

DEMOGRAPHIC CHARACTERISTICS OF
INTERPERSONAL ATTRACTION OF
SEVENTH-GRADE STUDENTS

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CHAPTER I

INTRODUCTION

From Waller's (1932) persuasive description of the "special culture of the young" to contemporary researchers and theorists, educational professionals have been concerned with the effect of the peer group on student behavior. Studies of peer pressure toward conformity to group norms (Rothlesberger and Dickson, 1939; Whyte, 1943; Newcomb, 1943; Homans, 1950; Feldman and Newcomb, 1969), have become a part of the conventional wisdom and sometimes an excuse rationalizing school problems and failures.

Occasionally it has been assumed that the ascendancy of peer group pressure during adolescence attained such a ruthless hegemony as to negate all other influences. Coleman (1961) concluded that the relative increase of adolescent peer influence relative to parental influence produced a social milieu isolated from and often contrary to the adult culture. However, a comparative study of American and Danish secondary students (Kandel, et al., 1968) found that adolescents reflected the general orientation of the larger society. As peer and parental influence operated in tandem, an individual's concordance with peer and parental behaviors was either mutually high or low. Moreover, family interaction had a spillover effect on peer interaction. The quality of the parent-child relationship affected (1) peer sociometric ratings of the youth (Cox, 1965) and (2) the relative salience of peers and parents.

(Larson, 1969). Though the unmitigated usurpation of parental influence by the peer group has not been established, this does not obviate peer influence.

Rationale

Considering the number of hours of prescribed attendance, the school may be the major locus of adolescent interaction in our society. Within this organization the students create and maintain a complex social system with norms, roles, and strata which may compliment or confound school goals, policies, programs and curricula.

Perhaps the most consistently emphasized school goal is the academic achievement of the individual student. It is often stated that each student progresses at a rate commensurate with personal ability, aptitude, and motivation. This position is rather naive as it assumes that the individual's achievement is devoid of a social context. The valuation of an individual by the student peer group appears to be crucial for academic success. Muma (1965) found that the more highly accepted students were more academically successful and the more highly rejected students were less academically successful. Nunn (1971) noted a positive correlation between peer popularity and grade-point average. Interestingly, one investigator (Bailey, 1968) found that peer prediction of academic success was more accurate than self-prediction.

How the student rated with the other students seemed to affect the individual's attitude toward group work in the classroom (Nickse and Ripple, 1972). Moreover, Schmuck, Luszki and Epperson (1963) suggested that the highly rejected student made "increasingly poorer" adjustments to school. Almost as a mirror image to the Schmuck conclusion, Lott

and Lott (1966) found that positive attraction between students in a classroom appeared to have a positive effect on learning.

Though student status may be related to academic achievement, this does not necessarily imply that academic achievement confers status. According to two studies (Richmond and White, 1971; Laughlin, 1954), the students viewed most favorably by their peers were self-assured, poised, friendly, enthusiastic, good-looking, cheerful and likeable. Laughlin concluded that personality variables were more highly correlated with student status than were academic achievement and mental ability.

How the individual relates to the student peer group appears to have wide ramifications. The amount and type of participation with peers has been related to the individual's (1) stage of moral development (Keasey, 1971); (2) alienation (Heussenstamm and Hoepfner, 1971); and (3) toleration of dissent (Grossman, 1974). Specifically to the educational process, peer group norms seemed to affect (1) what a student learned (Whittaker, 1968); (2) student effort (Jackson, 1968); and (3) quality of the student's work (Korman, 1971).

Of the total peer group the leaders are often expected to be the benchmark for students' behavior, attitudes and goals. However, Kandel, Lesser, Roberts and Weiss (1968) identified friends as the most salient members of the peer group. The attitudes of friends have been associated with the individual's decision to attend college (Alexander and Campbell, 1964) and the decision to drop-out of secondary school (Dager, 1968). Inasmuch as it impinges on organizational goals and processes, how the students relate and with whom they relate is not only important to the individual student but to the school as well.

Several studies have been concerned with how individuals select people with whom they wish to interact. Sociometric studies (Davitz, 1955; Lundy, 1956; Lundy, et al., 1955; and Fiedler, et al., 1952) have concluded that perceived similarity is the basis for selecting friends. Various demographic characteristics have been associated with sociometric choices, such as: age (Moreno, 1934), socio-economic status (Lundberg, 1937), proximity (Kipnis, 1957), religion (Goodnow and Taguiri, 1952), race (Criswell, 1939), family size and sex (Bonney, 1944; 1949).

Statement of the Problem

This study will examine the dependence of selected demographic characteristics and interpersonal attraction among seventh grade students. The demographic variables included in the study are: sex, race, proximity, number of days absent from school, school-classified as a special student, number of extra-curricular activities, number of years residing locally, number of schools attended, number of adults in the home, number of children in the home, occupation of head of household, student employed outside the home and school, and school electives.

Purpose of the Study

As the student peer group influences the social development, academic achievement, and educational future of the individual, information on the student social system is a necessary ingredient for formulating school policies and programs. The particular interest of this study is an attempt to discern the mechanism which will account for interpersonal attraction among the students. The mechanism advanced by this study is similarity of demographic characteristics.

Research Objectives

The following objectives were deemed logically necessary to accomplish the above purpose:

1. Identification of the demographic characteristics of the students.
2. Identification of inter-student attraction.
3. Identification of the demographic characteristics of inter-student attraction.
4. Computation of the significance of demographic characteristics of inter-student attraction.

Null Hypotheses

To achieve the final objective, computation of the significance of demographic characteristics of inter-student attraction, the following hypotheses were tested at the 0.05 level of significance:

1. Inter-student attraction is independent of proximity to residence.
2. Inter-student attraction is independent of proximity on a school bus.
3. Inter-student attraction is independent of race.
4. Inter-student attraction is independent of sex.
5. Inter-student attraction is independent of numbers of absences from school.
6. Inter-student attraction is independent of school-classification as a special student.
7. Inter-student attraction is independent of number of extra-curricular activities.

8. Inter-student attraction is independent of years residing locally.
9. Inter-student attraction is independent of number of schools attended.
10. Inter-student attraction is independent of number of adults in household.
11. Inter-student attraction is independent of number of children in household.
12. Inter-student attraction is independent of occupation of head of household.
13. Inter-student attraction is independent of student working.
14. Inter-student attraction is independent of student selecting the school elective Speech and Drama.
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20. Inter-student attraction is independent of student selecting the school elective Crafts.
21. Inter-student attraction is independent of student selecting the school elective Spanish.

22. Inter-student attraction is independent of student selecting the school elective French.

23. Inter-student attraction is independent of student selecting the school elective Typing.

Assumptions

This study was premised on the following assumptions:

1. The mechanism of interpersonal attraction is perceived similarity.
2. Demographic characteristics are orienting cues of perception.
3. Interpersonal attraction and similarity of demographic characteristics are dependent.

Concerning specific demographic variables, it was assumed that:

1. All students in the selected population were of similar ages. Therefore, the factor of age was not considered in the study.
2. The occupational classification of the head of household was a partial index of socio-economic status. A complete index typically includes: occupation, income (type and amount), and education.
3. If more than one adult were residing in the home, the male was considered the head of household.

Limitations of the Study

Because of the recent legislation (Family Educational Rights and Privacy Act, 1974), this study was restricted to public information which included: sex, race, school bus number, number of years residence in city, number of schools attended since the first grade, number of adults in the home, only-child status, parental and students' occupations,

school electives, number of school activities, classification as a student with learning disabilities, number of days absent from school.

Local school personnel requested that the data collection be completed in a brief, single session. Therefore, students who were absent during the day the questionnaire was administered were not included in the study.

Definition of Terms

1. Attraction - reciprocated and unreciprocated friendship choices on the sociometric item: "List your three best friends in the seventh grade."
2. Student - participant in the study.
3. Neighborhood - a ten-block radius from location of residence.
4. Indices of Proximity - (a) residing in the same neighborhood, (b) riding the same school bus.
5. Indices of Mobility - (a) number of years residing locally, (b) number of schools attended.

CHAPTER II

REVIEW OF LITERATURE

This review of literature is divided into two basic sections. The first part is concerned with the theoretical framework of positive attraction and similarity of individuals. The second section is composed of studies of student interaction as associated with demographic characteristics. To aid the reader these studies were classified by a major demographic topic, though in some instances the investigation may be concerned with more than one of the variables pertinent to this study.

Theoretical Framework

In 1954, Festinger published his Theory of Social Comparison Processes. The theory was premised on an organismic drive to evaluate personal opinions and abilities; further, if objective criteria for evaluation were not available, the individual would be driven to compare personal abilities and opinions to the abilities and opinions of other people. In the comparison process the individual would restrict the range of comparison to people possessing opinions and abilities similar to the individual. Consequently, social groupings would be characterized by individuals possessing similar abilities and opinions. Within these groups if a discrepancy between opinions and abilities were to develop, there would be a "press toward uniformity." If the perceived discrepancy could not be resolved, attraction to the group

would be less, comparison would cease, and interaction would be limited. Though social comparison theory had great heuristic power, it was confounded by an inability to adequately operationalize the "press toward uniformity."

Another cognitive theory of attraction similar to Festinger's was Heider's balance theory (1958). The logical ordering of Heider's theory was as follows: (1) similar individuals are mutually attracted; (2) members of a dyad perceive each other as similar; (3) members of a dyad expect similarity in evaluating behavior, objects, and individuals external to the dyad; (4) if the evaluations are dissimilar, the relationship is imbalanced; (5) imbalance is disharmony; (6) disharmony causes tension; (7) balanced relationships are preferred to imbalanced relationships; (8) forces will develop to eliminate the tension created by imbalance; (9) return to the balanced state is a return to perceived similarity. The homeostatic models of attraction by Heider and Festinger concurred that attraction is initiated and maintained by perceived similarities.

Turning from cognitive to behaviorist theory, the most consistently researched model of attraction was developed by Byrne (1971). The premise of these investigations was: attraction to an object or person was a function of the reinforcement associated with that object or person. Similarity was assumed to be positively reinforcing and dissimilarity, negatively reinforcing.

