Differences among college types and among selectivity levels that may affect women's career aspirations were studied. Graduates of six women's colleges and nine coeducational colleges were compared for three levels of admission selectivity in relation to level of the organizational ladder being pursued, innovativeness of chosen career, and plans to pursue graduate or professional education. Questionnaires were sent to 2,224 female graduates of 15 small, private, liberal-arts colleges in the northeastern United States. An overall response rate of 53 percent was obtained. Analyses of variance indicate that there are no differences in aspiration level between graduates of women's colleges and coeducational colleges. For graduates of the two types of colleges, no differences were found in the level of the organizational ladder aspired to, plans to enter male-dominated careers, or plans to pursue graduate or professional education. Innovativeness of chosen career was found to be related to selectivity; the more selective the college, the more nontraditional the occupation selected. A bibliography is appended. (SW)
College Selectivity, Not College Type, Is Related to Graduate Women's Career Aspirations

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College Selectivity, Not College Type,
Is Related to Graduate Women's Career Aspirations

The aspirations and ambitions of women have been studied by assessing women's goals in three areas: the highest degree obtained/planned, the occupation entered/planned, and the traditional versus nontraditional nature of the chosen occupation. One researcher, Sutherland (1978) characterized females as unambitious when she found that twice as many university women as men expect to terminate their formal education with a bachelor's degree, 31 percent of females versus 48 percent of males plan to obtain a master's degree and 10 percent of women versus 23 percent of men intend to pursue three degrees. While more women than men reported that they had chosen an occupation, fewer women than men, 7.1 percent versus 37.9 percent, are planning to enter a profession (engineer, dentist, doctor, lawyer, architect, veterinarian, economist, accountant, clergy, psychologist). Recognizing that all the subjects may not attain their goals, Sutherland is; nevertheless, disturbed that women have such modest aspirations. Thus, she sought to identify variables to explain why women have such low ambition. In this search, two areas were considered: personality variables and monetary resources. Results of her investigation indicate: (1) male students are supported by their families on a grander scale than are female students although they often are the less able scholars, and (2) women were characterized as having lower levels of self-esteem and poorer adjustment than men.

The femininity of women's occupational aspirations was studied by Klemmack and Edwards (1973) who sought to relate the aforementioned dependent variable to family background, marriage and family plans. Femininity of occupational aspirations was found to be a direct function of ideal age at marriage and anticipated family size. Advanced dating status was positively related to more feminine aspirations while father's occupational prestige contributed to more masculine occupational aspirations. The size of the family of orientation and mother's em-
ployment were related to anticipated family size and, thus, indirectly and positively related to feminine occupational aspirations.

Turner, (1964) also studied women's career aspirations. He found that some women have goals which can be attained through pursuit of a career, others have occupational goals which are secondary to their other life goals, and some women have no goals regarding paid employment. In addition, certain goals of women can only be realized through the achievement of a husband; for example, wife of a corporate executive or wife of a renowned surgeon. He concluded that this variety of goals held by women makes their ambition a complex subject to study.

Nevertheless, a number of researchers have attempted to learn more about the topic. Some of them have concentrated on studying nontraditional versus traditional career oriented women (Greiner, 1980; Kahne, 1979; Lemkau, 1979; Moore & Richel, 1980; Tangri, 1972; Wood & Greenfell, 1978; Yuen, Tinsley & Tinsley, 1980). In Tangri's early study she found that the familial variables which best predict a woman's role innovativeness are her mother's employment outside the home and the innovativeness of the mother's occupation. However, personality-motivational factors were stronger predictors of role-innovation. Compared to women in traditional feminine professions, innovators are more autonomous, individualistic and internally motivated. They also have more doubts about their ability to succeed and their identity.

