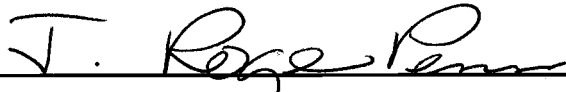


## AN ABSTRACT OF THE DISSERTATION OF

Shannon Hodges for the degree of Doctor of Philosophy in College Student Services Administration presented on May 3, 1995. Title: The Relationship of Student Involvement and Multicultural Comfort among Student Government Members as Compared with the Student Population at Oregon State University.

Abstract approved: \_\_\_\_\_



Dr. J. Roger Penn, Major Professor

The purpose of this study was to investigate the level of social interaction and social comfort among five undergraduate ethnic groups: African American, American Indian, Asian American, Caucasian American, and Hispanic American. Another purpose was to explore the correlation between the level of social contact and comfort among the five ethnic groups. The sample included 141 full-time, continuing undergraduate and graduate students at Oregon State University. The contact scale included items measuring the number of acquaintances, frequency of interaction, positive degree of feeling, number of friends, and duration of contact. The comfort scale was a modified version of Byrnes and Kiger's (1988) Social Scale. It asked respondents to rate from one (very uncomfortable) to seven (very comfortable) their comfort with people of different ethnicity in six roles: president of the United States, counselor, professor, a small group member in a classroom setting or co-curricular activity, a roommate, or a date. T-tests of variance compared information about ethnicity. Pearson correlation coefficients were also used to explore the relationship between contact and comfort. Regression analysis and chi-square procedures were also performed for more detailed analysis on contact, comfort, and demographic scales.

Results of the study demonstrated that involvement in Associated Student Government at Oregon State University was consistent with increased contact levels

between students in the five ethnic groups. There were, however, no significant increases in comfort across ethnic lines. All groups were most comfortable with their identified ethnic group.

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**The Relationship of Student Involvement and Multicultural Comfort  
among Student Government Members as Compared with the  
Student Population at Oregon State University**

by

**Shannon Hodges**

**A DISSERTATION**

submitted to

**Oregon State University**

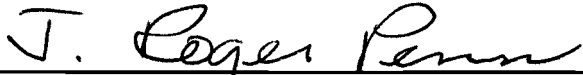
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degree of

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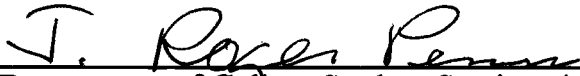
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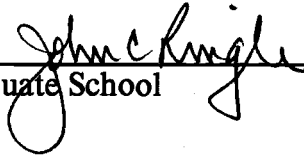
APPROVED:



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Chair, Department of College Student Services Administration



Dean of Graduate School

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Shannon Hodges, Author

## Acknowledgements

This dissertation was written during a period of my life which saw tremendous change, growth, and occasionally turmoil. But the completion of such a work could not have occurred without the help, guidance, and support of many individuals.

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## Table of Contents

|   | <u>Page</u> |
|---|-------------|
| Chapter 1 — Introduction .....                              | 1           |
| Statement of the Problem .....                              | 3           |
| Importance of the Study .....                               | 3           |
| Interethnic Group Contact .....                             | 4           |
| Measuring Prejudice .....                                   | 5           |
| Social Distance Scale .....                                 | 7           |
| Current Study .....   | 7           |
| Hypotheses .....  | 8           |
| Hypothesis 1 .....  | 8           |
| Hypothesis 2 .....  | 8           |
| Definition of Terms .....                                   | 9           |
| Chapter 2 — Review of the Literature .....                  | 11          |
| Contact Hypothesis .....                                    | 11          |
| The Interpersonal Approach .....                            | 12          |
| The Intergroup Approach .....                               | 14          |
| Social Distance Research .....                              | 15          |
| BSDS Research Studies .....                                 | 17          |
| Other Social Distance Studies .....                         | 19          |
| Social Distance Studies Compared by Ethnic Background ..... | 20          |
| Research of Social Distance Studies .....                   | 26          |

|   | <b>Page</b> |
|---|-------------|
| <b>Interethnic Conflict and Social Distance</b> ..... | 26          |
| <b>Contact Studies in the United States</b> .....     | 29          |
| <b>Desegregation Research</b> .....                   | 31          |
| <b>Summary</b> .....                                  | 34          |
| <b>Chapter 3 — Methodology</b> .....                  | 36          |
| <b>Purpose</b> .....                                  | 36          |
| <b>The Survey Instrument</b> .....                    | 36          |
| <b>Contact Scale</b> .....                            | 37          |
| <b>Comfort Scale</b> .....                            | 38          |
| <b>Reliability and Validity</b> .....                 | 39          |
| <b>Subjects</b> .....                                 | 39          |
| <b>Survey Distribution</b> .....                      | 40          |
| <b>Data Analysis</b> .....                            | 41          |
| <b>Chapter 4 — Results</b> .....                      | 43          |
| <b>Hypothesis 1</b> .....                             | 43          |
| <b>Hypothesis 2</b> .....                             | 44          |
| <b>Chapter 5 — Discussion and Conclusions</b> .....   | 45          |
| <b>Influence of Demographic Variables</b> .....       | 46          |
| <b>Comparison of Stanford and OSU Studies</b> .....   | 48          |
| <b>Summary</b> .....                                  | 49          |
| <b>References</b> .....                               | 53          |



|   | <b>Page</b> |
|---|-------------|
| Appendices .....                        | 62          |
| Appendix A: Survey Correspondence ..... | 63          |
| Cover Letter .....                      | 63          |
| Follow-up Postcard .....                | 64          |
| Appendix B: Survey Questionnaire .....  | 65          |
| Appendix C: Survey Data .....           | 72          |

## List of Tables

|             | <u>Page</u>   |
|-------------|---|
| Table 1     | Levels of Contact between ASOSU Students and the Randomly Selected Students ( <i>t</i> -test) ..... 43      |
| Table 2     | Levels of Comfort between ASOSU Students and the Randomly Selected Students ( <i>t</i> -test) ..... 44      |
| Table C-1   | Regression Analysis: Acquaintance (ACQUAINT) for Randomly Selected Ethnic Groups ..... 73                   |
| Table C-2   | Regression Analysis: Interaction (INTERACT) ..... 74  |
| Table C-3   | Regression Analysis: Feeling-Interaction (FEEL_INT) ..... 75  |
| Table C-4   | Regression Analysis: Number of Friends (NUM_FRND) ..... 76  |
| Table C-5   | Regression Analysis: Length of Time Known (TIME_KNO) .... 77  |
| Table C-6   | Regression Analysis: Contact (CONTACT) ..... 78   |
| Table C-7   | Regression Analysis: Comfortable as President of the United States (PRES_US) ..... 79                       |
| Table C-8   | Regression Analysis: Comfortable as My Counselor (MY_COUNS) ..... 80  |
| Table C-9   | Regression Analysis: Comfortable as My Professor (MY_PROFE) ..... 81  |
| Table C-10  | Regression Analysis: Comfortable as a Member of a Small Group in Small Group Activities (SMALL_GP) ..... 82 |
| Table C-11R | Regression Analysis: Comfortable as My Roommate (MY_ROOMA) ..... 83   |
| Table C-12  | Regression Analysis: Would Date (WOU_DATE) ..... 84   |

|   | <u>Page</u> |
|---|-------------|
| Table C-13    Regression Analysis: Comfort .....                        | 85          |
| Table C-14    Chi-square Analysis: Ethnicity (RACE) .....               | 86          |
| Table C-15    Chi-square Analysis: Living Arrangements (LIVE-ARR) ..... | 87          |
| Table C-16    Chi-square Analysis: Class Standing (CLAS_STN) .....      | 88          |
| Table C-17    Comfort Across Ethnic Groups ( <i>t</i> -test) .....      | 89          |

# The Relationship of Student Involvement and Multicultural Comfort among Student Government Members as Compared with the Student Population at Oregon State University

## Chapter 1 — Introduction

Demographics in the United States have changed dramatically in the last two decades. According to Harris (1988), "over a third of the entire population of this country will be a non-white minority by the turn of the century. If population trends continue, it is not inconceivable that close to a majority of the children under 18 will be non-white minority group members" (p. 23). These changing national demographics reflect increasing diversity in the ethnic and cultural composition of colleges and universities in the United States.

In a period of ten years, from 1978 to 1988, college minority enrollment increased 34 % (Evangelauf, 1990). Increases occurred in every ethnic-gender group except for African-American males. Asian Americans showed enrollment gains of 111%, American Indians 19%, and Hispanic Americans 63%. African-American students increased by only 7.2%, but they are still by far the largest non-Caucasian group with over 1.1 million students. While gaining in numbers, people of color still made up only 18% of the domestic enrollment of higher education students in 1988, up two percentage points from 1978 (Almanac, 1990). This figure is expected to continue to show a significant increase.

An ethnically diverse college campus provides students more opportunities to encounter persons of different cultures, which in turn provides students the opportunity to challenge traditional ways of thinking. Increased contact with diverse groups, however, brings up the possibility of increased tensions. In one survey, over 68% of college presidents surveyed said race relations were a major problem on college campuses (Boyer, 1990). Part of the tension relates to how minority students

are treated. In the past, it was assumed that it was the minority students' responsibility to make the adjustments to the institution. The experience of "past failures, and changing demographics suggest it is time for a change" (Odell & Mock, 1989, p. 9). As more students demand accommodation, many institutional leaders such as Derrick Bok, past president of Harvard University, predict more racial tension (Wilson, 1991). According to Boyer (1990) many Caucasian students resent this change, feeling that minorities have been given preferential treatment. Several campuses have even formed white student unions (Wilson, 1991). Incidents of racial hatred range from Nazi graffiti and racist jokes broadcast over campus radio stations to a race riot at the University of Massachusetts in 1986 (Wiener, 1989). Racial tension "threatens to divide campuses in a way not seen since the 1960s" (McHugh, Dalton, Henley, & Buckner, 1988, p. 5).

Increasing tensions create a poor social and learning environment for all students. Many educators wonder if an increased emphasis on diversity is the answer. What is the association between increased contact and comfort among different ethnic groups? Does this association lead to the easing of racial tensions? How does interracial contact correlate with racial attitudes? Such research questions center around the assumption that under certain conditions interracial contact will decrease prejudice (Allport, 1954). Research has shown that sometimes contact improves relations, and sometimes it does not (Amir, 1976; Ray, 1983). Increased racial contact on a Southern college campus did "reduce expressions of racial prejudice" (Braddock, 1979, p. 172). Racial attitudes of both African-American and Caucasian students, however, became more negative after a year of desegregation at Northwestern University (Talley, 1981). In the latter example, however, there was little biracial contact although "de jure" segregation had been dissolved. Talley (1981) surmised that these students did not become acquainted because they did little

else but attend class together. Therefore, some type of continuous co-curricular activities might be a helpful bridge to this racial "gulf."

### Statement of the Problem

It is uncertain whether there is an association between increased interethnic contact and decreased prejudicial attitudes. Therefore, more research is required to explore interethnic student contact, identify student comfort level with other ethnic groups, and clarify the relationship between contact and comfort level.

### Importance of the Study

There have been numerous studies of student groups and organizations in post-secondary education. Little research has been conducted, however, to measure the extent to which comfort among members of these groups exists. Boyer (1990) encouraged the interaction of whites and minorities in structured, co-curricular activities. Changing demographics compel educators to examine the campus climate to better understand and predict the consequences of increasing diversity as well as to help design programs that deal with multiculturalism. Certain institutions--Stanford University (1989), the University of Colorado (Hobson-Panacio, 1990), and Florida State University (Dalton, 1991)--have indicated that such programming is essential to harmonious race relations (as defined by reported positive experiences from participants).

Research has provided campus officials with baseline data to evaluate programs for dealing with the potentially hostile environment that minorities may face on predominantly white campuses (McHugh et al., 1988). Hostile environments can cause feelings of isolation and alienation, resulting in lower self-esteem and poorer academic achievement among minorities (Armstrong-West & de la Teja,

1988). In addition, such environments can lead to physical attacks on members of hated outgroups (Pettigrew, 1982).

Prejudice affects all students; it was one of the top five issues that chief student affairs administrators most often sought to address in values education (Dalton, Barnett & Healey, 1982). Ernest Boyer (1987, 1990) stressed the importance of a "global perspective" for all students. Stanford University staff asserted that "Student Affairs must support multicultural programming as being integral to a complete education for all students" (Kim, Mendoza, Porter, & Woodward, 1989, p. 289). Racial harmony is also important to leadership development (Kuh, Krehbil, & Mackay, 1988). According to Derrick Bell, formerly a law professor at Harvard, "because of de facto segregation, leadership for a diverse, multicultural nation is not being taught, experienced, or learned in higher education (Evangelauf, 1990, p. 22). Students who are government leaders serve in influential positions and interact with a wide range of different cultural and ethnic students. To measure how their contact and comfort levels change as a result of involvement in leadership roles, testing might assist educators and administrators in gathering meaningful information on how to facilitate interethnic interaction.

### Interethnic Group Contact

On the surface, the most reasonable way to assure racial harmony, erase negative stereotypes, and facilitate interaction among various ethnic groups is to ensure that they remain in close proximity to each other. This is a variation of the "if, then" proposition: if certain conditions are met, then increased comfort is the natural occurrence (Amir, 1976). In reality, however, this hypothesis has not always held up well. In fact, some research has indicated that interracial contact only causes tensions to increase (Amir, 1976; Ray, 1983; Stephan, 1985). Some professionals at the college and university level maintain that mere proximity, or passively sitting in class

together but having no interaction between groups, is the worst of all scenarios; negative stereotypes decrease only when the groups enter structured, cooperative projects (for example, student government). Otherwise, if students of different ethnic groups exist merely in close proximity to one another, negative stereotypes only increase (Amir, 1976; Ray, 1983; Stephan, 1985).

Allport (1954) listed 30 intergroup factors which affect the outcome of interaction. Naturally, the presence of this many variables makes research extremely difficult, but four key factors are especially important: equal status, cooperative interdependence within the group, support by authority figures, and opportunities to interact with outgroup members as individuals (Stephan & Brigham, 1985). These four facilitate the demise of barriers that may exist to keep mainstream and minority students apart. Such historical impediments date from the pre-civil rights era, from actual laws to prevent interaction between people of different ethnicities, or from social norms where it was not acceptable for students of different races to socialize. While all factors have importance, Talley (1991) felt that the intergroup contact itself was vital. She maintained that Caucasian and minority students at her college had very little to do with each other; they did not interact with students outside their ethnic group. Sampson (1966) contended that a campus is more competitive than cooperative, and he questioned whether students really perceived equal status with students outside their group.

### Measuring Prejudice

Instruments typically used to measure prejudice are less effective today because public opinion on the topic has changed dramatically since the Brown v. Board of Education decision in 1954. While the general public has begun to "characterize blatant racism as unlawful and immoral, many avoid contact with other groups and retain negative stereotypes" (Byrnes & Kiger, 1988, p. 107).



Though continuing to feel negatively towards minorities, Caucasians are less comfortable admitting prejudicial views (McConhay, 1986; Sedlacek & Brooks, 1970). Thus, changes in laws may influence what people may be willing to admit publicly though in reality actual prejudicial views remain about the same (McConhay, 1986; Sedlacek & Brooks, 1970). A comparison of three models of expressing and measuring prejudice (perceptive, affective, and prescriptive) is provided by Apostle, Glock, Piazza, and Suezle (1983). First, perceptive manifestations of prejudice include negative beliefs and stereotypes and what people perceive racial differences to be (Apostle et al., 1983). An example of a prejudicial perception is "All African Americans are lazy, welfare bums." Measuring these perceptions or stereotypes is a difficult task. The stereotype may have an element of truth. For example, that African Americans are more likely to be unemployed is supported by statistics (Apostle et al., 1983). The second measure of prejudice, the affective, includes negative feelings about others, for example, "I don't like African Americans." This affective domain is difficult to measure because the feelings may or may not lead to discriminatory behavior (Apostle et al., 1983). Because beliefs are an indicator of how society feels about race relations, however, such factors need to be examined. The third part, the prescriptive, is the desire or willingness to engage in discriminatory behavior (Apostle et al., 1983), for instance, "Hispanics shouldn't supervise Caucasians." Prescriptive instruments "ordinarily have greater face validity than perception based measures (Apostle et al., 1983, p. 10). That is, it may appear to be a more valid measure but in reality offers little such evidence. It is easier to recognize the differentiation between prejudicial and non-prejudicial responses, and an example would include the Bogardus Social Distance Scale (Bogardus, 1968).

### Social Distance Scale

"Social distance" refers to the degree of intimacy desired or tolerated with members of another group (Owen, Eisner, & McFaul, 1981). That is, how comfortable are members of different ethnic groups with social relations such as dating, voting, friendships, and so forth. Social distance research has had widespread acceptance among researchers in the social sciences who have been using the Bogardus Social Distance Scale since the early part of the century (Owen et al., 1981). The Bogardus Social Distance Scale provides subjects a series of questions to determine the degree of comfort with people of other groups. The scale may be used to survey subjects of any ethnicity, and there is no concern of responding to blatant stereotypes (Apostle et al., 1983). The original scale, though somewhat dated, has proven to be a reliable instrument in the measure of social distance among college students even five decades after its development (Crull & Bruton, 1979). It has also been validated by Amir (1976), Ray (1983), and Tajfel (1983). Based on the Bogardus Scale, the Social Scale developed by Byrnes and Kiger (1988) measures social desirability and is directed at Caucasians, but it may be used in the study of other ethnic groups. Most of the role-play situations in the scale are common to typical college students. The scale has good internal reliability, has been validated using the Modern Racism Scale (McConathy, 1986), and is a prescriptive scale highly correlated with blatant expressions of racial prejudice (Sniderman & Tetlock, 1986).

### Current Study

The research for this study focused on two basic areas: the study of the association between ethnic contact on racial comfort and social distance research. The theoretical basis for the study was founded on the "contact" hypothesis, as defined by several social psychologists (Allport, 1954; Amir, 1976; and Tajfel, 1978).

Since Allport's list of significant factors is long ( $n = 30$ ), this study confined itself to the four most pertinent types of contact that student government leaders have with other ethnic groups and examined whether the forum of student government is conducive to enhance comfort among students of different ethnic origins. These factors were equal status, cooperative interdependence within the group, support by authority figures, and opportunities to interact with "outgroup" members as individuals. These four factors could lead to more interaction and promote more positive interactions between students of different ethnic groups.

This study has two major purposes. First, the self-reported contact of student government members with students of other ethnic groups was measured through the use of a questionnaire based on one used by Stanford University (1989). Second, to examine students' willingness to interact with members of other ethnic groups, this research used a modified version of the Social Scale (Byrnes & Kiger, 1988).

### Hypotheses

#### Hypothesis 1.

There is no significant difference in ethnic comfort between Associated Students of Oregon State University (ASOSU) Senators and Task Force Directors and the OSU student body at large (Contact is measured by: (a) number of friends, (b) number of acquaintances, (c) duration of contact, (d) frequency of contact, and (e) reaction to contact with the group).

#### Hypothesis 2.

There are significant differences between ASOSU Senators and Task Force Directors and the OSU student population-at-large in their reported comfort level

with members of target groups, namely, American Indians, African Americans, Caucasian Americans, Asian Americans, and Hispanic Americans.

### Definition of Terms

For research purposes, certain terms are used as follows:

- **contact hypothesis:** A proposition suggesting that interaction between individuals belonging to different groups will be associated with less ethnic prejudice and intergroup tension (Hewstone & Brown, 1986, p. 1).
- **ethnic prejudice:** ". . . An antipathy based upon a faulty and inflexible generalization. It may be directed towards a group as a whole, or toward an individual because he (sic) is a member of that group" (Allport, 1954, p. 9).
- **ingroup:** The ethnic group to which a person belongs (Allport, 1954).
- **intergroup tension:** Tension between different ethnic groups (Allport, 1954).
- **multiculturalism:** Reference to a wide range of many ethnic groups (such as African American, Asian American and American Indian, for example) without grading, comparing, or ranking them as better or worse than one another and without denying the very distinct and complimentary or even contradictory perspectives that each group brings with it (Pedersen, 1991, p. 44).
- **outgroup:** The ethnic group of which a person is not a member (Allport, 1954).
- **minority:** An ethnic group differing in background from the majority of the population, such as any non-white person or group (Allport, 1954).
- **social distance:** The degree of closeness desired with members of another group, as defined by Park (1924).

- **target groups:** The five ethnic groups which subjects are asked to respond on the contact scale and the social scale; for example, African American, Asian American, American Indian, Hispanic American, and Caucasian American.