The basic methodology developed to explore this model required that subjects first be administered a questionnaire. After a time lapse so specific responses could not be recalled, the subjects were asked to evaluate a stranger's responses to the same questionnaire.

The "stranger's" responses were prepared by the experimenter and appropriately matched to the subject's responses for similar or dissimilar condition.

This methodological paradigm was used for a number of experiments. From these investigations it was concluded that attraction was a function of similar attitudes (Byrne, 1961, 1962; Byrne and Nelson, 1965; Byrne and Clore, 1966; Byrne and Wong, 1962; McWhirter and Jecker, 1967; Brewer and Brewer, 1968); similar personalities (Byrne, Griffitt and Stefaniak, 1967); similar abilities (Byrne, 1974); economic similarity (Byrne, Clore and Worchel, 1966); age similarity (Griffitt, Nelson and Littlepage, 1972); and physical attractiveness (Byrne, London and Reeves, 1968). Citing the work of Byrne and his associates, Seyfried and Hendrick observed that "the positive similarity-attraction relation is perhaps the best established result in social research." (1973, p. 207).

Given the agreement of Byrne, Heider and Festinger on the potency of similarity, the following section was restricted to studies of similarity and dissimilarity in demographic variables as related to student interaction. The studies were grouped by specific demographic variables which included: race, sex, socio-economic status, proximity, family, school-classified special students.

Demographic Variables

Race - Gottlieb and TenHouten (1965) were interested in the effect of racial composition on student social systems. They compared three high schools in a Midwestern metropolis with respective black student enrollments of 4.3%, 46.9%, and 99.0%. As a part of the study, socio-

metric data were collected on friendship choices. In the two extreme cases, the minority race students showed a marked tendency to choose as their three best friends people not attending their school. In the school with a 4.3% black student enrollment, 17.6% of the black females and 27.7% of the black males chose white friends. Less than one per cent of the white students chose black friends. However, by number of cross-race friendship selections rather than per cent of total friends selected, blacks showed a higher self-preference than whites and females showed a higher racial self-preference than males. This finding is contrasted to the Coleman report (1965) which found that twice as many whites as blacks preferred association only with members of their own race. The Coleman finding was supported by the following study by Durojaiye (1969).

The Durojaiye study (1969) was concerned with the choice of friends and leaders. Sociometric data were collected on 312 pupils, 8 to 11 years of age, in a Manchester, England, junior school. Of the students, 65% were white, 35% were "coloured." On friendship choices evidence of ethnic self-choice was strong for both groups and stronger for whites than "coloureds." The same leadership choices were made by 97% of the white students and 98% of the "coloureds." High visibility in any school activity appeared to be associated with leadership choice without reference to race. Sociometric choice was also influenced by long attendance in school, high intelligence, place of residence, participation in extra-curricular activities, and teachers' assessments of students' characters.

Another study of student friendships in England was conducted by Robertson and Kawwa (1971). Subjects were 604 females housed in a London comprehensive school. Approximately 30% of the population were

"immigrants." Friendship patterns were designated as reciprocated choices on a sociometric questionnaire. As expected, the students most frequently selected friends from their own ethnic group. This pattern was more marked in older age groups and lower "streams" than in younger age groups and upper "streams." Characteristics of overaggression and withdrawal rather than ethnic origin seemed to account for unpopularity. Very few cases of prejudice were discerned in 600 student questionnaires. The study did not report their definition of prejudice.

Because of inconsistent criteria, it is uncertain whether the behavior of withdrawal associated with unpopularity in the Robertson and Kawwa study is the same behavior classified as "active withdrawal" reported by Phillips (1968). The latter study was concerned with rating school-classified problem behavior of 600 Anglo, Negro, and Mexican-American students. From a computed factor analysis, "active withdrawal" was most consistently related to school-classified problem behaviors and to Negroes.

"Active withdrawal" implies a restriction of communication. Studies by Cole and Davenport (1972) and Stein, et al. (1965) suggested that race becomes the predominate mode of attraction if information on beliefs was not available. Stein, Hardyck and Smith (1965) studied 44 white ninth-grade students' responses to social distance scales referenced to four "stimulus teen-agers." Cole and Davenport (1972) measured ninth-grade students' attraction by a questionnaire composed of a value scale, information section, friendliness scale, and a similarity scale. Both studies concluded that subjects respond first by similarity of beliefs and second by race. The Stein investigation noted that when

considerable information on beliefs was not available subjects reacted primarily in racial terms. A specific threshold for "considerable information" was not stated.

Koslin, Pargament and Waxman (1970) were also interested in inter-racial attitudes but as it relates to classroom balance. A balanced classroom was defined as an even distribution of racial minorities. Using a sociometric choice measure, people and classroom preference test, the investigators concluded that interracial attitudes were more favorable in balanced than unbalanced classrooms. However, on all tests students preferred individuals of their own race.

St. John (1971) studied the factors influencing achievement of urban elementary students in 36 sixth-grade classes. The study included a sociometric measure of friendship. Popularity as determined from the sociometric ratings was significantly related to the grade-point average and school attendance of black and white students. This relationship was even stronger for both races when the students were in a minority-group situation.

The study by Phillis (1971) also involved an analysis of peer popularity and friendship choices. Sociometric tests were administered to 30 males and 30 females ages 5 to 8 years. The subjects were enrolled in a university laboratory, summer school program. Thirteen of the subjects were black. Popularity was not affected by race or length of time enrolled in the school. It should be noted that the brevity of the program may account for the insignificant effect of length of enrollment in the program.

Sex - Smith (1944) administered a questionnaire to 49 male and 54 female high school seniors. Data collected by the instrument were:

nominations of three friends, sex, residence, church, school and community activities, and father's occupation. From a comparison of reciprocated friendship choices, the most salient factor associated with friendship was sex, followed by church preference, father's credit rating, residence and father's occupation.

Steinberg (1971) also found same-sex preference in friendship groups. This study investigated student social groups in an experimental secondary school which proposed neither to segregate students by grade nor ability. Employing a sociometric questionnaire and interviews, Steinberg found that friendship groups were more homogenous than diverse. There were few cross-sex, cross-race, or cross-grade level choices. Members of "clear-cut" friendship groups lacked information and used stereotypes to describe students who were not members of clear-cut friendship groups.

The sex-differentiated pattern of acceptance and rejection was studied by Feshback and Sones (1971). Subjects were selected from the seventh and eighth grade of a Los Angeles middle-class, white junior high school. The sample included 42 males and 45 females. Same-sex friendship pairs were observed during a problem-solving session and during the introduction of a same-sex stranger at the end of the problem-solving session. It was concluded that female friendship pairs were more negative and rejecting than were male friendship pairs.

In another study employing same-sex pairs, Manning, et al. (1968) were interested in ethnic group membership and cooperative and competitive behavior. Subjects were 136 children, ages 5 and 6 years. Given the choice of competitive or cooperative behavior, same ethnic group females pairs were more cooperative than different ethnic group female

pairs, except for Negro and Mexican-American female pairs. There was no significant difference in behavior by ethnic-group membership for males. It was suggested that the sex-differential in behavior may be explained by the greater maturity and understanding of ethnic mores by the female subjects.

Using a population similar in age to the Manning study, McGuire (1973) investigated the relationship of sex, aggression and sociometric status. Subjects, ages 3 to 5 years, were enrolled in a university nursery school. The method of study was a picture sociometric interview and a naturalistic time-sampling observation of in-door free play. Popularity was defined as being above the median for number of positive choices minus negative choices. McGuire reported that males overall were more aggressive than females. Males who were more highly aggressive compared to other males were unpopular. Females who were more highly aggressive compared to other females were popular. The data suggested a curvilinear relationship between amount of aggression and popularity for males but not for females. The study did not include a ranking of aggressive behavior.

Socio-economic status - Neugarten (1946) was concerned with the effect of social class status on choice of friends and reputation. A guess-who test and a modified sociometric test were administered to fifth-, sixth-, eleventh- and twelfth-grade students. From a previous study the students were grouped in four social class categories. Except for the lowest status group, individuals tended to select as friends students of a higher or equal social class status. Mutual rejection was greatest between the two extreme groups. Reputations were stereotypic with positive attributes associated with upper class and negative, with lower class membership.

Hollingshead's (1949) report agreed with Neugarten's finding that students selected friends of an equal status but did not support the tendency of selecting higher status friends. From data derived from participant observation, interviews, local records and media, Hollingshead found that social class ratings between best friends were the same for 78% of the girls and 71% of the boys. As in the Neugarten study, there was little intimate interaction between members of the polar classes.

A more recent study (Kandel, et al., 1968) did not find as strong an association between best friends and socio-economic status. Questionnaires were administered to 2,327 American high school students and 1,552 Danish secondary students. Subjects were requested to list their three best school friends of the same sex. Concordance between friendship selection and program in school and age was greater than concordance between friendship choices and socio-economic factors. Though the relative homogeneity of socio-economic factors was noted, the investigators concluded that friendship is primarily a function of propinquity in school and secondarily of socio-economic factors.

Proximity - Furfey (1927) studied the individual characteristics of friends from a sample of 35 boys attending a recreational program. The investigation was limited to 62 reciprocated choices. Only association in school or neighborhood was significantly related to friendship choices. Variables showing no significant relationship were: chronological age, mental age, developmental age as measured by an author-constructed rating scale, height, and weight.

The study of physical distance and sociometric choice by Festinger, Schachter and Back (1950) was conducted in two housing projects for married students at Massachusetts Institute of Technology. Though the

measured distance between individuals choosing was never greater than 180 feet, the greatest number of choices was directed toward people living the closest to the chooser. As physical distance increased, choices continuously decreased.

In a similar study Menne and Sinnet (1971) administered sociometric questionnaires to 63 Kansas State University students. Of the subjects, 31 were from one corridor of an all-female residence hall and 32 were from one corridor of an all-male residence hall. A significant number of reciprocated choices was between roommates or students whose rooms were less far apart than the average distance of all rooms.