More recent studies by Greiner and Wood (1980) and Wood and Greenfell (1978) indicate that there are personality variables which differentiate between women in traditional versus nontraditional fields. They found that women in male jobs have a greater need to define success in instrumental terms; i.e., they see success as receiving recognition from others on the job, becoming an authority in their fields, achieving a high salary and obtaining a title of responsibility. No differences were found between the two groups in socio-expressive values. Somewhat surprisingly women in male fields were not more satisfied with their jobs although
they had achieved more. Women in traditional careers felt their work was more important and derived more satisfaction from their work related accomplishments.

Other researchers (Astin, 1977; Brown, 1979) used college type (coeducational women's) as a variable when studying women's career aspirations. Using data from the Cooperative Institutional Research Program conducted by the American Council on Education and the University of California at Los Angeles, Brown (1979) found that institutional variables (selectivity, size, public/private, coeducational/women's, sectarian/nonsectarian) have an impact on the career aspirations of college women when family background, individual attitudes and behavior, and previous career plans are controlled. She reported that overall, the effects on career plans and self-esteem are positive for highly selective women's colleges. Positive effects on women's career plans are also found for highly selective universities and relatively unselective nonsectarian coeducational colleges. Conversely, the effects on career plans and self-esteem are negative for large, public institutions with low selectivity.

Using the same data base as Brown, Astin (1977) concluded that women's colleges have a number of unique effects. First, they facilitate artistic interests and political liberalism. More important, women are more likely to attain positions of leadership, to become involved in student government, to develop high aspirations, and to persist to graduation" (p. 233).

Less clear cut support for the contention that women's colleges have a positive effect on career aspirations is found in the work of Oates and Williamson (1978). In a study of the achievement of women's college versus coeducational college graduates, they found that most women's college achievers come from a select group of colleges, the Seven Sisters. The researchers suggest that this may be more a function of socioeconomic level of the family of orientation than selectivity, although they acknowledge that selectivity is an important factor. When atypicality of career choice was used as a measure of aspirations, no differences between college types were found. Women from both college types enter the same limited number
occupational categories and are distributed among the categories in similar proportions.

The Problem

When women’s aspirations, defined by highest degree earned/planned or career planned/entered, are compared to men’s aspirations, women are found to have lower aspirations. Studies between groups of women have sometimes assumed that women in nontraditional careers have higher aspirations than women in traditional careers because male-dominated careers pay more and have higher prestige. Indeed, it has been found that for women in these fields, instrumental success is important but they, like their traditional sisters, consider socio-expressive values of consequence in their lives: Comparisons of women’s aspirations between college types (coeducational, women’s) indicate that college characteristics (size, selectivity, religious affiliation, public/private) modify the results. Some researchers have found that selectivity is directly related to achievement/aspirations. Others report that women’s college graduates have higher aspirations than their coeducational counterparts, but there is disagreement on this finding.

To date aspiration has been defined in three ways: (1) the highest degree planned/earned, (2) the career planned/entered, (3) traditionality of chosen career. No studies were found that assessed women’s aspirations by looking at the level of the traditional organizational ladder to which they aspired, although this is a conventional criterion of men’s aspirations.

It is the intent of this study to compare women’s college graduates and coeducational college graduates at three levels of college selectivity on the variable “career aspiration.” This variable is defined for separate analyses as: (1) level of the organizational ladder being pursued, (2) innovativeness of chosen career, and (3) plans to pursue graduate or professional education.
Method

Subjects

The subjects for the study are participants in a longitudinal study of differences in women's career salience with college type and college selectivity level serving as independent variables. The 1979 female graduates of fifteen, small, private, liberal arts colleges are the subjects. The institutions from which they come are located in the northeastern United States and are characterized by similar programs and costs. Although some of the colleges maintain their historical denominational affiliations, only those which operate as nondenominational institutions were included in the study.

Using Barron's Profiles of American Colleges (1973), women's colleges and coeducational colleges which fit the criteria stated above regarding size, type of college, type of program, geographic location, and cost were identified. Colleges of each type were then divided into three groups based upon their level of admission competitiveness (selective, very selective, highly selective) as defined by Barron.

