The Committee on the Role and Status of Women within the American Educational Research Association (AERA) decided to send a series of questionnaires to universities, school districts, state departments of education, and major research and development organizations in order to analyze the respective roles and statuses of men and women within AERA. The purpose of these questionnaires was to determine (a) the relative position and status of women as students in doctoral programs in education; (b) the status of women on the faculties of institutions which train educational researchers; and (c) the status of women as employees in research organizations, local school districts, and state education departments. It was found that women consistently fall in the lower job ranks as determined by responsibility and salary. Even in job categories at the lower end of the rankings, women were paid less than their male counterparts. It was also found that most employers of educational researchers have adopted affirmative action plans, but that a discrepancy exists between adoption and implementation of these plans. While it was found that maternity leave plans are generally available, very few paternity leave plans exist—constituting further evidence of sexually discriminatory practices. Finally, it was noted that heavy reliance exists among friends and colleagues in universities or other research organizations for the recruiting of personnel, which is discriminatory since equal access cannot be guaranteed with such measures. (PB)
WOMEN IN EDUCATIONAL RESEARCH: THEIR STATUS FROM STUDENT TO EMPLOYEE

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A Committee on the Role and Status of Women within the American Educational Research Association was approved by its Council in 1973. The Committee, chaired by Dr. Carol Tittle, was formed in the spring of 1974 and planning for an analysis of the respective roles and statuses of men and women within AERA began. This paper will report the results of one part of that Committee's work.

Over the last two decades, women have become increasingly more prevalent as students in doctoral programs, as faculty members in schools of education, and as researchers in a variety of organizational settings. In order to understand the significance of these trends, the Committee decided to send a series of questionnaires to universities, school districts, state departments of education, and major R & D organizations. The purpose of these questionnaires was to determine the relative position and status of women as students in doctoral programs in education, the status of women on the faculties of institutions which train educational researchers, and the status of women as employees in R & D and research organizations, local school districts, and state education departments. Position and status were defined in terms of job classification, salary level, and job-related responsibilities for women as employees, and in terms of financial support, enrollment, and doctorates granted for women as students.

A number of other professional associations have undertaken similar surveys (e.g., American Psychological Association, 1972; American Sociological Association, 1973; American Economic Association, 1974), and a number of studies examining possible discrimination in graduate schools and in the employment of doctorates have recently entered the literature (Solomon, 1973, 1974;
Contra, 1974; Holmstrom and Holmstrom, 1974; Malkiel and Malkiel, 1973). Most of these studies reveal little, if any, evidence of discriminatory practices either in favor of or against women as graduate students, i.e., most male and female students received proportionally the same number of fellowships, scholarships, teaching, and research assistantships, and found faculty members who would take a serious interest in their work. The discrimination which does become evident in this literature is in salary and rank once these students are employed. Differentials in salary and rank between men and women become greater in the upper ranks of the profession. Men hold the senior research and administrative positions more frequently than women, and salary differentials, approximately $2,500 in median annual income with five to six years of experience, increase with number of years of experience to $4,600 in median annual income with 22-23 years of experience. (Centra, 1974)

In order to determine whether these relationships hold for AERA's membership, the Committee on the Role and Status of Women conducted a survey by mail. A survey list of 144 colleges and universities with doctoral programs in education was obtained from the publication, *Earned Degrees Conferred 1970-71* (Washington, D.C.: National Center for Educational Statistics). A sample of 189 school districts in the country was drawn from the listing of school districts ranked by size of student population in the *Education Directory: Elementary and Secondary Education, 1973-74*, Public Schools Systems DHEW (OE) 74-117101. All districts with student populations of 25,000 or above received a questionnaire. Questionnaires were sent to each of the fifty state education departments and the education departments in six territories. The sample of research and development organizations
employing educational researchers was developed from the National Institute of Education's list of R & D labs and centers and by searching the addresses of members of AFRA given in the 1971-72 Directory. A total of 448 questionnaires were mailed: 144 to colleges and universities, 189 to school districts, 56 to state departments of education, and 59 to R and D organizations. Sixty-nine (or 51\%) of the universities responded with completed or partially completed questionnaires. Eighty-four (or 44\%) of the school districts returned completed questionnaires, thirty (or 54\%) of the state departments submitted final returns, and twenty-five (or 42\%) of the R and D organizations replied.

