8-1975

Effects of coeducation on occupational, educational and social aspirations of adolescent girls

Mary Ellen Lynch
University of Nebraska at Omaha

EFFECTS OF COEDUCATION ON OCCUPATIONAL, EDUCATIONAL, AND SOCIAL ASPIRATIONS OF ADOLESCENT GIRLS

A Thesis

Presented to the

Department of Psychology

and the

Faculty of the Graduate College

University of Nebraska at Omaha

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Mary Ellen Lynch

August, 1975

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

THESIS ACCEPTANCE

Accepted for the faculty of The Graduate College of the University of Nebraska at Omaha, in partial fulfillment of the requirements for the degree Master of Arts.

Graduate Committee	Name	Department
	R. Timothy Stein	Psychology
	Joseph P. LaVoie	Psychology
	Gwen Barger	Sociology

Diana Jenkins Psychology
Chairman

August 14, 1975
Date

TABLE OF CONTENTS

Effects of Coeducation on Occupational,

Educational, and Social Aspirations of Adolescent Girls

The sexual composition of the high school environment may have a significant effect on the educational and occupational aspirations of adolescent girls. Although the coeducational environment may provide adolescent girls with more opportunities for social encounters and development of social skills, it may not facilitate the maintenance of high educational and occupational aspirations among them.

On the other hand, the emphasis in the same-sex all-girl high school may be academic rather than social. These girls are subject to a minimal amount of feminine-role conflict because they are not in direct competition with males. Same-sex peer influence may place emphasis on educational and occupational aspirations rather than popularity or other immediate social concerns.

For these reasons, the following hypotheses are offered:

1. a) Adolescent girls attending same-sex high schools will enter with and maintain higher levels of occupational and educational aspirations than those attending coeducational schools.

   b) Levels of occupational and educational aspirations will decline in girls transferring from the all-girl to the coeducational environment.

2. a) Adolescent girls attending same-sex high schools will enter with and maintain lower levels of social aspirations and interest than girls in coeducational schools.

   b) Levels of social aspirations and interest will increase

in girls transferring from the all-girl to the coeducational environment.

These hypotheses were drawn from evidence in two general areas: a) peer and parental influence on occupational and educational aspirations; and b) the effects of sexual and racial composition of the schools mediated by inferred social norms.

Peer and Parental Influence on Occupational and Educational Aspirations

The influence of the peer group and the high school environment on adolescent aspirations has been investigated often in the past. Haller and Butterworth (1960) reported that their study of influence of peer-pairs tentatively showed a "positive intraclass correlation of close friends' levels of occupational and educational aspiration." Sociological research followed and Boyle (1966) concluded in a review of some of this research that while variability in development of scholastic ability across schools of differing socioeconomic class was a factor, the more direct influence of peers or "informal peer pressure" should be considered as another possible factor influencing aspirations.

During the high school years, adolescents are subjected to pressure from both parents and teachers, as well as peers. In a recent study based on path analysis Williams (1972) emphasizes parental influence as an important factor in formation of educational aspirations during adolescence. The path model for girls indicated that in the tenth grade expectations of parents correlate most highly with student aspirations ($r = 0.63$), expectations of teachers rank second ($r = 0.22$), and peers, third ($r = 0.06$). By grade twelve peers and teachers have gained a little influence and parents have lost a little. The path model

accounts for 67% of the variance in girls' aspirations in grade ten and 77% in grade twelve. Williams concludes from this data that for girls, "influence of adults as reference figures far exceeds that of the student's peers, a situation that offers support to the argument that the influence of reference groups is not generalizable across all situations, but, rather is a function of the perceived expertise of the referent for the issues at hand (p. 125)." Williams' (1972) results may be consistent with the hypotheses previously stated in that parents may be influential in the original school choice.

Brittain (1963) has examined the issue of parent-peer cross-pressures on adolescent girls and found that parents and peers are influential in different areas of the girls' lives. According to Brittain, the parent is usually seen as a more competent referent than the peer in areas concerning the adolescent's future status as an adult. If the adolescent girl believes the school choice decision will be relevant to her adult life, she may view the parent as a competent referent. Differences in the parents' expectations for their daughters may be reflected in encouragement toward different school environments. In line with the common assumption that the all-girl school provides a more academic atmosphere than the coeducational school, parents having high occupational and educational aspirations for their daughters may encourage them to attend the all-girl school; those having high social aspirations, the coeducational school.

Woelfel (1972) focused his attention on the influence of significant others on occupational aspirations. In consideration of peer influence, he separated same-sex peer and opposite-sex peer influence. His research

showed that the category "peer friend of the same sex" ranked first most often in his "rank order of roles of significant others" for adolescent girls, with "mother" and "father" in the next two ranks. If rank order of categories is ignored, however, the same-sex peer category is mentioned by only 75 percent of the sample whereas "mother" is mentioned by 95.6 percent of the population as a significant other.

One possible reason for the discrepancy between Williams' (1972) and Woelfel's (1972) results may be that they approached the question in different ways. Woelfel scored the amount of influence a person had by using the Wisconsin Significant Other Battery (Haller & Woelfel, 1969). This instrument is based on the assumption that there are four modes of interpersonal influence based upon two types of influence and two types of concepts influenced. A significant other may be either a definer (one who influences through words) or a model (one who influences through actions); the definer and the model each may influence the person's concept of self or of objects. The highest level of influence would be held by the significant other able to exercise all four modes of influence over a person, that is, both types of influence over both types of concepts. According to Woelfel's data, most significant others at the highest level of influence are members of the nuclear family. Very few peers were names as significant others at the highest level; the bulk of their influence occurred at the other three levels.

Woelfel (1972) also cautioned readers that the influence of parents may be underestimated through the identification of significant others process. Parents have influenced the child since infancy while

peers' influence is more "contemporaneous." The adolescent is likely to report several members of the peer groups as significant others while reporting only one mother and father. This process of identification may lead to an exaggeration of peer influence in comparison to parental influence. It should be noted, however, that Woelfel's measure is a "static" one which results in weighting items reflecting long standing relationships more heavily than those of shorter duration which should increase the weighting of parental influence.

Williams (1972), on the other hand, asked questions of the subjects concerning what they wanted to do, what their parents and teachers expected them to do, and what their peers were planning for themselves. He then analyzed the interrelationships between each of these sources of possible influence, SES, intellectual ability and academic achievement by using path correlations.

Williams' (1972) and Woelfel's (1972) differing results reflect, then, different emphases, as well as different methodologies. Woelfel was more concerned with range of influence. Williams weighted contemporaneous relationships equally with those of long standing, and used a correlational model in which degree of influence on occupational and educational aspirations rather than range or type of influence was interpreted as "amount" of influence.

While the results of Williams (1972) and Woelfel (1972) differ from each other, neither is necessarily in conflict with the hypotheses put forth earlier. Decisions concerning future education will probably have a long term effect of the life of the adolescent girl, thus, the parent may be viewed as a competent referent, consistent with the

results of Williams. However, Brittain (1963) states that adolescents are more likely to conform to peer influences than to parental influences when a decision involves an area of judgment in which social values are rapidly changing. Woelfel acknowledges the influence of parents, but his evidence indicates that peers of the same-sex are more influential than parents in the area of occupational aspirations. In light of Brittain's research, and the current instability of traditional feminine role values, the results of Woelfel's research seem more realistic than those of Williams.

Goals of same-sex peers may vary situationally and pressure, therefore, may also vary situationally. Pressure toward particular goals may be influenced by alternative goals or perceived detrimental consequences of pursuing a goal. In this context, goals of same-sex peers within the same-sex environment may be academically oriented; those of same-sex peers in the coeducational environment may be socially oriented.

Educational, occupational, and social aspirations may be influenced by the effect the sexual composition of the educational environment has on members of the peer group. Studies of the motive to avoid success in women have examined the influence of the peer group on achievement, particularly in competitive situations. This research seems to indicate that women with high achievement motivation achieve less while in competition with males. High school girls in the coeducational environment may be more likely to experience this conflict than those in the all-girl school. Research by Matina Horner (1972, 1968) is based on the premise that achievement is not consistent with

the traditional feminine role; therefore, a woman who has a high need to achieve may fear success because "she feels it poses a threat to the sense of femininity and self-esteem...(1972, pg. 173)." Horner (1972) cites her own doctoral thesis (1968) comparing college men and women on the arousal of the motive to avoid success in an achievement situation. Girls who scored high on the motive to avoid success scored significantly lower on a mixed-sex competitive task than in the non-competitive condition, whereas two-thirds of the males scored higher in the competitive condition.

Subsequent research concerning the motive to avoid success has been inconsistent as both Tresemer (1974) and Alper (1974) have indicated. Percentages of both men and women high in the motive to avoid success have fluctuated widely and in some studies males have shown higher percentages of the motive than females. Alper argues that such inconsistencies are largely due to variations in methodology rather than instability of the motive.

Tresemer (1974), however, suggests that the " 'motive to avoid success' may not be a motive and may have little to do with avoiding success (pg. 82)." In his critique of the original research, (Horner, 1968), and the studies based on that research which yield conflicting results, he points out conceptual, validity, and scoring problems. He suggests that because Horner's original cue forced subjects to respond not only to success but also to success in a male-dominated field that her results may reflect "fear of sex-role inappropriateness." More research is obviously necessary concerning this construct. If the academic performance of girls at the high school level is inhibited by competition with males, whether because of an underlying motive

or anxiety about sex-appropriateness, the same-sex high school environment may be more conducive to high academic achievement in girls than the coeducational environment.