Specifically to the classroom, Maisonneuve, Palmade and Fourment (1952) studied the relationship of friendship and classroom seating arrangements. Subjects were two classes of on-campus college students, average age of 20 years. From questionnaires, interviews, and observations, it was concluded that physical closeness was related to friendship.

Schwarz (1968) was concerned with the effect of peer proximity. From a study of kindergarten children, it was concluded that proximity of a peer friend inhibited distress. Moreover, the security effect of a proximal peer friend was greater than the security effect of a proximal peer stranger.

Family - Barclay, Stillwell and Barclay (1972) administered the Barclay Classroom Climate Inventory (BCCI) to 1,386 elementary school students. The BCCI is composed of self and peer ratings of individual's competency skills, vocational interests, and reinforcers, plus a teacher's adjective check list for each student. The data suggested that absence of the father from the home lowered self, group and teacher ratings of the individual.

Bonney (1944) studied the relationship of social success to family size, socio-economic home background, and intelligence as measured by group IQ tests. Social success was determined by sociometric choices. The subjects were third-, fourth-, and fifth-grade students in three schools in Denton, Texas. Characteristics of an only-child status, higher levels of home socio-economic background and a higher IQ average were above the expected frequency in the upper quartile of social success.

In a later study of 1,158 college students, Bonney (1949) found that students who were only-children were again over-chosen but not at a statistically significant level. In this study Bonney also noted the effect of length of time enrolled in school and friendship choices. Students who had attended the college for six or more semesters were significantly over-chosen; students attending less than one semester were significantly under-chosen. For students not in the polar categories, length of time enrolled had an inconsistent effect on friendship choices.

School-Classified Special Students - A small sample of twenty intermediate and sixteen primary grade students in a non-graded school were administered sociometric questionnaires to determine the social acceptance and social rejection of educable mentally handicapped (EMH) students (Goodman, et al., 1971). Subjects were EMH students in a segregated classroom, EMH students in an integrated classroom, and normal students. Results indicated that EMH students, whether in integrated or segregated classrooms, were significantly more often rejected than normal students. Younger children in the sample were more accepting of EMH students than were older students. Male subjects compared to female subjects expressed more overt rejection and were more rejecting

of the integrated EMH students than the segregated EMH students. Considering the effects of labeling, it was suggested that normal children may accept behaviors of EMH students which would be unacceptable in children classified as normal.

The differentiated classification of behavior was also observed in an investigation by Gampel, Harrison and Budoff (1972). Using a time-sample method to record behavior in twelve categories, the researchers observed an integrated classroom of students classified as normal and educable mentally retarded (EMR). The 12 categories of behavior were concerned with attention, deviance, and communication. From the record of classroom behavior it was noted that the EMR students engaged in significantly less interpersonal interaction than normal students. A factor analysis of the data yielded three factors: the "good guy" and "bad guy" syndromes associated with normal students' behavior and the "unusual guy" syndrome identified with the integrated EMR students.

Using the same 12 categories as in the above study, Gampel, Gottlieb and Harrison (1973) compared the behavior of 12 segregated and 14 integrated EMR students. Behavior criteria data were secured by observations of students with low IQ's who had never been placed in a special class and a group of average IQ students. After four months of observations, the investigators concluded that the behavior of integrated EMR students was more similar to non-labeled EMR students' behavior than to segregated EMR students. The importance of appropriate models of behavior was strongly urged in the conclusion of the report.

Though the 1973 Gampel study suggested a mechanism for changing the behavior of EMR students, i.e., modeling, Gottlieb and Budoff (1973) sought to identify specific behaviors which were associated with social

rejection. Subjects were 22 EMR students and 41 "mentally typical students," 7 to 13 years of age, from an inner-city school. Behavior was classified into 12 categories in a time sample of six 5-minute observations per student. Social status was determined by a sociometric test of acceptance and rejection administered to all subjects. A significant relationship was found between verbal aggression and social status, whether the student was classified as EMR or "mentally typical." It was suggested that the social acceptance of EMR students could be improved if their verbal abuse decreased.

Gottlieb and Budoff (1972) also investigated the social acceptance and rejection of EMR students integrated in an open-space school as compared to EMR students segregated in a self-contained classroom school. Though more students knew the EMR students in the open-space school, the EMR students were not chosen more but rejected more.

In another study of social acceptance and rejection, Bryan (1974) compared students with learning disabilities (LD) to a group matched by sex, race and classroom. From a computed analysis of variance, Bryan concluded that LD students, especially white and female, were significantly more rejected than comparison children.

Stevens' study of attitudes (1971) included an investigation of the social acceptance of students in a remedial reading class. Subjects were 886 fourth-grade students, 34 of whom participated in the remedial reading program. As rated by other students and by self, remedial reading students were lower in social acceptance than their peers.

Summary

The review of the literature suggested that individuals are

attracted to similar people. Positive attraction to the same race and sex was unequivocally supported. In all cases proximity was associated with attraction.

Variables which were inconsistently associated with attraction were: socio-economic status, length of time enrolled in school, and only-child status. Variables which had a negative effect on attraction were: father being absent from the home and being classified as a special student.

CHAPTER III

PROCEDURE AND DESIGN

The objectives of this study are: identification of the demographic characteristics of the students; identification of inter-student attraction; identification of demographic characteristics of inter-student attraction; and computation of the significance of demographic characteristics of inter-student attraction. To elicit the necessary information to accomplish these objectives, a questionnaire was developed.

Instrument

For the construction of the questionnaire, local school personnel provided specific information on the identifying numbers of school buses which service the middle school and the school electives which were available to seventh-grade students. Refinements of the format were suggested by two individuals with experience in questionnaire construction. A copy of the instrument may be found in Appendix A.

The questionnaire was pilot-tested on a group of seven children, ages 8 to 12. To evaluate the clarity and ease in understanding the questionnaire, elementary school-age children were included in the pilot-test sample. For the elementary school children, the appropriate bus number was included in the questionnaire and the items on school electives and activities were deleted. The item, "List your three best friends in the seventh grade," was changed to the appropriate grade

level. The item "How many schools have you attended since the first grade?" included as an alternative answer, "one."

Pilot-test subjects' responses were compared to information provided by their respective parents. There was 100% agreement, except for one case in which the child and parent differed by one year on the length of time residing locally. On the sociometric item of friends, it was only ascertained if those selected were in the same grade as the subjects. Parents were not asked to presume who were the child's best friends.

The pivotal item on the questionnaire was the sociometric item: "List your three best friends in the seventh grade." The relevancy of this item to the subjects was included in the initial instructions: "This information may be used for setting up the school schedule for next year."

If a student listed more than three friends, the first three were selected for data analysis and the remainder deleted. If a student nominated none, one, or two friends, the missing information was recorded as "not available." No interpretation was attributable to the missing information. As an example, a student who selected only one friend wrote, "I don't have many friends"; while another with only two nominations for friends commented, "I have lots of friends." The identical comment of the latter student was also made by a student at the end of her list of seventeen friends.

Population

The population of this study was the seventh-grade students of the city's sole middle school (N=369). Total participation in the study was 348 or 94.3%. Of the 345 students, 20 or 6.0% were black and 328 or

94.3% were white; 159 or 45.7% were females and 189 or 54.3% were males.

Location

The study was conducted in a university community in the south-central plains (population c.32,000) which may best be described as primarily middle-class Caucasian. Census figures for 1970 listed 3% of the population as Negro. From a sample of local residents, the census reported a median income of \$7,222.00 and a mean income of \$9,012.00.

Data Collection

The questionnaire was duplicated by ditto and entitled "Information Sheet" in an attempt to replicate typical school-produced papers (and to reduce cost). The questionnaire was administered by the classroom teachers during the thirtieth week of school.

After distributing the questionnaire, the teachers were instructed to say, "This is some information we need to plan for next year. Answer as correctly as you can. If there is any item you don't wish to answer, that's your choice. As some of the papers may not have 'come off,' I will read them with you." Though all of the questionnaires had been checked for legibility, the familiar student complaint that their paper had not "come off," i.e., illegible duplication, provided an acceptable reason for the teacher to read aloud the questionnaire.

The local school administration had stipulated that (a) students could choose not to participate or not to answer particular items on the questionnaire; (b) data collection must be completed in a brief, single session. The teachers reported that the questionnaire required a maximum of twenty minutes to administer.

After collecting the questionnaires, the teachers were requested to identify the students by race and/or ethnic group. Discussing this request, the teachers concluded that categories of "black" and "white" would be adequate racial, ethnic-group descriptors of the population. The number of days each student was absent during the first twenty-seven weeks of school and the five students classified as learning disabled were also recorded.

As the teachers coded the questionnaires by race, they noted that the responses by the subjects appeared to be accurate. The principal concurred in this estimation after a random check of a dozen questionnaires. However, the responses were neither cross-validated by retesting nor by interviewing the students' parents.

Data Coding

Each student was given an idiosyncratic number from 001 to 348. The total population of the seventh grade was 369 students; total participants were 348 or 94.3%. Students who did not participate were not considered in the analysis of the data.

Occupation by head of household was coded into ten categories suggested by the classification used by the U.S. Census Bureau. The categories are listed in the following table.

TABLE I
OCCUPATIONAL CATEGORIES

Occupational Code	Occupational Type	Occupational Examples
0	Service	Barber, fireman, policeman, housekeeper
1	Farmer	Farm manager, farm laborer
2	Laborer	Construction laborer, maintenance laborer, gardener
3	Transport Equipment Operatives	Taxicab driver, truck driver
4	Operatives	Industrial manufacturing
5	Craftsmen	Mechanic, printer, foreman, carpenter
6	Clerical	Bank teller, bookkeeper, mail handler, secretary
7	Sales Workers	Insurance agent, real estate agent, retail sales
8	Managers and Administrators	Purchasing agent, school administrator, bank officer, self-employed
9	Professionals	University and public school teacher, doctor, nurse, engineer, accountant, scientist

Several variables were considered dichotomous and were recorded as either "1" or "2." The following table reports the designated dichotomous variables.

