DOCUMENT RESUME

ED 114 937 EA 007 678

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TITLE Discrimination Against Women in Educational Administration.

PUB DATE Dec 73

NOTE 56p.; Paper presented at the meeting of the National Association of Women Deans, Administrators, and Counselors (Chicago, Illinois, April 1974)

EDRS PRICE MF-$0.76 HC-$3.32 Plus Postage

DESCRIPTORS *Administrative Personnel; College Admission; Counselor Role; Elementary Secondary Education; *Employment Practices; Employment Qualifications; *Equal Opportunities (Jobs); *Higher Education; Professional Associations; Recruitment; Selection; *Sex Discrimination; Sex Stereotypes; Tenure; Working Women

ABSTRACT

This review focuses on women in educational administration as compared with men in the same field. The author recognizes sex discrimination as a historical fact and begins by discussing some of the current psychological effects of cultural conditioning. She then examines the role of the counselor dealing with high school seniors who express an interest in executive and organizational activities. Finally, she turns to the problems women have encountered in seeking admission to college, in obtaining financial aid, and, after earning one or more advanced degrees, in confronting employment conditions relating to recruitment, promotions, salary increases, and tenure. Extensive recommendations and documentation are included. (Author/IRT)

Discrimination Against Women in Educational Administration[1]

by

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December, 1973

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[1] The author wishes to thank Dr. Eugene Lawler, Emeritus Professor, Educational Administration, Southern Illinois University, Carbondale, and Helen Lawler for helpful editorial suggestions.

1973 Ruth Strang Research Award, NAWDAC.

Paper presented at the meeting of the National Association of Women Deans, Administrators, and Counselors, Chicago, 1974.

Discrimination Against Women in Educational Administration[1]

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Abstract

Although, nationally, women constituted 67% of the public education teaching profession, only 16% of the administrative positions in public education were occupied by women. The reason for this underutilization was obviously not one of entry into the profession, but of differential advancement for women and men within the ranks at all levels. Women in top administrative posts were practically non-existent. There definitely existed a lack of congruence between the positive attitudes expressed by male administrators who did most of the hiring with the infinitesimally small number, or complete absence, of women hired. Women were not proportionally represented in terms of their availability. The root of the problem was all-pervasive as differential treatment occurred at every developmental stage.

[1] The author wishes to thank Dr. Eugene Lawler, Emeritus Professor, Educational Administration, Southern Illinois University, Carbondale, and Helen Lawler for helpful editorial suggestions.

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Discrimination Against Women in Educational Administration[1]

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Many facets of sex discrimination had been documented throughout the nation; for example, women in educational administration, executive, and professional positions were the last to be recognized under Title VII of the Civil Rights Act of 1964 (effective March 22, 1972) and the Equal Pay Act (effective July 1, 1972) under the Fair Labor Standards Act.

This review has focused on women in educational administration as compared with men. The author recognized sex discrimination as an historical fact and began by discussing some of the current psychological effects of cultural conditioning, followed by examining the counselor role with high school seniors who expressed an interest in executive and organizational activities; eventually turning to those problems that were encountered in admissions to college, in obtaining financial aid if single or married while pursuing the degree; and, finally, after earning one or more advanced degrees, employment conditions relating to recruitment, promotions, salary increases, tenure, and trends for the future.

Psychological Effects

The roots of cultural conditioning, in which sex discrimination had its beginnings, were recorded in other books in which women and, more recently, the law were given fuller treatment (Rawalt, 1973; Women's Rights Law Reporter, 1972, 1972/73, 1973; Hughes, 1970, 1971). Attitudes toward the sexes (such as preconceived stereotyped roles designated for women and men) were also augmented in the home during the preschool years and, later, in the schools (National Organization for Women, 1972a; Macleod & Silverman, 1973; Adamsky & Kaspar, In process textbook survey) and the media (National Organization for Women, 1972b). The

effects of cultural conditioning manifested themselves in many ways. This discussion was limited to education and examples from the literature follow.