Effects of Sexual and Racial Composition of the Educational Environment

The data concerning the relationships between peer pressure and aspirations and achievement level can be applied to the female within the educational environment. According to Horner (1968), the presence of males hindered the performance of girls high in the motive to avoid success. According to Woelfel's research (1972), same-sex peers are very influential for the high school girl. It is conceivable that girls in a coeducational environment may be pressured by their own same-sex peers to avoid high achievement oriented behavior and to pursue more traditionally feminine activities, while same-sex peers in the same-sex high school environment, lacking the presence of males in competitive situations may pressure each other toward more academically competitive goals. Furthermore, the presence of males in coeducational schools may pressure the adolescent girl toward more traditional feminine role activity rather than academic achievement as a means of reducing role conflict. The coeducational environment may, therefore, be more conducive to social activity while the non-coeducational environment may be more conducive to scholastic achievement.

For academic achievement in girls at the high school level, the assumption that coeducation is better for achievement than same-sex education was questioned by Coleman (1961). In his research on adolescents, he noted that there is a "period in the sophomore and junior

years when good grades among girls is particularly devalued. It seems likely that this (devaluation) is related to the beginning of regular dating and consequent importance of attractiveness (pg. 169)."

When asked how they would most like to be remembered, girls in coeducational schools chose "brilliant student" less often than either "leader in activities" or "most popular." Coleman's (1961) explanation was that a girl who was achieving scholastically was seen by peers as conforming to demands of adult society rather than becoming involved in the adolescent world of social and extracurricular activities. The same results can be interpreted as avoidance of academic success. The academically high achieving girl in the coeducational school might be seen as a non-conformist and unfeminine if her peer group valued more traditional feminine goals.

Coleman (1961) also alluded to the influence of same-sex peers for the adolescent girl. "Just as the athletes outdistanced the scholars in recognition and respect from other boys, the girls successful with boys outdistance the scholars in recognition and respect from other girls (pg. 165)." Coleman concluded from his research in several coeducational high schools that "coeducation in some high schools may be inimical to both academic achievement and social adjustment (pg. 51)."

Girls in same-sex environments may avoid the problems discussed by Coleman (1961). High academic achievement may not be seen as non-conformist or unfeminine. Even if role conflict is recognized, same-sex peers who interact without visible reminders of such conflict may be more supportive of alternative solutions to conflict such as

dual role playing in different contexts or may simply permit more diverse behaviors without negative sanctions.

A study of adjustment to members of the same sex and the opposite sex by students of coeducational and noncoeducational high schools was done by Tamayo, Haberman, Zapp, and Horne (1971). Adjustment was measured by a self report questionnaire which was developed from selected items from the Minnesota Inventory of Social Behavior (Williamson and Darley, 1937) and the Junior-Senior High School Personality Questionnaire (Cattell, Coan, and Beloff, 1960). Each item had two forms: one referred to relationships with members of the opposite sex, the other to relationships among members of the same sex. Results showed that freshmen in the coeducational school were significantly better adjusted to members of the opposite sex than freshmen in the noncoeducational sample; results comparing adjustment of coeducational sample seniors with those of the noncoeducational sample showed no significant difference between these two groups. When results for seniors were compared to those for freshmen in the same environment, it was found that in the noncoeducational environment, seniors were significantly better adjusted to members of the opposite sex than freshmen. The freshman-senior difference was not significant in the coeducational environment. Adjustment to members of the same sex was not affected by the educational environment for girls.

Tamayo et al. (1971) attributed better adjustment to members of the opposite sex in seniors of the noncoeducational environment as compared to freshmen from the same environment to students' use of comparison groups in judging behavior; the noncoeducational senior

sample probably had a noncoeducational reference group. Their criterion of adjustment would, therefore, be different from that of the coeducational sample. According to the authors, this would mean that a "senior student from a coeducational school with a given score on adjustment to the opposite sex may be actually better adjusted than a senior from a noncoeducational school with the same score when adjustment is defined by behavior rather than self-report (pg. 211)." In that the measurement is a self-report technique, each individual student is measuring himself against his own criterion of "adjustment". Although the author's explanation merits consideration, the different-criterion-of-adjustment hypothesis requires further testing.

Tamayo et al.'s (1971) results suggest that girls in the same-sex environment may define their behavior in terms of the norms set by the same-sex reference group. If the same-sex group is supportive with respect to career orientations and high academic achievement, it may be that a high achieving girl with high career and educational aspirations may be conforming to the expectations of her peer group rather than experiencing the role conflict of a similar girl in a coeducational environment where the expression of high achievement needs may elicit role conflict.

A final study contrasting coeducation with same-sex education was modeled on the Coleman (1961) investigation. Jones, Shallcrass, & Dennis (1972) compared attitudes of students attending coeducational and same-sex high schools in New Zealand. Their analyses showed several differences in the female subjects. About 55% of the girls at the all-girl school spent 1½ - 3 hours or more on homework each

night compared with only 44.6% of the girls attending a coeducational high school. Girls at the all-girl school described school as "interesting and hard work"; the coeducational girl sample chose "full of fun and excitement as this description.

When asked how they would most like to be remembered, the all-girl sample chose "brilliant student" significantly more often than the coeducational sample, in which both "leader in activities" and "most popular" were chosen by more girls than "brilliant student."

Differences in the importance of goals students were striving for were also significant for the girls. "Learning as much as possible" was ranked in first place by more students from the entire sample (males and females) than other choices. The all-girl sample, however, placed it in first place significantly more often than the girls in the coeducational sample. "Pleasing my parents" also was ranked significantly higher and "being accepted and liked by other students" significantly lower by the all-girl sample than by the coeducational girl sample.

The importance of the educational environment in formation of aspirations is also demonstrated in studies of racial integration. White & Knight (1973) studied the effects of desegregation on the aspiration levels of Southern Negroes and analyzed their data by sex and socioeconomic class. They found that social class did not seem to make a difference in the way the Negro adolescents responded to desegregation. Boys and girls, however, did have different responses. Black girls attending integrated schools had lower aspirations than those attending racially segregated schools. Citing prior research

(Sprey, 1962), the authors indicated that Negro adolescent girls tend to have higher aspiration levels than boys. The integration process involves exposure to the white cultural norm in which emphasis is placed on male achievement and feminine docility. The change in norms, as well as the greater mixed-sex academic competition found by the black student in the integrated school, may explain the lowering of aspirations for the black girls.

The information on effects of racial desegregation also seems applicable to the sexual desegregation situation. In the integrated educational environment, girls may be more role conscious. They may also encounter more mixed-sex competition for such achievement-oriented activities as seeking class office. The white cultural norm of male dominance may again prevail.

The influences discussed above--peer pressure, parent and teacher expectations, motivation to achieve and to avoid success, and the educational environment--come into play in the formulation of educational and occupational aspirations. The educational environment may contribute to the objects of peer pressure. If there is more opportunity for interaction with the opposite sex, peer pressure may shift from a scholastic to a social orientation for girls.

Methodology

Subjects

Subjects were 437 girls drawn from the tenth, eleventh, and twelfth grade levels within three different schools. The sample included:

1) 73 girls who, during the 1973-1974 school year, attended an all-girl Catholic high school which, during the 1974-1975 school year, merged with an all-boy Catholic high school;
2) 140 girls attending an all-girl Catholic high school during both school years, 1973-1974 and 1974-1975;
3) 224 girls attending a Catholic coeducational high school during both school years, 1973-1974 and 1974-1975.

An effort was made to test all girls within each school, therefore, cell sizes within schools and across grades are unequal (see Table 1.) All three schools are located in a Midwestern city of about 350,000 people.

Instruments

The instruments discussed below were used in a longitudinal research design with two testing times six months apart. All subjects were asked to complete questionnaires in late August or early September of 1974 (Time 1) and again during March of 1975 (Time 2). All questions concerning occupational and educational aspirations were asked at both times. All designated social aspiration questions asked at Time 1 were repeated for ½ the sample at Time 2; the rest of the sample received two of these questions in their original form and modified versions of the other two questions at Time 2.

Instruments used included the Occupational Aspiration Scale (Haller, 1957) (see Appendix A), and a self-report questionnaire, The High School Survey (see Appendices C and D), developed by the experimenter.

Table I

Total Number of Subjects

	Levels of SES				
School Type	1	2	3	4	Total
All-Girl School					
Sophomores	14	5	10	6	35
Juniors	21	6	12	5	44
Seniors	29	13	14	5	61
	64	24	36	16	140
Coeducational School					
Sophomores	38	13	32	17	100
Juniors	33	11	17	6	67
Seniors	26	9	17	5	57
	97	33	66	28	224
Transitional School					
Sophomores	11	3	5	2	21
Juniors	5	3	10	4	22
Seniors	13	6	7	4	30
	29	12	22	10	73
Total	190	69	124	54	437

The Occupational Aspiration Scale (OAS)[1] is a multiple choice instrument containing eight questions. The construction of the instrument was based on the concept of level of occupational aspiration which is determined by realistic considerations, idealistic desires, and consideration of both the short-range and long-range goal-periods of the subjects (Haller & Miller, 1971). These influences are paired across the eight questions, (realistic-short-range, realistic-long-range, idealistic-short-range, idealistic-long-range); each combination is included twice. The subject is asked to choose from ten alternative occupations in each questions. Wording of the question varies according to the condition presented. Subjects are asked to choose either the occupation he is "really sure he can get" (realistic condition), or would choose if he were "free to choose any" (idealistic condition). The short-range goal period is indicated by the phrase "when your schooling is over;" the long-range period by "by the time you are 30 years old." The occupations used in the test alternatives were chosen from a National Opinion Research Center (NORC, 1947) ranking of occupations; the alternatives within each question spanned the entire range of occupational prestige. Eighty different occupations appear in the questionnaire out of the possible ninety ranked by National Opinion Research Center. Each question included one alternative ranked among the eight highest prestige occupations, one alternative ranked among the second highest group of eight, and so on. The ten occupations rated by NORC but not included in the questionnaire were not clustered in any one occupational level prestige block but were distributed across seven of the ten levels.

