ISU.

To determine whether the mean scores of the international and minority students were significantly different, a one-way analysis of variance was computed. The results of this analysis are summarized in Table 15.

As seen in Table 15, age groups, sex, years enrolled at Iowa State, length of stay in the United States, and geographical areas were not significantly different. Therefore, the null hypothesis was retained for these

Table 14. Means and standard deviations of international and minority students' negotiating the system concerns

Demographical Variables	N	Mean Score	Standard Deviations
<u>Age Group</u>			
19 and under	22	22.23	8.24
20-25	102	23.75	6.15
26-30	65	22.71	7.52
31-35	31	22.71	6.72
36-40	28	23.00	8.04
41-45	2	23.50	.71
46-50	3	20.33	7.77
<u>Sex</u>			
Female	91	23.52	6.59
Male	162	22.82	7.09
<u>Ethnicity</u>			
Asian	81	21.96	5.92
Black	98	23.24	6.39
Caucasian	38	24.72	7.30
Hispanic	25	21.67	7.99
Native American	6	21.67	8.57
Others	5	15.20	6.69
<u>Years enrolled at Iowa State</u>			
1 year or less	54	21.46	6.34
1-4 years	153	23.44	7.04
5-7 years	33	24.24	7.14
Over 8 years	13	22.33	7.73
<u>Classification</u>			
Freshman	26	21.78	7.80
Sophomore	16	25.38	7.56
Junior	26	27.00	5.84
Senior	43	22.02	6.46
Graduate	142	22.46	6.87
<u>Length of Stay in the USA</u>			
1 or less	25	20.60	6.01
1-4 years	100	22.35	5.85
5-7 years	38	23.85	8.82
8 years and over	15	24.01	8.68
USA citizens	75	24.01	7.13

Table 14. Continued

Demographical Variables	N	Mean Score	Standard Deviations
<u>Geographical Areas</u>			
United States	81	24.05	7.52
Asia	81	21.96	5.65
Africa	48	24.20	6.85
Middle East	17	22.59	8.04
Caribbean	5	25.40	7.37
Europe	14	20.86	6.02
Latin America	7	22.00	8.93

Table 15. Analysis of variance of negotiating the system concerns by age, sex, ethnicity, number of years enrolled at ISU, classification, length of stay, and geographical areas

Source of variation	df	SS	MS	F-ratio	Prob
Age group	5	97.28	16.21	.33	NS
Sex	1	28.11	28.11	.59	.9207
Ethnicity	5	723.11	144.62	3.09	.0102**
Years enrolled	3	144.38	48.13	.99	.4055
Classification	4	621.29	155.32	3.32	.0114*
Length of stay	4	327.25	81.81	1.70	.1502
Geographical areas	6	339.20	56.53	1.17	.3252

*Significant beyond the .05 level of confidence.

**Significant beyond the .01 level of confidence.

functions. However, the F-ratios of 3.09 and 3.32 were significant at the .01 level of confidence.

To ascertain what mean scores were significantly different, the Scheffe' Test was computed. This comparison showed that mean scores for the Caucasians (23.24), and Blacks (24.72) were highly significant.

A further analysis of Table 14 revealed that students who had resided in the United States between five and seven years or over eight years had means of 23.85 and 24.01, respectively. The mean scores of 24.60 and 24.01 were significantly different from the other means. From this analysis it can be inferred that students who lived in the United States over eight years experienced "somewhat of a problem" with negotiating the system.

Summary

These problems of adjustment could be attributed to administrative changes that occurred within the university prior to 1985. The policies and procedures for accommodating international and minority students were more student oriented. The admission procedure was less complex and easier to understand, activating the financial aid system was less complicated, and registration had more of a personal touch.

For the past five years, Iowa State University has been attempting to work through the perplexing new system, which

is ultimately designed to deliver better services for the students. However, until this is accomplished, international and minority students will continue to find fewer support systems and options in dealing with their concerns at Iowa State University.

CHAPTER V: DISCUSSION AND CONCLUSION

Summary of Procedures and Findings

The purpose of this study was to compare the perceived concerns between international and minority students at Iowa State University. More specifically, the purpose of this study was to compare the perceived concerns of Asian, Black American, Caucasian, Hispanic, and other international students at Iowa State University.