## Chapter 2 — Review of the Literature

This research and analysis are based upon the contact hypothesis and social distance research, both of which have been extensively studied. As early as 1922 Bogardus' interest in race relations led to his study and development of the Social Distance Scale, a measure of specific behavioral manifestations of prejudice (Owen, Eisner, & McFaul, 1981). In 1954, Allport wrote *The Nature of Prejudice* in which he discussed the contact hypothesis of race relations and conducted volumes of research concerning the nature of prejudice.

Research on contact theory itself is wide-ranging, including work on stereotypes, attributions (Pettigrew, 1979), cooperation verses competition (Sherif, 1953; Cook, 1978), and equal status (MacKenzie, 1948; Pettigrew, 1979; McClendon, 1974; Riordan, 1978). Hewstone and Brown (1986) contrasted the interpersonal approach of Pettigrew and Cook with an intergroup approach. Since the early days of the civil rights era, school desegregation research has been based upon the contact hypothesis (Stephan & Rosenfield, 1978; McConahay, 1978; St. John, 1975).

### Contact Hypothesis

"In its earliest form, the contact hypothesis postulated simply that association with persons from a disliked group leads to the growth of and respect for that group" (Hewstone and Brown, 1986). It was soon known that such a simple version was a misconception. As early as 1947, Williams believed factors such as intergroup collaboration, superordinate goals, and equal status among individuals were most important in changing prejudicial attitudes (Stephan, 1985). In 1954, Allport stated,

Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is

greatly enhanced if this contact is sanctioned by institutional supports (such as, law, custom, or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups. (p. 281).

Allport (1954) listed 30 factors relevant in researching or decreasing prejudice. While all these factors are still useful today (Hewstone & Brown, 1986), four of these continue to be stressed in social distance research.

These factors are equal status, cooperative interdependence within the group, support by authority figures, and opportunities to interact with outgroup members as individuals (Stephan & Brigham, 1985). The contact measures specific to Allport's research which Allport lists under "quantitative aspects" include frequency, duration, number of persons involved, and variety of individuals (Allport, 1954).

Research has shown that mere contact does not necessarily reduce intergroup tension; in fact, interaction may even increase tension between groups (Amir, 1976; Ray, 1983; Stephen, 1985) especially under conditions of unequal status and high competition. Such conditions exist where minorities are under represented, less educated, and yet still are expected to meet the same expectations as their fellow Caucasian students. According to Hewstone and Brown (1986), Cook was one of the first to ask, "in what types of contact situations, with what kinds of representatives of the disliked group, will interaction and attitude change of specific types occur, and how much will this vary for subjects of differing characteristics?" (Cook, 1962, p. 76).

### The Interpersonal Approach

Cook (1978) predicted that five conditions must be present to decrease prejudice: (a) equal status within the confines of the contact situation; (b) the characteristics of outgroup members must disconfirm prevailing outgroup stereotypes; (c) the situation must encourage or require cooperation toward a joint

goal; (d) the situation enables individuals to know one another as fellow students, not as stereotypical group members; and (e) the social norms within the contact situations must favor "group equality" and "intergroup association" (Cook, 1978, p. 97). Cook differed from the contact approach because he placed less emphasis on institutional support, preferring to rely on the creation of cooperation between groups as the norm rather than "the law" as determined by the courts.

This explanation for Cook's five criteria was extracted from a theory of interpersonal attraction implying that individuals realize they share many values with members of various groups with whom they have interacted (Hewstone and Brown, 1986). Repeated positive interactions will eventually "neutralize the negative relationship" between the two groups. A person is seen as an individual who just happens to belong to an outgroup. For people to reconsider their old stereotypes, they must interact with persons from the outgroup who are atypical.

A major problem with the interpersonal theory is that ingroup members frequently do not generalize differences from outgroup members to the entire outgroup because they are not seen as "real" outgroup members. Attitudes toward specific individuals may change, but there is "little or no change in attitudes towards entire groups in general" (Hewstone and Brown, 1986, p. 5). The stereotype is so deeply ingrained that the ingroup member may say, "Well you're not like them: You're different, but the rest of Jews, Blacks, and Asians are still lazy, no-good bums" or "Some of my best friends are Jews." Allport (1954) called this "re-fencing" because people carefully "re-fenced" (Allport, 1954, p. 5) their categories in order to allow them to maintain their old prejudices. Consequently, the stereotype remained in effect because there was an exception that proved no challenge to the old rules.



## The Intergroup Approach

Hewstone and Brown (1986) found the newer intergroup perspective based on the work of Tajfel (1978) much more useful in decreasing prejudice. In this approach, people have more of a "social" than a "personal" identity. Both outgroup and ingroup members are seen stereotypically.

Thus, ingroup behavior is more uniform both within the group and towards outgroups because individuals develop their attitudes and action on the basis of those common group attributes . . . Both interpersonal and intergroup are the actions of individuals, but in one case they are the actions of individuals qua individuals, while in the other they are actions of individuals qua group members. (Hewstone and Brown, 1986, p. 14).

To decrease prejudice using this perspective, the outgroup member must be seen as typical of that group.

If the outgroup member is seen as an atypical member, then that person becomes the exception, and thus the ingroup becomes less likely to generalize the behavior to that of the whole outgroup. If, however, the member is seen as typical, then the ingroup is more likely to generalize other characteristics to the whole outgroup. For example, an African American who appears gifted at mathematics and poor at basketball, will likely be viewed as atypical because these are outside commonly accepted stereotypes.

Recent research supports the use of nonethnic labels in removing the barricades of prejudice (Wilder, 1984; Weber & Crocker, 1983). Thus, it becomes important to make group affiliations more obvious so that people see one another as typical representatives of their groups:

It seems that as long as individuals are acting as individuals, there is no basis either for expecting any attitudinal change to be generalized throughout the group or for one person to extrapolate the positive attitudes towards one individual to other group members . . . All we can expect, if the contact remains on an interpersonal basis is that a

few personal relationships will change, but the intergroup situation will remain unaltered. (Hewstone & Brown, 1986, p. 19).

The distinction between intergroup and interpersonal approaches may not be so absolute.

Rothbart and John (1985) pointed out that people belong simultaneously to several broad categories, such as ethnicity, gender, and occupation. Male and female subjects categorized people differently when judging men and women in the same occupation (Park & Rothbart, 1982). Same-sex subjects (ingroup members) tended to rely on occupational information, and opposite-sex subjects (outgroup members) relied more on gender information. This difference is important because it illustrates that a mixture of sexes or races will change the dynamics and priorities of any group or organization. But this change can only occur if we can get an ethnically mixed group; otherwise, negative, old stereotypes will continue to be played out.

Whether an ingroup or interpersonal approach is preferred, proponents of both approaches agree that stereotypes must be invalidated in order to decrease prejudice or encourage a willingness to interact with other groups. To accomplish this, four aspects are important to consider: the type of interaction among the individuals or groups; how many people are involved; how positive, how frequent, and how long is the interaction; and how much variety is there among both ingroup and outgroup members (Allport, 1954; Stephan, 1985).

### Social Distance Research

Park (1924) believed people were conscious of the amount of intimacy they feel in all relationships. Hypothesizing that this awareness could be measured, Park coined the term "social distance" to describe the principle (Park, 1924). Park used in his research on social distance the terms "class" and "race consciousness" to refer to states of mind in which individuals become aware of the distances that separate or

seem to separate them from other classes and races. This consciousness may cause people to be more reserved when they might otherwise be intimate and understanding. In Park's example, the cook and the "lady of the house" may be on intimate terms as long as the cook maintains the "proper distance," proper distance meaning that the cook is operating only as hired help and interacting with the "lady" only under the guise of that occupation and not in outside social situations. As long as the proper social distance is preserved, everyone is capable of getting along with everyone else. Park concluded that

Prejudice is seeking to preserve the social order and social distances upon which that order rests . . . One purpose of racial study is to measure not our prejudices, but the vaguer, subtler taboos and inhibitions which persist. (Park, 1924, p. 344).

When the social structure is challenged, however, prejudice is the outcome.

In 1925, Bogardus devised a scale to measure social distance. It is now generally known as the Bogardus Social Distance Scale (BSDS). In the original version, respondents rated how willing they were to admit members of 30 ethnic groups based on seven classifications (Bogardus, 1967):

1. By marriage.
2. To my club as personal friends.
3. As my neighbors.
4. To employment in my country.
5. As citizens in my country.
6. As visitors to my country.
7. I would exclude them from my country .

The terminology was updated by Bogardus (1967), though the scale is basically the one used in the original. The social distance score is found by determining the mean of the lowest response number, on a scale from 1–7, selected for each group by the respondents. For example, selecting a 3 would mean the respondent would accept another as a neighbor. A low social distance score means one is willing to have more

contacts and a closer relationship. A high social distance score means one is willing have less intimate contact (Bogardus, 1925).

### BSDS Research Studies

The BSDS is one of the oldest, most reliable, and the most frequently cited measures of social attitudes referenced in social psychology texts (Neumeier, 1974). The scale is not specific to any one particular ethnic group, and it has been used in many different settings and cultures (Sell, 1987; Pass, 1987; O'Driscoll, Haque, & Ohsako, 1983).

Bogardus conducted four nationwide surveys of racial social distance from 30 ethnic groups in 1926, 1946, 1956, and 1966. The cross-sectional series included over 8,000 students and encompassed years. The respondents were from middle-class backgrounds, ranged from ages 19 to 26, and all were enrolled in undergraduate sociology or psychology courses (Bogardus, 1968). Over 24 colleges and universities were involved each year, and the study was expanded to 36 institutions in 1966. In 1977, Owen, Eisner, and McFaul (1981) continued the 10 year studies, surveying 1488 students from 12 colleges in a similar geographical distribution. Bogardus found that respondents were more willing to interact with people similar to themselves, and they gave these groups a low (desirable) social distance score. This tendency to be more willing to interact with groups similar to oneself appears to extend across all cultures (Bogardus, 1967, 1968; Sinha and Upadyhyya, 1962; Schaefer, 1987; Sell, 1987).

Because of the tendency to be most comfortable with one's own group and because the majority of respondents were of Northern European descent (Bogardus, 1967), it was not surprising that Bogardus' subjects ranked Caucasian Americans and western Europeans as "most comfortable." In the middle third were the eastern

and southern Europeans and generally near the bottom were such minorities as American Indians and African Americans.

Social distance scores showed the absolute level of expressed prejudice has declined somewhat over the past decade, though it remains approximately at 2 which means people are willing to admit others to their "personal club." The distance between the highest mean social distance score assigned a group and the lowest decreased significantly from 2.85 in 1928 to 1.55 in 1966, and again to 1.37 in 1977. In 1928, only 10% of Caucasian Americans were willing to marry southern or eastern Europeans (despite the fact they were also Caucasian), and only 1% were willing to marry African Americans (Bogardus, 1928). By 1967, people were significantly more willing to marry into families or interact with most members of the 30 ethnic groups listed in the study.

The groups in the lower end of the hierarchy were minority groups and were most affected by declining social distance. African Americans moved from the lower third of the hierarchy for the first time. After staying at the bottom of the middle sector for almost 40 years, American Indians jumped to tenth place at the bottom of the top sector (Owen et al., 1981).

According to Adams (1991), Bogardus felt that his longitudinal research could be reviewed "to see whether changes in racial reactions have been influenced by public affairs" (p. 3) such as war. The rank ordering of the groups remained relatively unchanged, though some of the target groups, such as the Japanese and Russians, did rotate positions on the scale during World War II and the Cold War era. The trend toward lower social distance would have been more prominent, but times like World War II and the Depression lessened it. Bogardus (1967) predicted the decline in distances would continue, but at a slower rate.

National polls have confirmed that racial bias is decreasing (Smith & Dempsey, 1983) and that the social distance has decreased (Schuman et al., 1985);

however, some researchers have questioned this downward trend (Crull & Bruton, 1985). Payne, York, and Fagan (1974) noted that there was actually little variation in social distance scores in Bogardus' studies until the decade between 1956 and 1966. In the 1966 study, Bogardus had even noted that the greater number of African American students responding in the later study had naturally lowered somewhat in the total distance score received by that group (Bogardus, 1967).

Crull and Bruton (1985) found the research of Owen et al. (1981) to be misleading because it apparently was based on comparing the overall social distance mean and overall spread for the means of the 30 target groups. The large decreases in social distance toward African Americans and American Indians (Crull & Bruton, 1985) led to a greater difference in overall scores. "A decrease in social distance score occurred for only seven of the 30 groups to which their subjects responded. Twenty-two of the 30 groups averaged higher social distance scores in 1977 than in 1966 and 15 averaged higher than in 1956!" (p. 57). The trend toward increased tolerance which Bogardus (1967) predicted needs more examination.

#### Other Social Distance Studies.

Students surveyed in 1975 and 1984 at a major midwestern university were more willing to interact with African Americans, but they were less willing overall to interact with other groups than were Bogardus' members and 1966 study groups (Crull and Bruton, 1979, 1985).

Another series of cross-sectional studies conducted at four colleges in Georgia (Gray & Thompson, 1953; Fagan & O'Neill, 1965; Payne et al., 1974) showed little difference in social distance scores between 1965 and 1971. Students in 1965 were more willing to interact with most other groups than those in 1953, but less willing to interact with Cubans and "Negroes" (Fagan & O'Neill, 1965, p. 290). The increase in social distance toward African Americans "did not indicate an increase in prejudice,

but rather a more realistic response" (Fagan & O'Neill, 1965, p. 290). "It is possible that in 1953, ratings were made with much more certainty that Negroes would not be neighbors or schoolmates or social equals. In the present study, the ratings represent realistic appraisals of events" (p. 289).

In 1954, the landmark *Brown vs. Board of Education* struck down the separate-but-equal education system. During the civil rights movement in the 1960s, many southern Caucasians may have reacted differently knowing they were much more likely to be interacting with African Americans than were their counterparts in 1953. Students in 1953 could say they would be willing to interact with African Americans because they knew it would not really happen.

#### Social Distance Studies Compared by Ethnic Background.

The majority of social distance studies have been conducted with African American and Caucasian subjects. Less is known about the social distance attitudes of other ethnic groups. Dyer, Vedlitz, and Worchel (1989) were interested in how accepting minorities were of other minorities and the majority group, and in how minority attitudes compared with those of the majority group. They discussed three ways a minority group could react toward other minority groups.

First, members of minority groups could be "prejudiced against members of all other outgroups, whether minority or majority" (Dyer et al., 1989, p. 608). This thesis was based on social identity theory (Tajfel & Turner, 1986), which stated that people identify with their ingroup to enhance their own esteem (ingroup favoritism), and they would attempt to maintain distance from groups they perceive negatively (Dyer et al., 1989).

Second, the minority group could adopt the prejudices held by the majority group, viewing the majority group positively and other minority groups negatively. This hypothesis was based on a number of theories. Social learning theorists would

explain that people imitate the behaviors and attitudes of powerful models (the majority culture). Proponents of the "frustration-aggression" approach would explain that minorities displaced their aggression onto other minorities because they were safer and weaker targets than majority group members. Finally, attribution theorists may have viewed minorities as "blaming the victim," so that weak people were seen as causing their own problems and were therefore worthy victims of discrimination (Dyer et al., 1989).

The third hypothesis, which is based on Heider's (1958) balance theory, stated that minority groups which experience prejudice and discrimination should be attracted to one another and reject the majority group. This hypothesis forms the theoretical basis for "coalition formation" (Dyer et al., 1989).

Reviewing social distance research that discusses the responses by ethnic groups would be helpful in determining which of these three hypotheses has been the most sound foundation. Social distance research based on the Bogardus scale appears to support the first or third hypotheses in which minorities discriminate against other minority groups (African Americans discriminate against Hispanics, for example).

African Americans rank ordered the 30 groups differently than Caucasians (Fagan & O'Neill, 1965; Payne et al., 1974; Schaefer, 1987). African American students felt greater social distance toward some of the European groups, but less distance towards "several groups of mixed ancestry or darker complexions," such as Indians, Spanish, Italians, Mexicans, American Indians, and Filipinos than Caucasian students (Schafer, 1987). African Americans have reported less willingness to interact with those 30 largely Caucasian groups than did Caucasian respondents (Gray & Thompson, 1953; Payne et al., 1974; Schafer, 1987). African Americans were the least willing to interact across ethnic lines, Asian Americans were somewhat more willing to interact with those of different ethnicities, and



Caucasians were the most accepting in the Owen et al. (1981) study. African Americans also reported higher social distance scores than Caucasians, Hispanic Americans, and Asians in a community college study conducted in the South (Rapp, 1982).

At first glance, these results appear to suggest that Asian and African Americans are less willing to interact with other groups than are Caucasians; however, their answers were undoubtedly a function of the bias of the Bogardus scale. Over half of the 30 groups listed on the questionnaire were of European descent, and 29 of the 30 groups were Caucasian. It is reasonable to believe, then, that the Asian and African Americans would answer with higher overall distance scores than would Caucasian Americans who are descendants of these groups. Schafer (1987) pointed out that African American subjects must respond to racial as well as cultural differences, and racial barriers are harder to overcome.

Actually, studies using the BSDS scale do not provide much evidence for or against the hypothesis as outlined by Dyer et al. (1989) which asserted that African Americans have had the largest gap in social distance. Though many of the researchers using the scale did conclude that African Americans were "more prejudiced" toward other ethnic groups than Caucasian respondents, the scores on the scale did not show that African Americans rejected the 30 groups, merely that they were not as accepting of other groups as were other subjects. Because the studies did not report the scores for the respondents by ethnic group, it is not known exactly how minorities rank Caucasian Americans in relation to American minorities. All that is known from those studies is that people tended to give closer scores to those similar to themselves. Therefore, it cannot be concluded from these studies that Caucasians have been more accepting of other groups in general than were African or Asian Americans.

Studies using the Bogardus scale do not yield as much information as those employing instruments that ask specific questions or which measure a level of comfort for particular situations. When using other social distance scales, more information is available.

Studies using the Situational Attitudinal Scale (SAS) utilized by Dyer et al. (1989) (which was designed to measure the relative comfort or discomfort between ethnic groups in social situations) showed that Caucasians were less comfortable with minority groups than were minorities with the majority. Caucasian students reported more negative attitudes toward African Americans in situations involving close and sustained personal contact than in situations involving less personal contact (Minatoya & Sedlacek, 1984; Sedlacek, Brooks, & Mindus, 1973; Sedlacek & Brooks, 1976; Triandis & Davis, 1965). Caucasian students had more negative feelings, particularly in close social situations, when African Americans and Hispanics were mentioned than when no race was given. When asked how they felt about a friend being engaged, Caucasians felt significantly more negative toward African Americans than toward Hispanics (White & Sedlacek, 1977).

In contrast, African Americans were found to accept Caucasians and to want less distance from them in three studies conducted in 1980, 1982, and 1985 by the National Opinion Research Center General Social Surveys. These surveys included specific questions about interracial marriage, school segregation and interracial socializing in the home (Wilson, 1986; Tuch, 1988).

Results were similar at a small, private liberal arts college where African Americans made up 3–5% of the population (McClelland & Auster, 1990). All 20 African Americans sampled were willing to be roommates or date, but fewer Caucasians were willing to be as close with African Americans. While 80% of African Americans would become seriously involved and 60% would marry a Caucasian, respective percentages for Caucasians toward African Americans were

27% and 21%. In addition, Caucasian students were much more willing to say they would consider interracial dating or marriage than would actually do it. McClelland and Auster stated that "the key is not the absolute level of intimacy that members of a given race find acceptable; rather, it is the existence of different levels of acceptability between races" (p. 626).

Although they only surveyed Caucasians and African Americans, the studies of Wilson (1986), Tuch (1988), and McClelland and Auster (1990) provide some evidence to the first and third hypotheses of Dyer et al. (1989), both of which predict that minorities will reject the majority group. In addition, Hispanic Americans and African Americans had more positive attitudes about interacting with Caucasians than vice-versa (Dyer et al., 1989).