TABLE II
DICHOTOMOUS VARIABLES

Variable	Code 1	Code 2
Race	Black	White
Sex	Female	Male
Number Adults in Household	One	Two or more
Number Children in Household	One	Two or more
Special Student	Identified as LD	Not Identified as LD
Neighborhood	Near	Far

The variable "neighborhood" in the above table was previously defined as a ten-block radius from the location of residence. Sociometric choices outside the ten-block radius were coded "2" (far). Sociometric choices inside the ten-block radius were coded "1" (near).

Three variables: years residing locally, number of schools attended,

and number of days absent from school, were each grouped into three categories as indicated in the following table:

TABLE III
GROUPED DATA VARIABLES

Variable Code	Variable		
	Years in Locale	No. of Schools	Days Absent
1	one or less	2 - 3	0 - 5
2	2 - 6	4 - 6	6 - 15
3	7 or more	7 or more	16 or more

Years in locale and number of schools were considered indices of mobility. Years in locale, coded as "1," indicated that the student had been a member of the population for a year or a portion of a year. Two years residing locally was assumed to indicate that the student had entered the population as it was being synthesized in the initial year at middle school. Therefore, two years in locale was considered sufficiently distinct from one year in locale. The code "3" indicated that the student had probably received all of his public school experience locally.

Given the distinction between elementary and middle school, the minimum number of schools a seventh-grade student could have attended was two. The first grouping, or low mobility in schools attended, included two and three schools attended to allow for intra-city mobility. If a student had attended seven or more schools, he was considered highly mobile (i.e., category "3") as this would average to changing schools each year.

The number of days absent was grouped by school weeks of five days. Category "1" represented zero to five days absent or one school week; category "2" was two to three school weeks absent; and category "3," more than three school weeks absent.

Statistical Treatment

The null hypotheses were accepted or rejected on the basis of a computed chi square for independence. Basically, the chi square test is the reported difference between observed and expected frequencies of a variable and is employed whenever more than two events can occur (Alder and Roessler, 1968).

CHAPTER IV

PRESENTATION AND ANALYSIS

OF DATA

The presentation and analysis of the data is divided into four major sections congruent to the four objectives of this study: identification of the demographic characteristics of the students; identification of inter-student attraction; identification of the demographic characteristics of inter-student attraction; computation of the significance of demographic characteristics of inter-student attraction.

Demographic Characteristics of the Students

The following tables present the demographic characteristics of the students by absolute frequency and relative frequency (per cent). For clarity the occupations of heads of households, student electives, and student transportation to school are reported in separate tables.

TABLE IV
 DEMOGRAPHIC CHARACTERISTICS
 OF THE STUDENTS

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	20	6.0%
	White	328	94.3%
		<u>N=348</u>	
Sex	Female	159	45.7%
	Male	189	54.3%
		<u>N=348</u>	
Special Student	Yes	5	1.4%
	No	343	98.6%
		<u>N=348</u>	
Number of Adults in Home	One	47	13.6%
	Two or more	300	86.4%
		<u>N=347</u> *	
Number of Children in Home	One	54	15.6%
	Two or more	292	84.4%
		<u>N=346</u> *	
Student Employed	Yes	18	5.1%
	No	329	94.9%
		<u>N=347</u> *	
Friend Chosen in Neighborhood	Yes	164	16.8%
	No	812	83.2%
		<u>N=976</u> **	
Years Residing Locally	One or less	35	10.1%
	2 - 6	103	29.8%
	7 or more	208	60.1%
		<u>N=346</u> *	
Number of Schools Attended	2 - 3	223	64.5%
	4 - 6	104	30.0%
	7 or more	19	5.5%
		<u>N=346</u> *	

TABLE IV (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Number of Days Absent from School	0 - 5	165	52.6%
	6 - 15	133	38.2%
	16 or more	32	9.2%
		<u>N=348</u>	
Participation in Extra-Curricular Activities	0	150	43.1%
	1	78	22.4%
	2	57	16.4%
	3	27	7.8%
	4	21	6.0%
	5	6	1.7%
	6	3	.9%
	7	3	.9%
	8	1	.3%
9	2	.6%	
		<u>N=348</u>	

* N<348 = item(s) missing

** Neighborhood was relative to the sociometric choices (N=976)

TABLE V

OCCUPATION OF HEAD
OF HOUSEHOLD*
(N=348)

Occupational Code	Occupational Type	Absolute Frequency	Relative Frequency
0	Service	42	12.1
1	Farmer	1	0.3
2	Laborer	11	3.2

TABLE V (Continued)

Occupational Code	Occupational Type	Absolute Frequency	Relative Frequency
3	Transport Equipment Operative	3	0.9
4	Operative	15	4.3
5	Craftsman	33	9.5
6	Clerical	14	4.0
7	Sales Worker	29	8.3
8	Manager and Administrator	56	16.1
9	Professional	144	41.4

* Additional information concerning the occupations of the adults associated with the subjects of this study may be found in Appendix B

TABLE VI

STUDENT ELECTIVES*
(N=348)

Elective	Absolute Frequency of Students Enrolled in Elective	Relative Frequency of Students Enrolled in Elective
Speech and Drama	146	42.0%
Band and Orchestra	135	38.8%
Industrial Arts	140	40.2%
Teachers' Aids	39	11.2%
Art	53	15.2%

TABLE VI (Continued)

Elective	Absolute Frequency of Students Enrolled in Elective	Relative Frequency of Students Enrolled in Elective
Family Living	160	46.0%
Crafts	123	35.3%
Spanish	75	21.6%
French	47	13.5%
Typing	22	6.3%

* Students could select one to four electives

TABLE VII

STUDENT TRANSPORTATION
TO SCHOOL
(N=348)

School Bus Number	Absolute Frequency of Students' Riding School Bus	Relative Frequency of Students' Riding School Bus
1	3	.9
2	4	1.1
3	5	1.4
4	2	.6
5	10	2.9
6	16	4.6
7	29	8.3
8	11	3.2

TABLE VII (Continued)

School Bus Number	Absolute Frequency of Students' Riding School Bus	Relative Frequency of Students' Riding School Bus
9	10	2.9
10	3	.9
11	15	4.3
12	23	6.6
13	9	2.6
14	18	5.2
15	15	4.3
16	16	4.6
17	18	5.2
18	21	6.0
19	13	3.7
20	2	.6
21	8	2.3
23	1	.3
Do not ride school bus	96	27.6

From the above tables (IV, V, VI, VII), it was noted that 90% or more of the subjects were white, not classified as a special student, and not employed outside the home or school. Approximately 80% of the students came from homes with two or more adults and two or more children. More than 80% of the friends selected did not reside in the

neighborhood of the students nominating friends. Though most students (72.4%) rode a bus, no more than 29 (8.3%) rode the same bus. Slightly more than 60% of the subjects had resided locally for seven or more years, and 64.5% had attended two or three schools. Approximately 50% of the students were absent from school zero to five days. More than 40% of the students did not participate in any extra-curricular activities. The three most popular school electives were: family living, speech and drama, and industrial arts. Slightly more than 40% of the students came from homes where the head of household was occupationally classified as a professional.

The following tables present the demographic characteristics of minority groups in the population. The minorities identified are: students with sixteen or more days absent from school, students attending seven or more schools, black students, students employed outside the home and school, students participating in five or more extra-curricular activities, and school-classified special students.

TABLE VIII

DEMOGRAPHIC CHARACTERISTICS OF
STUDENTS WITH SIXTEEN OR
MORE DAYS ABSENT FROM
SCHOOL (N=32)

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	3	9.4%
	White	29	90.6%
		<u>N=32</u>	
Sex	Female	19	59.4%
	Male	13	40.6%
		<u>N=32</u>	
Special Student	Yes	2	6.2%
	No	32	93.8%
		<u>N=32</u>	
Number of Adults in Home	One	8	25.0%
	Two or more	24	75.0%
		<u>N=32</u>	
Number of Children in Home	One	7	21.9%
		25	78.1%
		<u>N=32</u>	
Student Employed	Yes	2	6.2%
	No	30	93.8%
		<u>N=32</u>	
Friends Chosen in Neighborhood	Yes	8	9.5%
	No	76	90.6%
		<u>N=84</u> *	
Years Residing Locally	One or less	2	6.3%
	2 - 6	11	34.3%
	7 or more	19	59.4%
		<u>N=32</u>	
Number of Schools Attended	2 - 3	19	59.4%
	4 - 6	13	40.6%
		<u>N=32</u>	

TABLE VIII (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Participation in Extra-Curricular Activities	0	21	65.6%
	1	4	12.6%
	2	5	15.6%
	3	1	3.1%
	4	1	3.1%
		<u>N=32</u>	
Occupational Classification of Head of Household	0	9	28.1%
	1	0	0.0%
	2	2	6.2%
	3	0	0.0%
	4	3	9.4%
	5	4	12.6%
	6	1	3.1%
	7	3	9.4%
	8	1	3.1%
9	9	28.1%	
		<u>N=32</u>	

* Neighborhood was relative to the sociometric choices (N=84)

The demographic characteristics of students with excessive absences from school are barely distinguishable from the average demographic characteristics of all students in the study. A composite profile derived from the above table indicates that the student with sixteen or more absences from school was a white, female, "normal," student who did not participate in extra-curricular activities. The student had resided locally for seven or more years and had attended only two or three schools. In her home there were two or more adults and two or more children. The friends she selected did not live near her nor did

she have a job. No particular occupational classification of head of household was over-represented in the excessively-absent student group.