Sandler (1972) stated that women students found isolation to be among the most difficult forms of discrimination with which to deal and that the classroom was frequently used to ridicule women and to remind them that they were merely sex objects. She found that counselors-in-training of both sexes urged women to enter education rather than such fields as engineering. Statements like the following were made to women clients (Sandler, 1972, p. 10): "Would your husband resent your being an engineer?"; "Engineering is very technical."; and "You normally think of this as a man's field."

Women who encountered sex discrimination in the field of Business Administration were interviewed. One single woman, who had worked full time for more than 20 years as an executive secretary and administrative assistant, said, "A man of less intelligence and training will be put in an office management position by most nationally known companies rather than a woman" (Katz, 1970, p. 88). Another woman with a master's in business administration expressed herself this way:

> Discrimination has been mostly subtle, not necessarily written policy, ranging from meetings planned in men-only clubs to delegating heavy responsibility without appropriate status and authority . . . I would like to add that, in general, I have overcome these obstacles but it is always something that had to be overcome. . . There was, instantly, opposition to hiring me for my present job by the men at other campuses. They thought it would hurt their image to have a woman planner (Katz, 1970, p. 88).

Others argued that much of discrimination was unconscious; but nonetheless, it was still pernicious if it limited human growth, happiness, and contribution to society (Thompson, 1973). For example, in the study conducted by the Johnson O'Connor Company of Boston who, since 1922 had administered aptitude tests to 330,000 persons who wondered what careers they should pursue, the findings showed underutilization because (1) women were more likely than men, by a factor of 3:2, to have ability to grasp ideas and theories, the touchstone of the successful executive; (2) men outnumbered women, by a factor of 2:1, at the top echelons of big business in the ability for three-dimensional visualization, important in the physical sciences, medicine, architecture, city planning, and engineering; and (3) women's presence in these professions was below what their aptitudes indicated (Thompson, 1973).

Preferences of High School Seniors

Who will go to college and into educational administration? People in educational administration have varied backgrounds and many had reached that goal by means other than the direct route of entering a program called Educational or Business Administration. What types of students ought to be encouraged? Certainly those who expressed an interest and, in addition, had the ability to acquire the competencies required.

In a survey conducted by Cross (1972) for the Comparative Guidance and Placement Program (CGP) of the College Board, high school seniors with high and low "A" grade point averages were asked to state their occupational, academic, and subject matter preferences (See Tables 1 and 2). In examining the results, it was evident

Insert Tables 1 and 2 about here

that women students expressed preferences that ranged from a low of 33% to a high of 79% for those activities that would fall under educational administration. It was particularly enlightening to note that almost 3/4 of all these students expressed a need for educational and vocational counseling. Apparently, these students felt that they did not have realistic knowledge about the long-range planning needed and the various means by which a goal can be reached. Financing an education, of vital concern to all, became more important to an individual who had the scholastic ability but who did not have the financial means. Hence, counseling was paramount in importance. Also, it was found that the most popular occupational choice of 78% of the low-A girls was typist or secretary and that 69% of the low-A boys chose auto mechanics (Cross, 1972). No doubt, these students were taking care of their personal and short-term financial needs as typists were hired at all competency levels and young people saved a lot of money whether repairing their own or somebody else's car. The preference listing unfortunately did not inquire if the young men desired to be fathers and homemakers but only inquired if the young women expressed a preference to be "housewives." Past experience with our educational system, delinquency, child abuse, and the national defense confirmed the fact that the rearing of children and youth was a multiple responsibility that involved both sexes yet was not perceived to be a joint responsibility within the home (Joesting, 1971; Joesting & Joesting, 1972; 1973).

It should not be overlooked, however, that test scores were not the only indicators. The findings of a study on the precollege preparation of black college students (Bindman, 1966), strongly suggested that poor high school academic training was a factor in the inadequate preparation of Negro students for college and that subjective measures such as personal interviews would be an additional technique for

appraising their readiness for college rather than some "culture-free" objective intelligence test. It was evident from Table 2 that counseling was needed; e.g., at the most, 11% of the students picked mathematics as their most liked subject, yet all sorts of interest was expressed for activities such as teaching, research, business, and the professions that required this instruction. Sells (1973) found that 51% of the entering male freshmen at Berkeley had four years of high school mathematics instruction which was true for only 8% of the women students. In some geographical areas like Southern Illinois, more than 90% of the administrators surveyed wanted children to express themselves creatively and realistically, yet the instruction necessary to achieve the mathematical skills needed in solving social problems was almost completely denied to both sexes (Muhich, 1968).