The number of international and minority students on major university campuses has increased markedly over the last 10 years, and their academic, social, and personal lives have been laden with many concerns and problems. The amount of research on international and minority students' perceptions of the university environment is sparse. Investigators speaking specifically on the increase of international students at predominantly white universities suggest that minority and international students experience a greater range of problems than those experienced by the majority student populations. Unfortunately, literature that compares problems of academic and social adjustments between the international and minority student populations is not available. As the number of students from various cultures increases at Iowa State University, it is expected that the problems different groups experience will need to be investigated thoroughly.

Design of the Study

A stratified random sample (by class and race) of 253 international and minority undergraduate and graduate students enrolled at Iowa State University during the 1989 Fall semester were asked to participate in the study. Students were mailed a 56-item problem checklist with concepts developed by Westbrook, Miyares and Roberts (1978) which covered typical university concerns, such as alienation, cultural, discrimination, cultural and ethnic, educational environment, social and community interaction, residence-related concerns, and negotiating the system. Six independent raters judged the items for this study to be representative of student concerns.

The Students Concern Questionnaire included two sections: (a) personal characteristics and (b) perceived concerns. The perceived concerns section of the instrument was tested in a pilot study.

Personal characteristics of the 253 students were analyzed using descriptive statistics. Approximately 40 percent or 102 students were in the 20-25 age group category. One hundred and sixty-two (162) or 64 percent were male students, while 36 percent were identified as female students.

The racial background of the 253 students consisted of Asian (32 percent), Black (39 percent), Caucasian (15

percent), Hispanic (10 percent), Native American (2 percent), and others (2 percent). Approximately 60 percent or 153 of the 253 students had been enrolled at Iowa State University between one and four years. Approximately 56 percent or 142 of the 253 students indicated graduate status as their classification, while nearly 40 percent or 100 students were either classified as freshmen, sophomores, juniors, or seniors at Iowa State University. Essentially, 32 percent or 81 of the 253 students were from the United States, while the same number, 32 percent or 81 of the students, also indicated Asia as their geographical area.

Null hypothesis one

The design of this study focused on seven null hypotheses. Null hypothesis one: There will be no significant difference between international and minority students' alienation concerns when age, sex, ethnicity, years enrolled at the university, classification, length of stay in the USA, and geographical area are considered as variables. It was concluded that significant differences existed between the mean score of the international and minority students on alienation concerns when years enrolled at Iowa State University and the length of stay in the United States were considered.

The significant F-ratios were interpreted to mean that students who were enrolled at Iowa State University over

eight years were significantly different in their disposition of alienation. Perhaps, the longer the students resided in the United States, the less they felt alienated. No differences existed between the international and minority students' alienation concerns when age, sex, ethnicity, classification, and geographical areas were considered.

Null hypothesis two

To ascertain whether significant differences exist between international and minority students' mean scores on cultural and ethnic concerns, an ANOVA was computed. The first part of the null hypothesis was retained that no significant differences existed between the international and minority students' mean scores on cultural and ethnic concerns when age, sex, years enrolled at Iowa State University, and classification were considered as variables. However, the second part of the null hypothesis was rejected when ethnicity, length of stay, or geographical areas were used.

This conclusion is based on the F-ratios which were interpreted to mean that minority students perceived somewhat of a problem with cultural and ethnic concerns at Iowa State University. Moreover, students who had lived in the United States over eight years perceived cultural and ethnic concerns as being a problem.

Students from the Caribbean region also perceived that cultural and ethnic concerns were a problem at Iowa State University.

Null hypothesis three

No significant difference existed between international and minority students' mean score on discrimination concerns when age, sex, and classification were used as variables. Significant differences, however, were found between the international and minority students' mean scores when ethnicity, years enrolled at the university, length of the stay in the United States, and the geographical areas were considered as variables.

This conclusion is based on the computation of the Scheffe' Range Test of the significant F-ratios which revealed that Caucasian students perceived that discrimination concerns were quite a problem. This may be because the students who indicated their race as white or Caucasian may not be native-English speakers. The Native Americans indicated that discrimination was not a concern. It should be noted that the Native American representation was very small and from Central Iowa.

Students enrolled at Iowa State University between five and seven years perceived discrimination concerns that were significantly different from those who have only been at the university five years or less. The majority of the students

except those from the European region such as Greece, Iceland, Cyprus, and Yugoslavia perceived discrimination at Iowa State University as a serious concern.