TABLE IX

DEMOGRAPHIC CHARACTERISTICS OF
STUDENTS ATTENDING SEVEN
OR MORE SCHOOLS (N=19)

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	0	0.0%
	White	<u>19</u> N=19	100.0%
Sex	Female	6	31.6%
	Male	<u>13</u> N=19	68.4%
Special Student	Yes	1	5.3%
	No	<u>18</u> N=19	94.7%
Number of Adults in Home	One	6	31.6%
	Two or more	<u>13</u> N=19	68.4%
Number of Children in Home	One	5	26.3%
	Two or more	<u>14</u> N=19	73.7%
Student Employed	Yes	1	5.3%
	No	<u>18</u> N=19	94.7%
Friends Chosen in Neighborhood	Yes	6	12.2%
	No	<u>43</u> N=49 *	87.8%
Years Residing Locally	One or less	6	31.6%
	2 - 6	9	47.4%
	7 or more	<u>4</u> N=19	21.0%

TABLE IX (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Days Absent From School	0 - 5	9	47.4%
	6 - 15	10	52.6%
	16 or more	0	0.0%
		<u>N=19</u>	
Participation in Extra-Curricular Activities	0	11	57.9%
	1	4	21.0%
	2	0	0.0%
	3	3	15.8%
	4	0	0.0%
	5	0	0.0%
	6	1	5.3%
		<u>N=19</u>	
Occupational Classification of Head of Household	0	4	21.0%
	1	0	0.0%
	2	1	5.3%
	3	0	0.0%
	4	1	5.3%
	5	3	15.8%
	6	0	0.0%
	7	3	15.8%
	8	1	5.3%
	9	6	31.5%
		<u>N=19</u>	

* Neighborhood was relative to the sociometric choices (N=49)

Other than a slight difference on number of days absent from school, there was no discernable difference between the average student who had attended seven or more schools and the average student of the larger population. The incongruity between those students who indicated that they had resided locally for seven or more years, yet had attended seven or more schools, may indicate that their pre-school residence was in

this city. As the city has four elementary schools, this may also account for some of the inter-school mobility.

TABLE X

DEMOGRAPHIC CHARACTERISTICS OF
BLACK STUDENTS (N=20)

Topic	Variable	Absolute Frequency	Relative Frequency
Sex	Female	11	55.0%
	Male	9	45.0%
		<u>N=20</u>	
Special Student	Yes	0	0.0%
	No	20	100.0%
		<u>N=20</u>	
Number of Adults in Home	One	10	50.0%
	Two or more	10	50.0%
		<u>N=20</u>	
Number of Children in Home	One	6	30.0%
	Two or more	14	70.0%
		<u>N=20</u>	
Student Employed	Yes	0	0.0%
	No	20	100.0%
		<u>N=20</u>	
Friends Chosen in Neighborhood	Yes	11	18.6%
	No	48	81.4%
		<u>N=59</u> *	
Years Residing Locally	One or less	1	5.0%
	2 - 6	6	30.0%
	7 or more	13	65.0%
		<u>N=20</u>	
Number of Schools Attended	2 - 3	13	65.0%
	4 - 6	7	35.0%
	7 or more	0	0.0%
		<u>N=20</u>	

TABLE X (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Days Absent from School	0 - 5	13	65.0%
	6 - 15	4	20.0%
	16 or more	3	15.0%
		<u>N=20</u>	
Participation in Extra-Curricular Activities	0	7	35.0%
	1	6	30.0%
	2	5	25.0%
	3	1	5.0%
	4	1	5.0%
		<u>N=20</u>	
Occupational Classification of Head of Household	0	13	65.0%
	1	0	0.0%
	2	1	5.0%
	3	0	0.0%
	4	2	10.0%
	5	2	10.0%
	6	0	0.0%
	7	0	0.0%
	8	0	0.0%
9	2	10.0%	
		<u>N=20</u>	

* Neighborhood was relative to the sociometric choices (N=59)

The most notable differences in demographic characteristics between black students and the entire group studied are relative to the adults in their home. Ten (50%) of the black students come from homes with only one adult, as compared to 13.6% of the total group with only one adult in the home. In the larger group only 12.1% were represented in the service classification of occupations. However, 13 (65%) of the black students' head of household were listed in the service category.

TABLE XI

DEMOGRAPHIC CHARACTERISTICS OF
STUDENTS EMPLOYED OUTSIDE THE
HOME AND SCHOOL (N=18)

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	0	0.0%
	White	18	100.0%
		<u>N=18</u>	
Sex	Female	1	5.6%
	Male	17	94.4%
		<u>N=18</u>	
Special Student	Yes	1	5.6%
	No	17	94.4%
		<u>N=18</u>	
Number of Adults in Home	One	5	27.8%
	Two or more	13	72.2%
		<u>N=18</u>	
Number of Children in Home	One	1	5.6%
	Two or more	17	94.4%
		<u>N=18</u>	
Friends Chosen in Neighborhood	Yes	12	22.6%
	No	41	77.4%
		<u>N=53</u> *	
Years Residing Locally	One or Less	5	27.8%
	2 - 6	4	22.2%
	7 or more	9	50.0%
		<u>N=18</u>	
Number of Schools Attended	2 - 3	11	61.1%
	4 - 6	6	33.3%
	7 or more	1	5.6%
		<u>N=18</u>	
Days Absent from School	0 - 5	10	55.6%
	6 - 15	5	27.8%
	16 or more	3	16.6%
		<u>N=18</u>	

TABLE XI (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Participation in Extra-Curricular Activities	0	10	55.5%
	1	5	27.7%
	2	1	5.6%
	3	1	5.6%
	4	0	0.0%
	5	0	0.0%
	6	1	5.6%
		<u>N=18</u>	
Occupational Classification of Head of Household	0	1	5.6%
	1	0	0.0%
	2	3	16.6%
	3	0	0.0%
	4	0	0.0%
	5	1	5.6%
	6	1	5.6%
	7	1	5.6%
	8	3	16.6%
	9	8	44.4%
		<u>N=18</u>	

* Neighborhood was relative to the sociometric choices (N=53)

The most distinguishing demographic characteristics of the students employed outside of the home and school are sex and race, being male and white, with the exception of one white female. The employed students are also slightly different from the total population by mobility and occupation of head of household. Of the employed students, five (27.8%) had resided locally for one year or less as compared to 35 (10.17%) of the total population. The head of household occupation category "2," laborer, represented 3.2% of the total population and 16.6%, or three, of the eighteen employed students.

Of the employed students the highest represented category of occupation of head of household was professional. This suggested that possibly some of the students were employed by members of their household. A re-examination of the questionnaires, however, indicated that only two of the total group were employed by members of their household. The most common employment of the students (11 or 61%) was delivering newspapers.

TABLE XII

DEMOGRAPHIC CHARACTERISTICS OF STUDENTS
PARTICIPATING IN FIVE OR MORE
EXTRA-CURRICULAR ACTIVITIES
(N=15)

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	0	0.0%
	White	15	100.0%
		<u>N=15</u>	
Sex	Female	12	80.0%
	Male	3	20.0%
		<u>N=15</u>	
Special Student	Yes	0	0.0%
	No	15	100.0%
		<u>N=15</u>	
Number of Adults in Home	One	1	6.7%
	Two or more	14	93.3%
		<u>N=15</u>	
Number of Children in Home	One	1	6.7%
	Two or more	14	93.3%
		<u>N=15</u>	

TABLE XII (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Student Employed	Yes	1	6.7%
	No	14	93.3%
		<u>N=15</u>	
Friends Chosen in Neighborhood	Yes	4	9.1%
	No	40	90.9%
		<u>N=44 *</u>	
Years Residing Locally	One or less	0	0.0%
	2 - 6	6	40.0%
	7 or more	9	60.0%
		<u>N=15</u>	
Number of Schools Attended	2 - 3	10	66.6%
	4 - 6	4	26.7%
	7 or more	1	6.7%
		<u>N=15</u>	
Days Absent from School	0 - 5	7	46.7%
	6 - 15	6	40.0%
	16 or more	2	13.3%
		<u>N=15</u>	
Participation in Extra-Curricular Activities	5	6	40.0%
	6	3	20.0%
	7	3	20.0%
	8	1	6.7%
	9	2	13.3%
		<u>N=15</u>	
Occupational Classification of Head of Household	7	3	20.0%
	8	2	13.3%
	9	10	66.7%
		<u>N=15</u>	

* Neighborhood was relative to the sociometric choices (N=44)

The above table would indicate that in this group the student who is highly involved in extra-curricular activities is white and probably

a girl. She comes from a home where the head of household is occupationally classified as a professional, administrator, or sales worker.

TABLE XIII

DEMOGRAPHIC CHARACTERISTICS OF
SCHOOL-CLASSIFIED SPECIAL
STUDENTS (N=5)

Topic	Variable	Absolute Frequency	Relative Frequency
Race	Black	0	0.0%
	White	5	100.0%
		<u>N=5</u>	
Sex	Female	1	20.0%
	Male	4	80.0%
		<u>N=5</u>	
Number of Adults in Home	One	1	20.0%
	Two or more	4	80.0%
		<u>N=5</u>	
Number of Children in Home	One	2	40.0%
	Two or more	3	60.0%
		<u>N=5</u>	
Student Employed	Yes	1	20.0%
	No	4	80.0%
		<u>N=5</u>	
Friends Chosen in Neighborhood	Yes	4	40.0%
	No	6	60.0%
		<u>N=10</u>	
Years Residing Locally	One or less	0	0.0%
	2 - 6	1	20.0%
	7 or more	4	80.0%
		<u>N=5</u>	

TABLE XIII (Continued)

Topic	Variable	Absolute Frequency	Relative Frequency
Number of Schools Attended	2 - 3	3	60.0%
	4 - 6	1	20.0%
	7 or more	<u>1</u>	20.0%
		N=5	
Days Absent from School	0 - 5	0	0.0%
	6 - 15	3	60.0%
	16 or more	<u>2</u>	40.0%
		N=5	
Participation in Extra-Curricular Activities	0	4	80.0%
	1	<u>1</u>	20.0%
		N=5	
Occupational Classification of Head of Household	0	1	20.0%
	2	2	40.0%
	4	1	20.0%
	8	<u>1</u>	20.0%
		N=5	

* Neighborhood was relative to the sociometric choices (N=10)

In the initial stages of this study, the classification as a special student was presumed to be an important demographic characteristic. However, five from a total of 348 students is hardly a notable minority. The above table was therefore developed simply to satisfy the author's curiosity. Perhaps all that should be noted is that all were white, four were male, and none had five or less days absent from school.