Of 34% who responded to the questionnaire mailed to a sample of universities and colleges in 50 states, Thompson (1973) found that, in business administration, 11 schools encouraged men only and 36 schools encouraged women and men equally. The distinction was more marked in engineering where 12 schools guided men only as opposed to 24 who counseled both women and men (Thompson, 1973). Responses from the 66% who did not respond, no doubt, would have been more discouraging. Even so, more than 1/2 of the respondents did not answer the more subtle questions on women's issues.

College and Graduate School Admissions

The mean scores of the Scholastic Aptitude Test (SAT) from the College Board Score Reports of 1970 for a national sample of all secondary school seniors, compared with students who planned to enter college in 1969-1970, showed no difference in the average scores of males and females on the verbal portion; but men scored significantly higher than women on the mathematical section (Cross, 1972). Likewise data from the admissions testing program of the American

College Testing Program reflected typical sex differences on subject-matter tests: overall, women scoring higher in English, men scoring higher in mathematics and science, with virtually no difference in social studies (Cross, 1972). This same patterning of results was found for entering freshmen at SIU-C (King, 1969).

In 1968, the overall acceptance rate for admissions to college was 72% for men and 60% for females (Cross, 1972). If the women scored very high on the verbal portion of the SAT (over 700, which was the score of the top 1% of high school graduates), their chances of obtaining admission to college were as good as the men's. The closer a woman was to average, the more severe the discrimination became as seen in Table 3. The greatest discrepancies in the prestige 4-year liberal arts college occurred for those young women who ranked in the top and second 1/5 of their high school class, the differential being 21% and 30% fewer women admitted inthe top and second fifth, respectively. At the state university, the greatest discrepancies occurred with those women ranking in the second and third tenth of their high school class, 31% and 22% fewer, respectively. At all levels, fewer women than men were admitted. At Wayne State, a large decrease in graduate enrollment occurred in almost all program areas and the same patterning occured for 621 professional schools (See Table 3).

Insert Table 3 about here

In the state of Virginia, during a 3-year period, 21,000 women applicants were rejected from college admittance while not one male student was denied admittance (Perkins, 1970). The unanswered question remained: Was college admittance a game to be played with numbers or a right of every individual?

Even though 52% of the Macalaster population was male, only 36% of the nominees selected for admittance were female (Higgins & Rossman,

1973). In examining the performance scores of male-female nominees and male-female nonnominees, the major findings showed glaring discrepancies: (1) female nominees significantly outranked male nominees when the variable under study was Converted High School Rank [the best single predictor of future academic success (Muhich, 1970; 1972)]; (2) there was no significant difference in performance of male-female nominees on the SAT Verbal, Academic Achievement on the Strong Vocational Interest Blank, and Number of Different High School Activities and Projects; while male nominees significantly outperformed female nonnominees on the SAT Math (p's = $<.01$). No mention was made of the remedial measures to be taken to correct the noted deficiencies.

Many educational institutions were still discriminating against women in undergraduate admissions. Male applicants were markedly preferred over females at the low ability level, but this difference disappeared at the higher levels (Walster, Cleary, and Clifford, 1970). Even in those colleges where it appeared that men and women were represented equally, women did not have equal representation within departmental units and the number of women who eventually entered graduate school dramatically decreased. Of the 48 career programs at CUNY, all were predominantly male fields. Male students were more widely distributed among the career programs, with half of their number being concentrated in six programs--accounting, business, computer science, data processing, electrical technology, marketing, and mechanical technology. Ten thousand women enrolled in these programs: 75% were in 7 programs, each of which had 90% or higher female enrollment--mostly in nursing and secretarial science (The Status of Women at CUNY, 1972). Although the percentage of women undergraduate students had been increasing since the 1950's, so that it was now 41%, it was still less than the percentage of women undergraduates in 1920, when women were 47% of the undergraduates, and in 1899 when 53% of all undergraduate degrees went to women (Sandler, Stanley, and Gleaves, 1972).