Selective Colleges: Students from the top 50% of the high school graduating class, median SAT scores 450 to 550, median ACT scores of 21 to 23.

Very Selective Colleges: Students from the top 30% to 50% of the high school graduating class, median SAT scores 550 to 600, median ACT scores of 23 to 26.

Highly Selective Colleges: Students from the top 20% to 30% of the high school graduating class, median SAT scores 600 to 675, median ACT scores of 26 to 28.

Within each cell of the research design defined by college type and selectivity level the colleges which fit the criteria of the study were compared using Astin's (1965) five Estimated Freshman Input Factors and eight Scores on the Environmental Assessment Technique. This comparison was accomplished by graphing the T-score of each variable for each college being considered for the study on a grid designed by Astin. The three colleges that appeared to be most similar within each group were
chosen by the researcher to be solicited for participation in the study. Greater detail about the selection of the 18 preferred colleges for the study are contained in the 1977 report by Lentz.

Letters explaining the study were sent to the presidents of the chosen colleges. These were followed by telephone calls and interviews at 16 institutions. Fourteen of the sixteen colleges agreed to participate in the original study. In 1979 these colleges and the third very selective women's college originally selected for the study agreed to participate in subsequent studies. Rather than complete the research design with less similar, alternate colleges, the researcher opted for greater consistency and incomplete cells.

The distribution of colleges and subjects for the 1980 study, which occurred when the subjects were one year post-baccalaureate and upon which this study is based, is shown in Table 1.

Instrumentation

The questionnaire used in this research was developed by Shirley Angrist and modified by this researcher to meet the needs of post-baccalaureate women. Questions were divided into four categories: educational background, career plans, family influences, and parental background. Within the section on educational background, students responded to a question regarding their plans to continue their education by attending graduate school, professional school or other training within the next four years or at some future time. This question served as the dependent variable in one of the analyses.

Dependent variables for the other two analyses came from the section on career plans. Subjects were asked to respond to a direct question regarding their career aspirations:
As you contemplate your career, what are your aspirations?

1. to own your own business
2. to hold a top management position in a large company
3. to hold a top management position in a small company
4. to hold a middle management position
5. to hold a staff position
6. to do free-lance work (art, writing, consulting, etc.)
7. to not hold a paying job
8. other: _______________________

This question was based upon an organizational model of aspiration, but seemed appropriate since most jobs can be defined in such a way that they fit the model.

The third dependent variable used to determine whether there are differences in women's career aspirations between college types and among selectivity levels was "innovativeness of career choice." The sixty possible occupations students could select were divided into three categories depending upon the proportions of males and females in them. Those occupations with an overwhelming majority of males were defined as nontraditional for women. Occupations generally filled by women were categorized as traditional. Neutral occupations had fairly equal proportions of males and females.

Procedures

The collection of data was done by mail using updated address lists furnished by the fifteen colleges. Letters were sent to the 2,224 subjects explaining this phase of the longitudinal study, requesting participation, and telling them that they would be receiving questionnaires soon. Two weeks later the survey instrument, with a postage-paid return envelope, was mailed. Reminders were sent to nonrespondents at two to three week intervals. In the event the questionnaire was misplaced or lost in the mail, the second reminder included another copy of the questionnaire and a return envelope. An overall response rate of 53.0 percent was obtained.

Data Analysis

Separate analyses of variance were carried out using each dependent variable: aspiration level within the organization, plans to continue education and innovativeness of chosen career. In each case it was necessary to do two analyses of variance.
because of the empty cell in the research design. First, a two-way least squares-analysis of variance was used to compare coeducational and women's colleges at the selective and very selective admission levels. Then, a one-way least squares analysis of variance was done using the coeducational colleges at the three selectivity levels.