Of these studies only that of Dyer et al. (1989) provided information about minority-group attitudes toward other minorities. In an effort to discover how to answer their hypotheses about minority attitudes towards other minority groups, Dyer et al. (1989) conducted a more definitive scale than Bogardus' to survey minority groups. This telephone survey of 249 African Americans, 256 Hispanic Americans, and 708 Caucasians from the general population in Texas in 1986 contained nine social distance questions ranging from attitudes regarding marriage to swimming together to having children in the same school. Respondents ranked each question on a scale of -2 (reject somewhat) to +2 (accept completely). Each of the nine items was scored separately for each of the three respondent groups. Although few respondents expressed strong negative feelings, Caucasians felt that all contact except marriage with other groups was acceptable. Both minority groups found Caucasians more acceptable marriage partners than each other, but each minority group was more accepting of marriage with the other minority group than Caucasians were. These general results remained the same when age, education, and income were taken into account. The most accepting were those in the age ranges of

30–44 and 18–29. Lower socioeconomic groups generally were less accepting, and people with more education were more accepting. Because the two minority groups in the Dyer et al. (1989) study generally were more accepting of the majority group, the last hypothesis, that minority groups will reject the majority, was not supported. Because the groups generally were all accepting of each other, the first hypothesis was not supported either. Thus the Dyer et al. (1989) study supported the second hypothesis, that minority groups generally take on the prejudices of majority groups, accepting majority groups over other minorities. The last hypothesis, that minorities will be attracted to each other and reject the majority group was found to be unsubstantiated. Because the groups were found to be all accepting of one another, the first hypothesis was not supported either. Thus, the Dyer et al. (1989) study supported the second hypothesis, that minority students typically take on the prejudices of majority groups, accepting them over other minorities.

More evidence to disprove the Dyer et al. first and third hypotheses which state that minorities will reject majority groups, was found by a University of Colorado researcher to be untrue (Hobson-Panico, 1990). Part of the Colorado research on campus diversity included asking students how comfortable they were interacting with students from the five ethnic groups studied (Caucasian, African American, American Indian, Hispanic American, and Asian American):

Minorities, especially blacks are somewhat less comfortable with white faculty, staff, and students. But even among blacks, more than two-thirds said they feel comfortable with whites. More than 80% from each group feel comfortable with minority faculty, staff, and students not of their own ethnicity. Asians report being least comfortable with students from other minority groups.

(Hobson-Panico, 1990, p. 7).

American Indians held opinions between those of African American students and Caucasian students. Thus, these minority students did not reject Caucasians or other

minority groups either. However, there was not sufficient information provided on how students felt toward whites in relation to minority group members.

#### Research of Social Distance Studies.

In general, evidence does indicate that college students have become more accepting of other groups (Bogardus 1967; Owen et al., 1981). Still, much disagreement remains (Payne et al., 1974; Crull & Bruton, 1985). Certain research shows Caucasians to be more accepting of the Bogardus group than minority groups (Owen et al., 1981; Rapp, 1982; Schafer, 1987). However, other studies suggest that Caucasians are not as comfortable with African Americans as African Americans are with Caucasians (Wilson, 1986; Tuch, 1988). In comparing minority opinions about minority groups, some research suggests that minorities reject the majority group but offer little information about how minorities view other minority groups (Owen et al., 1981; Gray & Thompson, 1953; Fagan & O'Neill, 1965; Payne et al., 1974; Schafer, 1987). Other work shows that minorities do accept the majority (Wilson, 1986; Tuch, 1988) and that they are more comfortable with majority than they are with other minorities (Dyer et al., 1989; Hobson-Panico, 1990).

#### Interethnic Conflict and Social Distance

At Florida State University, researchers conducted a survey of self-reported contact between African American and Caucasian students, but comfort levels between the groups was not mentioned. African American students were more likely to have contact with Caucasian students than vice-versa. Over 75% of the African American students reported that they had the most in-class contact with Caucasians students. Caucasian females had most of their contact in the residence hall with classes listed as second. One-third of each of group reported the most interethnic contact in student housing (Dalton, 1991).

In a recent study, Stanford University (1989) surveyed all five groups (African Americans, Caucasian Americans, Asian Americans, Hispanic Americans, and American Indians) concerning interethnic contact. Almost all students had at least some acquaintances at Stanford who were of another ethnic group. "The patterns of friendship and acquaintances also reflected the affinity that members of each group had for their own group . . . Blacks in particular seemed to make a special effort to associate with members of their race" (p. 168). Over 50% of the Caucasians, almost 75% of the African Americans and Asians, and nearly all American Indians and Hispanics had dated outside their own ethnic group. Fewer people had American Indian acquaintances or friends than among the other five groups.

More than 90% of Stanford students were "quite" or "very" comfortable with those of other ethnic groups. Minority students were also asked if they "felt as comfortable with Caucasians as with those of their own groups." Over 80% of Asians and Hispanic Americans and about 70% of American Indians and African Americans agreed "strongly" or "somewhat strongly" that they did.

The Stanford survey also asked students if they felt their presence at Stanford had "improved their ability to interact comfortably with people of different racial or ethnic groups." There was a wide range of thought, with 60% of the American Indians agreeing that it had improved "a great deal" or "quite a bit." The responses from the other groups to this question were more evenly distributed along the continuum of improvement.

Bogardus (1967) suggested that those who had previous contact with the ethnic groups listed on his scale reported lower social distance scores. Dyer et al. (1989) claimed those with higher education and income had more contact with minority members and that this led to their willingness to interact with members of other groups. However, as discussed in the previous section on the contact

hypothesis, research has shown that increased contact with other ethnic groups does not guarantee a decrease in prejudice or lowered social distance toward those groups.

Ray (1983) noted that in the United States increased contact was thought to correct negative stereotypes and lead to greater tolerance, but in Britain, Australia, and South Africa contact was often thought to increase prejudice. He found no support for either in a study conducted in Australia and suggested it was too simplistic to state that contact increases or decreases prejudices.

Van der Berghe (1962) reported on a study group of 383 mostly young, middle-class students from a variety of ethnic groups in South Africa. He reported that higher social contact did not lead to greater willingness to interact with other groups; however, he felt that low contact was not a good indicator of greater unwillingness to interact, because "many relatively unprejudiced persons" have no opportunity for interethnic contacts" (p. 69). Caucasian South African academicians who worked with Black colleagues were more tolerant toward Black South Africans than those who worked only with Caucasian academicians (Spangenberg & Neal, 1983). The researchers concluded that equal status contact was necessary to improve intergroup attitudes.

More frequent contact between American and Chinese students did not diminish Chinese prejudice toward Americans (Li & Yu, 1974). However, Egyptian students who had lived outside Egypt were more willing to interact with people from nations than students who had not lived abroad (Sell, 1987).

O'Driscoll et al. (1983) did not find an overall correlation between contact and intergroup attitudes among Australians, Japanese, and Pakistani students. However, Australian and Japanese students who had greater knowledge of contact with each other were more accepting of each other than were their countrymen who scored lower in the contact and information measure. The contact measure consisted of three major items: students were asked whether they had "lived in the country of

the target group, visited that country, heard about (through friends, relatives, or the mass media) or met a person from that country. A point was scored by each item checked" (p. 165). Then, they estimated frequency on a scale of 1 to 4 by asking how often students had heard or read about the target country. The third item encompassed personal contacts and asked whether students had any friends, relatives, or acquaintances who belonged to the target group. These three items--type of contact, frequency, and personal contacts--were combined to form a single score. Obviously, hearing about the country as opposed to visiting or even living there would lead to very different levels of understanding of that culture. The contact items were not equally weighed and did not capture well the differences in contact. An analysis of the separate items might have made for a more comprehensive study. O'Driscoll et al. (1983) conceded that the study "did not allow for differential item weights," and they stated "the efficiency of weighing the relative contribution of each item to a subject's overall score . . . has yet to be demonstrated because the contribution of that item may vary across respondents" (p. 165).

#### Contact Studies in the United States.

Bogardus (1967) noted that "social contacts may be few" and "little communication of a constructive kind takes place" among people of color and other United States citizens (p. 40). He suggested that those who were willing to interact with other groups on the scale have had previous contact with those ethnic groups. He felt that because Caucasian males had more racial contacts, they would report lower social distance scores than women. Beginning in the 1960's, when women had more opportunity for contact because of increased involvement in business and public affairs, women became more willing to interact with other groups. Bogardus predicted that if women continued to have more opportunities for interracial contact, the difference in scores between men and women would "largely disappear"



(1967). In fact, recent studies show that women's social distance scores were lower than those of men (Crull & Bruton, 1979, 1985; Robinson, 1987).

In examining prejudice and social distance in several American cities, Pinkney (1961) found a positive correlation exists between intergroup contact and decreased prejudice. "If the contact develops into interaction, the prejudice is likely to be further reduced" (p. 290). Apostle, Glock, Piazza, and Suezle (1983) included a contact measure in their extensive racial attitude survey of Caucasians in the San Francisco area. The researchers were primarily interested in the explanations Caucasians gave for African Americans being economically disadvantaged. Contact was a minor portion of the analysis. They categorized contact into a subjective component defined by numbers of acquaintances and friends, as well as a behavioral component which asked how often subjects entertained and were entertained by African Americans. Apostle et al. (1983) found the effects of interracial contact on attitudes were "not strong" when people's explanations were controlled.

Students who reported contact with certain groups had lower social distance scores (Crull & Bruton, 1979). A later study (Crull & Bruton, 1985) using a refined contact measure that asked students to categorize on one scale their contact with a variety of groups as favorable or unfavorable and as close or not close.

Unfortunately, "close" was not well defined. In addition, scores of students who reported no contact were not reported in the article. Those who reported positive contact, whether close or not, were more likely to be willing to interact with outside groups. Perhaps surprisingly, students who reported close unfavorable contact were not more likely to report the most rejecting attitudes. Those reporting the greatest social distance were more likely to report unfavorable but not close contact.

"Apparently students do not necessarily generalize from very negative personal contacts to form negative stereotypes of social groups" (Crull & Bruton, 1985). The same refined contact scale (Crull & Bruton, 1985) and the Bogardus Social Distance

Scale were employed at Iowa State University with 784 residence-hall students, of whom 109 were racial minorities and were international students (Robinson, 1987). Students who had reported favorable contact were generally more tolerant than students with no contact or unfavorable contact. Students who had no contact with various groups were more tolerant than students who had previous negative contact.

The Crull and Bruton (1985) contact scale provided no extensive information about the types of contact people have had. Furthermore, it did not give information on how varied the contact with a group might have been. In addition, "close" and "favorable" were not operationally defined. Thus, it was conceivable that one person could have limited "close" to indicate a friendship, whereas others may have included a coworker or neighbor in their definition. More clarity among operational terms is needed, for example, what "close" means.

#### Desegregation Research.

Many racial-attitude studies were conducted in desegregated elementary and high schools by researchers who were interested in whether the increased contact in these schools brought about better racial relations (Stephan & Rosenfield, 1978). Many of these studies inferred increased contact because students were in desegregated schools; however, these investigations did not include contact measures. Sampson (1986) cited Scott's review of studies which showed positive results on racial attitudes. St. John (1975) reviewed studies, some of which showed mixed findings. The rest were evenly split between positive and negative effects of contacts on prejudice. It was more common to find that increased contact led to less prejudice in research on younger students. Studies on high school students were more likely to show that increased contact led to more prejudice. McConahay (1978) pointed out that most of the studies reviewed by St. John (1975) were flawed methodologically. He was unable to find one "true" experiment and only two quasi-

experiments in the group. Few studies on the effects of desegregation or multiculturalism at the college level have been conducted. Braddock (1979, in Sampson, 1986) found that increased contact on a southern college campus did reduce expressions of racial prejudice.

Cross-sectional social distance surveys of Caucasians undergraduates were conducted in 1963, when desegregation took place, and every three years until and in 1982 and 1988 at the University of Alabama (Muir, 1989). Although there was a reversal in the social acceptance of African Americans in 1982, the research showed an increasing acceptance of African American students. "The 1988 data indicate significantly greater acceptance of eating with, rooming with, double dating and dating of blacks . . . Willingness to date blacks while again increasing, remains well below the 1972 level" (Muir, 1989, p. 84). Data from both the 1982 and 1988 studies indicated that seniors were more accepting of African Americans than were freshmen. This is "consistent with the widely held belief that University life is more liberalizing" (Muir & McGlamery, 1984, p. 965).

African American and Caucasian freshmen at Northwestern University were surveyed in the fall of 1979 and again in the spring of 1980. At the time, racial minorities made up less than 10% of the student population at Northwestern. At the beginning of their first year, African Americans longed for an ideal situation but realistically expected negative racial interaction. On the other hand, Caucasians believed that the two groups would get along quite well. At the end of the freshman year, both groups had lower racial expectations, but their attitudes about how racial groups ought to interact had not changed much. Students' perceptions of the actual interaction patterns fell far short of their expectations (Tallet, 1981). "Racial attitudes became increasingly negative for both African American and Caucasian respondents" (p. 181). Although at first glance this study could be seen as disconfirming the contact hypothesis, Talley (1981) offered some explanation for the

results, based on Allport's (1954) criteria. First, an academic year may not be long enough for prolonged contact. Second, there did not appear to be much "biracial contact" on campus (lunch tables and intramural teams were either all African American or all Caucasian). Third, she was not sure that African Americans and Caucasians saw themselves as social or academic equals.

In the wake of the race riots of the late 1960s, Sayler (1969) was interested in how to affect the racial attitudes of teacher-education students at the University of Washington. Fifty students tutored African American high school students for eight weeks, for a total of approximately ten hours, while another group of 53 students tutored Caucasian students. An additional 174 teacher-education students did no tutoring. Those who tutored the African American students tended to be somewhat less prejudiced on a social distance measure of the Multifactor Racial Attitude Inventory. Sayler concluded that the ten hours over eight weeks was not enough to significantly influence prejudicial attitudes and recommended that other types of interracial contact be investigated.

In an extensive look at interracial contact, Jackman and Crane (1986) examined racial and policy beliefs, feelings, and social dispositions using data from a survey of 1914 respondents in the fall of 1975 by the Survey Research Center at the University of Michigan. Having a variety of interracial contacts was found to be a more influential factor for Caucasians than having intimate interracial relationships. In addition, "racial attitudes are more positive when African American friends have higher socioeconomic status than when they have equal status" (p. 480). Their conclusions were somewhat discouraging:

The lack of necessity for highly intimate contacts across racial lines is a plus, but the importance of experiencing a variety of interracial contacts is a serious drawback, since most Caucasians who do have contact with African Americans experience only token contact. Even more discouraging is the apparently critical significance of the relative socioeconomic status of African American contacts. It appears that

unless an increase in interracial contact is accompanied by wide-scale change in the relative socioeconomic position of African Americans, it is unlikely to have a salutary effect on Caucasian racial policy views (Jackson & Crane, 1986, p. 480).

Thus, social status, variety, and proximity are important in determining interracial friendships for Caucasians.

### Summary

Opinions and attitudes of Caucasians toward other groups have been more frequently studied than the attitudes of minorities. More studies have been conducted with African American students than with other non-Caucasian ethnic groups. Generally, this research has supported the belief that students are more willing to interact with those who are similar to their own group though students also appear willing to accept members of other ethnic groups. There is a trend toward increasing willingness to interact with those of other groups (Smith & Dempsey, 1983; Schuman et al., 1985).

Research discussed in this review of literature indicates that, in general, African American students rate the predominantly Caucasian groups from the Bogardus scale less positively than do Caucasian students (Owen et al., 1981; Payne et al., 1974; Schafer, 1987). African Americans and Hispanics see Caucasians more positively than Caucasians view African Americans or Hispanic Americans (Dyer et al., 1989). In addition, Caucasians view Hispanics more positively than African Americans (White & Sedlacek, 1987).

For this study, background research is sparse on how select groups of student leaders view minorities and issues of multiculturalism. While most OSU participants in student government are Caucasian, there has been an increase in minority participation over the last three years according to the Student Activities Center although no scientific study has been conducted to support this claim. Given that

student government groups are frequently assigned the task of debating racial-ethnic issues in a very public forum, it might be worthwhile to study what impact (if any) that process has on participating students. The null hypothesis would be that association has not led to overall interethnic comfort, while its alternative would be that such a volatile forum could be a catalyst for positive change.

The current study's proposal was to survey student government senators and Task Force Directors at OSU and compare their responses on the BSDS to a random sample of OSU students. Surveys were distributed in late Spring Term 1994, to allow Senators and Task Force Directors to gain experience in their roles. Specific aspects were believed to be important: frequency of contact, duration, number of acquaintances and friends, and participation itself. If student government leaders could be successfully challenged on issues of multiculturalism through the medium of student government, perhaps that would go a long way in increasing comfort levels among students of different ethnic origins and promoting an atmosphere of acceptance for all students.

In a 1990 study by the Carnegie Foundation, over 50% of college presidents said race relations was *the* biggest single issue facing higher education in the next decade (Boyer, 1990); therefore, it would follow that an effective strategy to deal with the ethnic gulag might be using student leaders as a catalyst to help break down racial barriers and facilitate better overall relations between the various ethnic groups on college campuses.

## Chapter 3 — Methodology

### Purpose

The first purpose of this research and analysis is to measure the association of comfort levels of student-government leaders (Associated Students of Oregon State University [ASOSU]) compared to the general student population at Oregon State University. The second purpose of the study is to examine the degree of contact among various ethnic groups at Oregon State University. The third purpose is to determine the relation, if any, of contact to comfort among the two groups (the ASOSU group and the random student group). The results from the ASOSU student group were compared to the random student population, for the purposes of correlating contact and comfort scores.

Three methods constitute the methodology for this study: the development of the survey instrument, testing the subjects sampled for the study, and using certain statistical procedures to analyze the data.

### The Survey Instrument

The questionnaire consisted of 27 questions, five concerned with ethnic contact, six focused on ethnic comfort, and the remainder that dealt with demographic, economic, and parental information. Two basic hypotheses were formulated based on differentiation between the Associated Students of Oregon State University (ASOSU) and the students in the group selected at random. One hypothesis stated that the ASOSU group would have significantly higher rates of both contact with other ethnic groups, as well as higher scores on the comfort scale, than would the group with the students selected at random. The alternative hypothesis posited that there would be no significant difference between the two student groups.

The study was designed to use this questionnaire with a Likert-style scale consisting of 27 questions. Contact was determined by a scale developed by modifying survey questions from studies conducted at Stanford University and by Apostle et al. (1983). The modifications I made on the questions from the Stanford University study changed the term "Black" to "African American." The degree of social distance or comfort was measured by a modified version of the Social Scale (Byrnes & Kiger, 1988).

### Contact Scale.

The responses used to measure the variability of contact consisted of five components, namely, (a) number of acquaintances, (b) number of friends (closeness), (c) duration of contact, (d) frequency of contact, and (e) reaction to the contact. To determine the number of acquaintances students had, subjects were asked to indicate how many people they knew well enough to say "hi" to in any one group. For this survey, students were asked to choose from categories of "none," "one to five," "six to ten," and "more than ten." The Stanford study asked simply if respondents had acquaintances who were members of the various groups. Closeness of contact was measured by asking the number of friends in each ethnic group; Stanford University had asked if students had any friends in each of those groups. In this study, duration of contact was determined by asking how long respondents had known the "person they knew best" in any one group; Apostle et al. (1983) had asked how long they had known their "closest Black friend." The present wording was used because people may not have friends in some ethnic groups, but may have known some people long enough to have developed opinions which may have been generalized to the entire ethnic group. In preliminary testing of the survey instrument for this study, respondents were offered three categories: "less than six months," "between six



months and a year," and "over a year"; a fourth response, "doesn't apply," was added to the final survey.

### Comfort Scale.

The social distance scale was used because it deals with behaviors, and the "best predictors of behavior are questions regarding specific behaviors" (Dyer et al., 1989, p. 609). A modified version of the Social Scale (Byrnes & Kiger, 1988) was developed to measure the willingness of undergraduate students to interact with five ethnic groups: American Indian, African Americans, Asian Americans, Caucasian Americans, and Hispanic Americans. Byrnes and Kiger (1988) developed the Social Scale by adapting Westie's (1953) version of the Bogardus Social Distance Scale (Bogardus, 1925). Subjects responded on a seven point scale ranging from 1 (very uncomfortable) to 7 (very comfortable). Factor analysis was used to determine nonintimacy items and partner items within the eight situations. Nonintimacy roles included, governor, president, personal physician, spiritual counselor, roommate, and as a renter from the subject. Partner items included dance partner and dating situations. The Social Scale was modified for this study: the item "rent my home from me" was dropped because few students would be in that situation. Instead, two other roles were included: "professor" and "small group member" in a class or group activity. A total of nine items were used: governor, president, personal physician, spiritual counselor, professor, small group member, roommate, dance partner, and dating partner.

The responses used to measure the variability of comfort consisted of six components: (a) "Comfort as my president", (b) "Comfort as my counselor", (c) "Comfort as my professor", (d) "Comfort as a member of my small group or club", (e) "As my roommate", and (f) "As someone I would date." Student subjects could assess their degree of comfort on a scale of 1 to 7, moving from "Very

Uncomfortable" on the left toward "Very Comfortable" on the right. The relation between association and comfort was examined using the 2-sided *t*-test to determine the comparisons between the means of the ASOSU students and the OSU general student population.