Null hypothesis four

To determine whether a significant difference existed between the international and minority students' mean scores on educational environment concerns when age, sex, ethnicity, years enrolled at Iowa State University, classification, length of stay in the United States, and geographical areas are considered as variables, a one-way analysis of variance was computed.

The null hypothesis of no difference was retained when age, sex, and years enrolled at the university were used. Significant differences, however, were found between the international and minority students' mean scores on educational environment concerns. The significant F-ratios were interpreted to mean that Hispanics, Blacks, Asians, and Native Americans perceived the educational environment at Iowa State significantly different from other students. The second part of the null hypothesis was rejected.

Additionally, students who were classified as freshmen, sophomores, and juniors perceived that the educational environment was somewhat a problem at Iowa State University. Geographically, students from the Caribbean and Latin

American regions perceived that the educational environment was "somewhat a problem."

Null hypothesis five

To test the null hypothesis that no significant difference exists between the international and minority students' mean scores on social and community interaction concerns, a one-way analysis of variance was computed. The null hypothesis of no difference was retained when age, sex, years enrolled at Iowa State University, classification, and length of stay in the United States were used as variables.

It was concluded that significant differences, however, existed for ethnicity and geographical areas of the students. Mean scores on social and community interaction concerns showed somewhat a problem exists in this area. Furthermore, students from the Caribbean region perceived the social and community interaction at the university significantly different from other students in the study.

Null hypothesis six

Residence-related concerns when age, sex, ethnicity, years enrolled, classification, length of stay, and geographical region are used as variables to evaluate if a significant difference existed between the international and minority students' mean scores on. The hypothesis of no difference was retained. It was concluded that significant

differences did not exist between the international and the minority students on residence-related concerns.

Null hypothesis seven

To ascertain whether there are significant differences between the international and minority students' mean scores on negotiating the university system concerns when age, sex, ethnicity, years enrolled at Iowa State University, length of stay in the United States, and geographical regions are considered, a one-way analysis of variance was computed.

The null hypothesis of no difference was retained when age, sex, years enrolled, length of stay in the United States, and geographical areas were considered for computation. However, significant differences existed between the international and minority students' mean scores when ethnicity and classification were used as variables for the computation of the ANOVA.

Based on the results of the analysis of the above variables, it was concluded that significant differences existed on variables of ethnicity and classification. The interpretation of the F-ratios for these variables inferred that Black and Caucasian students mean scores differed significantly from other students' in the study. Apparently, the Black and Caucasian students perceived that negotiating the system was "somewhat a problem."

Services and concerns

Another purpose of this study was to identify what services and concerns the international or minority students regarded as most pressing at the university. Because of the small sample size conventional tests of significance were not computed. For that reason, the order of importance to the given responses rather than tests of significance are reported. Data pertaining to the services and concerns of the students were placed in Figure 3.

As shown in the pyramid in Figure 3 in the order of most to least important, the international students had the following concerns: (1) better health insurance is a very important issue because most of these students come from countries that have national insurance policies that pay for maternity fees, shots, annual check-ups, etc. . However, in the United States, health care is at a premium, but the Iowa State University Student Health Center does attempt to meet the needs of the students. (2) More tolerance by university staff and faculty toward nonnative English speaking students. (3) Creation of a standard grading policy was a major complaint voiced by many international students. Some of the students may feel that because of their cultural/ethnic differences, their grades are more dependent upon their differences than their academic achievement in a given class. (4) More activities similar to homeland