In a relatively new doctoral program at SIU-C for the years 1960-1972, it was found that (1) women doctorates had lost the small yearly gains they experienced in earlier years; (2) men had a 2- to 13-year head start; (3) man started with a base three times greater than women; (4) men doctoral graduates increased in number 25 times by 1972; (5) women doctoral graduates increased 9.5 times by 1970 (peak year); (6) women then experienced declines of 3% and 2% in 1971 and 1972, respectively; (7) 6 of the 22 doctoral programs accounted for all women doctorates in 1972; and (8) 7 of the 22 doctoral programs had graduated no women doctorates to date; namely, Chemistry, Geography, History, Mathematics, Molecular Science, Physics, and Sociology (Muhich, 1973). Overall, 90% of the doctoral degrees were awarded to men and 10% were awarded to women.

Of the variables affecting graduate student satisfaction, collegiality of faculty-student relationships (the colleague-colleague variety) was by far the best predictor of both academic satisfaction and nonacademic satisfaction (Gregg, 1972). For females there was no correlation between either type of satisfaction and the expectation-reality discrepancy (ERD: the discrepancy between what the student expected to encounter in graduate school upon entering and what was perceived to be the reality of graduate school as experienced). For males, the correlation between academic satisfaction and nonacademic satisfaction with ERD (-24 v -19) was significant at the .005 level. Thus the sex variable had a significant effect between ERD and satisfaction. One possible explanation could be that women entered graduate school with less definite or clear-cut expectations than did men; and, therefore, the impact of ERD would be lesser for women (Gregg, 1972). Another possible explanation could be that the several other forms of collegiality such as teacher-pupil, master-apprentice,

employer-employee, or master-slave prevailed.

Financial Aid

Across the nation, more women students entering college than men needed help finding a job (41% v 32%) and required financial aid (32% v 26%) (Cross, 1972). Similar results were reported for approximately 25% of Wayne State University's new freshmen who came from families with parental income of less than $8000 annually (Sandler, 1972).

Due to discriminatory policies, women students generally received a disproportionately low number of financial aids. Examples at Wayne State University follow: (1) 19-23% more undergraduate men than women were receiving scholarships, grants, loans, and jobs; (2) 1-4% more graduate men than women were receiving loans and jobs; (3) 22% more men were receiving Graduate Professional Scholarships which were administered by the graduate office; (4) 12% more women than men were graduate assistants (Liberal Arts only) and 21% more women than men were instructors (Education only); and (5) women were underrepresented in the number of graduate assistantships and instructorships in all academic units that provided work experience that would help students in their later attempts to find employment (Sandler, 1972).

Sandler (1972) also indicated that a lack of adequate child-care facilities was one of the many barriers blocking full participation in higher education by women and that many colleges were willing to spend enormous sums on athletic facilities ($94,560 for men v $2,254 for women at Wayne State in 1971) but recoiled at the thought of establishing such facilities as nurseries, which principally benefited women and in turn, their families. Existing facilities were minimal, expensive,

and unavailable during evening hours and for children under 2 1/2 years of age; and in general, more varied facilitative services were needed such as women's centers and clinics on human sexuality.

Analysis of graduate financial aid at CUNY indicated that graduate women had more restricted access to financial aid than did graduate men or undergraduate women. Although graduate women received aid in proportion to their representation in 1971-1972, only 43% of all monies went to women--the amount received per women averaged $1000 less than the amount received per man (The Status of Women at CUNY, 1972).

More than twice as many men as women were in the Research Training Fellowship Program sponsored by the 1969 Elementary and Secondary Education Act and seven times more men (88%) than women (12%) were 1961-62 National Defense Education Act Fellows. (Lyon & Saario, 1973).

At the University of California, Berkeley, among the Woodrow Wilson Fellows for men, having children made no statistically significant difference in dropouts; for women, having children made a difference of 31 percent fewer women in the physical sciences (Sells, 1973). Among those with any second-year support, the effect on men was to reduce dropouts by fourteen percentage points; among women in the physical sciences, second-year support made a difference of 40 percentage points (Sells, 1973).