The hypothesis was that there is a significant difference between the means of comfort and contact among the students affiliated with ASOSU and those selected at random, having no affiliation. If the hypothesis proved correct, then with a relative degree of comfort it could be postulated that involvement in student government or leadership positions may help promote more harmonious relationships between students of different ethnic origins.

### Reliability and Validity

According to Byrnes and Kiger (1988), the reliability measures for the Social Scale included tests of internal consistency among items and test-retest analyses. The alpha reliability coefficient was 0.94, obtained by resurveying a subsample of 30 of the 286 respondents. Face validity was "established through the straightforward content of the scales items" (Byrnes & Kiger, p. 112). They also assessed validity by correlating scores with the previously validated Modern Racism Scale (McConahay, 1986); the intercorrelation between was found to be  $r = 0.48$  (Byrnes & Kiger, 1988, p. 112).

### Subjects

Participants in the study consisted of full-time undergraduate and graduate students at Oregon State University (OSU), Oregon's land, sea, and space grant university, offering baccalaureate, master's and doctoral degrees. It is mainly a residential university, with 90% of its 14,000 students residing in the city of Corvallis during the academic year. According to OSU Institutional Research, the total

number of students attending the university during fall term of 1994 was 14,323, including 3,102 graduate students. Accounting for 12,268 of these students, the enrollment by ethnic group was 162 African Americans, 172 American Indians, 1010 Asian students, 422 Hispanic students, and 10,502 Caucasian students (Barnhouse, 1994).

With the aid of the Oregon State University Computer Center, 50 Oregon State University students in each of the five ethnic groups (Caucasian American, African American, Hispanic American, Asian American, and American Indian) to be studied (250 students total) were selected at random for the survey. The computer program randomly generated fifty names into five subsets based on their ethnicity (Caucasian as one subset, African American as another, and so on). Each student selected to participate in the survey received the questionnaire along with a self-addressed envelope and cover letter from the researcher and OSU's Diversity Education Coordinator. Postcards were sent out as a reminder three weeks after the initial survey and again two weeks after the first reminder. To solicit a higher rate of return, every fifth person in each ethnic category received a phone-call reminder.

The subjects were undergraduate (85% of study) and graduate students (15% of study). Nine were African Americans, 17 were Asian Americans, 22 were Hispanic Americans, 15 were American Indians, and 35 were Caucasian Americans.

### Survey Distribution

The survey was mailed during late fall term, 1994; 250 surveys, 50 for each ethnic group, were mailed out. Cover letters were sent out with a business reply envelope, and questionnaires were coded so that nonrespondents could be sent follow-up reminder cards and contacted by phone. When necessary, another questionnaire and postcard were sent to nonrespondents as reminders. To elicit a higher rate of return, every fifth person in each ethnic category was called. To ensure

confidentiality, respondents were not asked to write their names on any part of the survey. A cover letter of support for the study was also mailed.

### Data Analysis

Each returned survey was assigned a code number, and the responses were manually entered into computer-readable form to facilitate computer analysis. To determine if the respondent group differed significantly from the nonrespondents, comparisons across demographic data were examined to include hometown, student organizations, age of subjects, where they resided (apartment, residence hall, and so on), class standing, and parents' income and education. Frequency distributions were computed for response contact and comfort for the two comparison groups (ASOSU and the students selected at random) as well as for each individual response item.

To test whether differences occurred among any of the ethnic groups with respect to their reported contact or comfort level with members of the target groups, *t*-tests were employed as a means of comparison to determine where (or if) significant differences were present. Thus it was possible to determine how much contact and comfort each respondent ethnic group felt in relation to each other on each of the contact and comfort items. In analyzing the comfort scale, composite scales were also used. An overall comfort score was obtained by averaging responses in all six situations toward each of the target groups. This included situational comfort items (counselor, president, and professor for example), as well as contact items (for instance, number of friends, length of time known, and so on), and those of a demographic nature (parents' income, educational level, and so on).

The tests compared the mean response toward each individual target group. For example, a comparison was made among each ethnic group for all 27 items on the survey to determine the attitudes of the student government leaders and those of

the randomly selected group. Similar comparisons were also tallied for the five ethnic groups of students on the 27 items in the survey. Methods for correlating the contact scale with the comfort scale were discussed with a statistician (M. Olszewski, personal communication, February 1995). Pearson correlation coefficients ( $r$ ) were used to determine contact and comfort relationships between the groups. Each respondent ethnic group's contact scores and comfort scores for the target groups were examined by totaling their scores to determine means and standard deviations for each item in the survey. Overall scores for contact and comfort were also tabulated to test the hypotheses. Thus, it could be seen if there were any significant correlations or comparisons between contact and comfort between the student government group (ASOSU) and the randomly selected student group.

## Chapter 4 — Results

Two research hypotheses were developed and tested for relations to contact and comfort; response data were analyzed using *t*-tests.

### Hypothesis 1

Hypothesis 1 predicted that there would be a significant difference in levels of contact and comfort between the student-leaders group (Associated Students of Oregon State University [ASOSU]) and a randomly selected student group. In other words, individual members of the ASOSU group were expected to have higher levels of contact (for example, more diverse friends, and more significant interactions) than were the randomly selected student group. The *t*-tests performed on the two groups indicated that the degree of contact was indeed significant (Table 1); levels of contact were found to be significant ( $P = .0001$ ), thus supporting the hypothesis that the ASOSU group did have higher rates of contact.

Table 1  
Levels of Contact between ASOSU Students and the Randomly Selected Students  
(*t*-test)

| Group    | Sample size<br>( <i>n</i> ) | Mean<br>( $\bar{x}$ ) | Standard Deviation<br>( <i>s</i> ) | Standard Error<br>( $s_{SE}$ ) |
|----------|-----------------------------|-----------------------|------------------------------------|--------------------------------|
| ASOSU    | 38                          | 79.74                 | 19.38                              | 3.14                           |
| At-Large | 103                         | 67.68                 | 13.71                              | 1.35                           |

| Variances | <i>t</i> | Degrees of<br>Freedom ( <i>v</i> ) | Probability ( <i>P</i> ) |
|-----------|----------|------------------------------------|--------------------------|
| Unequal   | 3.5240   | 51.3                               | 0.0009                   |
| Equal     | 4.12     | 139                                | 0.0001                   |

## Hypothesis 2

Hypothesis 2 predicted that comfort levels of the ASOSU group would be significantly higher than the at-large group. It was believed that increased levels of contact (which were significantly higher among the ASOSU group) would be consistent with significantly higher levels of comfort among the ASOSU student group. The *t*-tests (Table 2) performed on the two groups for comfort, however, indicated no significant differences between the two groups ( $P = 0.9560$ ).

Interestingly, when the Contact Scale was broken down, only the dimensions of Acquaintance Interaction and Number of Friends were found to differ significantly. Groups did not differ on levels of Time and Feelings. The *t*-tests on comfort variables such as "my counselor, president, someone I would date," and the like, revealed no significant levels of difference between the student-government (ASOSU) group and those students selected at random.

Table 2  
Levels of Comfort between ASOSU Students and the Randomly Selected Students  
(*t*-test)

| Group    | Sample size<br>( <i>n</i> ) | Mean<br>( $\bar{x}$ ) | Standard Deviation<br>( <i>s</i> ) | Standard Error<br>( $s_{SE}$ ) |
|----------|-----------------------------|-----------------------|------------------------------------|--------------------------------|
| ASOSU    | 42                          | 174.3                 | 37.05                              | 5.72                           |
| At-Large | 104                         | 174.7                 | 33.05                              | 3.24                           |

| Variances | <i>t</i> | Degrees of<br>Freedom ( <i>v</i> ) | Probability ( <i>P</i> ) |
|-----------|----------|------------------------------------|--------------------------|
| Unequal   | -0.0553  | 68.8                               | 0.9560                   |
| Equal     | -0.0581  | 144                                | 0.9538                   |

## Chapter 5 — Discussion and Conclusions

The major objectives of this research were to measure the association of contact and comfort levels of student leaders to the general student population at Oregon State University (OSU) and to determine if increased contact could lead to increased levels of comfort among different ethnic student groups. Two possible responses were hypothesized. The first possible response was that the Associated Students of Oregon State University (ASOSU) group, being more integrated into the OSU campus, would have significantly higher levels of contact across ethnic boundaries than would the randomly selected student group. The second response hypothesized was that the ASOSU student group would also have higher levels of comfort than would the randomly selected student group.

This study showed that student leadership involvement is consistent with higher impact on levels of significant contact, which had been expected. When comfort levels were tested, however, no significant difference was found to exist between the ASOSU student group and the randomly selected group. This was surprising, given that there was a significant difference in contact levels between the two groups. One possible factor that has to be considered is the nature of the contact between students in the ASOSU group. While these particular students are definitely leaders within their own organization, and in many cases within other student organizations, their level of contact perhaps might be of a superficial, insignificant nature. For example, while the ASOSU group definitely has significantly more interactions than the randomly selected student group, they are no more willing to date, marry, or see a counselor of a different ethnicity than are the members of the randomly selected group. These seemingly contradictory findings would appear to reinforce the idea that mere interaction plays no significant role in fostering deeper relationships between college students. Following this line of reasoning, students



simply may become more adept at provisional cross-ethnic interaction but may disclose no revealing information regarding their personal value systems; nor would they seem likely to have assimilated any new behavior into their own behavioral system. Despite these findings, student-development theorists continue to proclaim the value of cooperative student, co-curricular leadership programs as the answer to ethnic barriers between college students (Kuh et al., 1988). Student leaders may also blindly proclaim faith in such organizational influence on student behavior, despite evidence to the contrary.

### Influence of Demographic Variables

After data had been collected and analyzed, additional statistical procedures (chi-square, regression analyses, and additional *t*-tests) were conducted on a number of the demographic variables in the randomly selected group.

Regression analyses for the contact and comfort scales and the variables of gender and negative comments were added to further examine significance. For these regression analysis procedures, significant figures ( $p < 0.05$ ) were split among the variables indicating contact and the comfort. For the contact variable "number of friends" (see Appendix C, Table C-4), the Asian American student group and the Hispanic American student group reported a willingness to have more friends in the other four ethnic groups. Sophomore respondents more than any other class were also more willing to have friends across the five ethnic groups. Besides willingness to have more friends in other ethnic groups (Table C-4), Acquaintance (Table C-1), Interaction (Table C-2), and Contact (Table C-6)—a total of four of the contact variables—were significantly associated with both parental income and student participation in activity organizations. It could be inferred, therefore, that parental income and participation in activity organizations are significant factors in the interethnic socialization of college students. Three of the variables (Interaction,

Number of Friends, and Contact; see tables listed above) were significantly associated with Asian Americans; Hispanic Americans were willing to engage more friendships and to date (Table C-12) outside their ethnic group.

Negative comments were included in the regression analysis for the purpose of examining them as a separate group ( $n = 8$ ), and negative comments were found to be significant for the variables of Feeling-Interaction (Table C-3), Length of Time Known (Table C-5), Comfortable as President of the United States (Table C-7), Comfortable as My Professor (Table C-9), and Comfort (Table C-13). It might be suggested, then, that those students making negative comments were often uncomfortable on levels of how long (and how well) they knew someone, not especially comfortable with a President of another ethnicity, and not comfortable with a professor of another ethnicity. Also under the variable of My Professor on the comfort scale, it appears that the education of the mother is significant; therefore, low or high levels of maternal education may likely serve as a significant variable when it comes to levels of comfort in student dealings with a professor of another ethnic group. Of the eight students who made negative comments about the study, four were African American, three were Caucasian, and one was American Indian. Interestingly enough, all the negative comments came out on the comfort scale but showed no significance on the contact variables. It might be hypothesized that negative comments come out when a student's comfort levels are challenged, which may likely happen in a smaller group.

Chi-square analysis was performed to compare differences between the Associated Students of Oregon State University respondents (Group 1) and the randomly selected student population (Group 2). The variables reported as significant with regard to status were ethnicity (Table C-14), living group (Table C-15), and class standing (freshman, sophomore, etc., Table C-15). We could hypothesize, then, that factors such as one's ethnicity, where one resides while in

college, and the particular year in college seem to be significant influences during a students' college years. Any institution planning on educational programming with regard to easing ethnic tensions may be wise to take these factors into consideration.

### Comparison of Stanford and OSU Studies

It was also decided that a comparison between the Stanford University Study (1989) on minority issues and this OSU study be conducted to compare the relative levels of ethnic comfort between the Stanford student body and the Oregon State University student body. This presented a problem because the Stanford study focused on a broad range of issues (such as institutional satisfaction with regard to student services) not addressed in the OSU study. After consultations (R. Penn, personal communication, Spring 1995), it was decided to perform *t*-tests on the comfort levels between the students at the respective institutions and make relative comparisons.

Students in the Stanford study report high levels of comfort across all five ethnic groups: Asian Americans (84%), Hispanic Americans (82%), American Indians (72%), and African Americans (67%). These percentages indicate that Stanford University students are as comfortable with other groups as themselves.

At OSU, *t*-tests were performed on the five ethnic groups with the following results (Appendix C, Table C-16): Asian American students appear most comfortable with their ethnic group; Hispanic American students were generally uncomfortable with all but themselves and the Caucasian group; American Indian students were comfortable only with their ethnic group; African American students reported being comfortable only with their group and very uncomfortable with the other four groups; Caucasian Americans reported comfort only with other Caucasian Americans. The results are consistent with *t*-tests in this study, indicating low levels of comfort across the five ethnic student groups among OSU students.

Comparing interethnic comfort levels between students, it would appear that the Oregon State University students are significantly less comfortable than students at Stanford University. There are several possibilities that might explain this: OSU is a conservative, land-grant institution while Stanford is an elite, private university attracting students from mainly upper-middle class families with the highest Scholastic Aptitude Test (SAT) scores in the country. Students may have more in common with each other at Stanford than at Oregon State University. For a more exact comparison, an institutional study set up in the same manner as the Stanford study would be needed. It might be interesting for a state-supported college or university such as Oregon State University to make a comprehensive examination of services provided to the same five ethnic groups to check for institutional satisfaction. Further study on this issue is recommended.

### Summary

The two hypotheses of the OSU study were that students from ASOSU would have significantly more contact with students of different ethnic groups than would a random sample of OSU students (Hypothesis 1) and that the ASOSU students would be more comfortable with students of different ethnic groups (Hypothesis 2).

Overall, the findings of this study are consistent for the influence of parental income but inconsistent for the other variables with the prevailing literature in the field of student affairs. The *t*-tests revealed that the ASOSU group had significantly more contact than students in the randomly selected student group, but that there was no difference in levels of comfort for the two groups. Additional statistics (chi-square, regression analyses, and *t*-tests) on the randomly selected student group revealed that the Asian American students and the Hispanic American students may be more willing to interact across ethnic lines than students in the three other ethnic groups. Sophomores as a class also appeared to have more ethnic contact than the

students in the freshman, junior, senior, or graduate classes. Parental income and participation in activity organizations may also be significant factors in ethnic contact among college students.

Only Hypothesis 1 (contact) could be supported, but there was no evidence that students in ASOSU were any more comfortable than those in the random student group. Of the five ethnic groups in the survey, the Hispanic Americans and the Asian American students may have been more willing to have contact than students in the three other ethnic groups. The variable of student participation in activity groups as significant (regression analysis) supports the original hypothesis that co-curricular student activity in campus organizations may be a factor in fostering ethnic contact. Furthermore, almost half of the African American students (44%) wrote on the survey negative comments about their college experience. Activities such as student governments may effectively bring different ethnic groups of students together, but they evidently do little in the way of easing interethnic tensions. It may be important, however, that students involved in co-curricular leadership activities, such as Associated Students of Oregon State University, tend to report greater levels of interaction than the typical, lesser involved student.

The question that naturally follows then is "What difference does student-leadership involvement make given that behavior and attitudes may not change with that experience?" This difference between interaction and attitude appears puzzling and leaves open to debate the question of promoting ethnic comfort (and thus easing ethnic tensions) among students on college campuses across the United States.

What, then, is the answer in helping to facilitate better, more open communication between an ever increasing ethnically diverse student population? Some professionals might be tempted to merely throw up their hands and proclaim that the issue is much bigger than the scope of student affairs and may be best left to the individual student with limited involvement from college administrators. Others,

however, would maintain that the findings of this study simply mean that student-affairs professionals must continue to try other approaches to facilitate more meaningful student contact (and thus increasing comfort) until a more effective method is discovered. Perhaps forming a contact group to promote cultural and ethnic appreciation and understanding might be an approach worthy of consideration (for example, a club modeled on the United Nations design).

Boyer (1990) affirmed that a true campus community is multifaceted in terms of institutional characteristics and responsibilities. Among other attributes, a campus is a *caring* community, "a place where the well-being of each member is sensitively supported . . ." (p. 47); an *open* community, "a place where freedom of expression is uncompromisingly protected and where civility is powerfully affirmed" (p. 17); and a *just* community, "a place where the sacredness of each person is honored and where diversity is aggressively pursued" (Boyer, 1990, p. 25). Achieving this delicate balance between rights to free expression and rights to affirmed dignity has proven elusive and perplexing.

Finally, the sample size in this study is relatively small and mostly from the State of Oregon though the survey reflects a fairly heterogeneous population in terms of ethnic diversity. This is reflective of the diverse university community in which the sample was drawn. For future study, it would be important to evaluate the effect of student involvement using a larger, more diverse student sample than the one utilized in this study. Oregon State University is primarily a technical, engineering, and agricultural land-grant institution. Presumably, students attending OSU are more conservative than those in similar-size institutions. In subsequent studies, it might be interesting to draw a larger sample of older, ethnically diverse college students from a large, urban university, survey them with the same 27-item questionnaire, and compare the results with that of this survey. The size of the academic community, gender, and age of the participants may all be key areas to

examine. An additional component for future research might be to continue to study the comfort variable. It would be of interest to follow a leadership organization like the Associated Students of Oregon State University in the period before (pre-test) and after (post-test) a retreat focusing on multicultural sensitivity. How would a retreat encounter of this nature influence comfort levels? How would that increased or decreased comfort level vary over time? Do such workshops alleviate or enhance negative stereotypes? These are questions worthy of further examination in other studies.

Despite the limitations of this study in terms of a small sample size, the results are interesting and provide a more in-depth understanding of the relationship of student involvement and ethnic contact and comfort among college students.

## References

- Adams, S. E. (1991). The relationship between social contact and comfort with social interaction among student ethnic groups at Oregon State University. Unpublished doctoral dissertation, Oregon State University, Corvallis, OR.
- Allport, G. W. (1954). The nature of prejudice. Cambridge, MA: Addison-Wesley.
- Almanac. (1990, September 3). The Chronicle of Higher Education, 3, 15.
- Amir, Y. (1976) The role of intergroup contact in change of prejudice and ethnic relations. In P. A. (Ed.) Towards the elimination of racism. New York, NY: Pergamon Press, Inc.
- Apostle, R. A., Glock, C. Y., Piazza, T., & Suezle, M. (1983). The anatomy of racial attitudes. Berkeley, CA: University of California Press.
- Armstrong-West, S., & de al Teja, H. M. (1988). Social and psychological factors affecting the retention of minority students. In M. C. Terrell & D. J. Wright (Eds.), From survival to success: Promoting minority student retention (pp. 25–33). Washington, DC: National Association of Student Personnel Administrators, Inc.
- Barnhouse, B. (1994). Enrollment summary: Fall term 1994 (Institutional Research and Planning, No. 2, Dec.). Corvallis, OR: Oregon State University.
- Bogardus, E. S. (1925). Social distance and its origins. Sociology and Social Research, 9, 216–225.
- Bogardus, E. S. (1928). Immigration and race attitudes. Boston, MA: Health.
- Bogardus, E. S. (1967). A forty-year racial distance study. Los Angeles, CA: University of Southern California Press.
- Bogardus, E. S. (1968). Comparing racial distance in Ethiopia, South Africa, and the United States, Sociology and Social Research, 52(2), 149–156.