Results

Aspiration Defined by an Organizational Model

Table 2 shows the percentage of subjects aspiring to each level of the organizational model by college type and selectivity level. Almost all the women anticipate holding paying jobs (99.3 percent). However, the percentage of women aspiring to each step of the organizational ladder varies with the greatest differences between college types occurring at the level of middle management and staff positions. At the very selective level a greater percentage of women from coeducational colleges as opposed to women's colleges, aspire to middle management positions. At the selective level 26.9 percent of the graduates of coeducational colleges and 15.3 percent of the women's college graduates aspire to staff positions.

Observation of the data on women's college graduates' career aspirations indicate that there may be significant differences between selectivity levels. A larger percentage of selective college graduates aspire to middle management positions than do very selective college graduates. If we consider freelance work as being similar to owning one's own business, we detect another difference between the selectivity levels with 30.4 percent of very selective college graduates preferring to assume responsibility for the initiation of job opportunities and the execution of contracts while only 23.6 percent of selective college graduates aspire to this type of work.

Among coeducational colleges it appears that the aspiration level of selective college graduates is lower than that of women who graduated from colleges at the other selectivity levels. Graduates of highly selective and very selective colleges tend to favor having their own business or working in the upper echelons of management.
To test the significance of these differences between college types and among selectivity levels, analyses of variance were performed. Results indicate that there are no significant differences in mean scores of career aspiration between college types (women's, coeducational) or among selectivity levels. Also, there is no interaction between college type and selectivity level.

Aspiration Defined by "Innovativeness of Chosen Career"

Traditional versus nontraditional career choices have been used as career aspiration criteria in several studies. It has been assumed that the choosing of a traditional male career by a woman indicates she has high aspirations since male careers tend to pay better and accord the individual greater prestige than does a traditional female career. "Innovativeness of chosen career" was used as the dependent variable in analyses of variance to determine whether there are differences between college types and among college selectivity levels in women's career aspirations.

Results of the two-way analysis of variance indicate there are no differences between college types on this factor. However, a significant difference among selectivity levels was found, $F(1,913) = 24.819, p < .001$.

A one-way analysis of variance among selectivity levels of the coeducational colleges indicates a significant relationship between role innovativeness and selectivity level of the college attended, $F(2,739) = 14.175, p < .001$. The higher the selectivity level of the college, the greater the role innovativeness of its women graduates.

Pairwise comparisons were made using Scheffe's S method to pinpoint the differences among selectivity levels on "innovativeness of chosen career". The results show that graduates of selective coeducational colleges are significantly, $p < .01$, less role innovative than graduates of either very selective or highly selective coeducational colleges.
Aspiration Defined by Pursuit of Post-Baccalaureate Education

A third criterion which has been used to assess women's career aspirations is the highest anticipated educational level (degree) since that aspiration is often tied to career choice; more education is generally required for the traditional male professions. While the subjects of this study had not been asked to declare the highest degree they wished to obtain, they had been requested to indicate their intentions concerning the continuation of their education; i.e., whether they planned to attend graduate or professional school or obtain other training within the next four years or further in the future.

Using intentions to pursue post-baccalaureate education as the dependent variable, analyses of variance were carried out to check for differences between college types and among selectivity levels on women's career aspirations. No differences were found either between college types or among selectivity levels.

Discussion

This study attempted to determine whether there are differences between college types in the career aspirations of their graduates. No differences were found on any of the dependent variables—level of the organizational ladder aspired to, plans to enter male-dominated careers, plans to pursue graduate or professional education.

The results regarding plans to enter male-dominated careers tend to support the findings of Oates and Williamson (1978) who found that the types of occupations engaged in by women from the two college types are similar. In addition, they found women from the two college types distributed among the limited number of occupational categories in similar proportions.

The results are not consistent with those of Astin (1977) and Brown (1979) who defined high aspirations as desire to obtain advanced degrees (M.A., Ph.D.). This may be due to the fact that specific information on highest degree desired was not available and pursuit of graduate or professional education immediately or at some time in the future or not at all was used as the dependent variable. The
researcher recommends that in later phases of this longitudinal study the variable of highest degree planned/earned be used as a factor in comparing college types.

