To determine the relationship between the sex of the applicant and the score received on the State Future Farmers of America (FFA) degree application, a descriptive study was conducted involving sixty-eight production agriculture teachers in Ohio during the 1979-80 school year. In addition, demographic information regarding the teachers was gathered to study the relationship between application scores and these selected variables: (1) teacher age, (2) number of years teaching experience, (3) number of female students currently enrolled in the production agriculture class, and (4) geographic location in Ohio. The 1979-80 Production Agriculture State FFA degree application was the instrument used for the study. A set of three sample degree applications to be scored and ranked was developed. One group of teachers received a packet with one application with a female name and two with male names; the second group received the same applications with the student name changed to one of the opposite sex. Study findings indicated that production agriculture teachers do not demonstrate sex stereotyping when evaluating male and female State FFA degree applications. There was a negligible correlation between the selected variables and application scores. (YLB)
SEX BIAS AND TEACHER EVALUATION OF STATE FFA DEGREE APPLICATIONS

by

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RESEARCH QUESTIONS

Sex role stereotyping has been a subtly accepted fact for years in American society (Guttentag, Bray, et al., 1976) and sex bias attitudes are not necessarily changed by the passage of a federal act. Most persons are aware of the ideal of equity for men and women, but are bound by stereotypes concerning the sexes. Title IX and Title II of the Education Amendments of 1972 and 1976 have identified vocational education as a major change agent for eliminating sex stereotyped behaviors and attitudes in students. Teachers play a tremendous socializing role in American culture and they are a key to changing student concepts regarding sex role expectations (Kaplan, 1975, Matthews and McCune, 1975, Ricks and Pyke, 1973). Because teachers can be such a vital force in breaking the cycle of sex stereotyping in education, a real danger exists of teachers actually increasing and/or perpetuating the stereotypic attitudes of students. Ricks and Pyke (1973) reported the perceptions and attitudes of teachers towards sex roles are traditional and presumably contribute to maintaining restrictive sex role expectations. The sex bias behavior of teachers could be a critical factor in the achievement and performance of female students when competing for awards in traditionally male youth organizations such as the FFA. Although several attitudinal studies have been conducted in recent years to determine the degree of sex bias among
various groups of people (Broverman, Rosencrantz, et al., 1970), little research has been conducted identifying the possibility of sex stereotyping and sex bias among production agriculture teachers, particularly in an unobtrusive manner. The primary purpose of this research was to study an aspect of possible sex bias behavior among production agriculture teachers by analyzing their evaluation of student achievement and performance as measured by the State FFA degree application.

To determine the relationship between the sex of the applicant and the score they receive on the State FFA degree application, a descriptive study was conducted involving 68 production agriculture teachers in Ohio during the 1979-80 school year. In addition, demographic information regarding the teachers was gathered to study the relationship between selected variables and application scores. The study was designed to answer the following questions:

(1) Is there a relationship between the sex of the applicant and the score they receive on the State FFA degree application?

(2) Is there a relationship between application scores and (a) teacher age, (b) number of years teaching experience, (c) the number of female students currently enrolled in the production agriculture class, and (d) geographic location in Ohio?

**METHODOLOGY**

The 340 production agriculture teachers in Ohio during the 1979-80 school year were the target population for the study.
To develop a frame, production agriculture teachers were identified by using the 1979-80 Ohio Agricultural Education Directory. A random sample stratified across the state was used for subject selection. The 68 members of the sample represented 20 percent of the target population. The 1979-80 Production Agriculture State FFA degree application was the instrument used for the study. The investigator developed a set of three sample degree applications to be scored and ranked by the teachers. The 68 teachers were divided into two groups of equal size. One group received a packet with one application with a female name and two applications with male names. The other group of teachers received the same three applications, except the name of the student on each application was changed to the opposite sex. All other sections of the applications other than the name of the applicant were identical. In other words, Application 1 for one group of teachers was a male student while Application 1 was a female student for the other group of teachers. The instructors scored and ranked the three applications during a three week period. Applications were collected at district meetings and returned to the investigator by the state supervisors of vocational agriculture. The data were analyzed using the Statistical Package for the Social Sciences (SPSS, Nie, et al., 1975) computer program and the facilities at Ohio State University. The SPSS computer analysis resulted in the computation of means, medians, and standard deviations for the scores on the applications. To determine the relationship between the sex of the applicant and the score they received on
the State FFA degree application, results were analyzed using a t test and Pearson Product Moment and point biserial correlations.