- Boyer, E. L. (Ed.). (1987). College: The undergraduate experience in America. New York, NY: Harper and Row.
- Boyer, E. L. (Ed.). (1990). Campus life: In search of community. Lawrenceville, NJ: Princeton University Press.
- Braddock, J. H. (1979). The perception of segregation across the levels of education: A behavioral assessment of the contact hypothesis. Baltimore, MD: Center for Social Organization of Schools.
- Brown v. Board of Education of Topeka, Supreme Court of the United States, 1954. 347 U.S. 483, 74 S. Ct. 686.
- Byrnes, D. A., & Kiger, G. (1988). Contemporary measures of attitudes toward blacks. Education and Psychological Measurement, 48, 107-118.
- Cook, S. W. (1978). Interpersonal and attitudinal outcomes in cooperating interracial groups. Journal of Research and Development in Education, 12, 97-113.
- Crull, S. R., & Bruton, B. T. (1979). Bogardus social distance in the 1970's. Sociology and Social Research, 63, 771-783.
- Crull, S. R., & Bruton, B. T. (1985). Possible decline in tolerance towards minorities: Social distance on a midwest campus. Sociology and Social Research, 70(1), 57-60.
- Dalton, J. (1991). Telephone survey on interracial conflict. Paper presented at the meeting of National Association of Student Personnel Administrators, Washington, DC.
- Dalton, J. C., Barnett, D. C., & Healy, M. (1982). Education approaches to values development in college students: A survey of NASPA chief student personnel administrators. NASPA Journal, 20(1), 14-21.
- Dillman, D. (1978). Mail and telephone surveys: The total design method. New York, NY: John Wiley & Sons.
- Dyer, J., Vedlitz, A., & Worchel, S. (1989). Social distance among racial and ethnic groups in Texas: Some demographic correlates. Social Science Quarterly, 70(3), 607-616.

- Evangelauf, J. (1990). 1988 Enrollments of all racial groups hit record levels. The Chronicle of Higher Education, 36(30), pp. A1, 137.
- Fagan, J., & O'Neill, M. (1965). A comparison of social distance scores among college-student samples. Journal of Social Psychology, 66, 281-290.
- Gray, J. S., & Thompson, A. H. (1953). The ethnic prejudices of white and negro college students. Journal of Abnormal and Social Psychology, 48, 311-313.
- Harris, L. (1988). 2001: The world our students will enter. The College Board Review, No. 150, Winter 1988-89, 111-115.
- Heider, F. (1958). The psychology of interpersonal relations. New York, NY: Wiley.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the "contact hypothesis." In M. Hewstone & R. Brown (Eds.), Contact and conflict in intergroup encounters (pp. 1-44). New York, NY: Basil Blackwell.
- Hobson-Panico, P. (1990). A survey of Colorado University-Boulder undergraduate students, spring term, 1990. Paper presented at the 3rd Annual National Conference on Racial and Ethnic Relations in American Higher Education, Santa Fe, NM.
- Jackman, M. R., & Crane, M. (1986). "Some of my best friends are black...:" Interracial friendship and whites racial attitudes. Public Opinion Quarterly, 50, 459-486.
- Kim, B., Mendoza, J., Porter, D., & Woodward, D. (1989). Student life addendum. In University Committee on Minority Issues, Stanford University (Ed.), Building a multiracial, multicultural university community (pp. 237-240). Palo Alto, CA: Stanford University.
- Kuh, G. D., Krehbiel, L. K., & MacKay, K. (1988). Personal development and the college student experience: A review of the literature. Report prepared for the College Outcomes Evaluation Program, New Jersey Department of Higher Education, Trenton, NJ.

- Li, W. L., & Yu, L. (1974). Interpersonal contact and racial prejudice: A comparative study of American and Chinese students. The Sociological Quarterly, *15*, 559–566.
- Loew, T. (1990, October 24). Protests racial bigotry: Black Culture Center will close. The Daily Barometer, pp. 1–2.
- MacKenzie, B. K. (1948). The importance of contact in determining attitudes toward negroes. Journal of Abnormal and Social Psychology, *43*, 417–441.
- Manuelito-Kerkvliet, C. (1991). Native American enrollment at Oregon State University: Fall 1988-present. Unpublished manuscript.
- McClendon, M. J. (1974). Interracial contact and the reduction of prejudice. Sociological Focus, *7*, 47–65.
- McClelland, K. E., & Auster, C. J. (1990). Public platitudes and hidden tensions: Racial climates at predominantly white liberal arts colleges. Journal of Higher Education, *61*, 607–642.
- McConahay, J. (1978). The effects of school desegregation upon students' racial attitudes and behavior: A critical review of the literature and a prolegomenon to future research. Law and Contemporary Problems, *42*(3), 78–107.
- McConahay, J. B. (1986). Modern racism, ambivalence, and the modern racism scale. In J. F. Dovidio & S. L. Gaertner (Eds.), Prejudice, discrimination, and racism (pp. 91–126). New York: Academic Press.
- McHugh, B., Dalton, J., Henley, B., & Buckner, D. (1988). Racial discrimination on campus. DeKalb, IL: NASPA.
- Minatoya, L. Y., & Sedlacek, W. E. (1984). Assessing attitudes of white university students toward blacks in a changing context. Journal of Non-White Concerns in Personnel and Guidance, *12*, 69–79.
- Muir, D. E. (1989). "White" attitudes toward "blacks" at a deep-south university campus, 1963-1988. Sociology and Social Research, *73*(2), 84–89.

- Muir, D. E., & McGlamery, C. D. (1984). Trends in integration attitudes on a deep-south campus the first two decades of desegregation. Social Forces, 62(4), 963–972.
- Neumeyer, M. H. (1974). Obituary for Emory S. Bogardus. Sociological Inquiry, 44(1), 3–5.
- Odell, M., & Mock, J. J. (1989). A crucial agenda: Making colleges and universities work better for minority students. Boulder, CO: Western Interstate Commission for Higher Education.
- O'Driscoll, M., Haque, A., & Ohsako, T. (1983). Effects of social distance and perceived attitude differences on social distance among Australian, Japanese, and Pakistani students. The Journal of Social Psychology, 120, 163–168.
- Owen, C. A., Eisner, H. C., & McFaul, T. R. (1981). A half-century of social distance research: National Replication of the Bogardus' studies. Sociology and Social Research, 66(1), 81–98.
- Park, B., & Rothbart, M. (1982). Perception of out-group homogeneity and levels of social categorization: Memory for the subordinate attributes of in-group and out-group members. Journal of Personality and Social Psychology, 42(6), 1051–1068.
- Park, R. (1924). The concept of social distance. Journal of Applied Sociology, 8, 339–344.
- Pass, M. G. (1987). Prison inmates express less social distance from minorities than do college students. Sociology and Social Research, 71(3), 209–210.
- Payne, W. J. (1976). Social class and social differentiation: A case for multidimensionality of social distance. Sociology and Social Research, 61(1), 54–67.
- Payne, M. C., York, C. M., & Fagan, J. (1974). Changes in measures social distance over time. Sociometry, 37(1), 131–136.
- Pedersen, R. (1991). Counseling: A multicultural perspective. Journal of Counseling and Development, 70(1), 4–5.

- Pemberton, G. (1988). On teaching the minority student: Problems and strategies. Brunswick, ME: Bowdoin College.
- Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. Personality and Social Psychology Bulletin, 5(4), 461–476.
- Pettigrew, T. F. (1982). Prejudice. In T. F. Pettigrew, G. W. Fredrickson, D. T. Knobel, N. Glazer, & R. Ueda (Eds.), Prejudice (pp. 1–29). Cambridge, MA: Belknap Press.
- Pinkney, A. (1961). The anatomy of prejudice: Majority group attitudes toward minorities in selected American cities. (Doctoral dissertation, Cornell University, 1961). Dissertation Abstracts, 22, 2907–8.
- Rapp, A. (1982). Prejudice and discrimination among community college students. Community College Social Science Journal, 4(3), 63–66.
- Ray, J. J. (1983). Racial attitudes and the contact hypothesis. The Journal of Social Psychology, 119, 3–10.
- Riordan, C. 1978. Equal-status interracial contact: A Review and revision of the concept. International Journal of Intercultural Relations, 2, 161–185.
- Robinson, P. J. (1987). The relationship between favorable or unfavorable contact on the social distance attitudes of residence hall students toward residential subgroups (Doctoral dissertation, Iowa State University, 1987). Dissertation Abstracts International, 49, 03A, 44.
- Rothbart, M., & John, O. P. (1985). Social Categorization and behavioral episodes: A cognitive analysis of the effects of intergroup contact. Journal of Social Issues, 41(3), 81–104.
- Sampson, W. A. (1986). Desegregation and racial tolerance in academia. Journal of Negro Education, 55(2), 171–184.
- Sayler, R. I. (1969). An exploration of race prejudice in college students and interracial contact (Doctoral dissertation, University of Washington, 1969). Dissertation Abstracts International, 30, 2629A.

- Schafer, R. T. (1987). Social distance of black college students at a predominantly white university. Sociology and Social Research, 72(1), 30-32.
- Schuman, H., Steeh, C., & Bobo, L. (1985). Racial attitudes in America: Trends and interpretation. Cambridge, MA: Harvard University Press.
- Scott, R. R. (1979). National comparisons of racial attitudes of segregated and desegregated students. Baltimore, MD: Center for Social Organization of Schools.
- Sedlacek, W. E., & Brooks, G. C., Jr. (1970). Measuring racial attitudes in a situational context. Psychological Reports, 27, 971-980.
- Sedlacek, W. E., & Brooks, G. C., Jr., (1976). Racism in American education: A model for change. Chicago: Nelson-Hall.
- Sedlacek, W. E., Brooks, G. C., Jr., & Mindus, L. A. (1973). Racial attitudes of white university students and their parents. Journal of College Student Personnel, 14, 517-520.
- Sell, R. R. (1987). International social distance of students at Egyptian elite universities. Sociology and Social Research, 72, 62-66.
- Sherif, M. (1953). Groups in harmony and tension: An integration of studies on intergroup relations. New York: Harper & Brothers.
- Sinha, A. K., & Upadhyaya, O. P. (1962). Eleven ethnic groups on a social distance scale. The Journal of Social Psychology, 57, 49-54.
- Smith, T. W., & Dempsey, G. R. (1983). The polls: Ethnic social distance and prejudice. Public Opinion Quarterly, 47, 584-600.
- Sniderman, P. M., & Tetlock, P. E. (1986). Symbolic racism: Problems of motive attribution in political analysis. Journal of Social Issues, 42(2), 129-150.
- Spangenberg, J., & Nel, E. M. (1983). The effect of equal status contact on ethnic attitudes. The Journal of Social Psychology, 121, 173-180.

- St. John, N. H. (1975). School desegregation: Outcomes for children. New York, NY: Wiley.
- Stanford University. (1989). Final report of the university committee on minority issues: Building a multicultural, multiracial university community. Palo Alto, CA: Stanford University Press.
- Stephan, W. G. (1985). Intergroup relations. In G. Lindzey & E. Aronson, (Eds.), The handbook of social psychology, Vol. 2 (pp 559–659). Reading, MA: Addison-Wesley.
- Stephan, W. G., & Brigham, J. C. (1985). Intergroup contact: Introduction. Journal of Social Issues, 41(3), 1–8.
- Stephan, W. G., & Rosenfield, D. (1978). Effects of desegregation on racial attitude. Journal of Personality and Social Psychology, 36(8), 795–802.
- Tajfel, H. (1978). Interindividual behavior and intergroup behavior. In H. Tajfel (Ed.), Differentiation between social groups: Studies in social psychology of intergroup relations (pp. 17–24). London, England: Academic Press.
- Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), The psychology of intergroup behavior (pp. 7–24). Chicago, IL: Nelson-Hall.
- Talley, K. S. (1981). Desegregation education: Implications for achievement, self-image and racial prejudice (Doctoral dissertation, Northwestern University, 1981). Dissertation Abstracts International, 42, 05A, 2313.
- Triandis, H. C., & Davis, E. (1965). Race and belief as determinants of behavioral intentions. Journal of Personality and social Psychology, 2, 715–725.
- Tuch, S. A. (1988). Race differences in the antecedents of social distance attitudes. Sociology and Social Research, 72 (3), 181-184.
- Van der Berghe, P. (1962). Race attitudes in Durbin, South Africa. Journal of Social Psychology, 57, 55–72.

- Weber, R., & Crocker, J. (1983). Cognitive processes in the revision of stereotypic beliefs. Journal of Personality and Social Psychology, 45, 961–977.
- Westie, F. R. (1953). A technique for the measurement of race attitudes. American Sociological Review, 18, 73–78.
- White, T. J., & Sedlacek, W. E. (1987). White students attitudes towards blacks and hispanics: Programming implications. Journal of Multicultural Counseling and Development, 15(4), 171–183.
- Wiener, J. (1989, February 27). Reagan's children: Racial hatred on campus. The Nation, pp. 260.
- Wilder, D. A. (1984). Intergroup contact: The typical member and the exception to the rule. Journal of Experimental Social Psychology, 20, 177–194.
- Wilson, R. (1990). New white-student unions on some campuses are sparking outrage and worry. The Chronicle of Higher Education, 36(31), pp. A1.
- Wilson, T. (1986). The asymmetry of racial distance between blacks and whites. Sociology and Social Research, 72(2), 161–163.
- Wiener, B. J. (1971). Statistical principles in experimental design, (2nd ed.) New York: McGraw-Hill.
- Wolfman, B. R. (1990). College leaders must act firmly to end racial resegregation on their campuses. The Chronicle of Higher Education, 37(2), pp. B1–B3.
- Woodard, D. (1990, Oct. 5). Campus responds to racial harassment and intimidation. Remarks made at the NASPA Teleconference, Oklahoma State University, Stillwater, OK.



## Appendices

Appendix A: Survey CorrespondenceCover Letter.

October 17, 1994

Dear Student:

Social life has been found to be a key component in the overall development of college students. To find out more about this, we need additional information about students' behavior and attitudes. Thus, we need your help. This information will assist OSU to develop programs to aid in increasing student interaction. April Waddy, President of the Associated Students of Oregon State University, is supportive of this research, as is Jeff Boyd, Diversity Education Coordinator at Oregon State University.

You have been selected as one of a few students being asked to provide information about your interactions with various groups. Your thoughts will represent those of many other students whom we could not ask. In order for the results to truly represent the thinking of undergraduates at OSU, it is important that each survey be completed and returned.

Your response will be completely confidential. Your name will never be placed on the survey, so there will be no way to associate your name with the responses. All personal information will be summarized as group information only. The identification number on the front is for mailing purposes only.

To return the survey, please place it in the reply envelope and send it through campus mail or through the regular post office. If you live in a residence hall, you may place it in campus mail at the front desk. Your cooperation and participation is greatly appreciated. I will be happy to answer any questions. Please call me at 737-3661.

Thank you for your assistance.

Sincerely,

Shannon Hodges  
Graduate Student

Jeff Boyd  
Diversity Education  
Coordinator

Follow-up Postcard.

Nov. 13, 1994

Last week you were mailed a questionnaire asking about your interactions with other groups of students. Your name was drawn in a random sample of OSU students.

If you have already completed and returned it to us, please accept our apology. If not, please do so today. Because it has been sent only to a small, but representative sample of students, it is very important that yours also be included in the study if the results are to accurately represent the opinions of OSU students.

If by chance you did not receive the survey, or it was misplaced, please call me or leave a message at 737-3661, and I will send you another one right away. I appreciate your help.

Sincerely,

## Appendix B: Survey Questionnaire

### Social Interaction at Oregon State University

1. Acquaintances are an important aspect of social life, so the first question asks about how much contact you have with people from different groups. Please indicate the number of people you know well enough to say "Hi" to from among the following groups. (Circle one from each.)

|                        | None | One to<br>Five | Six to<br>Ten | More Than<br>Ten |
|------------------------|------|----------------|---------------|------------------|
| a. African Americans   | 1    | 2              | 3             | 4                |
| b. American Indians    | 1    | 2              | 3             | 4                |
| c. Asian Americans     | 1    | 2              | 3             | 4                |
| d. Caucasian Americans | 1    | 2              | 3             | 4                |
| e. Hispanic Americans  | 1    | 2              | 3             | 4                |

2. Next, we are interested in knowing how often you actually interact with people from these various groups. How often do you talk to or do an activity with anyone from each of the following groups for more than 15 minutes? (Circle one number for each.)

|                        | None | One to<br>Five | Six to<br>Ten | More Than<br>Ten |
|------------------------|------|----------------|---------------|------------------|
| a. African Americans   | 1    | 2              | 3             | 4                |
| b. American Indians    | 1    | 2              | 3             | 4                |
| c. Asian Americans     | 1    | 2              | 3             | 4                |
| d. Caucasian Americans | 1    | 2              | 3             | 4                |
| e. Hispanic Americans  | 1    | 2              | 3             | 4                |

3. The next question asks how you feel about your interactions with the members of these groups. Please think about your associations with people you know or have ever known who are members of these racial/ethnic groups. How would you rate your associations with these people generally? (Circle one number for each.)

Rate your feelings about your contact with:

|                        | Very<br>Positive | Somewhat<br>Positive | Neutral | Somewhat<br>Negative | Very<br>Negative | Apply |
|------------------------|------------------|----------------------|---------|----------------------|------------------|-------|
| Doesn't                |                  |                      |         |                      |                  |       |
| a. African Americans   | 1                | 2                    | 3       | 4                    | 5                | 6     |
| b. American Indians    | 1                | 2                    | 3       | 4                    | 5                | 6     |
| c. Asian Americans     | 1                | 2                    | 3       | 4                    | 5                | 6     |
| d. Caucasian Americans | 1                | 2                    | 3       | 4                    | 5                | 6     |
| e. Hispanic Americans  | 1                | 2                    | 3       | 4                    | 5                | 6     |

(PLEASE GO ON TO THE NEXT PAGE)

4. Now we would like ask about your friendships with those in other groups. By friends we mean the people you can share your emotions and feelings with. About how many individuals of each group, if any, do you consider a friend? (If none, please write "0.")

|                        | Number of Friends |
|------------------------|-------------------|
| a. African Americans   | _____             |
| b. American Indians    | _____             |
| c. Asian Americans     | _____             |
| d. Caucasian Americans | _____             |
| e. Hispanic Americans  | _____             |

5. Now please think about the person you know best, if any, from each group. This could be a friend, but may be an acquaintance. How long have you known that person? (Circle one number for each.)

Length of time known:

|                        | Less Than<br>Six Months | Six Months<br>To One<br>Year | Over A<br>Year | Doesn't<br>Apply |
|------------------------|-------------------------|------------------------------|----------------|------------------|
| a. African Americans   | 1                       | 2                            | 3              | 4                |
| b. American Indians    | 1                       | 2                            | 3              | 4                |
| c. Asian Americans     | 1                       | 2                            | 3              | 4                |
| d. Caucasian Americans | 1                       | 2                            | 3              | 4                |
| e. Hispanic Americans  | 1                       | 2                            | 3              | 4                |

Questions 6-11 ask how comfortable you would be in various situations. Please rate your level of comfort with each of the following situations on scale from 1 to 7, where "1" is Very Uncomfortable" and "7" is Very Comfortable. Do not give your reaction to the best or worst members you have known. (Please circle one number for each ethnic group.)

6. As President of the U. S.:

|                        | Very<br>Uncomfortable |   |   |   |   |   | Very<br>Comfortable |
|------------------------|-----------------------|---|---|---|---|---|---------------------|
| a. African Americans   | 1                     | 2 | 3 | 4 | 5 | 6 | 7                   |
| b. American Indians    | 1                     | 2 | 3 | 4 | 5 | 6 | 7                   |
| c. Asian Americans     | 1                     | 2 | 3 | 4 | 5 | 6 | 7                   |
| d. Caucasian Americans | 1                     | 2 | 3 | 4 | 5 | 6 | 7                   |
| e. Hispanic Americans  | 1                     | 2 | 3 | 4 | 5 | 6 | 7                   |

(PLEASE GO ON TO THE NEXT PAGE)

## 7. As my counselor:

|                        | <b>Very Uncomfortable</b> |   |   |   |   |   | <b>Very Comfortable</b> |
|------------------------|---------------------------|---|---|---|---|---|-------------------------|
| a. African Americans   | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| b. American Indians    | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| c. Asian Americans     | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| d. Caucasian Americans | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| e. Hispanic Americans  | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |

## 8. As my professor:

|                        | <b>Very Uncomfortable</b> |   |   |   |   |   | <b>Very Comfortable</b> |
|------------------------|---------------------------|---|---|---|---|---|-------------------------|
| a. African Americans   | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| b. American Indians    | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| c. Asian Americans     | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| d. Caucasian Americans | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| e. Hispanic Americans  | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |

## 9. As a member of my small group in classroom/group activities:

|                        | <b>Very Uncomfortable</b> |   |   |   |   |   | <b>Very Comfortable</b> |
|------------------------|---------------------------|---|---|---|---|---|-------------------------|
| a. African Americans   | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| b. American Indians    | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| c. Asian Americans     | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| d. Caucasian Americans | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| e. Hispanic Americans  | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |

## 10. As my roommate:

|                        | <b>Very Uncomfortable</b> |   |   |   |   |   | <b>Very Comfortable</b> |
|------------------------|---------------------------|---|---|---|---|---|-------------------------|
| a. African Americans   | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| b. American Indians    | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| c. Asian Americans     | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| d. Caucasian Americans | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |
| e. Hispanic Americans  | 1                         | 2 | 3 | 4 | 5 | 6 | 7                       |

(PLEASE GO ON TO THE NEXT PAGE)

11. As someone I would date:

|                        | Very Uncomfortable |   |   |   |   |   | Very Comfortable |
|------------------------|--------------------|---|---|---|---|---|------------------|
| a. African Americans   | 1                  | 2 | 3 | 4 | 5 | 6 | 7                |
| b. American Indians    | 1                  | 2 | 3 | 4 | 5 | 6 | 7                |
| c. Asian Americans     | 1                  | 2 | 3 | 4 | 5 | 6 | 7                |
| d. Caucasian Americans | 1                  | 2 | 3 | 4 | 5 | 6 | 7                |
| e. Hispanic Americans  | 1                  | 2 | 3 | 4 | 5 | 6 | 7                |

-----  
**BACKGROUND INFORMATION**

Responses to the following question will help us interpret the survey results.