Inter-Student Attraction

The 348 students were requested to list their three best friends

in the seventh grade. Of a possible 1,044 choices, 976 choices were made. Of the 976, there were 484 reciprocated (mutual) choices and 492 unreciprocated choices. The most friendship choices directed toward a student was eleven, with a range of zero to eleven. The following table presents the absolute and relative frequency of students' nominations as a friend.

TABLE XIV
NOMINATIONS AS A FRIEND

Number of Nominations	Students Nominated	
	Absolute Frequency	Relative Frequency
0	31	8.91%
1	54	15.52%
2	79	22.71%
3	75	21.56%
4	55	15.80%
5	27	7.76%
6	17	4.88%
7	5	1.44%
8	4	1.44%

TABLE XIV (Continued)

Number of Nominations	Students Nominated	
	Absolute Frequency	Relative Frequency
9	0	0.00%
10	0	0.00%
11	1	0.28%

N = 348, Mean = 2.79, Median = 3, Mode = 2

The average number of times a student was selected as a friend was 2.79. Of the 348 students, 31 were not selected as a friend and 27 received six or more nominations as a friend. The following table lists the friendship nominations for the minority groups previously extracted from the data:

TABLE XV

NOMINATIONS AS A FRIEND,
MINORITY GROUPS

Minority Group	Number of Nominations as a Friend												Mean	Median
	0	1	2	3	4	5	6	7	8	9	10	11		
16 (+) Absences from School (N=32)	5	10	8	5	2	1	-	1	-	-	-	-	1.90	2
Attending 7 (+) Schools (N=19)	2	4	4	2	4	2	1	-	-	-	-	-	2.63	2
Black Students (N=20)	2	3	6	3	3	2	-	1	-	-	-	-	2.65	2
Employed Students (N=18)	1	1	3	7	2	2	2	-	-	-	-	-	3.22	3
5 (+) Extra-Curricular Activities (N=15)	-	-	3	3	5	1	2	-	1	-	-	-	4.00	4
Special Students (N=5)	2	1	1	1	-	-	-	-	-	-	-	-	1.20	1
	2	3/167	4/167	3/5	2/167	1/335	.835	.533	.055					

Ranking the minority groups by average number of friendship selections received, the group least chosen was the special students followed by students with sixteen or more absences, students attending seven or more schools, black students, employed students, and students with five or more extra-curricular activities. Of the selected minority groups, only employed students and students with more than five extra-curricular activities surpassed the average number of friendship nominations of the total group (2.79). The mean for being nominated as a friend was 3.22 for employed students and 4.00 for students with five or more extra-curricular activities.

A sociometric investigation of the structure of this seventh-grade student social system was precluded by the lack of 100% participation. The missing information for 21 of the total 369 students contains the potential for 63 possible friendship nominations. Therefore, something as simple as identifying the isolates as known from the present data would be unreliable and undesirable. Granting that it is stretching the data, there appears to be some indication that students with sixteen or more days absent from school and school-classified special students are least likely to attract friends. From the previously cited effects of peer group interaction, it is possible that these two groups represent a high-risk population with a greater potential than other students for "dropping-out" of school.

Table XV above was concerned with the friendship choices received by the minority groups. The following table is directed toward the friendship choices made by the minority groups. If members of a particular minority selected their friends within the group, this is designated as an "in-group" choice. Choices made outside the minority are classified as "out-group."

TABLE XVI

IN-GROUP/OUT-GROUP FRIENDSHIP NOMINATIONS
BY MINORITY GROUPS

Minority Group	In-Group Choices Made			Out-Group Choices Made			Total Choices Made	Total Choices Received	Difference Between Choices Made and Choices Received	Relative Frequency of In-Group Choices
	Reciprocated	Unreciprocated	Total	Reciprocated	Unreciprocated	Total				
Students with 16 (+) Days Absent from School (N=32)	6	4	(10)	31	43	(74)	84	61	-23	11.90%
Students Attending 7 (+) Schools (N=19)	2	1	(3)	23	43	(46)	49	50	1	6.12%
Black Students (N=20)	29	15	(44)	3	12	(15)	59	53	- 6	74.57%
Employed Students (N=18)	4	3	(7)	28	24	(46)	53	58	5	13.20%
Students with 5 (+) Extra-Curricular Activities (N=15)	11	8	(19)	13	12	(25)	44	60	16	43.18%
Special Students (N=5)	0	1	(1)	1	8	(9)	10	6	- 4	10.00%

From the above relative frequency of in-group friendship choices, it appears that the identified minorities are groups by label only. Except for the black students, there was no marked tendency to select friends from the designated minority.

Though students with the particular characteristic may not select each other, the characteristic may affect how frequently the student is nominated as a friend or, in common parlance, popularity. Students who were absent from school sixteen or more days, black students and special students made more friendship choices than they received. Students with five or more extra-curricular activities, students employed outside the home and school, and students attending seven or more schools received more friendship choices than they made.

Demographic Characteristics of Inter-Student Attraction

The following tables (XVII and XVIII) report whether the friendship nominator and the nominee agree or disagree by their demographic characteristics. A total of 976 friendship choices were made by the students. As the friendship choices involving the individual school electives do not total 976, they are reported in a separate table (XVIII). The numeral reported immediately below each elective represents the total friendship choices either received or given by students enrolled in that particular elective.

TABLE XVII

DEMOGRAPHIC CHARACTERISTICS OF
INTER-STUDENT ATTRACTION
(N=976)

Demographic Characteristic	Agreement Between Student Selecting Friend and Friend Selected		Disagreement Between Student Selecting Friend and Friend Selected	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
Race	948	97.1%	28	2.9%
Sex	944	96.7%	32	3.3%
Absences	438	44.9%	538	55.1%
Special Student	959	98.3%	17	1.7%
No. of Extra- Curricular Activities	339	34.7%	637	65.3%
School Bus	195	20.0%	781	80.0%
Years Residing Locally	491	50.3%	485	49.7%
No. of Schools Attended	532	54.5%	444	45.5%
No. of Adults in Home	810	83.0%	166	17.0%
No. of Children in Home	740	75.8%	236	24.2%
Occupational Classification	287	29.4%	689	70.6%
Student Employed	874	89.5%	102	10.5%

TABLE XVIII
SCHOOL ELECTIVES AND INTER-STUDENT
ATTRACTION

Demographic Characteristic	Agreement Between Student Selecting Friend and Friend Selected		Disagreement Between Student Selecting Friend and Friend Selected	
	Absolute Frequency	Relative Frequency	Absolute Frequency	Relative Frequency
Speech and Drama (N=623)	220	35.3%	403	64.7%
Band and Orchestra (N=554)	203	36.6%	351	63.4%
Industrial Arts (N=604)	164	27.2%	440	72.8%
Teachers' Aids (N=198)	31	15.7%	167	84.3%
Art (N=284)	28	9.9%	256	90.1%
Family Living (N=704)	232	33.0%	472	67.0%
Crafts (N=543)	123	22.7%	420	77.3%
Spanish (N=336)	73	21.7%	263	78.3%
French (N=237)	33	13.9%	204	86.1%
Typing (N=125)	5	4.0%	120	96.0%

From Table XVII it is noted that more than 95% of the friendship selections agree by race, sex, and classification as a special student. Three-fourths or more of the friendship selections agreed by their employment status and the number of adults and children in the home.

Approximately half of the students selected friends who attended a similar number of schools and had resided locally a similar number of years. Very little agreement was found in friendship selections by mode of transportation to school (20%) and occupation of head of household (29.4%). Rather than a source of agreement, enrollment in selected school electives (Table XVIII) ranged from 63.4% (Band and Orchestra) to 96.0% (Typing) disagreement in friendship selection.

Significance of Demographic Characteristics of Inter-Student Attraction

The following table presents the chi square test for independence of the demographic variables and inter-student attraction (reciprocated and unreciprocated friendship choices). In most cases if the student nominating a friend and the individual nominated as a friend share the same characteristic, it is reported as "agreed." If they differ in the particular characteristic, it is reported as "disagreed." If the friend selected lives in the same neighborhood as the student nominating the friend, it is reported as "yes." If they do not live in the same neighborhood, it is reported as "no."

TABLE XIX

CHI SQUARE TEST OF INDEPENDENCE OF
DEMOGRAPHIC CHARACTERISTICS AND
INTER-STUDENT ATTRACTION

Demographic Characteristic	Friendship Choices		Total
	Unreciprocated Choices	Reciprocated Choices	
Friend Residing (Yes)	81	83 (12.1)	164
in Neighborhood (No)	<u>411</u>	<u>401</u>	<u>812</u>
Totals	<u>492</u>	<u>484</u>	<u>976</u>
Corrected $X^2 = 0.04028$ with 1 d.f. significance = 0.8409			
Bus Number (Disagreed)	399	382	781
(Agreed)	<u>93</u>	<u>102</u>	<u>195</u>
Totals	<u>492</u>	<u>484</u>	<u>976</u>
Corrected $X^2 = 0.59046$ with 1 d.f. significance = 0.4422			
Race (Disagreed)	24	4 (0.8)	28
(Agreed)	<u>468</u>	<u>480</u> 99.2	<u>948</u> 49.2
Totals	<u>492</u>	<u>484</u>	<u>976</u>
Corrected $X^2 = 12.95577$ with 1 d.f. significance = 0.0003			
Sex (Disagreed)	22	10	32
(Agreed)	<u>470</u>	<u>474</u> 97.9	<u>944</u> 96.7
Totals	<u>492</u>	<u>484</u>	<u>976</u>
Corrected $X^2 = 3.72546$ with 1 d.f. significance = 0.0536			
Days Absent (Disagreed)	274	264	538
from School (Agreed)	<u>218</u>	<u>220</u>	<u>438</u>
Totals	<u>492</u>	<u>484</u>	<u>976</u>
Corrected $X^2 = 0.08727$ with 1 d.f. significance = 0.7677			

TABLE XIX (Continued)