Scoring of all eight questions was the same because occupations with similar rankings occupied the same position within each question. For example, alternative #1 was worth seven points, alternative #2 was worth four points across all the questions.

Westbrook (1966) indicated that for his mixed-sex sample of 164 adolescents internal consistency as measured by the Spearman-Brown correlation on parallel halves of the test ranged from .83 to .86 within each of three different test administrations. Test-retest reliability for a sample of 87 adolescent females was .88 for the two week interval and .78 for the five week interval. A study based on data collected in 1961 from 34,118 subjects indicated that reliability for female adolescents was slightly lower than for male adolescents. (Otto, Haller, Meier, & Ohlendorfer, 1974). Computation of Cronbach's alpha for each of eight subsamples (2 levels of SES, grades 9 through 12) of adolescent females resulted in a mean reliability for the female subsamples of $r_{kk} = .681$; the comparable coefficient for males was $r_{kk} = .756$.

The factorial structure of the OAS has been investigated by Westbrook (1966), Haller & Miller (1971), and Otto, et al. (1974). All concluded that the scale taps primarily one factor; level of occupational aspiration.

Haller and Miller (1971) and Westbrook (1966) indicated that some evidence of validity can be derived from the internal structure of the scale. Because idealistic and realistic questions are designed to tap the upper and lower limits respectively of the subjects' levels of aspiration, mean scores on realistic questions should be

lower than those on idealistic questions. Both Haller & Miller and Westbrook found this to be the trend, however, no significance tests were conducted. Another hypothesis based on internal structure, that mean scores on long-range questions should be higher than those on short-range questions, was contradicted by Westbrook's mixed-sex data and only partially supported in the data cited by Haller & Miller.

Westbrook, (1966) found a correlation of .68 between the OAS scores of the subjects in his mixed-sex sample and their scores on an open-ended measure of occupational aspiration which was coded for occupational prestige by the North-Hatt technique (NORC, 1947). There is some evidence, according to unpublished research (Sewell & Bright, 1948; Sewell & Haller, 1955) reported in Haller & Miller (1971), to indicate that this technique has predictive validity. North-Hatt ratings of occupational aspirations of adolescent boys in a 1948 Wisconsin sample correlated .46 with prestige level of the boys' occupational attainment and .52 with number of years of schooling completed by them in 1955.

Questions on the High School Survey pertained to demographic information, occupational and educational aspirations, and social experiences, perceptions and aspirations which could be affected by the sexual environment of the school. This questionnaire was a combination of open-ended and multiple-choice questions. Several of the multiple choice questions pertaining to social vs. academic interests were based on those used by Coleman (1961)[2] and Jones, et al. (1973) previously reviewed.

The High School Survey was identical for all students at Time 1.

All items directly related to the hypotheses were included on both Time 1 and Time 2 test forms. Items concerning school choice, parental, peer, and teacher influence, and perceived advantages and disadvantages of the school type (coeducational vs. all-girl) attended during the 1973-1974 school year as well as expectations for the 1974-1975 school year were included on the Time 1 form only. Questions pertaining to friendship patterns, dating, transportation to school, parental expectations, and the students' school preference were included on the Time 2 form only. In addition, two of the social aspiration questions on the Time 1 questionnaire were reworded on half of the Time 2 questionnaires because variability was constricted by the structure of these questions in the Time 1 results. To maintain the repeated measures design, however, these questions were not altered on the other half of the Time 2 questionnaires. The alternate forms of the Time 2 questionnaire were evenly distributed across all testing situations.

Scording of the educational aspiration and occupational aspiration items on the High School Survey requires some explanation. The educational aspiration score ranged from 1 to 7 and was based on responses to the following questions:

"19. Do you intend to seek further education after high school?

Yes _____ No _____ (If not, go on to question #22)

20. If so, what type of school do you plan to attend?

_____a) finishing school

_____b) technical training school (trade school, computer training, beauty school, dental hygienist training, L.P.N. training, etc.)

_____c) business school

_____d) nursing school

_____e) college or university

21. (a) If you plan to attend a college or university, what type of degree would you like to obtain?

_____a) two-year associate degree

_____b) bachelor's degree (four-year degree)

_____c) master's degree (one or two years beyond the bachelor's degree)

_____d) profesional degree (M.S., Ph.D., J.D., etc.) (three to five years beyond the bachelor's degree)"

Ratings were as follows:

1. - no schooling after high school

2. - technical training, business school, finishing school, no degree objective.

3. - college - two year associate degree

4. - nursing school

5. - college - bachelor's degree

6. - college - master's degree

7. - college - professional degree

Because subjects often indicated more than one level of education in their responses, the following scoring system was developed based both on the amount of time necessary to complete the course and the academic nature of the school. If the subject answered the question "Do you intend to seek further education after high school?" with a "No" response, the subject received a score of 1, regardless of whether she answered the two following questions. If a subject

indicated more than one level within the "type of school" question, she was scored at the higher level. If a subject completed the "type of degree" question without having indicated "college or university" in the "type of school" question, the answer was scored at the appropriate school level rather than the degree level, with the following exceptions: 1) a combination of "technical training school" or "business school" and "two-year associate degree" was scored as a 3 rather than a 2; a combination of "nursing school" with either bachelor's degree or master's degree was scored as a 5 or 6 respectively rather than a 4; 3) a combination of "college or university" at the school level, no response at the degree level was scored at level 5; 4) a combination of "finishing school" and a degree objective was scored at the degree objective. Because very few subjects (n = 6) chose the "finishing school" alternative at Time 1, it was deleted from the form at Time 2. This was done because the experimenter thought there may have been some confusion among the subjects as to whether "finishing school" was a place to go or a goal to pursue. For this reason, the alternative "finishing school" was scored at the degree level if a degree was indicated, or, if no degree objective was indicated, was scored at level 2.

Answers to the open-ended occupational aspiration question, "What are your future occupational plans?" were scored for socioeconomic status by using the Index of Social Position (Hollingshead, Note 1, a 7 point scale with "1" indicating the highest level and "7" indicating the lowest level). Because many of the subjects' responses were rather vague ("something in medicine"), included several

occupations from widely varying status levels (politicians, scientist or beautician"), or were not included on the actual scale (cake-decorating"), a criterion was developed for the estimate of ratings.

A survey of Introduction to Psychology students was conducted to find out how others would rate some of the vague responses. The subjects (n = 24) were provided with descriptions of the seven levels of the Hollingshead (1973) rating scale and asked to rate each of the following four responses at one of the seven levels: (1) "student," "going to college," (2) "something in science," (3) "something in medicine," and (4) "something to do with the outdoors." The mean ratings assigned by this sample were (1) 3.25, (2) 2.08, (3) 1.89, and (4) 5.25. The rounded mean rating levels corresponded to the median levels for all questions except (3) "something in medicine;" the median rating for this question was level one. All vague responses related to medicine were scored at level two unless the educational aspiration was college and professional degree; in this case, the response was rated at level one.

In situations where several occupations of different levels were named, the levels were averaged to get a rating. If the average was exactly between two levels, the level assigned was decided by the flip of a coin.

Occupations not listed on the Hollingshead scale were assigned estimated ratings by the experimenter. Responses referring to being a housewife or getting married were scored at level 7 only when they were not in combination with some other occupation. This procedure was adopted because current social norms as reflected, for instance,

in Federal Labor Department statistics, indicate that marriage and a career are not incompatible for women. Responses were averaged only in cases where being a housewife or getting married seemed to be the primary goal of the adolescent girl. This procedure was adopted because, whether most adolescent girls currently want to be housewives or not, it is likely that they will have to fill this role at some time; therefore, this response was scored only when it seemed to be the first choice or only choice of the adolescent girl.

The achievement data used in this study are grade point averages for the fall, 1974, semester. These data were not available for students attending the transitional school.

Procedure

Subjects were tested in school during orientation, divisional time, or religion class; they were required by school administrations to participate. Testing sessions, which usually lasted 20-30 minutes, were conducted at the convenience of the individual schools. In the transitional and all-girl schools, the Time 1 tests were administered either in homeroom sessions or religion class (all-girl sample) by the homeroom or class teachers. In the coeducational school, each grade level was tested at Time 1 in a group session; these sessions were administered by the experimenter. Monitors were provided by the experimenter and school administrators and/or counselors were often also present.

For the Time 2 testing sessions, only the all-girl school preferred to have teachers administer the questionnaires during class time. Testing sessions were conducted for groups of approximately

60 to 120 students at both the transitional and coeducational schools. Because time limitations prevented the all-girl sophomore sample from being tested in class-size groups, the experimenter administered the questionnaires to these subjects in small groups during study halls and in one session after school.

The following instructions were read by the administrators to the subjects at both testing sessions:

> "These questionnaires are part of a research project being conducted at the University of Nebraska at Omaha. We appreciate your participation in this project. Now, let us read the instructions together. Please look at the first page of the questionnaire entitled Occupational Information Scale."
>
> (Read all capitalized instructions at the top of the Occupational Information Scale aloud with the students.)
>
> "The second questionnaire, called the High School Survey, has brief instructions at the beginning. Please read them to yourselves. Begin work on this questionnaire as soon as you finish the first one. If you have any questions, please raise your hand and I will try to help you.
>
> When you have completed all the questions, put down your pens or pencils and look up.
>
> Begin work now."

When testing was completed, the subjects' questionnaires were classified by school, grade in school, and socioeconomic status of the student's family. The SES rating was based on the occupational status of the parent with the more highly-ranked occupation, as rated by Hollingshead (Note 1).

Results

Subjects were eliminated from the original subject pool for the following reasons: the subject (1) did not attend the specified school type during the 1972-1973 school year,[3] (2) was not present

for both testing sessions, (3) could not be classified for socio-economic status, (4) met the faking criterion on the OAS,[4] or (5) failed to indicate her grade level on her questionnaire. While there was a 31% attrition rate, inspection of Table 2 indicates that subjects lost by category appear to be randomly distributed over schools.