12. Please give the name of the high school you attended, and the city and state, or country.

\_\_\_\_\_  
 (School)

\_\_\_\_\_  
 (City, State, Country)

13. Please list any student organizations at OSU to which you belong:

14 Your gender: (Circle one number)

1. Male
2. Female

15. How old are you?

\_\_\_\_\_ AGE

16. Which of the following best describes your racial or ethnic identification?

1. AFRICAN/ BLACK AMERICAN
2. AMERICAN INDIAN/ NATIVE AMERICAN/ ALASKAN NATIVE
3. ASIAN AMERICAN/ PACIFIC ISLANDER
4. CAUCASIAN/ WHITE AMERICAN
5. HISPANIC/ LATINO AMERICAN (INCLUDES THOSE OF LATIN AMERICAN OR CENTRAL AMERICAN DECENT, AND PUERTO RICAN, CUBAN, OR MEXICAN)
6. OTHER (SPECIFY \_\_\_\_\_)

(PLEASE GO ON TO THE NEXT PAGE)

17. Where do you live? (circle one number)

1. COOPERATIVE
2. RESIDENCE HALL
3. APARTMENT OR HOUSE
4. FRATERNITY OR SORORITY
5. WITH PARENTS

18. What was your OSU class standing as of October 1, 1994? (Circle one number)

1. FRESHMAN
2. SOPHOMORE
3. JUNIOR
4. SENIOR
5. OTHER (SPECIFY \_\_\_\_\_)

19. What is your major?

\_\_\_\_\_ MAJOR

20. Is there anything else you would like to say about your interaction with these ethnic groups on campus? (Please attach a separate sheet if necessary).

21. What is the highest level of formal education completed by each of your parents?

| FATHER | MOTHER |   |
|--------|--------|---|
| 1      | 1      | NONE                                      |
| 2      | 2      | GRADES 1-9                                |
| 3      | 3      | SOME HIGH SCHOOL                          |
| 4      | 4      | HIGH SCHOOL GRADUATE                      |
| 5      | 5      | SOME COLLEGE                              |
| 6      | 6      | COLLEGE GRADUATE                          |
| 7      | 7      | MASTERS GRADUATE                          |
| 8      | 8      | PROFESSIONAL DEGREE (LAW, MEDICINE, ETC.) |
| 9      | 9      | DOCTORATE                                 |

(PLEASE GO ON TO THE NEXT PAGE)



22. Please estimate your parents' combined personal annual income.  
(All information will be treated confidentially.)

1. Under \$10,000 per year
2. \$10,000 to \$14,999
3. \$15,000 to \$19,999
4. \$20,000 to \$29,999
5. \$30,000 to \$39,999
6. \$40,000 to \$49,999
7. \$50,000 to \$59,999
8. \$60,000 to \$74,999
9. \$75,000 to \$100,000
10. Over \$100,000

23. Do you have any concern about your ability to finance your education at Oregon State University?

1. NONE (I AM CONFIDENT I HAVE SUFFICIENT FUNDS)
2. SOME CONCERN (I WILL PROBABLY HAVE SUFFICIENT FUNDS)
3. MAJOR CONCERNS (NOT SURE I WILL HAVE SUFFICIENT FUNDS)

24. Which of the following relatives have attended college?

1. MOTHER
2. FATHER
3. BROTHER
4. SISTER
5. OTHER RELATIVES
6. NO RELATIVES HAVE ATTENDED COLLEGE

25. What is the highest degree that you intend to attain?

1. NO DEGREE
2. BACHELORS DEGREE (B.A., B.S.)
3. MASTERS DEGREE (M.A., M.S., M.ED., ETC.)
4. DOCTORAL DEGREE (PH.D., ED.D.)
5. MEDICAL DEGREE (M.D., D.D.S, ETC.)
6. LAW DEGREE (LL.B., J.D.)
7. OTHER (PLEASE SPECIFY: \_\_\_\_\_)

(PLEASE GO ON TO THE NEXT PAGE)

26. Below is a list of activities in which college students often participate. For each activity, please indicate how involved you expect to become during your years at OSU. If unsure, give your best guess.

|  | <b>Level of Participation</b>     |   |   |   |   |                 |
|--|-----------------------------------|---|---|---|---|-----------------|
|  | <b>(Please circle one number)</b> |   |   |   |   |                 |
|  | <b>No</b>                         |   |   |   |   | <b>Very</b>     |
|  | <b>Involvement</b>                |   |   |   |   | <b>Involved</b> |
| a) FRATERNITY OR SORORITY                    | 0                                 | 1 | 2 | 3 | 4 | 5               |
| b) INTERCOLLEGIATE ATHLETICS                 | 0                                 | 1 | 2 | 3 | 4 | 5               |
| c) SERVICE/VOLUNTEERISM ACTIVITIES           | 0                                 | 1 | 2 | 3 | 4 | 5               |
| d) INTERMURALS                               | 0                                 | 1 | 2 | 3 | 4 | 5               |
| e) STUDENT GOVERNMENT                        | 0                                 | 1 | 2 | 3 | 4 | 5               |
| f) HONORARY ACTIVITIES                       | 0                                 | 1 | 2 | 3 | 4 | 5               |
| g) THEATER OR DRAMA                          | 0                                 | 1 | 2 | 3 | 4 | 5               |
| h) RELIGIOUS ORGANIZATIONS                   | 0                                 | 1 | 2 | 3 | 4 | 5               |
| i) STUDENT MEDIA (student paper, radio, etc) | 0                                 | 1 | 2 | 3 | 4 | 5               |
| j) CAMPUS LECTURE                            | 0                                 | 1 | 2 | 3 | 4 | 5               |
| k) OTHER (PLEASE SPECIFY)                    | 0                                 | 1 | 2 | 3 | 4 | 5               |

27. While you were growing up- say until you were eighteen- what kind of community did you live in for the most part?

1. RURAL AREA OR FARM
2. TOWN OR SMALL CITY
3. SUBURBAN AREA NEAR A LARGE CITY
4. LARGE CITY

THANK YOU VERY MUCH FOR YOUR TIME. PLEASE MAIL THIS BACK IN THE ENVELOPE PROVIDED.

## Appendix C: Survey Data

All information in Tables C-1 through C-17 is data analyzed from the survey demographics. Abbreviations used in the tables include:

| <u>Abbreviation</u> | <u>Meaning</u>  |
|---------------------|---|
| AFF_AM              | African Americans                                     |
| AM_IND              | American Indians                                      |
| AS_AM               | Asian Americans                                       |
| HISPAN              | Hispanic Americans                                    |
| OTHER_ET            | Other Ethnic Group                                    |
| RESID               | Living in resident hall                               |
| APART               | Living in apartment                                   |
| FRA_SOR             | Living in fraternity or sorority                      |
| PARENTS             | Living with parents                                   |
| SOPHMO              | In sophomore class                                    |
| JUNIOR              | In junior class                                       |
| SENIOR              | In senior class                                       |
| OTHER CL            | Graduate student                                      |
| EDU_FATH            | Educational level of father                           |
| EDU_MOTH            | Educational level of mother                           |
| SUF_FUND            | Sufficient funds                                      |
| GROUP               | Student activities/organizations                      |
| NEGCOM              | Negative comments                                     |
| GROW_UP             | Community growing up: urban,<br>town, suburban, rural |

Table C-1  
Regression Analysis: Acquaintance (ACQUAINT) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t *   | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 14.625263 | 3.393689       | 4.309547  | 0.000        | ---                   | ---              |
| FEMALE   | 0.255844  | 0.542495       | 0.471605  | 0.638        | 0.047136              | 0.156734         |
| AGE      | -0.190395 | 0.103765       | -1.834873 | 0.070        | -0.205397             | -0.117134        |
| AFF_AM   | 1.055394  | 0.987474       | 1.068781  | 0.288        | 0.107909              | 0.158434         |
| AM_IND   | 1.186548  | 0.964458       | 1.230274  | 0.222        | 0.115611              | -0.014113        |
| AS_AM    | 0.465761  | 0.724208       | 0.643131  | 0.522        | 0.066707              | -0.029657        |
| HISPAN   | 1.114201  | 0.735866       | 1.514136  | 0.133        | 0.156695              | 0.063620         |
| OTHER ET | 0.449718  | 1.098204       | 0.409504  | 0.683        | 0.036253              | -0.105615        |
| RESID    | 1.455339  | 2.095072       | 0.694648  | 0.489        | 0.141800              | -0.002417        |
| APART    | 1.665728  | 1.829078       | 0.910693  | 0.365        | 0.282779              | 0.039112         |
| FRA_SOR  | 1.209015  | 1.885307       | 0.641283  | 0.523        | 0.176154              | 0.005430         |
| PARENTS  | -0.492264 | 2.660229       | -0.185046 | 0.854        | -0.023306             | -0.124131        |
| SOPHMO   | 1.489126  | 1.4288971      | 1.042151  | 0.300        | 0.176876              | 0.219717         |
| JUNIOR   | 1.141250  | 1.331684       | 0.856998  | 0.394        | 0.188739              | -0.014408        |
| SENIOR   | 0.871537  | 1.329525       | 0.655525  | 0.514        | 0.161679              | -0.138549        |
| OTHER CL | 2.906412  | 1.685785       | 1.724070  | 0.088        | 0.310265              | 0.006793         |
| EDU_FATH | -0.199034 | 0.191385       | -1.039970 | 0.301        | -0.113884             | 0.004329         |
| EDU_MOTH | -0.219768 | 0.247774       | -0.886972 | 0.377        | -0.102578             | -0.094695        |
| PAR_INC  | 0.376534  | 0.134847       | 2.792307  | <b>0.006</b> | 0.301356              | 0.183116         |
| SUF_FUND | 0.616254  | 0.359372       | 1.714808  | 0.090        | 0.162227              | 0.047369         |
| GROUP    | -2.463728 | 0.623414       | -3.951996 | <b>0.000</b> | -0.414819             | -0.390888        |
| NEGCOM   | -1.758885 | 1.253703       | -1.402951 | 0.164        | -0.129997             | -0.183371        |
| GROW_UP  | 0.128513  | 0.298429       | 0.430632  | 0.668        | 0.044683              | 0.106860         |

**Note.**

Valid cases: 121  
 Dependent variable: ACQUAINT  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 877.504  
 Degrees of freedom: 98  
 R-squared: 0.344  
 Rbar-squared: 0.197  
 Residual SS: 575.345  
 Std error of est: 2.423  
 F(22,98): 2.339  
 Probability of F: 0.002

\*For comparisons, the base case was the Caucasian group.

\* $p < 0.05$ . Significant values are noted in bold.

Table C-2  
Regression Analysis: Interaction (INTERACT) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t     | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 12.693827 | 3.430211       | 3.700596  | 0.000        | ---                   | ---              |
| FEMALE   | 0.793824  | 0.540198       | 1.469507  | 0.145        | 0.144496              | 0.095707         |
| AGE      | -0.104311 | 0.103783       | -1.005082 | 0.317        | -0.111370             | -0.115735        |
| AFF_AM   | 0.593958  | 1.015111       | 0.585117  | 0.560        | 0.058272              | 0.096681         |
| AM_IND   | 1.337368  | 0.955153       | 1.400161  | 0.165        | 0.131206              | 0.025775         |
| AS_AM    | 1.642181  | 0.720197       | 2.280184  | <b>0.025</b> | 0.236094              | 0.030450         |
| HISPAN   | 1.183846  | 0.731955       | 1.617376  | 0.109        | 0.167169              | -0.012953        |
| OTHER ET | 0.763372  | 1.090168       | 0.700233  | 0.486        | 0.062001              | -0.112477        |
| RESID    | -0.790624 | 2.071050       | -0.381750 | 0.704        | -0.077566             | -0.092402        |
| APART    | 0.297762  | 1.804732       | 0.164990  | 0.869        | 0.050519              | -0.114286        |
| FRA_SOR  | 1.912297  | 1.870701       | 1.022236  | 0.309        | 0.279608              | 0.223049         |
| PARENTS  | -1.148110 | 2.621547       | -0.437951 | 0.662        | -0.054808             | -0.079981        |
| SOPHMO   | 1.060522  | 1.544546       | 0.686624  | 0.494        | 0.126699              | 0.242116         |
| JUNIOR   | 0.970834  | 1.457889       | 0.665918  | 0.507        | 0.160631              | -0.023378        |
| SENIOR   | 0.436414  | 1.463714       | 0.298155  | 0.766        | 0.079833              | -0.183257        |
| OTHER CL | 3.247383  | 1.778849       | 1.825552  | 0.071        | 0.348910              | 0.106699         |
| EDU_FATH | -0.051981 | 0.191617       | -0.271273 | 0.787        | -0.029619             | 0.179094         |
| EDU_MOTH | -0.069671 | 0.247735       | -0.281231 | 0.779        | -0.032327             | 0.060272         |
| PAR_INC  | 0.321739  | 0.133361       | 2.412539  | <b>0.018</b> | 0.258521              | 0.287267         |
| SUF_FUND | -0.402972 | 0.368639       | -1.093136 | 0.277        | -0.103648             | -0.150113        |
| GROUP    | -2.300447 | 0.628596       | -3.659660 | <b>0.000</b> | -0.380625             | -0.376039        |
| NEGCOM   | -2.216464 | 1.456183       | -1.522106 | 0.131        | -0.148316             | -0.079462        |
| GROW_UP  | -0.078342 | 0.301846       | -0.259542 | 0.796        | -0.026790             | 0.061320         |

Note.

Valid cases: 116  
 Dependent variable: INTERACT  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 862.509  
 Degrees of freedom: 3  
 R-squared: 0.387  
 Rbar-squared: 0.242  
 Residual SS: 528.467  
 Std error of est: 2.384  
 F(22,93): 2.672  
 Probability of F: 0.000

\*For comparisons, the base case was the Caucasian group.

\* $p < 0.05$ . Significant values are noted in bold.

Table C-3  
 Regression Analysis: Feeling-Interaction (FEEL\_INT) for Randomly Selected  
 Ethnic Groups

| Variable | Estimate  | Standard<br>Error | t-value   | Prob<br>> t  <sup>a</sup> | Standardized<br>Estimate | Cor with<br>Dep Var |
|----------|-----------|-------------------|-----------|---------------------------|--------------------------|---------------------|
| CONSTANT | 7.247265  | 7.007191          | 1.034261  | 0.304                     | ---                      | ---                 |
| FEMALE   | -0.959699 | 1.140879          | -0.841193 | 0.402                     | -0.097603                | -0.158535           |
| AGE      | 0.068109  | 0.214131          | 0.318069  | 0.751                     | 0.040710                 | -0.030767           |
| AFF_AM   | -0.954632 | 2.040281          | -0.467892 | 0.641                     | -0.054430                | -0.030548           |
| AM_IND   | -0.682986 | 1.996526          | -0.342087 | 0.733                     | -0.037112                | -0.032768           |
| AS_AM    | 0.188761  | 1.494318          | 0.126319  | 0.900                     | 0.015059                 | -0.007103           |
| HISPAN   | -0.615156 | 1.534022          | -0.401009 | 0.689                     | -0.047272                | -0.105372           |
| OTHER ET | 0.433886  | 2.263155          | 0.191717  | 0.848                     | 0.019511                 | 0.099885            |
| RESID    | -1.181976 | 4.325147          | -0.273280 | 0.785                     | -0.064227                | -0.111147           |
| APART    | 0.567066  | 3.770255          | 0.150405  | 0.881                     | 0.053532                 | 0.064166            |
| FRA_SOR  | -0.865810 | 3.888191          | -0.222677 | 0.824                     | -0.070260                | 0.010989            |
| PARENTS  | -0.907990 | 5.506129          | -0.164905 | 0.869                     | -0.023987                | -0.010499           |
| SOPHMO   | -1.589600 | 2.946534          | -0.539481 | 0.591                     | -0.105253                | -0.077564           |
| JUNIOR   | -1.995021 | 2.762510          | -0.722177 | 0.472                     | -0.183545                | -0.016954           |
| SENIOR   | -1.918316 | 2.763018          | -0.694283 | 0.489                     | -0.196944                | 0.097581            |
| OTHER CL | -3.703885 | 3.609461          | -1.026160 | 0.307                     | -0.211183                | -0.055447           |
| EDU_FATH | 0.000131  | 0.395971          | 0.000331  | 1.000                     | 0.000042                 | 0.051248            |
| EDU_MOTH | 0.745671  | 0.512870          | 1.453919  | 0.149                     | 0.193207                 | 0.193264            |
| PAR_INC  | -0.089829 | 0.284498          | -0.315745 | 0.753                     | -0.039453                | 0.079920            |
| SUF_FUND | -0.248946 | 0.764062          | -0.325819 | 0.745                     | -0.035960                | -0.072018           |
| GROUP    | 0.601303  | 1.307301          | 0.459957  | 0.647                     | 0.055825                 | 0.073726            |
| NEGCOM   | 6.453027  | 2.585638          | 2.495720  | <b>0.014</b>              | 0.266066                 | 0.262939            |
| GROW_UP  | 0.456016  | 0.620929          | 0.734409  | 0.464                     | 0.087483                 | 0.030020            |

**Note.**

Valid cases: 119  
 Dependent variable: FEEL\_INT  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 2817.580  
 Degrees of freedom: 96  
 R-squared: 0.151  
 Rbar-squared: 0.043  
 Residual SS: 2391.495  
 Std error of est: 4.991  
 F(22, 96): 0.777  
 Probability of F: 0.745

<sup>a</sup>For comparisons, the base case was the Caucasian group.

<sup>b</sup> $p < 0.05$ . Significant values are noted in bold.