Demographic Characteristic	Friendship Choices		Total
	Unreciprocated Choices	Reciprocated Choices	
Special Student Classification	(Disagreed) 15	(Disagreed) 2	17
	(Agreed) 477	(Agreed) 482	959
	Totals 492	Totals 484	976
Corrected $X^2 = 8.42226$ with 1 d.f. significance = 0.0037			
Number of Extra- Curricular Activities	(Disagreed) 345	(Disagreed) 292	637
	(Agreed) 147	(Agreed) 192	339
	Totals 492	Totals 484	976
Corrected $X^2 = 9.89089$ with 1 d.f. significance = 0.0017			
Years in Locale	(Disagreed) 261	(Disagreed) 224	485
	(Agreed) 231	(Agreed) 260	491
	Totals 492	Totals 484	976
Corrected $X^2 = 4.20361$ with 1 d.f. significance = 0.0403			
Number of Schools Attended	(Disagreed) 220	(Disagreed) 224	444
	(Agreed) 272	(Agreed) 260	532
	Totals 492	Totals 484	976
Corrected $X^2 = 0.18215$ with 1 d.f. significance = 0.6695			
Number of Adults in Home	(Disagreed) 90	(Disagreed) 76	166
	(Agreed) 402	(Agreed) 408	810
	Totals 492	Totals 484	976
Corrected $X^2 = 0.98343$ with 1 d.f. significance = 0.3214			
Number of Children in Home	(Disagreed) 140	(Disagreed) 96	236
	(Agreed) 352	(Agreed) 388	740
	Totals 492	Totals 484	976
Corrected $X^2 = 9.42520$ with 1 d.f. significance = 0.0021			

TABLE XIX (Continued)

Demographic Characteristic	Friendship Choices		Total	
	Unreciprocated Choices	Reciprocated Choices		
Occupation of Head of House- hold	(Disagreed) (Agreed) Totals	341 <u>151</u> 492	348 <u>136</u> 484	689 <u>287</u> 976
Corrected $X^2 = 0.66965$ with 1 d.f. significance = 0.4132				
Student Employed	(Disagreed) (Agreed) Totals	48 <u>444</u> 492	54 <u>430</u> 484	102 <u>874</u> 976
Corrected $X^2 = 0.37291$ with 1 d.f. significance = 0.5414				
Elective-Speech and Drama	(Disagreed) (Agreed) Totals	227 <u>108</u> 335	176 <u>112</u> 288	403 <u>220</u> 623
Corrected $X^2 = 2.71408$ with 1 d.f. significance = 0.0995				
Elective-Band and Orchestra	(Disagreed) (Agreed) Totals	171 <u>107</u> 278	180 <u>96</u> 276	351 <u>203</u> 554
Corrected $X^2 = 0.66774$ with 1 d.f. significance = 0.4138				
Elective- Industrial Arts	(Disagreed) (Agreed) Totals	236 <u>70</u> 306	204 <u>94</u> 298	440 <u>164</u> 604
Corrected $X^2 = 5.30467$ with 1 d.f. significance = 0.0213				
Elective- Teachers' Aids	(Disagreed) (Agreed) Totals	75 <u>11</u> 86	92 <u>20</u> 112	167 <u>31</u> 198
Corrected $X^2 = 0.60085$ with 1 d.f. significance = 0.4383				

TABLE XIX (Continued)

Demographic Characteristic	Friendship Choices		Total	
	Unreciprocated Choices	Reciprocated Choices		
Elective-Art	(Disagreed)	134	122	256
	(Agreed)	14	14	28
	Totals	148	136	284
Corrected $X^2 = 0.00133$ with 1 d.f. significance = 0.9709				
Elective-Family Living	(Disagreed)	230	242	472
	(Agreed)	106	126	232
	Totals	336	368	704
Corrected $X^2 = 0.46049$ with 1 d.f. significance = 0.4974				
Elective-Crafts	(Disagreed)	216	204	420
	(Agreed)	61	62	123
	Totals	277	266	543
Corrected $X^2 = 0.06529$ with 1 d.f. significance = 0.7983				
Elective-Spanish	(Disagreed)	145	118	263
	(Agreed)	27	46	73
	Totals	172	164	336
Corrected $X^2 = 6.82209$ with 1 d.f. significance = 0.0090				
Elective-French	(Disagreed)	102	102	204
	(Agreed)	19	14	33
	Totals	121	116	237
Corrected $X^2 = 0.3844$ with 1 d.f. significance = 0.5352				
Elective-Typing	(Disagreed)	64	56	120
	(Agreed)	3	2	5
	Totals	67	58	125
Corrected $X^2 = 0.02714$ with 1 d.f. significance = 0.8691				

From the reported chi squares in Table XIX at the 0.05 level of significance, there appears to be a dependency between inter-student attraction and the following demographic characteristics: race, sex, classification as a special student, number of extra-curricular activities, number of years residing locally, number of children in the household, selecting the school elective Industrial Arts, and selecting the school elective Spanish. To these findings the following stipulations should be noted: (1) the agreement in friendship selections referring to special student classification means that neither the selector nor the selected friend is classified as a special student; (2) the significance associated with the characteristics Number of Extra-curricular Activities and the electives Spanish and Industrial Arts are premised on "disagreement." Rather than selecting friends who share these particular characteristics, more friends were selected who do not share these characteristics. From the interpretation of the reported chi squares, the following null hypotheses were accepted or rejected at the 0.05 level of significance.

Acceptance or Rejection
of Null Hypotheses

1. Accepted - Inter-student attraction is independent of proximity to residence.
2. Accepted - Inter-student attraction is independent of proximity on school bus.
3. Rejected - Inter-student attraction is independent of race.
4. Rejected - Inter-student attraction is independent of sex.

5. Accepted - Inter-student attraction is independent of number of days absent from school.

6. Rejected - Inter-student attraction is independent of school-classification as a special student.

7. Accepted - Inter-student attraction is independent of number of extra-curricular activities.

8. Rejected - Inter-student attraction is independent of years residing locally.

9. Accepted - Inter-student attraction is independent of number of schools attended.

10. Accepted - Inter-student attraction is independent of number of adults in household.

11. Rejected - Inter-student attraction is independent of number of children in household.

12. Accepted - Inter-student attraction is independent of occupation of head of household.

13. Accepted - Inter-student attraction is independent of student employed outside the home and school.

14. Accepted - Inter-student attraction is independent of student selecting the school elective Speech and Drama.

15. Accepted - Inter-student attraction is independent of student selecting the school elective Band and Orchestra.

16. Accepted - Inter-student attraction is independent of student selecting the school elective Industrial Arts.

17. Accepted - Inter-student attraction is independent of student selecting the school elective Teacher's Aid.

18. Accepted - Inter-student attraction is independent of student selecting the school elective Art.

19. Accepted - Inter-student attraction is independent of student selecting the school elective Family Living.

20. Accepted - Inter-student attraction is independent of student selecting the school elective Crafts.

21. Accepted - Inter-student attraction is independent of student selecting the school elective Spanish.

22. Accepted - Inter-student attraction is independent of student selecting the school elective French.

23. Accepted - Inter-student attraction is independent of student selecting the school elective Typing.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

It was the thesis of this study that interpersonal attraction was associated with similarity of demographic characteristics. The subjects of the study were 348 seventh-grade students representing 94.3% of all seventh-grade students in the city.

The demographic characteristics selected for this study included: proximity by neighborhood and school bus transportation, sex, race, number of days absent from school, school-classification as a special student, number of years residing locally, number of schools attended, number of adults in household, number of children in household, occupation of head of household, student employed outside the home and school, and the school electives. Of the total participants, more than 90% were white, not classified as a special student, and not employed outside the home or school. More than 80% of the students came from homes with two or more adults and two or more children. Slightly more than 80% of the participants selected friends who did not live in their residential neighborhood. Approximately 40% of the students did not participate in extra-curricular activities, and more than 40% of the subjects came from homes where the head of household was occupationally classified as a professional.

From the total participants, six minority groups were extracted. Group membership was determined by a salient characteristic. The

minorities identified were: students with sixteen or more days absent from school, students attending seven or more schools, black students, students employed outside the home and school, students participating in five or more extra-curricular activities, and school-classified special students. Of these various minorities, only the black students selected friends primarily within their group. The other minorities appeared to be groups by label only and not by patterns of attraction.

From an interpretation of chi squares computed for all friendship selections and the 23 separate demographic characteristics, only five variables were found to support the thesis. At the 0.05 level of significance, race, sex, school classification as a special student, number of years residing locally, and the number of children in the household were found to be dependent of interpersonal attraction.

Questions for Further Study

In the initial stages of this investigation, the study of neighborhood proximity and friendship selection was almost eliminated. Previous studies on the subject were unequivocal, and the tedious maneuvers required to estimate a ten-block radius for each of the 976 friendship choices were staggering. However, the data were available, enthusiasm was still fresh, and there was the anticipated satisfaction of rejecting a null hypothesis. The independence of friendship selection and neighborhood proximity was a total surprise and raised several questions:

1. Are the students so involved with their families or with activities away from home that there is neither time nor opportunity to discover potential friends in the neighborhood?

2. Were there other seventh-grade students within the ten-block radius? (A cursory examination of the students' addresses seems to indicate that there were.)

3. Is a ten-block radius a too-confining definition of neighborhood?

4. Do adults transport students to visit their friends outside the neighborhood?

5. Are home visits and student friendship selections dependent?

It is possible that the concept of neighborhood is simply a relic of another age. Rather than being restricted to the people of the immediate physical environment, modern transportation and communication technologies and our attitudes on how to use these technologies have multiplied our opportunities for social interaction.

The other index of proximity, riding the same school bus, was also independent of friendship selection. Considering the anecdotes and rumors of activities aboard the school bus, it was anticipated that this almost daily interaction would influence friendship selection. As it was found to be independent, the following questions were developed:

1. If riding the same school bus does not influence positive attraction, does it influence negative rejection?

2. On the school bus are students attracted to different grade-level students?

3. What is the relationship of the school bus social system to the school social system? There is a possible fallacy in assuming that the semantic relationship, school bus/school, necessarily implies a symbiotic relationship. Perhaps what occurs on the school bus is so distinct from school interactions that there is only a negligible influence.