An attempt was made to use all potential subjects in each school and, therefore, sample sizes are unequal. (See Table 1.) Statistical analyses were done on full data sets when possible, however, the number of missing values varied for each variable. Correlations, analyses of variance, and chi square analyses are based on the number of subjects without missing values for particular variables used in each analysis. These numbers vary across analyses.

Reliability. Test-retest Pearson reliabilities for the occupational and educational aspiration dependent measures were calculated across the entire sample. They were educational aspirations measure $r = .69$, OAS $r = .63$, and occupational self-report measure $r = .46$ (all p's $< .001$). Test-retest reliabilities were also significant at $p < .02$ within each of the three schools for all three measures.

The reliability coefficients were uniformly lower in all the above analyses for the occupational self-report measure than for either of the other two measures. Test-retest reliability for the occupational self-report measure ranged from $.32 \leq r \leq .49$, as compared to the educational aspiration measure, $.68 \leq r \leq .71$, and the OAS, ranging from $.50 \leq r \leq .68$ (all p's $< .001$). Test-retest reliability in the transitional school was comparable to that within the other two schools for educational aspiration, but lower than that

Table II

Number of Subjects Eliminated from Original Pool

School Type	Reasons for Elimination					Total
	Did not Attend Correct School Type	Could Not Classify for SES	No Time 2 Data	Faking	No Grade Level	
All-Girl						
Sophomores	5	2	5			12
Juniors	4	5	7			16
Seniors	1	3	8			12
	10	10	20			40
Coeducational					(2)	2
Sophomores	14	4	8	4		
Juniors	2	6	29			37
Seniors	4	8	6			18
	20	18	43			87
Transitional					(4)	4
Sophomores	18	2	3			23
Juniors	2	3	9			14
Seniors	2	7	18			27
	22	12	30			68
Total	52	40	93	4	6	195

within the other two schools for both the occupational aspiration measures. All test-retest reliabilities reflect a six month interval between test administrations.

Validity. The three measures of educational and occupational aspiration were cross-correlated at Time 1 and again at Time 2 to provide information on concurrent validity and across Times 1 and 2 to provide information on the predictive validity of each measure at Time 1 for the other two measures at Time 2. The Pearson correlational analysis indicated that all validity coefficients calculated across all three schools were significant at $p < .001$ level. (See Table 3.)

The correlational analyses indicate that the educational aspiration and occupational self-report measures are consistently and highly correlated with each other both within and across time. The OAS is not as highly correlated with either of the other two measures and yet is acceptably reliable over time.

A consistent pattern was evident concerning the relative strength of the correlations at Time 1 and at Time 2. Results of t-tests comparing the validity coefficients at Time 1 indicated that the correlation between the educational aspiration and the occupational self-report measures was significantly higher than both the correlation between the educational aspiration measure and the OAS (t (351) = -24.53, $p < .01$) and the correlation between the OAS and the occupational self-report measure (t (351) = 10.432, $p < .01$). Results of t-tests on the Time 2 data indicated a similar pattern. Predictive validity coefficients show a small amount of shrinkage as compared to concurrent validity coefficients as indicated in Table 3.

Table III

Reliability and Validity Coefficients for Dependent Measures in All-School Analyses[a, b]

	OAS Time 1	Ed Asp Time 1	Self-Report Time 1	OAS Time 2	Ed Asp Time 2
Ed Asp Time 1	.47				
Self-Report Time 1	-.4	-.62			
OAS Time 2	.63	.42	-.33		
Ed Asp Time 2	.41	.69	-.47	.44	
Self-Report Time 2	-.34	-.43	.46	-.34	-.65

[a] Self-report measure is reverse-scored. All negative correlations were expected to be negative.

[b] All correlations significant at $p < .001$ level.

Validity coefficients calculated for each shool separately were significant at $p < .001$ level for the all-girl school and the coeducational school. The occupational self-report Time 1 measure, however, did not reach significance when correlated with the OAS either within the same time or across administrations for the transitional school. All other validity coefficients calculated within the transitional school were significant at $p < .05$ level. Tables of validity and reliability coefficients for each school are available in Appendix E.

The pattern of concurrent validity coefficients within each school within each time was similar to that found in the all-school analysis. Results of 16 of the 18 *t*-tests conducted within each time period within each school were significant (p's $< .01$). These results are also available to the reader in Appendix F.

Correlations across time, however, did not always show shrinkage from the within-time correlations within the individual schools. This discrepancy from the all-school analysis occurs within each school, with the exception of the correlation between the educational aspiration measure and the occupational self-report measure, which consistently does show shrinkage.

Occupational and Educational Aspirations. A Pearson correlational analysis was performed to examine whether potential control variables (grade level in school, socioeconomic status, and achievement) were significantly related to the dependent measures of aspiration. Achievement (fall semester grades)[5] was the only variable consistently significantly correlated with all dependent measures at each test time. Correlations of achievement with the measures of aspiration

ranged from $.25 \leq r \leq .45$ as compared to $-.01 \leq r \leq .18$ for grade in school and $-.22 \leq r \leq .05$ for socioeconomic status. Although the original design[6] called for subjects to be blocked by socioeconomic status and grade in school, use of these control variables would have resulted in a loss of power. Accordingly, School(2) X Achievement(5) X Time(2) harmonic mean analyses of variance with repeated measures on the last factor were performed on each of the dependent measures: the OAS, the educational aspiration measure, and the occupational self-report measure. Five blocks on the achievement factor (by 20% of subjects) were used to assure consistency of block size within schools.

Within these analyses main effects for school were significant for both the OAS and the occupational self-report measure (p's $<.05$). In both cases occupational aspirations were higher in the all-girl school than in the coeducational school as predicted in Hypothesis 1a. The main effect for school was of borderline significance and in the same direction in the ANOVA of the educational aspiration data.[7]

A school(2) X Achievement(5) harmonic mean Analysis of Variance of the educational aspiration data at Time 2 only indicated a significant main effect for school (F (1,345) = 5.02, p $<.05$). The educational aspirations of girls attending the all-girl school were significantly higher than those of girls attending the coeducational school at Time 2. A simple effects test was conducted on the educational aspiration matrix (School(2) X Achievement(5) X Time(2)) using the between groups error term suggested by Winer (1962) to compare the all-girl and coeducational samples at Time 1 only. No significant

difference was found between the two samples at Time 1. These results indicate an increase over time in educational aspiration for girls attending the all-girl school.

The main effect for achievement was significant for all three dependent measures (all p's <.05). Examination of the means in each analysis indicates that occupational and educational aspiration levels increase as achievement level increases. A summary of the ANOVAs is provided in Table 4.

Because no measure of achievement was available from the transitional school, it could not be included in the above analyses. A t-test for matched samples was conducted on data from the transitional school for each of the dependent measures to examine the means for any change over time within that school. Contrary to the predictions made in Hypothesis 1b, no significant differences were found on any of the dependent occupational or educational aspiration measures over time. Examination of the means indicates that the scores of girls in the transitional school were between those of the girls at the all-girl school and those of the girls at the coeducational school for all three dependent measures of aspiration. (See Table 5.)

Omega squared analyses were conducted on significant aspiration data which indicated that the main effects for school consistently accounted for a small percentage of the variance. (See Table 6.) This may be due in part to the extremely large error terms in all the aspiration data which is related to the inherent variability of aspirations within all adolescent populations. the ω^2 analyses for the achievement block accounted for a larger percentage of the variance ranging from 3.9% to 12.4%.

Table IV

Summary of Analyses of Variance
School X Achievement X Time

Variable	Source of Variation	df	Ms	F
Occupational Aspiration Scale	School (A)	1	719.00	4.76*
	Achievement (b)	4	1541.00	10.20***
	A X B	4	63.00	.42
	Error	333	151.136	
	Time (C)	1	25.00	.70
	A X C	1	1.00	.03
	B X C	4	6.00	.17
	A X B X C	4	72.00	2.01
	Error	333	35.865	
Educational Aspiration	School (A)	1	19.934	3.82
	Achievement (B)	4	68.596	13.13***
	A X B	4	.602	.12
	Error	335	5.224	
	Time (C)	1	.430	.39
	A X C	1	2.801	2.55
	B X C	4	1.448	1.32
	A X B X C	4	1.188	1.08
	Error	335	1.099	
Occupational Self-Report	School (A)	1	11.252	4.50*
	Achievement (B)	4	10.988	4.39**
	A X B	4	3.446	1.38
	Error	250	2.503	
	Time (C)	1	.017	.02
	A X C	1	.475	.51
	B X C	4	.515	.56
	A X B X C	4	.973	1.05
	Error	250	.928	

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Table V

Means for Dependent Measures for Each School[a, b]

School Type	OAS	Educational Aspiration	Occupational Self-Report[c]
All-Girl	42.278	4.294	2.742
Coeducational	40.564	3.946	3.048
Transitional	41.985	4.0845	2.75

a
The statistics presented here are directly comparable arithmetic means

b
School effects were significant in the comparison of the all-girl and coeducational schools for the OAS and the occupational self-report measure (p's $<.05$) and of borderline significance for the educational aspiration measure (p $<.06$).

c
The occupational self-report measure is reverse-scored.

Table VI

Omega Squared Values for Significant Main Effects on Aspiration Data Blocked for Achievement

School (2) X Achievement (5) X Time (2) Analyses	
Variable	ω^2
OAS	
School	.012
Achievement	.0817
Educational Aspiration	
School	n.s.
Achievement	.106
Occupational Self-Report	
School	.0093
Achievement	.039

School (2) X Achievement (5) Analysis (Time 2 Data Only)	
Educational Aspiration	
School	.0099
Achievement	.124

Social Aspirations. Chi square analyses were carried out on each of the social aspiration questions (See Appendix C: High School Survey Time 1, items 30-33; Appendix D, High School Survey Time 2, items 14-17). Each of the questions was analyzed by comparing all three schools, by comparing each school to each other school, by comparing grades within each school, and schools within each grade. Direct analyses of the repeated measure were not performed due to the assumption of independence of samples for chi square analysis. Table 7 summarizes the results of these analyses.