RESULTS

Forty-four teachers returned their applications by the established cut-off date. The rate of return was 64.7 percent. Of the 141 applications returned, nine were discarded before analysis due to incomplete data. This produced a data sample of 132 applications. After comparing the descriptive data and information from the state supervisors of vocational agriculture, the investigator concluded that there was not an appreciable difference between the respondents and non-respondents. The responding teachers ranged in age from 22 years to 60 years, with the mean age of the sample being 34 years. Eight years was the median number of years teaching experience for the sample.

Eighty percent of the production agriculture programs had one or more females enrolled during the 1979-80 school year. Responding teachers represented all sections of Ohio.

Of the 132 usable applications, 67 had male student names and 65 had female student names. The mean score for the male applications was 72.6 and the mean score for the female applications was 73.3. The maximum score for any application was 90. As illustrated in Table 1, the difference between the two means was not statistically significant at an alpha level of .05. In addition, the Pearson Product Moment Correlation coefficient designated a negligible correlation between the sex of the applicant and the score they received on the State FFA degree application.
TABLE 1

CORRELATION OF MALE AND FEMALE APPLICATION SCORES

<table>
<thead>
<tr>
<th>Applications</th>
<th>No. of Applications</th>
<th>$\bar{x}$</th>
<th>SD.</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>67</td>
<td>72.6</td>
<td>7.6</td>
<td>.04</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>73.3</td>
<td>6.7</td>
<td></td>
</tr>
</tbody>
</table>

Notes. n = 132. t = -.50.

Correlation of demographic data and application scores revealed that there was a negligible correlation between the variables of teacher age, teaching experience, the number of females enrolled in the production agriculture program, geographic location, and application scores. As shown in Table 2 the variables tended to be independent of application scores.

TABLE 2

CORRELATION OF DEMOGRAPHIC VARIABLES AND APPLICATION SCORES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation with Application Scores</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>.07</td>
</tr>
<tr>
<td>Years Experience</td>
<td></td>
<td>.13</td>
</tr>
<tr>
<td>Females Enrolled</td>
<td></td>
<td>.01</td>
</tr>
<tr>
<td>Geographic Location</td>
<td></td>
<td>.08</td>
</tr>
</tbody>
</table>

Note. n = 132.

Ninety percent of the teachers ranked one of the applications third. Whereas, two-thirds of the sample placed one of the other applications first.
CONCLUSIONS AND IMPLICATIONS

The negative aspects of sex bias and sex stereotyping can be over emphasized. Many times assumptions are made that persons will automatically exhibit sex bias behavior in given situations. The findings of the study indicate that production agriculture teachers do not demonstrate sex stereotyping when evaluating male and female State FFA degree applications. Apparently the teachers are more concerned with the quality of the program of the applicant than with the particular sex of the student. Positive findings such as these illustrate that production agriculture teachers are not necessarily directed by restrictive sex role expectations and attitudes.

The results of the study revealed a high ranking consistency among production agriculture teachers when evaluating State FFA degree applications. This consistency is likely due to the detailed scoring guidelines that have been developed by the Ohio FFA Association for the State FFA degree applications. These guidelines appear to encourage and promote consistent ranking and objective evaluation of student performance and achievement, regardless of sex. Adoption of these guidelines has insured equity for all applicants of the State FFA degree.

To obtain additional information the following studies are recommended:

1. Research involving teachers with male students in traditionally female vocational programs should be conducted as a parallel study to this research.

2. Other methods of identifying sex bias among production
agriculture teachers should be administered. Findings from such research could then be compared with data from the present study.

(3) Replications conducted in other states would provide additional verification of the findings of this study.

(4) Research involving other taxonomies in vocational agriculture which have traditionally been for males should be conducted. These studies would provide a comparison for the current research.
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