Though both of the indices of proximity, riding the same school bus and residing in the same neighborhood, were found to be independent of friendship selection, it would be illogical to assume that proximity is not influential. It is doubtful if attraction would be maintained without some face-to-face interaction. The question is "Where?" Possible variables to investigate are concurrent class schedules, specific extra-curricular activities and extra-school activities. Specific extra-curricular activities may prove a locus for friendship formations. However, this would not account for 43.1% of the students who do not participate in any extra-curricular activity. Considering the established independence between the school electives and friendship choices, it would be anticipated that concurrent class schedules would also be independent of friendship selections.

Except for electives and extra-curricular activities, the individual student has little decision-making power within the public school system. It has been a tacit assumption of this study that when students have the opportunity to decide they will choose to be with their friends. In the case of school electives, this assumption appears to be refuted. By what criteria do students select electives? If the criterion were personal interest, it would seem that a mutual interest should foster interpersonal attraction. It is possible that students do not perceive the elective system as a personal choice. Students were required to select electives from a list predetermined by school authorities. Perhaps, students do not differentiate between "required" and "elected" courses but accept them as administrative fiats.

Of the six identified minority groups, two (students with five or more extra-curricular activities and students employed outside the home

and school) received more friendship choices than they made and were above the mean for the total population on number of nominations as a friend. As both these groups shared similar classifications of occupation of head of household, it is possible that their being over-chosen is a function of socio-economic status. If upper socio-economic status is related to extensive participation in extra-curricular activities, is there a monetary barrier to some students who might wish to be more highly involved in extra-curricular activities? If there were a monetary barrier and that barrier were eliminated, would the students now highly involved in extra-curricular activities continue to participate at the same level?

Finally, this study suggests a need to investigate the cohesiveness of the population. If friendship, as differentiated from friendship selection, were operationally defined as reciprocated friendship choices, then students have approximately a 50-50 chance of selecting a friend. (Of the 976 friendship choices, only 484 were reciprocated.) Is this low level of cohesion a function of age and/or the particular social system? If it were a function of the particular social system, a comparative study of other seventh-grade classes should find significant differences in the number of reciprocated friendship choices.

Overall, it appears that the demographic characteristics selected for this study would serve as very poor predictors of interpersonal attraction. The author still supports the hypothesis that the mechanism of interpersonal attraction is similarity. If it is not similarity of demographic characteristics, perhaps it is similarity of behavior and/or similarity of attitudes. Further research is needed in this area.

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APPENDIX A

THE INSTRUMENT

INFORMATION SHEET

Please carefully read and answer the following questions. This information may be used for setting up the school schedule for next year.

1. Name _____

2. Address _____

3. Sex: _____ Female

_____ Male

4. Which school bus do you ride in the morning?

<u> </u> 5	<u> </u> 9	<u> </u> 15
<u> </u> 6	<u> </u> 11	<u> </u> 16
<u> </u> 7	<u> </u> 12	<u> </u> 18
<u> </u> 8	<u> </u> 13	<u> </u> I don't ride a bus.

5. Which school bus do you ride in the afternoon?

<u> </u> 4	<u> </u> 9	<u> </u> 17
<u> </u> 5	<u> </u> 10	<u> </u> 18
<u> </u> 6	<u> </u> 11	<u> </u> 19
<u> </u> 7	<u> </u> 12	<u> </u> 20
<u> </u> 8	<u> </u> 16	<u> </u> 21
		<u> </u> I don't ride a bus.

6. About how many years have you lived in _____?

<u> </u> less than one year	<u> </u> 6 years	<u> </u> 12 years
<u> </u> one year	<u> </u> 7 years	<u> </u> 13 years
<u> </u> 2 years	<u> </u> 8 years	<u> </u> 14 years
<u> </u> 3 years	<u> </u> 9 years	<u> </u> 15 years
<u> </u> 4 years	<u> </u> 10 years	<u> </u> 16 years
<u> </u> 5 years	<u> </u> 11 years	

7. Since the first grade, how many different schools have you attended?

<u> </u> 2	<u> </u> 6	<u> </u> 10	<u> </u> 15
<u> </u> 3	<u> </u> 7	<u> </u> 11	<u> </u> 16
<u> </u> 4	<u> </u> 8	<u> </u> 12	<u> </u> 17
<u> </u> 5	<u> </u> 9	<u> </u> 13	<u> </u> 18
		<u> </u> 14	<u> </u> 19

8. Who do you live with now? Mark more than one if it applies to you.

<u> </u> Father	<u> </u> Mother	<u> </u> Guardian(s)
<u> </u> Stepfather	<u> </u> Stepmother	<u> </u> Brother(s)
<u> </u> Grandfather	<u> </u> Grandmother	<u> </u> Sister(s)
<u> </u> Uncle	<u> </u> Aunt	<u> </u> Cousin(s)
		<u> </u> Friend(s)
		<u> </u> Others

9. Of the people you live with, including yourself, who has a job?
Where do they work? What do they do?

<u>Person working</u>	<u>Working Where</u>	<u>Type of Work</u>
Example: father	University	Gardener

10. What are your school electives?

_____ Speech and Drama	_____ Art
_____ Band and Orchestra	_____ Family Living
_____ Industrial Arts	_____ Crafts
_____ Teacher's Aid	_____ Spanish
	_____ French
	_____ Typing

11. List your three best friends in the seventh grade at _____
Middle School.

first name

last name

1. _____	_____
2. _____	_____
3. _____	_____

12. List your school activities and office held for this year.

APPENDIX B

ANALYSIS OF ADULT EMPLOYMENT

ANALYSIS OF ADULT EMPLOYMENT

Table V (page 33) presented the occupational classification of the head of household of the 348 students in this study. The following tables include all the data on the employed adults in the students' households. Of the 348 households, 47 are differentiated as households with only one adult. Of this 47, three were male and 44 were female. Of the total subjects in this study, 140 students (40%) came from households with two or more employed adults. The total employed adults associated with this study was 488, of which 184 (37.7%) were females and 304 (62.3%) were males. The occupational category which included the largest proportion of females employed was clerical with 31.53% (58) followed by: professional (23.37% or 43); service (22.81% or 42); industrial operatives (8.69% or 16); sales worker (5.98% or 11); administrator (5.44% or 10); and craftsman (2.18% or 4). The occupational category which included the largest proportion of males employed was professional with 44.41% (135) followed by: administrator (17.43% or 53); craftsman (10.53% or 32); sales worker (8.88% or 27); service (8.22% or 25); industrial operative and laborer (each with 3.62% or 11); clerical (1.98% or 6); transport operative (.98% or 3); and agriculture (.33% or 1).

Combining males and females by occupational categories, females predominated in clerical (90.62%), service (62.68%), and industrial operative (59.25%) classifications. Males predominated the classifications

of administrator (84.13%), professional (75.85%), craftsman (88.89%),
and sales worker (71.06%).

TABLE XX

ADULT EMPLOYMENT

Occupational Category	Households with one Adult		Head of Household with Two or More Adults (Male)	Total Heads of Household	Employed Females in Household with two or more Adults	Total Employed Adults	Absolute Frequency of Total Employed in Occupational Category		Relative Frequency of Total Employed in Occupational Category		Females by Occupational Category Relative of all Employed Females	Occupational Category Relative Frequency of all Employed Males
	Female	Male					Female	Male	Female	Male		
0	17	-	25	42	25	67	42	25	62.68	37.32	22.81	8.22
1	-	-	1	1	-	1	-	1	-	100.0	-	0.33
2	-	1	10	11	-	11	-	11	-	100.0	-	3.62
3	-	-	3	3	-	3	-	3	-	100.0	-	0.98
4	4	2	9	15	12	27	16	11	59.25	40.75	8.69	3.62
5	1	-	32	33	3	36	4	32	11.11	88.89	2.18	10.53
6	8	-	6	14	50	64	58	6	90.62	9.38	31.53	1.98
7	2	-	27	29	9	38	11	27	28.94	71.06	5.98	8.88
8	3	-	53	56	7	63	10	53	15.87	84.13	5.44	17.43
9	9	-	135	144	34	178	43	135	24.15	75.85	23.37	44.41
Total	(44)	(3)	(301)	(348)	140	(488)	84	(304)	(37.70%)	(62.30%)	(100.00%)	(100.00%)

A touchstone of local political "savvy" is the demarcation between city and university concerns. Candidates for public office often promise to be the "catalytic agent" or "cement" or "bridge" between the two sectors. With the resolution of a major community issue, at least one person will opine, "They were against (for) it." (The "they" is easily distinguished. It's the opposite of the speaker's "we.") It is an awesome spectre of opposing monoliths, like twin peaks for Mount Olympus or Vesuvius.

If these two sectors, city and university, are segregated, then a similar rift would be expected in the students' selection of friends. Therefore, the subjects were classified as "town" or "gown," depending upon where their head of household was employed. Of the total 348 students, 215 or 61.8% were classified as town and 133 or 38.2% were classified as gown.

The following table presents the chi square table for friendship choices and town or gown classification. If both the friendship nominator and the nominee came from households associated with one sector of the community (either town or gown), it is reported as "agreed." If one were represented as "town" and the other "gown," it is reported as "disagreed."

TABLE XXI

CHI SQUARE TEST OF INDEPENDENCE OF
TOWN AND GOWN CLASSIFICATION AND
INTER-STUDENT ATTRACTION

Town and Gown Classification	Friendship Choices		Total
	Unreciprocated Choices	Reciprocated Choices	
Disagreed	228	244	472
Agreed	<u>264</u>	<u>240</u>	<u>504</u>
Total	<u>492</u>	<u>484</u>	<u>976</u>

Corrected $X^2 = 1.46082$
with 1 d.f.
significance = 0.2268

At the 0.05 level of significance, it is accepted that inter-student attraction is independent of the town and gown categorization. As far as the seventh-grade students are concerned, their choice of friends is not contingent upon a Medieval segregation policy.

VITA

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Doctor of Education

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ATTRACTION OF SEVENTH-GRADE STUDENTS

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