As is usual with mail surveys, the data which follow arc based on incomplete returns, but they nevertheless provide information which substantiates that found in most professional fields, i.e., that dispersion and participation in the discipline differ markedly for men and women. The results of this study are based on self reports by institutions and may, therefore, be somewhat biased.

STUDENT QUESTIONNAIRES.

Sixty-nine of the colleges and universities with doctoral programs in education responded with completed or partially completed questionnaires. The data which follow are based on less than 69 institutions in many cases, since respondents frequently did not have the data available to answer several major questions. The number of full time and part time students often were not available by sex. Similarly, data on males and females as applicants to an institution, as accepted students, and as enrolled students were not available. Followup data on placement of new doctorates in various types of employment were also not available for many institutions.

The questionnaires were usually completed by the dean or the department
chairman, and the unit of analysis was either the entire graduate school or the department of education.

Women are underrepresented as graduate students in those institutions surveyed. Thirty-one of thirty-nine institutions report a higher ratio of men to women in their doctoral programs. In terms of absolute numbers reported, forty-three percent of all doctoral students in education are women. These figures seem favorable when compared with data on women doctoral recipients over all fields: for example, in 1971 85.6% of the doctorates granted were awarded to men, 14.4% to women (Solomon, 1973). Nevertheless, given the potential bias involved in this study, it is possible that the overall ratio of male to female students reported herein is inflated.

Three questions in the questionnaire dealt with age and marital status as critical variables in the admission and recruitment process. Almost all institutions reported no age limit for admission to graduate study, and all stated that marital status was not a criterion in admission. These responses were further illuminated, however, when the respondent was asked to rank students most and least likely to succeed in the completion of a four year doctoral program. The rankings most likely to complete such a program were: married males, single females, married males with children, married females, and married females with children. For this group, married females with or without children are considered least likely to complete a doctoral program in four years.

Sixty-seven of the 69 respondents indicated that no attention was paid to sex in recruitment activities. When asked about financial aid, over half of the respondents (40 of the 69) indicated that financial aid is restricted to full time students, but that marital status and/or parenthood do not disqualify students for financial aid (59 of the 69). Unfortunately, married women
with children are more frequently part-time students than are married men with children.

The number of doctorates awarded to education students in the 1972–73 and 1973–74 academic years were reported by 50 institutions. The mean number of doctorates awarded by an institution to males in 1972–73 was 38 compared to 15 for females, and the average number of doctorates awarded in 1973–74 for males was 36 and for females 17. While we do not have figures on attrition, it would appear that more females than males do not complete the doctoral program -- that is, if one can trust the rather high enrollment figures reported earlier.

Most of these graduates were reported to have taken positions in either a college or university or in a school system with approximately the same frequency for men and women in these job categories.

In brief, most institutions do not report discriminatory practices in their admission or recruitment processes. Nevertheless, fewer women than men enroll in these programs, once enrolled they qualify equally for financial aid -- unless, of course, they are part-time students -- and only about 30% education doctorates are awarded to women annually. Thus, the female education doctorate labor pool will be, by definition, smaller than the male.

FACULTY QUESTIONNAIRES

Both the student and the faculty questionnaires were sent to the same 144 colleges and universities around the country. Again, sixty-nine of those institutions responded with completed or partially completed questionnaires.

The number and percentage of men and women holding full-time positions by rank were examined. Fifty-five percent of the instructors were
women and forty-five percent were men. A noticeable shift in the opposite direction occurs at the next rank of professorial standing. Sixty-seven percent of the assistant professors were reported as men and thirty-three percent as women. The dispersion in favor of males become even more noticeable at the associate and full professor levels. Eighty-two percent of the associate professors and eighty-eight percent of the full professors are men.

Mean salary differences between males and females are not large since most universities adhere to a public salary schedule. Salary differences may occur between males and females at the point of initial negotiation with a university on rank and salary. These data were not controlled for these factors, however, and hence nothing can be said in this regard. According to our data, women receive approximately $1,000 less than men at most professorial levels.