Hypothesis 2a, that levels of social aspiration would be lower in the all-girl school than in the coeducational school was tentatively confirmed by the chi-square analyses. (See Items #31-32, Time 1; items #15-17, Time 2.) For example, in the "Striving Time 1" question (Item #32, Time 1) and the revised "Striving Time 2" question (Item #16, Time 2), the all-girl sample chose the alternative "learning as much as possible" more often than any other response while the girls from the coeducational school chose "being accepted and liked by the other students" more often than any of the other alternatives. Both items were significant ($p < .05$) in the comparison of the all-girl and coeducational schools as well as in the all-school analysis. Analysis of responses to the original version of this question at Time 2 were not significant, illustrating again the large variability in adolescent response patterning.

The "Homework Time 2" results (Item #14, Time 2) were significant ($p < .01$), and indicated that girls in the coeducational school claim to spend more time studying outside of school than girls in the

Table VII

SUMMARY TABLE OF CHI SQUARE ANALYSES OF SOCIAL ASPIRATION DATA

Variable	All-School Analyses	Two-School Analyses			Within School X Grade Analyses			Within Grade X School Analyses		
		All-girl Coed	Coed Trans	All-girl Trans.	All-girl Coed	Coed	Trans	Soph.	Jr.	Sr.
Homework Time 1 (Item 30)	n.s.	n.s.	n.s.	n.s.	n.s.	.0059	n.s.	n.s.	.0456	n.s.
To Be Important T_1 (item 31)	n.s.	n.s.	n.s.	n.s.	n.s.	.0078	n.s.	n.s.	n.s.	n.s.
Striving T_1 (item 32)	.0087	.0071	n.s.	n.s.	n.s.	n.s.	.022	n.s.	.0059	n.s.
Brilliant T_1 (item 33A)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Leader T_1 (Item 33B)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Popular T_1 (Item 33C)	n.s.	n.s.	n.s.	n.s.	n.s.	.001	n.s.	n.s.	n.s.	n.s.
Homework Time 2 (Item 14)	.0084	.0042	n.s.	n.s.	n.s.	.0036	n.s.	n.s.	.0015	.0202
To Be Important T_2 (Item 15)	.0166	n.s.	n.s.	.0032	n.s.	.0016	n.s.	.0068	n.s.	.0441
Striving T_2 (Item 16)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Brilliant T_2 (Item 17A)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Leader T_2 (Item 17B)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Popular T_2 (Item 17C)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Revised Striving T_2 (Item 16)	.0313	.0282	n.s.	n.s.	n.s.	n.s.	.022	n.s.	.0181	n.s.
Revised Remembered as T_2	.0465	n.s.	.0351	.0289	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

all-girl school. This inconsistency with the above data could be due to differences in the individual schools; girls in the coeducational school may have less time to study during school time, use free time in school to socialize rather than to study, or have more homework assigned than girls in the all-girl school. The analyses comparing the all-girl and transitional schools as well as the coeducational and transitional schools were both nonsignificant for this question. Because girls in the transitional school report spending an intermediate amount of time on homework (Time 2), it seems plausible that the coeducational environment facilitates socializing during school rather than studying, transitional students maintaining school study habits more than coeducational students as a result of their all-girl school history.

While Hypothesis 2b was not directly tested, there were some indications that social aspirations increased over time for girls in the transitional school. The "To Be Important" questions (Time 1, Item #31; Time 2, Item #15) in the all school analyses indicated that the emphasis within the all-girl and coeducational samples was on the "leader in activities" alternative at both Time 1 and Time 2. In the transitional school, however the emphasis was on the "leader in activities" alternative at Time 1 and the "leading crowd" alternative at Time 2. The Time 2 results for this question were significant at $p < .05$ level in the all-school analysis and the comparison of the all-girl and transitional schools.

The mixed-sex school environment is a new experience for the girls in the transitional school and they may be conscious of what

they perceive as a sudden shift in interest from school-related activities with both social and academic aspects to more strictly social peer group activities. They may also perceive a change in the means of obtaining social status from status achieved by some personal activity to status ascribed by belonging to a particular social group. Attributing this shift in interest to the change in environment seems plausible because a similar although less exaggerated shift in interest occurred within the coeducational sample but not within the all-girl sample from Time 1 to Time 2.

Of the twelve[8] possible Time 1-Time 2 comparisons of social aspiration in the transitional school sample, nine show changes in the predicted direction, two show changes in the opposite direction, and one does not show any change. While many of these changes are small, there does seem to be marginal evidence that an increase in social aspiration occurred in the transitional school sample during the first six months after the school opened as a coeducational institution.

Other Analyses. In addition to the designated social aspiration questions, the subjects were also asked to respond to questions concerning frequency of dating, friendship patterns, parental expectations, marital expectations, and influence of various factors on school choice (Time 1, Items #3-16 and #22-29; Time 2, Items #6-13 and 18-36). Table 8 summarizes the results of these analyses.

Parental influence and expectations seem to be more important to girls in the all-girl sample than in the coeducational sample. Girls in the all-girl school also indicated that their parents were more

influential in the original school choice (X^2 (3) = 9.159, p <.05) than parents of girls who attended the coeducational school (Time 1, Item #4). Girls in the transitional school report that their parents were influential in the decision to attend the merger school rather than some other school (Time 1, Item #10), however, the results of this question may be influenced by the fact that this is the only group of girls faced with an inevitable change of school in the middle of their high school years (X^2 (6) = 17.462, p <.01). A higher percentage of girls in the coeducational school reported that teachers at the grade school level were more influential in their original school choice than girls in the all-girl or transitional schools (Time 1, Item #6).

The chi square analysis of the question sequence concerning parental expectations for the daughters' future education (Time 2, Items #32-34) indicated that, according to the girls' perceptions, parents of girls in the all-girl school have higher educational expectations for their daughters than those of girls in a coeducational environment (X^2 (6) = 20.09, p <.005). The all-school analysis of this question indicated that parental expectations for girls in the transitional school were higher than for those in the coeducational school, but lower than for those in the all-girl school (X^2 (12) = 31.93, p <.005).

Chi square analyses of questions concerning distance traveled to school and influence of transportation as a factor in school choice (Time 2, Items #25-26) indicated that although the mean distance from school is approximately 1.7 miles more for girls at the coeducational

Table VIII

CHI SQUARE ANALYSES OF QUESTIONS CONCERNING MARRIAGE, DATING, PARENTAL EXPECTATIONS, AND INFLUENCE ON SCHOOL CHOICE

Variable and Question	Time	Significance in All-School Analysis	Significance in All-Girl-Coed Analysis
Marriage			
Expect to Marry (Item 22)	1	n.s.	n.s.
Expect to Marry (Item 6)	2	.016	n.s.
Probable Marriage Age (Item 24)	1	.0102	n.s.
Probable Marriage Age (Item 8)	2	n.s.	.0444
Work After Marriage (Item 25)	1	n.s.	n.s.
Work After Marriage (Item 9)	2	n.s.	n.s.
Have Children (Item 27)	1	n.s.	n.s.
Have Children (Item 11)	2	n.s.	n.s.
Work After Children (Item 28)	1	n.s.	n.s.
Work After Children (Item 12)	2	n.s.	n.s.
Dating			
Do you Date (Item 22)	2	n.s.	n.s.
Dates per Month (Item 23)	2	n.s.	n.s.
Parental Expectations			
Parents Encourage Occupation (Item 30)	2	n.s.	n.s.
What Occupation (Item 31)	2	n.s.	n.s.
Parents Encourage Education (Items 32-34)	2	.0014	.0027
Parents Encourage Marriage (Item 35)	2	n.s.	n.s.
Parents' Ideal Age for Marriage (Item 36)	2	n.s.	n.s.

Table VIII (a)

DESCRIPTIVE STATISTICS ON QUESTIONS CONCERNING FRIENDSHIP, PROXIMITY TO SCHOOL, IDEAL MARITAL AGE

Variable and Questions	School Type					
	All-Girl		Coeducational		Transitional	
	$\bar{X}$	Median	$\bar{X}$	Median	$\bar{X}$	Median
Friendship						
Close friends? (18)	9.504	6.563	8.567	5.75	5.93	4.923
Friends attending this high school (19)	5.814	4.175	7.709	4.75	4.014	3.531
Female friends? (20)	7.279	5.133	6.612	4.162	4.169	3.625
Male friends? (21)	2.211	1.378	3.518	1.563	1.629	1.22
Proximity to School? (25)	2.055	1.435	3.62	2.89	3.851	3.214
Ideal Marital Age						
Time 1 (23)	22.714	22.619	22.462	22.261	22.255	22.0
Time 2 (7)	22.532	22.395	22.196	21.79	22.924	22.917

Table VIII (b)

RANK ORDER OF FACTORS INFLUENCING SCHOOL CHOICE,

KOLMOGOROV-SMIRNOV COMPARISON OF ALL-GIRL AND COEDUCATIONAL SCHOOLS

Quality of Curriculum	n.s.
Amount of Tuition	n.s.
Transportation	n.s.
All-Girl or Coeducational Environment	n.s.
Activities	n.s.
Parental Preference	n.s.

and transitional schools than for girls at the all-girl school, a very small percentage of girls from the coeducational and transitional schools indicated that transportation was a factor in their school choice decision. Although it seems logical that form of transportation would be of greater concern for girls living further from school than those living nearby, these girls did not regard it as an important factor. The larger percentage regarding transportation as an important factor at the all-girl school may be related to the greater amount of parental influence. Parents may be influenced by the proximity of the home to school and consequent lack of transportation problems.