Table C-4

Regression Analysis: Number of Friends (NUM\_FRND) for Randomly Selected Ethnic Groups

| Variable | Estimate   | Standard Error | t-value   | Prob > t  <sup>a</sup> | Standardized Estimate | Cor with Dep Var |
|----------|------------|----------------|-----------|------------------------|-----------------------|------------------|
| CONSTANT | 30.602968  | 18.138775      | 1.687157  | 0.095                  | ---                   | ---              |
| FEMALE   | -1.875814  | 2.899558       | -0.646931 | 0.519                  | -0.065170             | 0.038319         |
| AGE      | -0.651439  | 0.554606       | -1.174596 | 0.243                  | -0.132524             | -0.205801        |
| AFF_AM   | 8.476947   | 5.277906       | 1.606119  | 0.111                  | 0.163443              | 0.130728         |
| AM_IND   | 2.808244   | 5.154890       | 0.544773  | 0.587                  | 0.051598              | -0.109002        |
| AS_AM    | 7.960068   | 3.870787       | 2.056447  | <b>0.042</b>           | 0.214986              | 0.002455         |
| HISPAN   | 9.259601   | 3.933095       | 2.354278  | <b>0.021</b>           | 0.245565              | 0.082541         |
| OTHER ET | 3.043555   | 5.869740       | 0.518516  | 0.605                  | 0.046267              | -0.067394        |
| RESID    | -12.536273 | 11.197858      | -1.119524 | 0.266                  | -0.230337             | -0.126647        |
| APART    | -6.204755  | 9.776157       | -0.634682 | 0.527                  | -0.198633             | -0.004195        |
| FRA_SOR  | -7.246356  | 10.076691      | -0.719121 | 0.474                  | -0.199096             | 0.097724         |
| PARENTS  | -18.099857 | 14.218541      | -1.272976 | 0.206                  | -0.161595             | -0.144161        |
| SOPHMO   | 17.592326  | 7.637246       | 2.303491  | <b>0.023</b>           | 0.394044              | 0.382975         |
| JUNIOR   | 6.284739   | 7.117656       | 0.882979  | 0.379                  | 0.195998              | -0.033194        |
| SENIOR   | 5.117681   | 7.106121       | 0.720179  | 0.473                  | 0.179029              | -0.107791        |
| OTHER CL | 6.005040   | 9.010277       | 0.666466  | 0.507                  | 0.120885              | -0.157385        |
| EDU_FATH | -1.097599  | 1.022923       | -1.073003 | 0.286                  | -0.118430             | 0.041431         |
| EDU_MOTH | 0.034428   | 1.324314       | 0.025997  | 0.979                  | 0.003030              | -0.024771        |
| PAR_INC  | 1.659079   | 0.720737       | 2.301922  | <b>0.023</b>           | 0.250395              | 0.178749         |
| SUF_FUND | 2.398741   | 1.920792       | 1.248829  | 0.215                  | 0.119077              | 0.015969         |
| GROUP    | -8.503864  | 3.332055       | -2.552138 | <b>0.012</b>           | -0.270001             | -0.345499        |
| NEGCOM   | -1.876630  | 6.700863       | -0.280058 | 0.780                  | -0.026155             | -0.086940        |
| GROW_UP  | -0.550792  | 1.595057       | -0.345312 | 0.731                  | -0.036113             | 0.039378         |

**Note.**

Valid cases: 121  
 Dependent variable: NUM\_FRND  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 24676.512  
 Degrees of freedom: 98  
 R-squared: 0.334  
 Rbar-squared: 0.184  
 Residual SS: 16436.146  
 Std error of est: 12.951  
 F(22,98): 2.233  
 Probability of F: 0.004

<sup>a</sup>For comparisons, the base case was the Caucasian group.

<sup>b</sup> $p < 0.05$ . Significant values are noted in bold.

Table C-5  
 Regression Analysis: Length of Time Known (TIME\_KNO) for Randomly Selected  
 Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t     | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 8.955169  | 3.178149       | 2.817731  | 0.006        | ---                   | ---              |
| FEMALE   | 0.173183  | 0.505681       | 0.342475  | 0.733        | 0.038090              | -0.036972        |
| AGE      | 0.113838  | 0.096096       | 1.184635  | 0.239        | 0.147472              | 0.066358         |
| AFF_AM   | -0.759260 | 0.953292       | -0.796461 | 0.428        | -0.088840             | -0.101762        |
| AM_IND   | 0.314189  | 0.894752       | 0.351146  | 0.726        | 0.036763              | 0.038885         |
| AS_AM    | 1.233230  | 0.673222       | 1.831832  | 0.070        | 0.211857              | 0.236111         |
| HISPAN   | -0.876232 | 0.680870       | -1.286930 | 0.201        | -0.147823             | -0.223216        |
| OTHER ET | -1.132604 | 1.024017       | -1.106041 | 0.271        | -0.109672             | -0.064983        |
| RESID    | 0.029263  | 1.941555       | 0.015072  | 0.988        | 0.003424              | -0.087697        |
| APART    | 1.303459  | 1.696907       | 0.768139  | 0.444        | 0.264965              | 0.064290         |
| FRA_SOR  | 0.659487  | 1.753186       | 0.376165  | 0.708        | 0.115241              | -0.017174        |
| PARENTS  | 2.651368  | 2.462710       | 1.076606  | 0.284        | 0.150827              | 0.117419         |
| SOPHMO   | -0.366017 | 1.322173       | -0.276830 | 0.783        | -0.052187             | -0.064501        |
| JUNIOR   | -0.217045 | 1.233942       | -0.175895 | 0.861        | -0.042588             | 0.058217         |
| SENIOR   | -0.850466 | 1.233271       | -0.689602 | 0.492        | -0.188014             | 0.023646         |
| OTHER CL | -1.611249 | 1.567848       | -1.027682 | 0.307        | -0.206525             | -0.015105        |
| EDU_FATH | -0.056801 | 0.179432       | -0.316560 | 0.752        | -0.038851             | 0.036090         |
| EDU_MOTH | 0.249743  | 0.233441       | 1.069832  | 0.287        | 0.137315              | 0.123246         |
| PAR_INC  | 0.067922  | 0.125382       | 0.541725  | 0.589        | 0.065301              | 0.067866         |
| SUF_FUND | 0.394145  | 0.340240       | 1.158432  | 0.250        | 0.123418              | 0.100475         |
| GROUP    | 0.123781  | 0.579757       | 0.213505  | 0.831        | 0.024959              | 0.052810         |
| NEGCOM   | 2.983465  | 1.367064       | 2.182388  | <b>0.032</b> | 0.237958              | 0.126227         |
| GROW_UP  | 0.068796  | 0.279160       | 0.246440  | 0.806        | 0.028378              | 0.048109         |

**Note.**

Valid cases: 119  
 Dependent variable: TIME\_KNO  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 607.647  
 Degrees of freedom: 96  
 R-squared: 0.206  
 Rbar-squared: 0.024  
 Residual SS: 482.416  
 Std error of est: 2.242  
 F(22,96): 1.133  
 Probability of F: 0.328

\*For comparisons, the base case was the Caucasian group.

\* $p \leq 0.05$ . Significant values are noted in bold.



Table C-6  
Regression Analysis: Contact (CONTACT) for Randomly Selected Ethnic Groups

| Variable | Estimate   | Standard Error | t-value   | Prob > t *   | Standardized Estimate | Cor with Dep Var |
|----------|------------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 72.797392  | 20.428118      | 3.563588  | 0.000        | ---                   | ---              |
| FEMALE   | -1.916903  | 3.298498       | -0.581144 | 0.563        | -0.057551             | 0.027275         |
| AGE      | -0.934305  | 0.616349       | -1.515870 | 0.133        | -0.165592             | -0.258084        |
| AFF_AM   | 10.603619  | 6.333487       | 1.674215  | 0.098        | 0.164764              | 0.173438         |
| AM_IND   | 5.422550   | 5.690420       | 0.952926  | 0.343        | 0.088942              | -0.094366        |
| AS_AM    | 11.621594  | 4.281885       | 2.714130  | <b>0.008</b> | 0.278782              | 0.043567         |
| HISPAN   | 10.663798  | 4.396106       | 2.425737  | 0.017        | 0.246567              | 0.034322         |
| OTHER ET | 3.222175   | 6.476340       | 0.497530  | 0.620        | 0.043771              | -0.071180        |
| RESID    | -11.546894 | 12.333323      | -0.936235 | 0.352        | -0.189396             | -0.169613        |
| APART    | -1.036558  | 10.749832      | -0.096425 | 0.923        | -0.029259             | -0.001589        |
| FRA_SOR  | -2.660564  | 11.127411      | -0.239100 | 0.812        | -0.064897             | 0.137881         |
| PARENTS  | -17.639096 | 15.628649      | -1.128639 | 0.262        | -0.140903             | -0.147420        |
| SOPHMO   | 19.971520  | 9.176321       | 2.176419  | <b>0.032</b> | 0.398621              | 0.397389         |
| JUNIOR   | 6.152752   | 8.710132       | 0.706390  | 0.482        | 0.167940              | -0.014406        |
| SENIOR   | 3.122487   | 8.772270       | 0.355950  | 0.723        | 0.094402              | -0.141059        |
| OTHER CL | 6.709980   | 11.002261      | 0.609873  | 0.543        | 0.115454              | -0.134559        |
| EDU_FATH | -1.469432  | 1.143698       | -1.284808 | 0.202        | -0.139572             | 0.085706         |
| EDU_MOTH | 1.039856   | 1.488901       | 0.698405  | 0.487        | 0.079478              | 0.048652         |
| PAR_INC  | 2.101251   | 0.810802       | 2.591571  | <b>0.011</b> | 0.277782              | 0.257809         |
| SUF_FUND | 2.354809   | 2.273421       | 1.035800  | 0.303        | 0.099536              | -0.045009        |
| GROUP    | -9.991617  | 3.823140       | -2.613458 | <b>0.010</b> | -0.272722             | -0.363998        |
| NEGCOM   | 5.613638   | 8.678789       | 0.646823  | 0.519        | 0.062843              | 0.007215         |
| GROW_UP  | 1.057830   | 1.816652       | 0.582297  | 0.562        | 0.059112              | 0.124209         |

**Note.**

Valid cases: 113  
 Dependent variable: CONTACT  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 30788.389  
 Degrees of freedom: 90  
 R-squared: 0.416  
 Rbar-squared: 0.273  
 Residual SS: 17977.977  
 Std error of est: 14.133  
 F(22,90): 2.915  
 Probability of F: 0.000

\*For comparisons, the base case was the Caucasian group.

\*p < 0.05. Significant values are noted in bold.

Table C-7

Regression Analysis: Comfortable as President of the United States (PRES\_US) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t *   | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 17.952745 | 10.004949      | 1.794387  | 0.076        | ---                   | ---              |
| FEMALE   | 2.202719  | 1.611672       | 1.366729  | 0.175        | 0.150402              | 0.222858         |
| AGE      | 0.177308  | 0.305926       | 0.579579  | 0.564        | 0.071120              | 0.075022         |
| AFF_AM   | -0.762224 | 2.911187       | -0.261826 | 0.794        | -0.028967             | 0.038003         |
| AM_IND   | -1.052600 | 2.856228       | -0.368528 | 0.713        | -0.038121             | -0.059816        |
| AS_AM    | -2.041881 | 2.152711       | -0.948516 | 0.345        | -0.108636             | -0.073538        |
| HISPAN   | 3.410553  | 2.187514       | 1.559100  | 0.122        | 0.178185              | 0.232955         |
| OTHER ET | 4.270349  | 3.244957       | 1.315996  | 0.191        | 0.127971              | 0.065718         |
| RESID    | -0.560249 | 6.183628       | -0.090602 | 0.928        | -0.020290             | 0.079393         |
| APART    | -3.076406 | 5.395332       | -0.570198 | 0.570        | -0.193845             | 0.112518         |
| FRA_SOR  | -3.833570 | 5.557967       | -0.689743 | 0.492        | -0.207478             | -0.186065        |
| PARENTS  | -3.314906 | 7.861379       | -0.421670 | 0.674        | -0.058351             | -0.019393        |
| SOPHMO   | 0.372863  | 4.214033       | 0.088481  | 0.930        | 0.016458              | -0.061273        |
| JUNIOR   | 2.200215  | 3.926594       | 0.560337  | 0.577        | 0.133783              | 0.122645         |
| SENIOR   | -0.230524 | 3.924770       | -0.058736 | 0.953        | -0.015840             | -0.114264        |
| OTHER CL | 3.089699  | 4.976643       | 0.620840  | 0.536        | 0.122587              | 0.055924         |
| EDU_FATH | -0.090703 | 0.580494       | -0.156252 | 0.876        | -0.019048             | -0.037323        |
| EDU_MOTH | -0.283315 | 0.744879       | -0.380350 | 0.705        | -0.049168             | -0.106972        |
| PAR_INC  | 0.793119  | 0.398459       | 1.990466  | 0.049        | 0.235519              | 0.071360         |
| SUF_FUND | 1.021564  | 1.060084       | 0.963663  | 0.338        | 0.099983              | 0.014488         |
| GROUP    | 0.999929  | 1.846640       | 0.541486  | 0.589        | 0.062493              | 0.082980         |
| NEGCOM   | -7.591312 | 3.696511       | -2.053642 | <b>0.043</b> | -0.208579             | -0.248956        |
| GROW_UP  | 0.235742  | 0.881238       | 0.267513  | 0.790        | 0.030446              | 0.021145         |

**Note.**

Valid cases: 120  
 Dependent variable: PRES\_US  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 6347.167  
 Degrees of freedom: 97  
 R-squared: 0.220  
 Rbar-squared: 0.043  
 Residual SS: 4948.870  
 Std error of est: 7.143  
 F(22,97): 1.246  
 Probability of F: 0.230

\*For comparisons, the base case was the Caucasian group.

\* $p < 0.05$ . Significant values are noted in bold.

Table C-8

Regression Analysis: Comfortable as My Counselor (MY\_COUNS) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|----------|-----------------------|------------------|
| CONSTANT | 27.559792 | 8.924554       | 3.088086  | 0.003    | ---                   | ---              |
| FEMALE   | 1.150104  | 1.437634       | 0.799998  | 0.426    | 0.088154              | 0.155932         |
| AGE      | 0.177081  | 0.272890       | 0.648911  | 0.518    | 0.079735              | 0.063758         |
| AFF_AM   | -0.219624 | 2.596820       | -0.084574 | 0.933    | -0.009369             | -0.041885        |
| AM_IND   | 1.392510  | 2.547795       | 0.546555  | 0.586    | 0.056613              | 0.007814         |
| AS_AM    | -1.597837 | 1.920248       | -0.832099 | 0.407    | -0.095431             | -0.107040        |
| HISPAN   | 1.872621  | 1.951293       | 0.959682  | 0.340    | 0.109827              | 0.201082         |
| OTHER ET | 3.297122  | 2.894547       | 1.139081  | 0.257    | 0.110916              | 0.055477         |
| RESID    | -1.476550 | 5.515882       | -0.267691 | 0.790    | -0.060029             | -0.045905        |
| APART    | 0.727087  | 4.812712       | 0.151076  | 0.880    | 0.051429              | 0.181324         |
| FRA_SOR  | -1.424321 | 4.957784       | -0.287290 | 0.775    | -0.086535             | -0.169275        |
| PARENTS  | 4.653389  | 7.012460       | 0.663589  | 0.509    | 0.091951              | -0.012057        |
| SOPHMO   | -1.522802 | 3.758977       | -0.405111 | 0.686    | -0.075456             | -0.009616        |
| JUNIOR   | 1.585500  | 3.502577       | 0.452667  | 0.652    | 0.108222              | 0.139035         |
| SENIOR   | -1.222748 | 3.500949       | -0.349262 | 0.728    | -0.094315             | -0.099870        |
| OTHER CL | -2.484497 | 4.439235       | -0.559668 | 0.577    | -0.110657             | -0.065081        |
| EDU_FATH | 0.713858  | 0.517809       | 1.378612  | 0.171    | 0.168289              | 0.006064         |
| EDU_MOTH | -1.123311 | 0.664443       | -1.690606 | 0.094    | -0.218841             | -0.162037        |
| PAR_INC  | 0.159197  | 0.355431       | 0.447898  | 0.655    | 0.053068              | -0.050268        |
| SUF_FUND | 0.910150  | 0.945610       | 0.962500  | 0.338    | 0.099997              | 0.112399         |
| GROUP    | -1.345992 | 1.647229       | -0.817125 | 0.416    | -0.094432             | -0.025469        |
| NEGCOM   | -5.148650 | 3.297340       | -1.561456 | 0.122    | -0.158803             | -0.251041        |
| GROW_UP  | -0.793582 | 0.786076       | -1.009549 | 0.315    | -0.115052             | -0.128180        |

**Note.**

yValid cases: 120  
 Dependent variable: MY\_COUNS  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 5036.800  
 Degrees of freedom: 97  
 R-squared: 0.218  
 Rbar-squared: 0.041  
 Residual SS: 3937.761  
 Std error of est: 6.371  
 F(22,97): 1.231  
 Probability of F: 0.241

\*For comparisons, the base case was the Caucasian group.

\*p < 0.05. Significant values are noted in bold.

Table C-9

Regression Analysis: Comfortable as My Professor (MY\_PROFE) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t  <sup>a</sup> | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|------------------------|-----------------------|------------------|
| CONSTANT | 33.106725 | 7.988411       | 4.144345  | 0.000                  | ---                   | ---              |
| FEMALE   | 0.929490  | 1.286833       | 0.722308  | 0.472                  | 0.076379              | 0.174991         |
| AGE      | -0.071384 | 0.244265       | -0.292238 | 0.771                  | -0.034459             | 0.024013         |
| AFF_AM   | -0.294245 | 2.324425       | -0.126588 | 0.900                  | -0.013457             | -0.060703        |
| AM_IND   | 1.963481  | 2.280543       | 0.860971  | 0.391                  | 0.085578              | 0.044763         |
| AS_AM    | -1.439836 | 1.718823       | -0.837687 | 0.404                  | -0.092192             | -0.066880        |
| HISPAN   | 2.219451  | 1.746612       | 1.270718  | 0.207                  | 0.139549              | 0.228457         |
| OTHER ET | 3.465215  | 2.590922       | 1.337444  | 0.184                  | 0.124972              | 0.036065         |
| RESID    | -0.226663 | 4.937292       | -0.045908 | 0.963                  | -0.009879             | 0.023821         |
| APART    | 0.171299  | 4.307881       | 0.039764  | 0.968                  | 0.012990              | 0.098700         |
| FRA_SOR  | -1.313070 | 4.437736       | -0.295887 | 0.768                  | -0.085525             | -0.155842        |
| PARENTS  | 8.928881  | 6.276886       | 1.422502  | 0.158                  | 0.189151              | 0.092277         |
| SOPHMO   | -0.509148 | 3.364678       | -0.151321 | 0.880                  | -0.027047             | -0.013030        |
| JUNIOR   | 3.038071  | 3.135173       | 0.969028  | 0.335                  | 0.222315              | 0.159242         |
| SENIOR   | 0.455640  | 3.133716       | 0.145399  | 0.885                  | 0.037678              | -0.136778        |
| OTHER CL | 1.183194  | 3.973580       | 0.297765  | 0.767                  | 0.056496              | -0.009000        |
| EDU_FATH | 0.871747  | 0.463493       | 1.880819  | 0.063                  | 0.220322              | 0.018373         |
| EDU_MOTH | -1.454601 | 0.594746       | -2.445751 | <b>0.016</b>           | -0.303805             | -0.195748        |
| PAR_INC  | 0.141423  | 0.318148       | 0.444520  | 0.658                  | 0.050541              | -0.093669        |
| SUF_FUND | 1.173289  | 0.846420       | 1.386179  | 0.169                  | 0.138198              | 0.144522         |
| GROUP    | -1.447524 | 1.474442       | -0.981743 | 0.329                  | -0.108874             | -0.014916        |
| NEGCOM   | -6.666401 | 2.951464       | -2.258676 | <b>0.026</b>           | -0.220435             | -0.300762        |
| GROW_UP  | -0.712852 | 0.703621       | -1.013120 | 0.314                  | -0.110796             | -0.105901        |

**Note.**

Valid cases: 120  
 Dependent variable: MY\_PROFE  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 4382.367  
 Degrees of freedom: 97  
 R-squared: 0.280  
 Rbar-squared: 0.117  
 Residual SS: 3154.983  
 Std error of est: 5.703  
 F(22,97): 1.715  
 Probability of F: 0.039

<sup>a</sup>For comparisons, the base case was the Caucasian group.

<sup>b</sup>p < 0.05. Significant values are noted in bold.