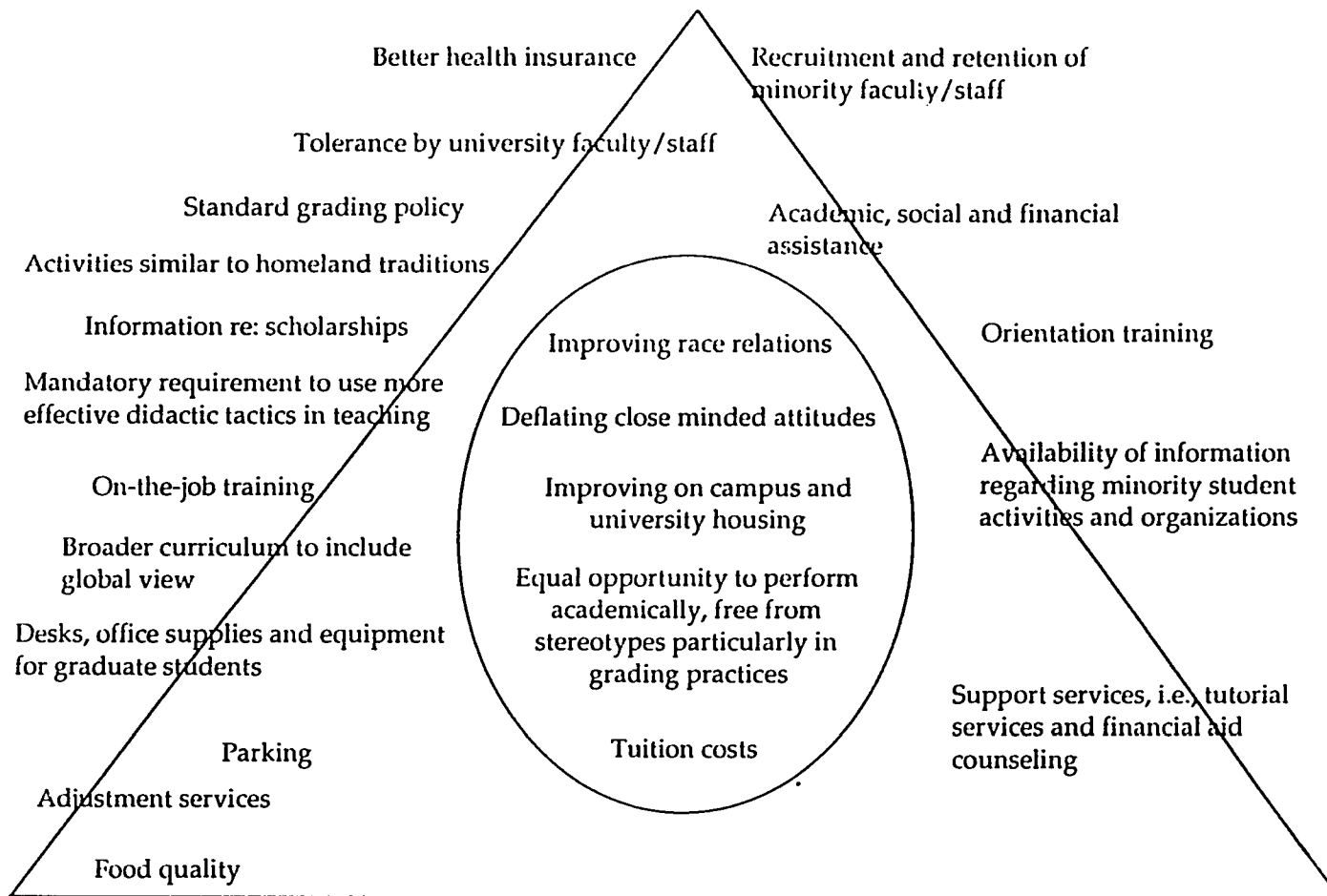


Figure 3. Minority and international student concerns
 Items are ordered from top to bottom by level of importance

traditions should be available to familiarize both the Americans and the international student with the similarities and unique differences in the family structures. (5) The availability of information on scholarships for the international students should be provided. (6) Mandatory requirement of the university faculty and teaching staff to use more effective didactic tactics in educating their students. (7) University-wide activities organized for both international and American students that are similar to homeland traditions. (8) Generating opportunities for international students to have on-the-job training. Many times, this may be the international student's first encounter with an industrialized country, thus affording him/her with preparation and leadership skills to transfer technology back to the home-country. (9) Development of a broader university-wide curriculum that would incorporate an international/global view. (10) Graduate students attending this university should be furnished with desks and office space, as well as a orientation to using computer and word processing facilities. (11) More accessibility to on-campus parking facilities and the knowledge of where to safely secure your vehicle without fear of being towed. (12) The Office of International Student Services should provide more adjustment services to the new international student. And

finally, (13) since many students complained that the food at Iowa State University was offensive to their diet, an improvement of the quality of university food is desired.

The minority students that participated in this section of the questionnaire, registered the following concerns:

(1) The recruitment and retention of more minority students and faculty is needed. (2) The Office of Minority Student Affairs should render more academic, social and financial assistance to the minority students that they serve. (3) Orientation training should be provided to familiarize the student with dealing with teacher anxiety. (4) In serving special populations, information concerning minority student activities and organizations should be made more available to these students. Lastly, (5) more support services need to be provided to include better tutorial services and financial aid counseling.