The College Scholarship Service established tables that made unrealistic demands on upper-middle income people (those earning from $15,000 to $20,000 a year) at a time of increased

college charges and inflation in general (Winkler, 1973). The burden on middle-income families continued to grow as Middle Americans seriously questioned paying taxes to support education for others that they themselves could not afford for their own children and for whom they could not obtain financial aid. Hard data on the precise effects of financial aid policies were not readily available. However, undergraduate aid was stressed in the budget, and the President recommended spending $701.8 million in fiscal 1973 for a combined program of educational opportunity grants and work-study funds (Fields, 1972). Many funds, though, which were approved by the Congress were subsequently withheld by the administration. Consequently, about 50 suits had been filed seeking release of fiscal 1973 funds; e.g., the U. S. District Court had ordered the release of $140 million in White-House-impounded appropriations for health research and medical schools in response to two suits filed by the Association of American Colleges seeking release of these funds (Fields, 1973).

Recruitment

Principally, problems associated with recruitment of women in educational administration had to do with lack of congruence between the attitudes of male personnel who did most of the hiring and the actual numbers of women employed. Arter (1972b) summed up the position of the university in this manner: "That almost all of the chief officers responded that they were favorably disposed to hiring women and yet few women were eating the administrative cake seemed a strange paradox." In other words, the willingness of a president to hire women and the actual number of women administrators employed and recognized as coworkers were completely different--one expressed an attitude (which may or may not be

a true representation of feelings) and the other was positive action. Women who considered a career important frequently complained about prejudice in recruitment and hiring practices and of unwillingness on the part of employers to delegate administrative responsibility to women, thus augmenting the differential promotion, tenure, and seniority policies already in existence for women and men (Katz, 1970).

Taylor's (1973) doctoral thesis concerning attitudes toward men as administrators showed that (1) other things being equal, male superintendents were most likely to hire women as administrators; but that (2) 1/2 of the the school systems studied did not encourage women to train or apply for administrative positions; and (3) analysis of the data revealed that the only factor which appeared to have any significance on the hiring process was that of sex.

In examining the recruitment activities at higher administrative levels at CUNY, findings were inconclusive (The Status of Women at CUNY, 1972); (1) Although individuals active on search committees were interviewed, the committee was unable to determine whether women were underrepresented in the applicant pool for each search in terms of their availability within the national and CUNY work force; (2) some members admitted that search committees invariably evaluated women differently from men when women appeared as candidates for appointment; and (3) search evaluation committees were composed of men.

Robinson (1971) found that men in educational administration had three times the initial job offers and were able to secure positions in institutions they preferred in a greater proportion than women; and many women did not apply for administrative positions simply because of nepotism rules, immobility, or because they felt that women who took the time to apply would not get the job anyway.

The creating of new position titles for like functions to avoid a basis for comparison or the shifting of titles were recruitment techniques used; e.g., at Wayne State, the research assistant and

research associate positions had been filled in central administration by individuals who had been assigned tasks which were traditionally assigned to administrative assistants. By using the research assistant and research associate classification, the administration had removed the individuals so classified from the bargaining unit to which they rightly belonged and thereby had removed the restrictions with respect to position posting, salary, and job security. This maneuver was of particular interest since individuals had been recruited into the university to fill jobs which were not made available to those already employed at the institution (Sandler, 1972). At Northern Illinois University, a registered nurse was included in the clerical/secretarial class rather than professional/semi-professional and was one of the highest paid in this class but started only 25¢/hour above a grounds worker. However, after a 6-month probationery period, the grounds worker received $3.74/hour, thus earning 2¢/hour more than the nurse (Pielstick, 1973).

Representation of Women in the Labor Force and Professional Organizations

Due to the difficulties women with adequate credentials experienced with initial recruitment (discounting the problems associated with cultural conditioning), women in educational administration were grossly underrepresented in the labor market in terms of (1) percentage of doctorates awarded to women nationally (Table 4), and (2) their availability from the faculty ranks: more than 3/4 at the elementary level, almost 1/2 at the secondary level, and almost 1/5 at the college and university levels (Tables 5, 6, and 7, respectively). An examination of the availability of women in the various fields showed that women were underrepresented in all areas except Home and Family Life Education and Home Economics--two areas in which men were grossly underrepresented (See Table 4).