Tenure rankings are more revealing than are salary differentials. Only eleven percent of the entire faculty sample were tenured women as compared to fifty percent of tenured men. As would be expected, most of the tenured faculty are found in the upper ranks of professorial standing and since few women are found in these ranks, few women hold tenured positions.

Sixty-three of the 69 respondents indicate that their university has adopted an affirmative action plan. Fifty-three of the 69 responding institutions have adopted a maternity leave plan without loss of benefits or position while only six of the 69 have adopted a comparable paternity leave plan.

Recruitment of men and women to university faculty is done in exactly the same way according to most of the institutions in the sample. Faculties rely most heavily for recruitment upon their friends and colleagues in other institutions.
Second in importance for recruitment purposes are the job advertisements posted in graduate schools, followed by the placement service at professional meetings, and lastly, placement offices at universities, The Chronicle of Higher Education, and applicant letters of inquiry. Again this appears to be a domain where practices are not patently discriminatory; their results, however, would appear to be.

In summary, twenty-four percent of all faculty members in schools of education are women. They make $1,000 a year less than their male counterparts, and they move up the faculty ranks and earn full professorial standing with tenure far less frequently than do their male colleagues.

SCHOOL DISTRICTS

Eighty-four of the 189 school districts in the sample returned completed questionnaires -- 17 were received from districts with a student population of 100,000 or more, 33 from districts with a student population of 50,000 to 99,999 and 36 from districts with a student population of 25,000 to 49,999. Most of the individuals who completed the questionnaires for the school districts held positions with administrative authority within school district research and development offices.

A series of six job categories defined according to rank of job title and magnitude of an accompanying salary were constructed from the responses to these questionnaires. These categories were used throughout the analysis of all organizations employing educational researchers -- state education departments, local school districts, and federally or privately supported research organizations. Even though job titles and salary ranges vary by the type of organization analyzed, a hierarchical commonality appears across these organizations, and hence the categories were consistently applied throughout.
The coding of the six categories used the title and salary of the chief administrator in research and development offices as a baseline. Titles and salaries most clearly indicating chief management responsibility were ranked "1." The categories which fell below "1" in the hierarchy were established by comparing salary differences and implicit rank differences between the "1" position and the next.

Seventeen percent of the districts report women holding top administrative positions within their research and development offices. This contrasts with fifty-three percent of the districts which report women in a low level staff assistantship position. In either extreme, women are paid less than their male colleagues — approximately $3,500 less at the upper rankings of authority and responsibility and $2,000 in a staff assistantship position.

The hypothesis that women are found more frequently than men in the lower ranking positions in a R & D or evaluation office in a school district was substantiated for our sample of school districts. In each category, women's salaries fell within a lower range than did the men's. While the median differences in salaries between men and women were not great within most categories, these figures have not been controlled for longevity within position and therefore caution must be used in interpreting their significance.

Approximately 60 percent of all school districts have adopted an affirmative action plan, and while all the districts have adopted a maternity leave plan without loss of benefits, less than half (31%) of the districts report a paternity leave program.

Most districts report that males and females are recruited into new positions through the same channels. Listed most frequently as sources for new personnel were friends or colleagues, university placement offices, and
ads posted in graduate schools.

STATE DEPARTMENTS OF EDUCATION

Twelve states returned blank questionnaires or letters marked not applicable. The response rate for the state departments was 73%, but the effective sample because of the nonapplicability was 51%. (28 states and 2 territories) of the 56 questionnaires sent to state departments of education.

Fifteen percent of the state departments of education report women holding top administrative positions within their research and evaluation offices. This contrasts with eighty-five percent of the departments which list women in a low level staff assistantship position.

In most states, women are in low rather than high status jobs in terms of salary and job titles. There is only one state in which a female educational researcher held the highest job status category, compared to 22 (81%) where men were exclusive holders of the highest status and salary reported for educational researchers. In terms of absolute numbers, males are consistently found in higher status job categories, with 85% of the top job status category male and 15% female. This ratio is exactly inverted for the lowest category. Over all job categories, there are three males employed in SED's for every female (326 males and 158 females).