Most surprising, considering the claims that women's colleges encourage women's leadership abilities and the reports that our talented women can be found in these institutions (Tidball, 1974), is the finding that there are no differences between college types on the level of the organizational ladder to which women in the two types of colleges aspire. How can this result be explained? Moore and Richel (1980) suggest that women's socialization is maladaptive when the needs of the organization are considered. Women are not socialized to operate in instrumental ways. However, instrumental values seem to be receiving more support from entering college women (Astin, 1982) and we may begin to see some changes in this area as these women enter the labor force in the next ten years.

Other researchers suggest that now that there is partial integration of most jobs, women may not want those much coveted male jobs. They found that feminists in segregated companies expressed a strong desire for promotions, but once partial integration was achieved, they were more satisfied with the status quo and their aspirations for upward mobility were lowered. Several possible explanations are offered: (1) women may seriously consider the negative consequences of upward mobility (longer hours, more responsibility), (2) a sense of vicarious achievement may be felt when there are women in the organization who have "made it," and (3) an occupation becomes less prestigious when women are accepted.

The second aspect of this study dealt with differences in the aspiration levels of women among college selectivity levels. While selectivity of the college attended was unrelated to two of the dependent variables, there is a relationship between college selectivity level and the innovativeness of women's chosen careers. The more selective the college, the more innovative are the career choices of the women graduates. This raises several interesting questions for further research. Why are women in the more selective colleges more likely to pursue nontraditional careers? Is the climate of the college more open and accepting of students as individuals?
who should pursue their interests and maximize their potential irrespective of
their sex? Is women's self-esteem, which may partly reflect their achievement,
higher in these colleges permitting them to step out of their traditional roles?

Finally, I propose that we rethink what we mean when we talk about aspirations.
Are aspirations related to success? If so, how? How can aspirations be operation-
ally defined? Can we use a unitary measure of this variable or is a multivariate
measure more appropriate? If a multivariate measure appears to be the way to go,
what variables might be suggested for inclusion in analyses?

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Table 1
Distribution of Colleges and Subjects

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<th>Subjects</th>
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<tr>
<td><strong>Women's Colleges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Selective</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Very Selective</td>
<td>3</td>
<td>282</td>
</tr>
<tr>
<td>Selective</td>
<td>3</td>
<td>148</td>
</tr>
<tr>
<td><strong>Coeducational Colleges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highly Selective</td>
<td>3</td>
<td>251</td>
</tr>
<tr>
<td>Very Selective</td>
<td>3</td>
<td>252</td>
</tr>
<tr>
<td>Selective</td>
<td>3</td>
<td>233</td>
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</table>
Table 2

Percentage of Women Aspiring to Each Career Level by College Type and Selectivity

<table>
<thead>
<tr>
<th></th>
<th>Women's Colleges</th>
<th>Coeducational Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VS</td>
<td>S</td>
</tr>
<tr>
<td>Have own business</td>
<td>16.3</td>
<td>12.5</td>
</tr>
<tr>
<td>Top management position in large company</td>
<td>15.5</td>
<td>13.9</td>
</tr>
<tr>
<td>Top management position in small company</td>
<td>10.7</td>
<td>12.5</td>
</tr>
<tr>
<td>Middle management position</td>
<td>16.7</td>
<td>25.0</td>
</tr>
<tr>
<td>Staff position</td>
<td>17.8</td>
<td>15.3</td>
</tr>
<tr>
<td>Freelance work</td>
<td>14.1</td>
<td>11.1</td>
</tr>
<tr>
<td>No paying job</td>
<td>0.7</td>
<td>--</td>
</tr>
<tr>
<td>Other</td>
<td>8.1</td>
<td>9.7</td>
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</table>