In analyzing and interpreting the students' comments on what services and concerns are most pressing at this institution, the concerns and services that appear to cut across both international and minority student groups were (1) improving race relations among the existing ethnic/cultural groups represented on this university campus; (2) deflating the close-minded attitudes toward students from different backgrounds and language groups; (3) improving campus housing facilities and university housing; (4)

affording both the international and minority student populations an equal opportunity to perform academically, free from stereotype partiality in grading practices; and (5) holding down the increasing cost of tuition, which prevents many international and minority students from completing their degree programs.

The Black and Caucasian students were concerned mostly with the attitudes of Iowa State University office/staff employees in the student financial aid office and other support services available throughout the institution. Perhaps this could illustrate why these students develop a wide range of attitudes toward Iowa State University.

Many of the students from the Asian region indicated that many of the professors within their department treated them unfairly and used a different grading scale with them, even though the majority of students within many of the technical majors are non-white.

Conclusions

Within the limitation of this study, and to the extent that the 253 international and minority subjects were representative of their respective groups as students at the university in general, the following conclusions are based on the analysis of results and appear to be justified.

The feeling of alienation was perceived as a problem for students between the ages of 30 to 50 years old. At Iowa

State University, students' activities are usually designed for the matriculating undergraduate traditional student. The traditional student at most predominantly white institutions in the United States is 18 to 22 years of age, Caucasian, middle to upper socio-economic status, and a full time student (Tinto, 1987).

Many of the students who are from 30 to 50 years of age are international students from foreign countries and minority students from larger urban areas or from southern states. Additionally, these students may be married, parents, employed on or off campus, and enrolled in a graduate course. Salim (1984), Edemodi (1986), and Gibbs (1974) found that often activities are not organized to meet the needs of special populations. This may be interpreted by some, perhaps, as being unwanted or alienated from the Iowa State University and Ames community.

The feeling of alienation also appears to be prevalent among Black and Asian students who have been enrolled at Iowa State University for four years. Black and Asian students are not traditional students and represent less than 2% of the student population at Iowa State University. As mentioned above, student activities are not especially designed to include these individuals (Smith, 1987). Even activities during Black History Month and other ethnic recognition celebrations are supposed to incorporate the

ideas and suggestions of the international and minority populations, but, in reality, they are mainly created for the majority populations to attend.

Cultural and ethnic concerns were identified as the least problem for the international and minority students surveyed for this study. The research by Okafor (1986), Khozam (1986), Belin (1986), Mubarak (1984), and Hamonda (1986) suggests that perhaps international and minority students bring with them to sterile environments, like Iowa State University, vestiges of their own culture in the forms of cultural music and messages, ethnic recipes and foods, indigenous languages, traditional dress and costumes, hair preparatory techniques, and religious ceremonies.

Discrimination concerns were perceived as a serious problem for non-native English speaking Caucasian, American and foreign Blacks, Native American, and other minority students. Authors such as Miller (1967), Adul-Khabir (1988), and Gibbs (1974) have cited discrimination barriers as major obstacles for minority and international students alike at predominantly white institutions. Moreover, trying to succeed academically within a "hostile environment" is an extremely difficult and stressful task.

Educational environment concerns were perceived as being somewhat of a problem for international and minority students. Burke (1968), Ohuche (1967), Hagey (1966), Hair

(1986), and Penn (1987) found that, within the scope of their studies, educational environment concerns indicated a growing need for more appropriate instruments to be created to investigate the problem more thoroughly.

Social and community reaction concerns were perceived as a serious problem for international and minority students respectively. The community surrounding Iowa State University is primarily a Caucasian township with small representation of minorities. There are not many minority owned businesses, community programs for populations that are non-Caucasian in the American sense, religious ceremonies for the non-Judeo Christian student who may wish to participate in community activities as well as hardly a community of any ethnic group besides the well represented Caucasian Iowan.

This hostile environment also creates tension in relationships when alike groups congregate. Flemming (1984) suggests that these minority populations, although extremely small on many white institution campuses, have a multitude of problems 'getting together'. She further elaborates that one such reason for this highly visible phenomenon may be that these minority individuals may feel inadequate about their own ability to succeed in such a hostile environment. To conceal these feelings, the minority populations tend to distance themselves from

members of their own ethnic group(s). Perhaps, this is the situation within the Iowa State University and in the general Ames community.