Salary data reported are consistent with that found in most comparisons: women tend to receive lower salaries over all categories, and lower salaries within the same job titles.

Ninety percent (27) of the state departments of education indicated their department had adopted an affirmative action plan. Maternity leave policies (without loss of status and benefits) are generally available for women. However,
these policies do not apply equally to males; only five SEI's indicated that paternity leave policies are available for men.

Friends or colleagues in universities are still the source considered most useful by SEI's. The states show some reliance on state personnel and civil service offices. But the use of friends or colleagues and placement offices, as major sources of recruitment mean that affirmative action policies are probably not as effective as one might wish.

R & D ORGANIZATIONS

Of the 50 questionnaires mailed (20 R & D labs and centers, 39 other research organizations), replies, questionnaires or letters, were received from 35 organizations (54%). Ten organizations stated they were not in educational research, did not have adequate staff to provide salary data, or that salary data were not available because of company policy, and thus were not included in the analysis. The data which follow are based on the questionnaires completed by 25 R & D organizations (42% of the original mailing).

The data on number of males and females in the various job categories used for analysis present a consistent picture of lower status and salaries for females as compared to male employees within R & D organizations. There were seven R & D organizations with males only in the highest administrative or responsible research position; conversely, at the bottom of the job status categories, there were five R & D organizations with females only in these positions.
In terms of absolute numbers, there are 914 male (60\%) and 617 female (40\%) employees in the R & D organizations in the sample. The proportions of males and females within the job status categories do not reflect the overall 60-40 ratio, however. The percent of males in the highest job status category is 88\% and the percent of females is only 12\%. There is a consistent decrease in the percent of males within categories, to a low of 19\% for staff assistant positions and a corresponding increase in percent of females to a high of 81\% in the same job.

Similarly, salary data are unfavorable for women when compared with men. With only one exception, the median salaries reported for males within categories are higher than those for females.

Twenty-one of the organizations (84\%) stated their organization had adopted an affirmative action plan. Maternity leave policies are typically available for women. However, these policies do not apply equally to males.

The four most useful sources for recruitment are friends and colleagues in universities, circulation of notices to major graduate schools of education, placement offices and placement services at professional meetings. These sources of recruiting did not differ for males and females. The major thrust of affirmative action policies is to provide wider sources of recruitment, and yet these do not appear to be useful. The Educational Researcher, the one publication received by every AERA member, is rarely used by major employers of R & D personnel.

To summarize the data we received from school districts, state departments of education, and major R & D centers, women consistently fall in the lower job rank as determined by responsibility and by salary. Even within job
categories including those at the lower end of the rankings, women were paid less than their male counterparts.

Most employers of educational researchers have adopted affirmative action plans, and yet the discrepancy between the adoption of these plans and acting upon their intent is more than academic in each instance. It is interesting to note that only 60% of the local school districts have adopted such plans. This is a slight aberration caused by a void in state and federal requirements. Except in those instances where a particular categorical aid program requires affirmative action plans, local school districts have been exempt to date from such requirements.

Maternity leave policies without the adoption of concomitant paternity leave plans is further evidence of sexually discriminatory practices. These are policies which have not been established without regard to sex and hence could be subject to law suits in which sex is a suspect category. Claims of reverse discrimination on behalf of men are equally valid, of course.

The heavy reliance upon friends and colleagues in universities or other research organizations for the recruitment of personnel is also patently discriminatory for one cannot guarantee equal access with these measures. Given that most of the graduates of doctoral programs in education are men, recruitment practices should be based on techniques which assure the prospective employer of a fair number of qualified female candidates for each position for which they recruit. Roster systems, the public listing of all positions in journals which educational researchers read, and aggressive searches for women and minority candidates ought to become common practice for all employers of educational researchers.
Women are in the minority in representation and in status in the educational research community -- a major irony when one considers that 60% of all those engaged in the 75 billion dollar business called education are women. Even granted the inadequacies of survey research, the position of women in this field is resoundingly low.
References