The question concerning the students' personal school preference (Time 2, Item #28) showed that the majority of girls in the all-girl school were content with the all-girl environment while the majority of girls in the coeducational school were content with the coeducational environment ($\underline{X}^2$ (1) = 167.2, $\underline{p}$ <.001). A larger percentage of girls would prefer to attend a coeducational school than the reverse. According to the all-school analysis of this question, the majority of girls at the transitional school prefer the coeducational environment ($\underline{p}$ <.001).

Discussion

The results support the hypothesis that girls attending a same-sex high school have higher occupational and educational aspirations than girls attending a coeducational high school, and tentatively support the hypotheses that girls attending a same-sex high school have lower social aspirations (as defined for the purposes of this study) than girls attending a coeducational high school and that

social aspirations increase over time in girls who transfer from an all-girl to a coeducational high school. The results do not support the hypothesis that occupational and educational aspirations decrease over time in girls who transfer from an all-girl to a coeducational high school.

The three dependent measures used to measure occupational and educational aspirations were moderately intercorrelated, with the Haller Occupational Aspiration Scale (OAS) being less highly correlated with both the occupational self-report and educational aspiration measures than these measures were with each other. The lower validity coefficients involving the OAS may indicate either that this scale taps a different factor or that the scale is inappropriate for this subject population.

If the OAS does tap another factor, there is no evidence as to what this factor is within this data set. There are, however, a few reasons why this scale may be inappropriate for adolescent females. The concurrent validity coefficients in the all-school analysis for the OAS and the occupational self-report measure were $\underline{r} = -.4$ (Time 1) and $\underline{r} = -.34$ (Time 2); this is somewhat lower than the .68 reported by Westbrook (1966) for his mixed-sex sample. It is possible that because the OAS is based on 1947 data and was originally validated and used for a male population that the scale items may contain some sex bias. While the experimenter tried to remove direct references to the male-appropriateness of a particular occupation ("milk route man" was changed to "milk route carrier", etc.), it could be argued that the girls' occupational choices on the OAS are limited by their

perception of a few alternatives within each question as more female-appropriate than the other alternatives.

The OAS may also have encouraged a conservative response through questions containing the realistic condition: "which is the best one (job) you are really sure you can get." Because women have until recently had rather narrowly defined occupational identities, their estimations of jobs they are "really sure they can get" may be very low and, therefore, deflate their total scores on this scale.

Perhaps the OAS should be modified in such a way that the occupational choices would be updated and made equally attractive to both sexes. It is also possible that, because the scale items are based on 1947 data, that the relative status of some of the positions has changed by this time.

Because of the correlational nature of this study, it is impossible to determine whether girls choosing to attend the same-sex high school actually had higher occupational and educational aspirations before enrolling at the school or that the same-sex high school increased their aspirations over time. Both these explanations seem plausible, however. The high educational expectations of parents for daughters in the all-girl school coupled with the high level of parental influence reported by the same girls in their original school choice may mean that the girls at the all-girl school are subject to more academic pressure than social pressure in their home environments; in this case, the sample may have been self-selected. However, the indication that educational aspirations increase over time within the all-girl school makes it unlikely that parental

influence is the only factor affecting the girls. Even though the all-girl sample may be partially self-selected, the school environment may also influcnce aspiration level by reinforcing high levels of educational aspiration throughout the school year.

The data presented here support the doubts expressed by Coleman (1961) concerning the value of the coeducational school environment for high school girls. Not only did the data indicate that girls from the coeducational environment have lower occupational and educational aspirations than those from the all-girl environment, but also that more girls from the coeducational school seemed to be concerned about peer group acceptance thanlearning while the reverse was true of the all-girl environment.

While Coleman (1961) believed there would be a marked decrease in academic emphasis and increase in social interest during the sophomore and junior years, no main effects for grade were evident in the original analysis of the occupational and educational aspiration data. This may be due in part to the earlier onset of dating behavior at this point in historical time as compared to the late 1950's and early 1960's. If there is a decrease in aspiration level at a particular grade level, perhaps such a decrease takes place sometime during the junior high school years.

The results of this study are similar to those of the Jones, Shallcrass, and Dennis (1972) study of the New Zealand same-sex and coeducational schools. For the "To Be Important" questions and the "Striving" questions, Jones et al. used a ranking rather than choice-of-one format. In the "To Be Important" question, both socially-

oriented alternatives ("Being in a leading crowd," and "Leader in activities") were rated by both the coeducational and all-girl New Zealand sample as much more important than the other alternatives listed. The "leading crowd" alternative was given a significantly higher rating by girls in the coeducational school than by girls in the same-sex school, lending support to the interpretation that the "leading crowd" alternative indicates an interest in social mixed-sex peer group activities which might be more common in the coeducational environment than in the all-girl environment.

Results of Jones et al. (1972) and the present study on the "Striving" question were also similar in that the "peer-oriented" response was more important to the girls in the coeducational school than to those in the all-girl school, while the "learning" response was more important to girls in the all-girl school than to girls in the coeducational school. Jones et al. also found that girls in the all-girl school rated the alternative "pleasing my parents" significantly higher than the girls in the coed environment. Very small percentages (always < 15%) chose this alternative in the present study and differences between schools were not large. The small response to this item is presumably due to the forced-choice format of this question, however, concern with pleasing parents is obvious in the present all-girl sample in their responses to questions concerning influence on school choice.

Future research in this area might investigate whether the high levels of occupational and educational aspiration expressed at this age within all-girl school environments continue to be high during

the post-high school or college years when the girls will be making realistic and sometimes irreversible decisions concerning their futures. Possibly a history of high school education within an all-girl environment will contribute to maintenance of higher levels of aspiration when the girls are no longer in the all-girl environment, but are exposed to the cultural norms and pressures of the mixed-sex working or school environment.

Reference Notes

1. Hollingshead, A. B. Index of Social Position. Personal Communication (mimeographed paper) to H. Hofstetter, 1973.

2. Thomas, K. A. Unrealistic development of frames of aspirational reference of rural Negro and white girls: a refutation of popular theory. Paper presented at annual meeting of Rural Sociological Society, Denver, August, 1971. Research supported by Texas Agricultural Experiment Station as contribution to TAES research project H-2611 and USDA (CSRS) project S-61.

References

Alper, T. Achievement motivation in college women: a now-you-see-it-now-you-don't phenomenon. American Psychologist, 1974, 29, 194-203.

Boyle, R. F. The effect of high school on students' aspirations. American Journal of Sociology, 1966, 71, 628-639.

Brittain, G. V. Adolescent choices and parent-peer cross-pressures. American Sociological Review, 1963, 28, 385-391.

Cattell, R. B., Coan, R. W. & Beloff, H. Jr-Sr. High School Personality Questionnaire, Form A. Indianapolis: Bobbs-Merrill, 1960.

Coleman, J. S. The Adolescent Society. New York: The Free Press of Glencoe, 1961.

Coleman, J. S. The competition for adolescent energies. Phi Delta Kappan, 1961, 42, 83-85.

Douvan, E. & Adelson, J. The Adolescent Experience. New York: John Wiley & Sons, Inc., 1966.

Duncan, O. D., Haller, A. O., & Portes, A. Peer influences on aspirations: a reinterpretation. American Journal of Sociology, 1968, 74, 119-137.

Ellis, J. R. & Peterson, J. L. Effects of same-sex class organization on junior high school students' academic achievement, self-discipline, self-concept, sex-role identification, and attitude toward school. Journal of Educational Research, 1971, 64, 455-464.

Epperson, D. C. A reassessment of indices of parental influence in The Adolescent Society. American Sociological Review, 1964, 29, 93-96.

Haller, A. O. Information on the occupational aspiration scale and other variables, 1957. Appendix I of Haller, A. O. and Miller, I. W. The Occupational Aspiration Scale: Theory, Structure, and Correlates. Cambridge: Schenkman Publishing Company, Inc., 1971.

Haller, A. O. & Miller, I. W. The Occupational Aspiration Scale: Theory, Structure, and Correlates. Cambridge: Schenkman Publishing Company, Inc., 1971.

Haller, A. O. & Woelfel, J. The Wisconsin Significant Other Battery. Final Report, Project 5-1170. Washington, D. C.: U.S. Office of Education, 1969.

Hollander, M. A. & Ranker, H. J. Occupational stereotypes and self-descriptions: their relationship to vocational choice. Journal of Vocational Behavior, 1972, 2, 57-65.

Horner, M. S. Toward an understanding of achievement related conflicts in women. Journal of Social Issues, 1972, 28, 157-175.

Horner, M. S. Sex differences in achievement motivation and performance in competitive and non-competitive situations. Unpublished doctoral dissertation, University of Michigan, 1968. Cited in Horner, Toward an understanding of achievement related conflicts in women. Journal of Social Issues, 1972, 28, 157-175.

Jones, C. J., Shallcrass, J., & Dennis, C. Coeducation and adolescent values. Journal of Educational Psychology, 1972, 63, 334-341.

Miller, I. W. & Haller, A. O. A measure of level of occupational aspiration. Personnel and Guidance Journal, 1964, 42, 448-455.

National Opinion Research Center. Jobs and occupation: a popular evaluation. Opinion News, 1947, 9, 3-13.

Otto, L. B. An empirical evaluation of a scale to measure occupational aspiration level. Journal of Vocational Behavior, 1974, 5, 1-11.

Putnam, B. A. & Hansen, J. C. Relationship of self-concept and feminine role concept to vocational maturity in young women. Journal of Counseling Psychology, 1972, 2, 436-440.

Rand, L. N. & Miller, A. L. A developmental cross-sectioning of women's careers and marriage attitudes and life plans. Journal of Vocational Behavior, 1972, 2, 317-331.