Residence-related concerns were perceived as being hardly a problem for either the international or minority students. The Iowa State University Housing Department is dedicated to finding better ways to deliver services to their students. It is very interesting to note that within the University Student Apartment Community (USAC), most of the available apartments are rented to international students and their families. Many participants in this study did indicate some level of discomfort with the USAC accommodations, but related that they could 'stick it out'. After all, they are only living in the Iowa State University community for a short while.

The issue of negotiating the university system was perceived as being somewhat of a problem for the international and minority students. Mtebe (1984), Galichia (1966), Pearson (1984), and Rinnander (1985) ascertained that international and minority students often find difficulties in accessing the various support programs and systems available to them that may help them persist toward graduation at predominantly white universities. The findings clearly signify that the international and minority students do not represent a homogenous student population

with homogenous needs. Clearly, there are many diverse needs of diverse groups of students which call for responsive and creative ways and strategies to meet more equitably these diverse needs.

Recommendations

Based on the results of this study, it is recommended that a similar survey be conducted of international and minority students, with a shortened version of the questionnaire. The 56-item survey used for this study required a minimum of 10 to 25 minutes to complete. The student respondents indicated on the instrument that it took too much time to complete. Perhaps a shortened form of the questionnaire will encourage more subjects to complete it.

The researcher recommended that the findings of this study concerning perceived problems of the international and minority students be widely circulated to the Office of Minority Student Affairs and the Office of International Services. These two offices at Iowa State University are charged with addressing the needs of these special populations. Each office offers support programs in the areas of academic, personal, and social programming. Only the Office of Minority Student Affairs (MSA) has the ability to assist minority students financially to meet their university tuition obligations.

Often, the MSA office helps the student secure employment within and outside of the university environment. Additionally, the MSA office offers assistance in finding living accommodations, scholastic scholarships, graduate assistantships, admissions to an academic department, and in promoting Black and other cultural programs. Almost any problem a minority student may encounter while attending Iowa State University can be taken to the Office of Minority Student Affairs.

On the other hand, the Office of International Services is limited in the services which they provide to students. Unlike Minority Student Affairs, the Office of International Services assists students who are not citizens of the United States; therefore, no federal programs exist to meet the needs of the international students. Perhaps, the difference in nationality and ultimately in cultures limit the students' understanding of and ability in negotiating the academic system.

Another recommendation is that an analysis of student concerns be conducted on all students attending Iowa State University. The results of this survey could substantially contribute to the total improvement of the quality of student life at Iowa State University.

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My most heartfelt gratitude belongs to my Mother and Father, to whom I am particularly indebted. These loving individuals were always a special source of comfort, who supported me ardently and financially through this complex process.

Most of all, thanks to God!

APPENDIX A.

HUMAN SUBJECTS APPROVAL FORM

INFORMATION ON THE USE OF HUMAN SUBJECTS IN RESEARCH
IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

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1. Title of project (please type): Comparison of perceived problems of international and minority students at a selected predominantly white university.

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.

Anna M. Evans 9/12/89 *Anna M. Evans*
Typed Name of Principal Investigator Date Signature of Principal Investigator
103-C University Village 294-6367
Campus Address Campus Telephone

3. Signatures of others (if any).
William Holmbeck 9-14-89 Major Professor
David O. Johnson 9/13/89 Committee member

4. ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or discomforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.



- Medical clearance necessary before subjects can participate
- Samples (blood, tissue, etc.) from subjects
- Administration of substances (foods, drugs, etc.) to subjects
- Physical exercise or conditioning for subjects
- Deception of subjects
- Subjects under 14 years of age and (or) Subjects 14-17 years of age
- Subjects in institutions
- Research must be approved by another institution or agency

5. ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.
 Signed informed consent will be obtained.
 Modified informed consent will be obtained.