Insert Table 4 about here

The plight of women in educational administration needed further

examination from several vantage points: (1) at the elementary and secondary levels; (2) at the college and university levels; (3) in professional organizations independent of the school settings; (4) in state departments of education; (5) on school boards; (6) in the U. S. Office of Education, and (7) in educational research.

Nationally, women constituted a majority (67%) of the public education teaching profession, but were not so represented (16%) in administrative positions in public education (Lyon & Saario, 1973). The reason was not obviously one of entry into the profession, but of differential advancement for women and men within the ranks. Most of the men in administrative positions in public education began their careers as teachers, and no relationship was found between formal administrative preparation and the quality of staff leadership of school principals (Gross, 1965).

Elementary and Secondary Levels. The results obtained at the state level confirmed the trends at the national level. A look at Table 5 compiled for administrators in elementary and secondary schools in the state of Illinois showed decreases in numbers of women administrators in each post between the years 1968-1971 (Chesebro, 1972).

Insert Table 5 about here

A look at the decreases of women in educational administration in the state of New York showed declines in 8 of 11 and no, or very small, increases in 3 of the 11 professional fields examined between the years 1970-1972 (See Table 6).

Insert Table 6 about here

Only 10% of all administrative positions in the Waco Independent School District of Texas were held by women (Farrar, 1973). These positions carried the highest salaries, and promotions were usually from within the system, from the ranks of teachers, 75% of whom

were women. In other words, 90% of the administrators who were men came from the ranks of teachers, only 25% of whom were men. Of 46 principals, only 5 were women and all were in elementary schools.

A 1970 National Education Association survey reported that (1) in elementary schools women outnumbered men teachers nearly 9:1 -- but 78% of all elementary school principals were men; (2) in the secondary schools, the proportion of men and women teachers was about equal, yet 96% of secondary school principals were men; (3) out of 13,000 school superintendents in this country, only three were women (Taylor, 1972; Thompson, 1973).

College and University Levels

In the more than 300 colleges and universities who responded to the Carnegie-ACE survey (Astin & Bayer, 1972), it was found that women constituted 19% of the teaching faculty and were available for administrative activities in larger numbers than their actual representation. Other indicators of percent of time spent in administration (in which women were at a decided disadvantage) were larger numbers of women carrying full teaching loads (overall 63%; undergraduate 69%) the very small 4% receiving salaries of $17,000 or more v the 63% receiving salaries under $10,000 and time spent in research (See Table 7).

Insert Table 7 about here

During 1972, City University of New York (the largest urban university in the world, consisting of 9 4-year institutions, 8 2-year institutions, an upper division college, a graduate school, and an affiliated medical school) employed approximately 22,000 faculty, administrative, and support staff and served about 230,000 students. Women in educational administration at CUNY were grossly underrepresented at the highest levels. The almost complete absence of women in top administration at more than 150 colleges and

universities, summarized in Table 8, showed that the median number of males in top administrative posts in the National Association of State University and Land-Grant Colleges was 18 while the median number of females was zero (Arter, 1972a).

Insert Table 8 about here

An examination of 40 coeducational institutions surveyed by Robinson (1971) at the college and university level showed great variability in the participation of women in the total faculty, ranging from 2 to 35%; 36 of the 40 schools reported a participation rate of 25% or less; half of the schools employed less than 16% women; women were found in positions which had minor relationships to policy-making, were at middle-management level, or performed tasks primarily sex-stereotyped; the mean number of women department heads in all schools was less than 3/institution (mostly in home economics, physical education, English, languages, nursing, and education); and women were less likely to be represented on committees for guidance, scholarships, judicial problems, long-range planning, institutional research, admissions, education, or advisory policy (Table 8). Staffing patterns varied tremendously between coeducational and non-coeducational schools. Women's colleges had the highest ratios of women faculty members. Five women's colleges ranged from 23 to 58% women faculty members (Robinson, 1971). In schools exclusively for men, there were fewer women faculty members than men in women's educational institutions; Three men's schools ranged from 1 to 8% women faculty members (Robinson, 1971).