Seigel, S. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill, 1956.

Sprey, J. Sex differences in occupational choice patterns among Negro adolescents. Social Problems, 1962, 10, 11-22.

Stein, S. L. Changes in personal and interpersonal values by sex and occupational groups in grades 9 through 12. Journal of Educational Research, 1972, 66, 135-141.

Strickland, B. R. Aspiration responses among Negro and white adolescents. Journal of Personality and Social Psychology, 1971, 19, 315-320.

Tamayo, F. M., Haberman, M. J., Zapp, M. L. & Horne, W. C. Adjustment to same-sex and opposite sex in coeducational and noncoeducational high schools. Journal of Psychology, 1971, 79, 209-212.

Tresemer, D. Fear of success: popular but unproven. Psychology Today, 1974, 7, 82-85.

U. S. Department of Labor Bureau of Labor Statistics. Handbook of Labor Statistics 1974. U. S. Government Printing Office, Washington, D. C.

White, K. & Knight, J. H. School desegregation, socioeconomic status, sex and the aspirations of southern Negro adolescents. Journal of Negro Education, 1972, 42, 71-78.

Williams, T. H. Educational aspirations: longitudinal evidence on their development in Canadian Youth. Sociology of Education, 1972, 45, 107-135.

Williamson, E. G. & Darley, J. G. The Minnesota Inventory of Social Behavior (Form B of the Minnesota Inventories of Social Attitudes). New York: Psychological Corporation, 1937.

Winer, B. J. Statistical Principals in experimental design. New York: McGraw-Hill, 1962.

Woelfel, J. Significant others and their role relationships to students in a high school population. Rural Sociology, 1972, 37, 86-97.

Woelfel, J. & Haller, A. Significant others, the self-reflexive act and the attitude formation process. American Sociological Review, 1971, 36, 74-87.

Footnotes

[1] A few alternatives in the OAS were modified slightly to avoid reference to various occupations as "male-appropriate". A complete list of these modifications is available in Appendix B.

[2] While Coleman's research has been criticized by Epperson (1964) because of bias interest in the wording of some questions, none of the questions examined by Epperson are discussed or used in the present research.

[3] For the all-girl and coeducational schools, any subject who did not attend that particular school the year before was eliminated. At the transitional school, any subject who had attended any all-girl school for the past year was included.

[4] A few subjects (N = 4) seemed to have deliberately deflated their scores on the OAS; criterion for elimination was choosing four out of eight occupations with ratings of zero.

[5] Achievement data was not available from the transitional school because traditional grades are not used there. Correlations between achievement and the dependent aspiration measures are based on data only from the all-girl and coeducational schools.

[6] School(3) X Grade(3) X Socioeconomic Status(4) X Time(2) harmonic mean analyses of variance with repeated measures on the last factor were performed on each of the dependent measures as proposed. Only one significant result, the interaction effect SES X Time

($p < .03$) for the dependent measure educational aspiration was found. A reduced analysis of variance comparing only the all-girl and coeducational schools found the same interaction (p's $< .05$) for the educational aspiration and occupational self-report dependent measures. Grade(3) X SES(4) X Time(2) analyses of variance performed on each dependent measure within each school found only one e-fect--educational aspiration increased over time at the all-girl school ($p < .01$).

[7] Obtained F (1,325) = 3.82. Required F (1,325) = 3.84.

[8] Questions concerning marital expectations are included in this count as well as the designated social aspiration questions.

Appendices

Appendix A

OCCUPATIONAL INFORMATION SCALE

(OAS - Time 1 and Time 2)

NAME_____ DATE_____

THIS SET OF QUESTIONS CONCERNS YOUR INTEREST IN DIFFERENT KINDS OF JOBS. THERE ARE EIGHT QUESTIONS. EACH ONE ASKS YOU TO CHOOSE ONE JOB OUT OF TEN PRESENTED.

BE SURE YOUR NAME IS ON THE TOP OF THIS PAGE.

READ EACH QUESTION CAREFULLY. THEY ARE ALL DIFFERENT.

ANSWER EACH ONE THE BEST YOU CAN. DON'T OMIT ANY.

Question 1. Of the jobs listed in this question, which is the best one you are really sure you can get when your schooling is over?

1.1_____Lawyer
1.2_____Welfare worker for a city government
1.3_____United States representative in Congress
1.4_____Corporal in the Army
1.5_____United States Supreme Court Justice
1.6_____Evening security guard
1.7_____Sociologist
1.8_____Police officer
1.9_____County agricultural agent
1.10_____Filling station attendant

Question 2. Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your schooling is over?

2.1_____Member of the board of directors of a large corporation
2.2_____Undertaker
2.3_____Banker
2.4_____Machine operator in a factory
2.5_____Physician (doctor)
2.6_____Clothes presser in a laundry
2.7_____Accountant for a large business
2.8_____Railroad conductor
2.9_____Railroad engineer
2.10_____Singer in a night club

Question 3. Of the jobs listed in this question which is the best one you are really sure you can get when your schooling is over?

3.1_____Nuclear physicist

3.2_____Reporter for a daily newspaper

3.3_____County judge

3.4_____Barber or hairdresser

3.5_____State governor

3.6_____Waiter or waitress

3.7_____Biologist

3.8_____Mail carrier

3.9_____Official of an international labor union

3.10_____Farm hand

Question 4. Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your schooling is over?

4.1_____Psychologist

4.2_____Manager of a small store in a city

4.3_____Head of a department in state government

4.4_____Clerk in a store

4.5_____Cabinet member in the federal government

4.6_____Janitor

4.7_____Musician in a symphony orchestra

4.8_____Carpenter

4.9_____Radio announcer

4.10_____Coal miner

Question 5. Of the jobs listed in this question, which is the best one you are really sure you can have by the time you are 30 years old?

5.1_____Civil engineer

5.2_____Bookkeeper

5.3_____Priest or Religious

5.4_____Streetcar motorman or city bus driver

5.5_____Diplomat in the United States Foreign Service

5.6_____Share cropper (one who owns no livestock or farm machinery, and does not manage the farm)

5.7_____Author of novels

5.8_____Plumber

5.9_____Newspaper columnist

5.10_____Taxi driver

Question 6. Of the jobs listed in this question, which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

6.1_____Airline pilot

6.2_____Insurance agent

6.3_____Architect

6.4_____Milk route carrier

6.5_____Mayor of a large city

6.6_____Garbage collector

6.7_____Captain in the army

6.8_____Garage mechanic

6.9_____Owner-operator of a printing shop

6.10_____Railroad section hand

Question 7. Of the jobs listed in this question, which is the best one you are really sure you can have by the time you are 30 years old?

7.1_____Artist who paints pictures that are exhibited in galleries

7.2_____Traveling sales representative for a wholesale concern

7.3_____Chemist

7.4_____Truck driver

7.5_____College professor

7.6_____Street sweeper

7.7_____Building contractor

7.8_____Local official of a labor union

7.9_____Electrician

7.10_____Restaurant waiter

Question 8. Of the jobs listed in this question, which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

8.1_____Owner of a factory that employs about 100 people

8.2_____Playground director

8.3_____Dentist

8.4_____Lumberjack

8.5_____Scientist

8.6_____Shoeshiner

8.7_____School teacher

8.8_____Owner-operator of a lunch stand

8.9_____Trained machinist

8.10_____Dock worker

Appendix B

Modifications in the Haller Occupational Aspiration Scale made by the experimenter to avoid sex bias.

	Original version of the alternative	Modified version of the alternative
1.6	night watchman	evening security guard
1.8	policeman	police officer
3.4	barber	barber or hairdresser
3.6	soda fountain clerk	waiter or waitress
5.3	minister or priest	priest or religious
6.4	milk route man	milk route carrier
7.2	traveling salesman for a wholesale concern	traveling sales representative for a wholesale concern
8.7	public school teacher	school teacher

Appendix C

Please answer the following questions as honestly and as concisely as possible.

NAME _____
Last First Middle

AGE _____ _____ YEAR IN SCHOOL: Soph____ Jr____ Sr____
Year Month

SEX _____ _____
Male Female

FATHER'S OCCUPATION _____

MOTHER'S OCCUPATION _____

RELIGION _____

SCHOOL ATTENDING NOW _____

1. What school did you attend last year? _____

2. That school was a) an all-girl school _____
b) an all-boy school _____
c) a coeducational school _____

3. Why did you choose to attend that school?

4. How much did your parents influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

5. How much did friends your own age influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

6. How much did teachers at the grade school or junior high level influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

7. What things did you like most about the school you attended last year?

8. What things did you most dislike about the school you attended last year?

9. Why did you choose to attend the school you are attending <u>this year</u>?

10. How much did your parents influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

11. How much did friends your own age influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

12. How much did your teachers last year influence that decision?
a)very much____ b)somewhat____ c)very little____ d)not at all____

13. What things do you expect to like about the school you are attending this year?

14. What things do you expect to dislike?

15. <u>If you attended an all-girl or all-boy high school last year</u>, please answer the following:
a) What were the advantages of the same-sex high school environment <u>to you</u>?

<u>to your parents</u>?

to your friends?

b) What were the disadvantages to you?

to your parents?

to your friends?

16. If you attended a coeducational high school last year, please answer the following:

a) What were the advantages of the coeducational high school environment to you?

to your parents?

to your friends?

b) What were the disadvantages to you?

to your parents?

to your friends?

17. What are your future occupational plans?

18. Do you intend to complete high school? Yes_____ No_____

19. Do you intend to seek further education after high school?
Yes_____ No_____ (If not, go on to question # 22)

20. If so, what type of school do you plan to attend?

_____a) finishing school

_____b) technical training school (trade school, computer training, beauty school, dental hygienist training, L.P.N. training, etc.)

_____c) business school

_____d) nursing school

_____e) college or university

21. (a) If you plan to attend a college or university, what type of degree would you like to obtain?