6. Anticipated date on which subjects will be first contacted: 9 18 89
Anticipated date for last contact with subjects: 9 30 89

(change in date -
Per
Anna
Evans
9-18-89)

7. If Applicable: Anticipated date on which audio or visual tapes will be erased and (or) identifiers will be removed from completed survey instruments: 10 13 89
Month Day Year

8. Signature of Head or Chairperson *William Holmbeck* 9-13-89 Department or Administrative Unit
Professional Studies

9. Decision of the University Committee on the Use of Human Subjects in Research:

Project Approved Project not approved. No action required
Patricia M. Keith 9/15/89 *William Holmbeck for P. Keith*
Name of Committee Chairperson Date Signature of Committee Chairperson

APPENDIX B.

LETTER TO PARTICIPANTS

Iowa State University of Science and Technology Ames, Iowa 50011-3190



College of Education
International Education Programs
N239 Lagomarcino
Telephone 515-294-7350
Telex 910-520-1157 ISU Intn'l. Ames

September 18, 1989

Dear Student:

I am currently a graduate student at Iowa State University pursuing a Doctor of Philosophy degree in Higher Education with an emphasis in International Education. I am deeply concerned with the adjustment, adaptations and needs of international and minority students attending this institution. Therefore, I have chosen to conduct a comparison study on the perceived problems of international and minority students.

This study will be the first of its kind undertaken at Iowa State University. In order for it to be a success, I need your help in completing the survey questionnaire. By completing and returning this questionnaire promptly you will contribute invaluable knowledge that no other group attending this university can provide.

I assure you that your response will be kept in strict confidence. The survey form is coded with three digit number only as a means to contact those people who have not returned the survey. All survey forms will be destroyed upon analysis of data.

After you have completed the questionnaire, please staple or tape the edges and deposit it in the U. S. mail. No postage or envelope is necessary. Please have your questionnaire completed and returned to us within the next 7 days.

Thank you for your time and cooperation in this study.

Sincerely,

Anna M. Evans
Anna M. Evans, Graduate Student
Higher Education

William Wolansky
Dr. W. Wolansky, Coordinator
International Education Programs

APPENDIX C.

TEST INSTRUMENT

STUDENTS CONCERN QUESTIONNAIRE

Directions: Please place a check (✓) next to the appropriate response. Mark only one answer for each question, unless instructed otherwise.

Personal Characteristics

1. What is your present age?

19 or under	31-35	46-50
20-25	36-40	51-55
26-30	41-45	

2. What is your gender?
 - Female
 - Male

3. What is your ethnic background?

Asian	Caucasian	Black
Hispanic	Native American	
Other, specify		

4. What is your country of national origin?

5. What is the total number of years you have enrolled in your present institution?

less than one year	1-4 years	
5-7 years	over 8 years	

6. What is your classification?

Freshman	Sophomore	Junior
Senior	Graduate	Post Doctoral Studies

7. What is your major?

8. How many years have you resided in the United States if not from the United States?

less than one year	1-4 years	
5-7 years	over 8 years	

		Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
22.	To what extent do you perceive that relating to people of your own ethnic group as a problem?	1	2	3	4	5
DISCRIMINATION CONCERNS						
		Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
23.	To what extent did you experience racism as a personal problem on this campus?	1	2	3	4	5
24.	To what extent do you perceive problems stemming from interactions with professors because of your race?	1	2	3	4	5
		Great Deal	Somewhat	Not Much	Very Little	None
25.	To what extent have you been a victim of racial insults on this campus?	5	4	3	2	0
		Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
26.	To what extent have you experienced personal discrimination because of your race?	1	2	3	4	5
27.	To what extent do you perceive interracial conflict(s) among the student body?	1	2	3	4	5
EDUCATIONAL ENVIRONMENT						
		Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
28.	To what extent do you perceive problems related to study efficiency and class preparation?	1	2	3	4	5
29.	To what extent do you perceive that it is very difficult to find a good place to study?	1	2	3	4	5
30.	While studying at this school, identify the severity of the English language deficiency in taking examinations?	1	2	3	4	5
31.	To what extent do you perceive getting the courses you want to take a problem?	1	2	3	4	5
32.	To what extent do you perceive academic difficulties as a problem at this university?	1	2	3	4	5
		Very Relevant	Relevant	Moderately Relevant	Minimally Relevant	None
33.	How would you rate the relevance of course work to your country's needs and personal career?	1	2	3	4	5
		Very Critical	Critical	Moderately Critical	Minimally Critical	None
34.	To what extent do you perceive the need of an advisor who clearly understands and is sensitive to your needs as a student?	1	2	3	4	5

	Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
49. To what extent do you perceive a problem in securing funding scholarships and financial aid at your university?	1	2	3	4	5
50. To what extent do you understand personal problems in accessing current legal information about the United States and university environment?	1	2	3	4	5
51. To what extent do you perceive availability in accessing financial resources on this campus for research or professional activities?	1	2	3	4	5
52. To what extent do you perceive problems in negotiating the general university system?	1	2	3	4	5
53. To what extent do you perceive satisfaction with university and campus facilities?	1	2	3	4	5
54. To what extent do you perceive setting personal goals as a problem on this campus?	1	2	3	4	5
55. To what extent do you perceive a problem in either the Office of International Services or the Office of Minority Student Affairs in assisting you in any manner at this	1	2	3	4	5

56. What services and concerns do you feel are the most pressing at this university?

	Not a problem	Hardly a problem	Somewhat a problem	Quite a problem	Very Much a problem
35. To what extent do you perceive maintaining satisfactory grades as a problem at the university?	1	2	3	4	5
36. To what extent do you perceive problems in retrieving information concerning course work and degree requirements on this university?	1	2	3	4	5
SOCIAL AND COMMUNITY INTERACTIONS					
37. To what extent do you perceive your level of participation in social activities?	1	2	3	4	5
38. To what extent do you perceive your level of participation in social activities with Black American students as a problem?	1	2	3	4	5
39. To what extent do you perceive a problem in meeting new people and making friends on this campus?	1	2	3	4	5
40. To what extent do you perceive a problem in not being able to become involved in on-campus activities sponsored by the university?	1	2	3	4	5
41. To what extent do you perceive social difficulties, if any, in interacting with others in community life?	1	2	3	4	5
42. To what extent do you perceive difficulties in interacting with members of the community?	1	2	3	4	5
RESIDENCE RELATED CONCERNS					
43. How do you perceive the university meeting your housing needs?	1	2	3	4	5
44. To what extent do you perceive housing as a problem at the university?	1	2	3	4	5
45. To what extent do you understand the effectiveness of dormitory/residence policies currently in effect at this university?	1	2	3	4	5
46. To what extent do you encounter roommate conflicts as an impediment to your studies?	1	2	3	4	5
47. To what extent do you perceive personal dissatisfaction with the living arrangements either with the community or the school?	1	2	3	4	5
NEGOTIATING THE SYSTEM					
48. To what extent do you perceive problems of finding out information about the university?	1	2	3	4	5

APPENDIX D.

GEOGRAPHICAL REGIONS,
COUNTRIES REPRESENTED IN STUDY

Country Codes	Geographical Codes
1. United States	1 United States
2. Malaysia	2 Asia
3. Sierra Leone	3 Africa
4. South Africa	3 Africa
5. China (Taiwan)	2 Asia
6. Palestine	4 Middle East
7. Panama	7 Latin America
8. Bahamas	5 Caribbean
9. Honduras	7 Latin America
10. Indonesia	2 Asia
11. Brazil	7 Latin America
12. Sri Lanka	2 Asia
13. Nigeria	3 Africa
14. Ghana	3 Africa
15. Bangladesh	2 Asia
16. Greece	6 Europe
17. Iraq	4 Middle East
18. Lebanon	4 Middle East
19. Kuwait	4 Middle East
20. India	2 Asia
21. Haiti	5 Caribbean
22. Venezuela	7 Latin America
23. Iceland	6 Europe
24. Yugoslavia	6 Europe

25.	Zimbabwe	3	Africa
26.	Cyprus	6	Europe
27.	Syria	4	Middle East
28.	Morocco	4	Middle East
29.	Jordan	4	Middle East
30.	Zaire	3	Africa
31.	Mauritus	3	Africa
32.	Uruguay	7	Latin America
33.	Africa	3	Africa
34.	Hong Kong	2	Asia
35.	Korea	2	Asia
36.	Bermuda	5	Caribbean
37.	Fiji Islands	2	Asia
38.	Ethiopia	3	Africa
39.	Zambia	3	Africa
40.	Niger	3	Africa
41.	Turkey	4	Middle East
42.	Argentina	7	Latin America
43.	Liberia	3	Africa
44.	Yemen	4	Middle East
45.	Mexico	7	Latin America
46.	Kenya	3	Africa
47.	Costa Rica	7	Latin America
48.	Jamaica	5	Caribbean
49.	Trinidad	5	Caribbean