Table C-10

Regression Analysis: Comfortable as a Member of a Small Group in Small Group Activities (SMALL\_GP) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|----------|-----------------------|------------------|
| CONSTANT | 32.844628 | 7.622604       | 4.308846  | 0.000    | ---                   | ---              |
| FEMALE   | 1.104400  | 1.227906       | 0.899417  | 0.371    | 0.095263              | 0.178976         |
| AGE      | 0.132923  | 0.233080       | 0.570291  | 0.570    | 0.067355              | 0.070559         |
| AFF_AM   | -0.267044 | 2.217985       | -0.120400 | 0.904    | -0.012820             | -0.047135        |
| AM_IND   | 0.527978  | 2.176112       | 0.242625  | 0.809    | 0.024156              | -0.020883        |
| AS_AM    | -2.163745 | 1.640115       | -1.319264 | 0.190    | -0.145429             | -0.095019        |
| HISPAN   | 1.474803  | 1.666631       | 0.884901  | 0.378    | 0.097338              | 0.227812         |
| OTHER ET | 1.919953  | 2.472278       | 0.776593  | 0.439    | 0.072684              | 0.011955         |
| RESID    | 1.819974  | 4.711203       | 0.386308  | 0.700    | 0.083266              | 0.089030         |
| APART    | 1.031278  | 4.110614       | 0.250882  | 0.802    | 0.082089              | 0.120663         |
| FRA_SOR  | -1.388665 | 4.234523       | -0.327939 | 0.744    | -0.094944             | -0.215501        |
| PARENTS  | 9.044307  | 5.989454       | 1.510039  | 0.134    | 0.201118              | 0.074626         |
| SOPHMO   | -1.496967 | 3.210602       | -0.466258 | 0.642    | -0.083474             | -0.044189        |
| JUNIOR   | 2.862331  | 2.991607       | 0.956787  | 0.341    | 0.219865              | 0.155809         |
| SENIOR   | 0.325325  | 2.990217       | 0.108796  | 0.914    | 0.028239              | -0.114706        |
| OTHER CL | -0.928392 | 3.791621       | -0.244854 | 0.807    | -0.046533             | -0.046151        |
| EDU_FATH | 0.780860  | 0.442269       | 1.765577  | 0.081    | 0.207160              | -0.022367        |
| EDU_MOTH | -1.096196 | 0.567511       | -1.931584 | 0.056    | -0.240329             | -0.185789        |
| PAR_INC  | -0.139419 | 0.303579       | -0.459252 | 0.647    | -0.052301             | -0.132574        |
| SUF_FUND | 0.087763  | 0.807661       | 0.108663  | 0.914    | 0.010851              | 0.071988         |
| GROUP    | -2.712280 | 1.406924       | -1.927808 | 0.057    | -0.214140             | -0.092354        |
| NEGCOM   | -4.546742 | 2.816310       | -1.614432 | 0.110    | -0.157817             | -0.275265        |
| GROW_UP  | -0.877846 | 0.671400       | -1.307486 | 0.194    | -0.143222             | -0.128220        |

**Note.**

Valid cases: 120  
 Dependent variable: SMALL\_GP  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 3977.200  
 Degrees of freedom: 97  
 R-squared: 0.278  
 Rbar-squared: 0.114  
 Residual SS: 2872.652  
 Std error of est: 5.442  
 F(22,97): 1.695  
 Probability of F: 0.042

\*For comparisons, the base case was the Caucasian group.

\*p < 0.05. Significant values are noted in bold.

Table C-11  
 Regression Analysis: Comfortable as My Roommate (MY\_ROOMA) for Randomly Selected  
 Ethnic Groups

| Variable | Estimate  | Standard<br>Error | t-value   | Prob<br>> t  <sup>a</sup> | Standardized<br>Estimate | Cor with<br>Dep Var |
|----------|-----------|-------------------|-----------|---------------------------|--------------------------|---------------------|
| CONSTANT | 30.881520 | 9.454391          | 3.266368  | 0.002                     | ---                      | ---                 |
| FEMALE   | 1.347025  | 1.542249          | 0.873416  | 0.385                     | 0.094334                 | 0.128405            |
| AGE      | 0.156266  | 0.289091          | 0.540542  | 0.590                     | 0.064586                 | 0.047717            |
| AFF_AM   | -0.855727 | 2.770299          | -0.308893 | 0.758                     | -0.033520                | -0.072305           |
| AM_IND   | 0.371512  | 2.705647          | 0.137310  | 0.891                     | 0.013869                 | -0.022512           |
| AS_AM    | -2.191113 | 2.051224          | -1.068198 | 0.288                     | -0.120093                | -0.191318           |
| HISPAN   | 3.335629  | 2.083023          | 1.601341  | 0.113                     | 0.179537                 | 0.268572            |
| OTHER ET | 3.345709  | 3.072104          | 1.089061  | 0.279                     | 0.103361                 | 0.036088            |
| RESID    | -4.698761 | 5.844865          | -0.803913 | 0.423                     | -0.175411                | -0.116745           |
| APART    | -0.697578 | 5.098364          | -0.136824 | 0.891                     | -0.045242                | 0.139651            |
| FRA_SOR  | -1.672577 | 5.252950          | -0.318407 | 0.751                     | -0.093248                | -0.091606           |
| PARENTS  | 5.819788  | 7.432047          | 0.783067  | 0.436                     | 0.105626                 | 0.029706            |
| SOPHMO   | -1.932831 | 3.983860          | -0.485165 | 0.629                     | -0.087924                | 0.038775            |
| JUNIOR   | 1.714191  | 3.711849          | 0.461816  | 0.645                     | 0.106227                 | 0.117283            |
| SENIOR   | -1.494252 | 3.711868          | -0.402561 | 0.688                     | -0.105453                | -0.146370           |
| OTHER CL | -0.956543 | 4.703244          | -0.203379 | 0.839                     | -0.039117                | -0.023752           |
| EDU_FATH | 0.578781  | 0.549264          | 1.053740  | 0.295                     | 0.125214                 | -0.007359           |
| EDU_MOTH | -1.123021 | 0.706212          | -1.590205 | 0.115                     | -0.200520                | -0.149187           |
| PAR_INC  | 0.269421  | 0.379944          | 0.709108  | 0.480                     | 0.082340                 | -0.015891           |
| SUF_FUND | 0.705368  | 1.002118          | 0.703877  | 0.483                     | 0.071180                 | 0.064224            |
| GROUP    | -2.422417 | 1.747745          | -1.386025 | 0.169                     | -0.155839                | -0.085470           |
| NEGCOM   | -6.145308 | 3.494618          | -1.758506 | 0.082                     | -0.174075                | -0.245148           |
| GROW_UP  | -1.281619 | 0.834874          | -1.535105 | 0.128                     | -0.170442                | -0.209085           |

**Note.**

Valid cases: 119  
 Dependent variable: MY\_ROOMA  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 5969.580  
 Degrees of freedom: 96  
 R-squared: 0.267  
 Rbar-squared: 0.099  
 Residual SS: 4373.483  
 Std error of est: 6.750  
 F(22, 96): 1.593  
 Probability of F: 0.064

<sup>a</sup>For comparisons, the base case was the Caucasian group.

<sup>b</sup>p < 0.05. Significant values are noted in bold.

Table C-12

Regression Analysis: Would Date (WOU\_DATE) for Randomly Selected Ethnic Groups

| Variable | Estimate  | Standard Error | t-value   | Prob > t     | Standardized Estimate | Cor with Dep Var |
|----------|-----------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 24.920618 | 10.438183      | 2.387448  | 0.019        | ---                   | ---              |
| FEMALE   | -0.393492 | 1.680359       | -0.234172 | 0.815        | -0.027130             | 0.020813         |
| AGE      | 0.222183  | 0.327301       | 0.678833  | 0.499        | 0.085213              | 0.107051         |
| AFF_AM   | -1.130038 | 2.968556       | -0.380669 | 0.704        | -0.043707             | -0.095260        |
| AM_IND   | 3.754318  | 2.942213       | 1.276019  | 0.205        | 0.138391              | 0.082967         |
| AS_AM    | -0.521799 | 2.243704       | -0.232561 | 0.817        | -0.027717             | -0.133354        |
| HISPAN   | 5.083838  | 2.234419       | 2.275239  | <b>0.025</b> | 0.270040              | 0.272810         |
| OTHER ET | 3.087692  | 3.294924       | 0.937106  | 0.351        | 0.094202              | 0.034686         |
| RESID    | -2.724432 | 6.316100       | -0.431347 | 0.667        | -0.095117             | -0.070381        |
| APART    | 0.747298  | 5.485902       | 0.136221  | 0.892        | 0.047002              | 0.116013         |
| FRA_SOR  | -0.306002 | 5.643732       | -0.054220 | 0.957        | -0.016834             | -0.067879        |
| PARENTS  | 0.943826  | 9.557298       | 0.098754  | 0.922        | 0.012015              | -0.054620        |
| SOPHMO   | 0.882490  | 4.309532       | 0.204776  | 0.838        | 0.039631              | 0.059836         |
| JUNIOR   | 0.960979  | 3.996664       | 0.240445  | 0.811        | 0.059331              | 0.039350         |
| SENIOR   | -0.360432 | 3.990988       | -0.090311 | 0.928        | -0.025024             | -0.126525        |
| OTHER CL | 0.232341  | 5.193254       | 0.044739  | 0.964        | 0.008565              | 0.074099         |
| EDU_FATH | 0.540680  | 0.599002       | 0.902634  | 0.369        | 0.115293              | -0.000494        |
| EDU_MOTH | -0.849640 | 0.797521       | -1.065351 | 0.289        | -0.148373             | -0.142991        |
| PAR_INC  | 0.007429  | 0.407986       | 0.018209  | 0.986        | 0.002222              | -0.056547        |
| SUF_FUND | -0.609116 | 1.108577       | -0.549457 | 0.584        | -0.060307             | -0.038305        |
| GROUP    | -1.557121 | 1.879787       | -0.828350 | 0.410        | -0.098773             | -0.020875        |
| NEGCOM   | -4.654807 | 3.754321       | -1.239853 | 0.218        | -0.130217             | -0.159332        |
| GROW_UP  | -0.493682 | 0.905122       | -0.545431 | 0.587        | -0.064785             | -0.179327        |

**Note.**

Valid cases: 118  
 Dependent variable: WOU\_DATE  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 6118.373  
 Degrees of freedom: 95  
 R-squared: 0.184  
 Rbar-squared: -0.005  
 Residual SS: 4994.138  
 Std error of est: 7.251  
 F(22,95): 0.972  
 Probability of F: 0.506

\*For comparisons, the base case was the Caucasian group.

\* $p \leq 0.05$ . Significant values are noted in bold.

Table C-13  
Regression Analysis: Comfort for Randomly Selected Ethnic Groups

| Variable | Estimate   | Standard Error | t-value   | Prob > t     | Standardized Estimate | Cor with Dep Var |
|----------|------------|----------------|-----------|--------------|-----------------------|------------------|
| CONSTANT | 164.040645 | 48.088723      | 3.411208  | 0.000        | ---                   | ---              |
| FEMALE   | 6.625329   | 7.850691       | 0.843917  | 0.401        | 0.095072              | 0.154920         |
| AGE      | 0.916939   | 1.507930       | 0.608078  | 0.545        | 0.073544              | 0.116659         |
| AFF_AM   | -3.499231  | 13.777693      | -0.253978 | 0.800        | -0.028311             | -0.054071        |
| AM_IND   | 6.132139   | 13.594795      | 0.451065  | 0.653        | 0.047286              | 0.005284         |
| AS_AM    | -9.725464  | 10.433571      | -0.932132 | 0.354        | -0.108006             | -0.110245        |
| HISPAN   | 17.626971  | 10.380388      | 1.698103  | 0.093        | 0.195755              | 0.279041         |
| OTHER ET | 19.830462  | 15.207222      | 1.304016  | 0.195        | 0.126579              | 0.047240         |
| RESID    | -6.509057  | 29.106199      | -0.223631 | 0.824        | -0.047541             | 0.024994         |
| APART    | -1.859086  | 25.273328      | -0.073559 | 0.942        | -0.024427             | 0.138697         |
| FRA_SOR  | -10.086352 | 26.005633      | -0.387853 | 0.699        | -0.115999             | -0.170327        |
| PARENTS  | 35.658353  | 44.030892      | 0.809849  | 0.420        | 0.094991              | 0.000505         |
| SOPHMO   | -3.025598  | 19.862303      | -0.152329 | 0.879        | -0.028417             | -0.004852        |
| JUNIOR   | 12.837357  | 18.421471      | 0.696869  | 0.488        | 0.163944              | 0.129371         |
| SENIOR   | -1.645433  | 18.400706      | -0.089422 | 0.929        | -0.023807             | -0.146971        |
| OTHER CL | 3.286941   | 23.925289      | 0.137384  | 0.891        | 0.025346              | 0.023848         |
| EDU_FATH | 3.185458   | 2.763276       | 1.152783  | 0.252        | 0.142016              | -0.018430        |
| EDU_MOTH | -5.584821  | 3.685925       | -1.515175 | 0.133        | -0.203606             | -0.183151        |
| PAR_INC  | 1.282767   | 1.895995       | 0.676566  | 0.500        | 0.080136              | -0.060048        |
| SUF_FUND | 3.100691   | 5.108495       | 0.606968  | 0.545        | 0.064238              | 0.055254         |
| GROUP    | -8.524743  | 8.673394       | -0.982861 | 0.328        | -0.112957             | -0.026242        |
| NEGCOM   | -35.199699 | 17.303783      | -2.034220 | <b>0.045</b> | -0.206027             | -0.285003        |
| GROW_UP  | -4.226797  | 4.178088       | -1.011658 | 0.314        | -0.115917             | -0.137503        |

Note.

Valid cases: 117  
 Dependent variable: COMFORT  
 Missing cases: 0  
 Deletion method: Pairwise  
 Total SS: 139711.863  
 Degrees of freedom: 94  
 R-squared: 0.249  
 Rbar-squared: 0.074  
 Residual SS: 104880.054  
 Std error of est: 33.403  
 F(22,94): 1.419  
 Probability of F: 0.126

\*For comparisons, the base case was the Caucasian group.

\* $p < 0.05$ . Significant values are noted in bold.



Table C-14  
Chi-square Analysis: Ethnicity (RACE)<sup>a</sup>

| Question Rank | ASOSU Subjects | Random Subjects | Total  |
|---------------|----------------|-----------------|--------|
| Very + 1      | 4.00           | 10.00           | 14.00  |
|               | 2.68           | 6.71            | 9.40   |
|               | 28.57          | 71.43           |        |
|               | 9.76           | 9.26            |        |
| 2             | 1.00           | 15.00           | 16.00  |
|               | 0.67           | 10.07           | 10.74  |
|               | 6.25           | 93.75           |        |
|               | 2.44           | 13.89           |        |
| 3             | 6.00           | 19.00           | 25.00  |
|               | 4.03           | 12.75           | 16.78  |
|               | 24.00          | 76.00           |        |
|               | 14.63          | 17.59           |        |
| 4             | 26.00          | 35.00           | 61.00  |
|               | 17.45          | 23.49           | 40.94  |
|               | 42.62          | 57.38           |        |
|               | 63.41          | 32.41           |        |
| 5             | 3.00           | 20.00           | 23.00  |
|               | 2.01           | 13.42           | 15.44  |
|               | 13.04          | 86.96           |        |
|               | 7.32           | 18.52           |        |
| Very - 6      | 1.00           | 9.00            | 10.00  |
|               | 0.67           | 6.04            | 6.71   |
|               | 10.00          | 90.00           |        |
|               | 2.44           | 8.33            |        |
| Total         | 41.00          | 108.00          | 149.00 |
|               | 27.52          | 72.48           | 100.00 |

**Note.**

Likelihood Ratio Chi-square: 15.9912,  
df: 5, prob: 0.007.

Pearson's Chi-square: 14.7242, df: 5,  
prob: 0.012.

<sup>a</sup>n = 149.

Table C-15  
 Chi-square Analysis: Living Arrangements  
 (LIVE-ARR)<sup>a</sup>

| Question       | ASOSU<br>Subjects | Random<br>Subjects | Total  |
|----------------|-------------------|--------------------|--------|
| Coop 1         | 1.00              | 1.00               | 2.00   |
|                | 0.65              | 0.65               | 1.30   |
|                | 50.00             | 50.00              |        |
|                | 2.38              | 0.89               |        |
| Res Hall 2     | 5.00              | 8.00               | 13.00  |
|                | 3.25              | 5.19               | 8.44   |
|                | 38.46             | 61.54              |        |
|                | 11.90             | 7.14               |        |
| Apart/House 3  | 23.00             | 89.00              | 112.00 |
|                | 14.94             | 57.79              | 72.73  |
|                | 20.54             | 79.46              |        |
|                | 54.76             | 79.46              |        |
| Frat/Sor 4     | 13.00             | 12.00              | 25.00  |
|                | 8.44              | 7.79               | 16.23  |
|                | 52.00             | 48.00              |        |
|                | 30.95             | 10.71              |        |
| With Parents 5 | 0.00              | 2.00               | 2.00   |
|                | 0.00              | 1.30               | 1.30   |
|                | 0.00              | 100.00             |        |
|                | 0.00              | 1.79               |        |
| Total          | 42.00             | 112.00             | 154.00 |
|                | 27.27             | 72.73              | 100.00 |

**Note.**

Likelihood Ratio Chi-square: 12.0265, df: 4,  
 prob: 0.017.

Pearson's Chi-square: 12.3609, df: 4, prob:  
 0.015.

<sup>a</sup>n = 154.

Table C-16  
 Chi-square Analysis: Class Standing  
 (CLAS\_STN)<sup>a</sup>

| Question | ASOSU<br>Subjects | Random<br>Subjects | Total  |
|----------|-------------------|--------------------|--------|
| Fresh 1  | 3.00              | 3.00               | 6.00   |
|          | 1.95              | 1.95               | 3.90   |
|          | 50.00             | 50.00              |        |
|          | 7.14              | 2.68               |        |
| Soph 2   | 15.00             | 4.00               | 19.00  |
|          | 9.74              | 2.60               | 12.34  |
|          | 78.95             | 21.05              |        |
|          | 35.71             | 3.57               |        |
| Junior 3 | 8.00              | 31.00              | 39.00  |
|          | 5.19              | 20.13              | 25.32  |
|          | 20.51             | 79.49              |        |
|          | 19.05             | 27.68              |        |
| Senior 4 | 14.00             | 55.00              | 69.00  |
|          | 9.09              | 35.71              | 44.81  |
|          | 20.29             | 79.71              |        |
|          | 33.33             | 49.11              |        |
| Other 5  | 2.00              | 19.00              | 21.00  |
|          | 1.30              | 12.34              | 13.64  |
|          | 9.52              | 90.48              |        |
|          | 4.76              | 16.96              |        |
| Total    | 42.00             | 112.00             | 154.00 |
|          | 27.27             | 72.73              | 100.00 |

Note.

Likelihood Ratio Chi-square: 30.2042,  
 df: 4, prob: 0.000.

Pearson's Chi-square: 33.0715, df: 4,  
 prob: 0.000.

<sup>a</sup>n = 154.

Table C-17  
Comfort Across Ethnic Groups (*t*-test)

| Respondents | Ethnic Group | Mean<br>Difference | Standard<br>Error | <i>t</i> -<br>value* | Prob<br>>  <i>t</i>  † |
|-------------|--------------|--------------------|-------------------|----------------------|------------------------|
| African     | African Am   | 0.00               | 0.00              | 0.00                 | 1.00                   |
| American    | Am Indian    | -1.40              | 2.12              | -2.09                | 0.063                  |
|             | Asian Am     | -2.30              | 2.16              | -3.36                | <b>0.007</b>           |
|             | Caucas Am    | -1.90              | 2.47              | -2.43                | <b>0.035</b>           |
|             | Hispanic Am  | -1.10              | 1.45              | -2.40                | <b>0.037</b>           |
|             | American     | African Am         | -0.87             | 1.30                 | 2.58                   |
| Indian      | Am Indian    | 0.00               | 0.00              | 0.00                 | 1.000                  |
|             | Asian Am     | -1.13              | 2.07              | -2.13                | 0.051                  |
|             | Caucas Am    | -0.20              | 1.26              | -0.61                | 0.549                  |
|             | Hispanic Am  | -0.53              | 1.13              | -1.84                | 0.086                  |
|             | Asian        | African Am         | -2.67             | 2.73                 | -2.39                  |
| American    | Am Indian    | -2.33              | 2.94              | -1.94                | 0.100                  |
|             | Asian Am     | 0.00               | 0.00              | 0.00                 | 1.000                  |
|             | Caucas Am    | -0.17              | 0.41              | -1.00                | 0.356                  |
|             | Hispanic Am  | -2.17              | 2.99              | -1.77                | 0.127                  |
|             | Caucasian    | African Am         | -1.85             | 2.22                 | -4.24                  |
| American    | Am Indian    | -1.46              | 1.70              | -4.38                | <b>0.000</b>           |
|             | Asian Am     | -1.62              | 1.83              | -4.49                | <b>0.000</b>           |
|             | Caucas Am    | 0.00               | 0.00              | 0.00                 | 1.000                  |
|             | Hispanic Am  | -1.27              | 1.61              | -4.01                | <b>0.000</b>           |
|             | Hispanic     | African Am         | -1.67             | 2.89                 | -1.00                  |
| American    | Am Indian    | -1.67              | 1.53              | -1.89                | 0.155                  |
|             | Asian Am     | -2.00              | 2.65              | -1.31                | 0.282                  |
|             | Caucas Am    | 0.00               | 1.00              | 0.00                 | 1.000                  |
|             | Hispanic Am  | 0.00               | 0.00              | 0.00                 | 1.000                  |

\*Negative *t*-value indicates discomfort; positive *t*-value indicates comfort.

†*p* < 0.05. Significant values are noted in bold.