_____a) two-year associate degree

_____b) bachelor's degree (four-year degree)

_____c) master's degree (one or two years beyond the bachelor's degree)

_____d) professional degree (M.D., Ph.D., J.D., etc.) (three to five years beyond the bachelor's degree)

21. (b) Realistically, what type of degree do you think you will eventually receive?

_____a) I do not see myself completing a degree.

_____b) two-year associate degree

_____c) bachelor's degree

_____d) master's degree

_____e) professional degree

22. Do you think you will marry at some future time in your life?
Yes_____ No_____ (If not, go on to question # 30)

23. What do you think is the ideal age at which to marry? _____ Why?

24. If you plan to marry, <u>at what age do you think you will probably do so</u>?

a)16-17___ b)18-19___ c)20-24___ d)25-29___ e)30 or over____

25. If marriage is a part of your future plans, do you plan to work after marriage?

Yes_____ No_____

26. Why or why not?

27. Do you plan to have children? Yes_____ No_____

28. If you plan to work after marriage, would you like to work after there are children in your family?

Yes_____ No_____

29. Why or why not?

30. How much time, on the average, do you spend doing homework outside school?

_____a) None or almost none

_____b) Less than ½ hour per day

_____c) ½-1 hour per day

_____d) 1½-2 hours per day

_____e) 3 hours or more

31. What does it take to get to be important and looked up to by the other students at school?

_____a) Coming from the right family

_____b) Leader in activities

_____c) Having a popular boyfriend or girlfriend

_____d) Being a good scholar

_____e) Being in a leading crowd

32. Which of the following goals do you strive the hardest for at this time in your life?

_____a) Pleasing my parents

_____b) Learning as much as possible

_____c) Being accepted and liked by the other students

33. If you could, how would you feel about being remembered here at school for each of the following?

a) brilliant student

very much like	somewhat like	neutral	somewhat dislike	very much dislike

b) leader in activities

very much like	somewhat like	neutral	somewhat dislike	very much dislike

c) most popular

very much like	somewhat like	neutral	somewhat dislike	very much dislike

Appendix D

Please answer the following questions as honestly and as concisely as possible.

NAME _____
Last First Middle

AGE _____ _____ YEAR IN SCHOOL: Soph _____ Jr _____ Sr _____
Year Month

SEX _____ _____ SCHOOL _____
Male Female

1. What are your future occupational plans?

2. Do you intend to complete high school? Yes _____ No _____

3. Do you intend to seek further education after high school?

Yes _____ No _____ (If not, go on to question #6)

4. If you plan to seek further education after high school, what type of school do you plan to attend?

_____a) technical training school (trade school, computer training, beauty school, dental hygienist training, L.P.N. training, etc.)

_____b) business school

_____c) nursing school

_____d) college or university

5. (a) If you plan to attend a college or university, what type of degree would you like to obtain?

_____a) two-year associate degree

_____b) bachelor's degree (four-year degree)

_____c) master's degree (one or two years beyond the bachelor's degree)

_____d) professional degree (M.D., Ph.D., J.D., etc.) (three to five years beyond the bachelor's degree)

(b) Realistically, what type of degree do you think you will eventually receive?

_____a) I do not see myself completing a degree.

_____b) two-year associate degree

_____c)bachelor's degree

_____d) master's degree

_____e) professional degree

6. Do you think you will marry at some future time in your life? Yes _____ No _____ (If not, go on to question #14)

7. What do you think is the ideal age at which to marry? _____ Why?

8. If you plan to marry, <u>at what age do you think you will probably do so</u>?

a)16-17___ b)18-19___ c)20-24___ d)25-29___ e)30 or over___

9. If marriage is a part of your future plans, do you plan to work after marriage?

Yes _____ No _____

10. Why or why not?

11. Do you plan to have children? Yes _____ No _____

12. If you plan to work after marriage, would you like to work after there are children in your family?

Yes_____ No_____

13. Why or why not?

14. How much time, on the average, do you spend doing homework outside school?

_____a) None or almost none

_____b) Less than ½ hour per day

_____c) ½-1 hour per day

_____d) 1½-2 hours per day

_____e) 3 hours or more

15. What does it take to get to be important and looked up to by the other students at school?

_____a) Coming from the right family

_____b) Leader in activities

_____c) Having a popular boyfriend or girlfriend

_____d) Being a good scholar

_____e) Being in a leading crowd

16. Which of the following goals do you strive the hardest for at this time in your life?

_____a) Pleasing my parents

_____b) Learning as much as possible

_____c) Being accepted and liked by the other students

17. If you could, how would you feel about being remembered here at school for each of the following?

a) brilliant studen

very much like	somewhat like	neutral	somewhat dislike	very much dislike

b) leader in activities

very much like	somewhat like	neutral	somewhat dislike	very much dislike

c) most popular

very much like	somewhat like	neutral	somewhat dislike	very much dislike

REVISED SOCIAL ASPIRATION QUESTIONS
(Time 2 Only)

16. Which of the following goals do you strive the hardest for at this time in your life? (Choose ONE of the following alternatives.)

_____a) Pleasing my parents

_____b) Learning as much as possible

_____c) Being accepted and liked by the other students

_____d) Making money

_____e) Developing a meaningful relationship with a member of the opposite sex

17. For which of the following would you most like to be remembered by your high school class? (Choose ONE of the following alternatives.)

_____a) brilliant student

_____b) leader in activities

_____c) most popular with members of the opposite sex

_____d) most popular with peers of both sexes

_____e) athletic skill

_____f) a person likely to succeed

18. How many close friends do you have? _____

19. How many of these friends attend your high school? _____

20. How many of your close friends are female? _____

21. How many of your close friends are male? _____

22. Do you date? Yes _____ No _____

23. If so, approximately how many dates do you have each month?
a) 0-1____ b) 2-3____ c) 4-6____ d) 7-10____ e) more than 10____

24. Approximately <u>how many different</u> boys do you go out with each month? _____

25. How far away do you live from your high school? _____

26. Was transportation a factor in deciding which high school to attend?
Yes _____ No _____

27. <u>Rank</u> the following factors as to their importance to <u>you</u> in choosing a high school. Place a "1" before the most important factor, a "2" before the factor which is second in importance . . . and a "6" before the least important factor.

_____a) quality of curriculum

_____b) amount of tuition

_____c) lack of transportation problems

_____d) all-girl or coeducational environment

_____e) extracurricular activities available

_____f) parental preference

28. If you did not have to consider transportation problems or the preference of your parents and all other factors were equal (curriculum quality, amount of tuition, extracurricular activities available), would you prefer to attend

a) a coeducational high school _____ or

b) an all-girl high school? _____

29. What are the advantages of attending the type of school you chose in question #28 above?

30. Have your parents encouraged you to enter any particular occupation?
Yes _____ No _____

31. If so, what occupation do they think is appropriate for you?

32. Do your parents want you to seek further education after high school?
Yes _____ No _____

33. If so, what type of school would they like you to attend?

_____a) technical training school

_____b) business school

_____c) nursing school

_____d) college or university

34. If your parents are encouraging you to attend a college or university, what type of degree would they like to see you obtain?

_____a) two-year associate degree

_____b) bachelor's degree

_____c) master's degree

_____d) professional degree

35. Do your parents encourage you to marry at some future point in your life? Yes _____ No _____

36. What age do your parents think is the ideal age at which to marry?

a)16-17___ b)18-19___ c)20-24___ d)25-29___ e)30 or over___

Appendix E

Reliability and Validity Coefficients for Dependent Measures in Within-School Analyses

	OAS Time 1	Ed Asp Time 1	Self-Report Time 1	OAS Time 2	Ed Asp Time 2
All-Girl School[a]					
Ed Asp Time 1	.44				
Self-Report Time 1	-.39	-.55			
OAS Time 2	.60	.36	-.33		
Ed Asp Time 2	.39	.71	-.51	.37	
Self-Report Time 2	-.34	-.45	.46	-.30	-.62
Coeducational School[b]					
Ed Asp Time 1	.53				
Self-Report Time 1	-.43	-.65			
OAS Time 2	.68	.50	-.38		
Ed Asp Time 2	.43	.68	-.46	.47	
Self-Report Time 2	-.32	-.39	.49	-.32	-.64

Transitional School

	OAS Time 1	Ed Asp Time 1	Self-Report Time 1	OAS Time 2	Ed Asp Time 2
Ed Asp Time 1	.27*				
Self-Report Time 1	-.23	-.62***			
OAS Time 2	.5***	.24*	-.05		
Ed Asp Time 2	.35**	.69***	-.40***	.46***	
Self-Report Time 2	-.33**	-.47***	.32*	-.41***	-.69***

a, b
All within-school correlations for the all-girl and coeducational schools are significant a $p < .001$ level.

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Appendix F

t-Tests Comparing Validity Coefficients of Dependent Measures[a]

School(s)	Time 1	Time 2
All-School Correlations		
OAS-SR--OAS-ED	10.432**	-8.92**
SR-OAS--SR-ED	4.89**	7.19**
ED-OAS--ED-SR	-24.53**	-24.389**
All-Girl School		
OAS-SR--OAS-ED	5.617**	4.046**
SR-OAS--SR-ED	-1.94	-3.668**
ED-OAS--ED-SR	-7.8**	-8.113**
Coeducational School		
OAS-SR--OAS-ED	8.575**	6.775**
SR-OAS--SR-ED	-4.109**	-5.495**
ED-OAS--ED-SR	-13.45**	-13.037**
Transitional School		
OAS-SR--OAS-ED	1.94	4.103**
SR-OAS--SR-ED	-2.7**	2.866**
ED-OAS--ED-SR	-4.92**	-7.482**

** $p < .01$

OAS - Occupational Aspiration Scale

ED - Educational Aspiration Measure

SR - Occupational Self-Report Measure