Overall, 22% of the women at CUNY were found in educational administration, concentrated most heavily in the positions called Assistant Officer or Assistant To (Table 9). Sex stereotyping was

Insert Table 9 about here

evident in both the administrative and supportive staff: The few women in high positions were concentrated where they had powers and influence only over female students and faculty (The Status of Women at CUNY, 1972). In the dean series, women had no representation in 27 of the 41 different functional units (See Table 10). The 6 women

Insert Table 10 about here

deans were in 5 different functional units; biological sciences, humanities, social sciences, students (2), and teacher education. The Dean of Contemporary Studies was a black male with no associate or assistant. Most units did not have persons assigned to the three possible posts in the dean series; e.g., if a dean, associate dean, and assistant dean appeared in each of the 41 functional units, there would be a total of 123 different position slots. Forty-three of these 123 units were unassigned and several persons were often assigned to one unit; e.g., in the Faculties, there were 6 male deans, 1 female and 2 male associate deans, and 2 female and 2 male assistant deans. Men failed to have representation in only 3 of the 41 different functional units: biology, nursing, and teacher education.

The differential predictive effects on rank, tenure, and salary in relationship to sex and amount of time spent in administration were thoroughly reviewed. In the regression equation for women and men combined, when female sex was partialed out after all 30 variables had entered, the results indicated that sex was a better independent predictor of rank than (1) time spent in administration, (2) number of years since completion of degree, (3) number of books published, or (4) numbers of years at current institution (Astin & Bayer, 1972). Variables that were more important than time spent in administrative activities in predicting academic rank for women that were of lesser

importance for men were age, size of institution, and marital status; single (See Table 11). Age was a significant variable for men but not

Insert Table 11 about here

to the extent that it was for women. Single or divorced women were more likely to hold high ranks, the implication for married women being that the burden of child rearing was the woman's. A single or divorced woman did not have to follow a husband when he changed jobs and moved to a new location and was freer to move if she so chose. Large families predicted high rank for men which was not necessarily true for women. The Humanities were the slowest to promote for both men and women. Men in engineering and women in the health fields (medicine and nursing) were more likely to achieve high ranks than their counterparts in other departments. Still based on the Astin & Bayer (1972) study, other indicators of the greater difficulty of predicting academic rank for women than for men were those variables that were significant predictors of academic rank for women but did not enter into the regression equation for men; namely (1) protestant background, (2) native born, (3) liberal arts college, (4) selectivity of institution, (5) research interests, (6) fellowship (graduate stipend), (7) divorced, (8) size of institution, (9) single, (10) Department: Health, and (11) public institution; and secondly, those variables that were significant predictors of academic rank for men but did not enter into the regression equation for women were (1) major in education, (2) department of engineering, (3) private nonsectarian institution, (4) degree from top 12 institutions, (5) % of Ph.D.'s on faculty, (6) institution in southeast, and (7) number of students in class.

In predicting tenure for academic women, the predictors that showed greater variability than time spent in administration were (1) university, (2) age, and (3) year of degree. These variables

were of lesser significance for men than time spent in administration. Variables more significant than time spent in administrative activities for women but not for men were (1) public institution, (2) private sectarian institution, (3) % of Ph.D.'s on Faculty, and (4) major in Humanities. In securing tenure for men, number of children carried more weight than time spent in administration. Number of children was a significant variable in predicting tenure of academic women, but to a lesser degree than time spent in administrative activities. A major in business was also a significant variable for women, but was not so for predicting tenure for men. The variables cited below did not enter into the regression equation in predicting tenure for each of the sexes.

Men	Women
Public Institution	Affluence of Institution
Private Sectarian Institution	Years Employed in Academe
% of Ph.D.'s on Faculty	Number of Articles Published
Major in Humanities	Private Nonsectarian Institution
Major in Business	Coeducational Institution
	Major in Physical Sciences

Sex was also a better independent predictor of salary than such other factors as number of years of professional employment or doctoral degree and produced the greatest discrepancies (Astin & Bayer, 1972). Even though the regression equation for women contained 6 fewer significant variables for predicting salaries than it did for men, the 2 variables which carried the most weight for men (salary base and rank) were not readily available to women--Women started at a significantly lower base salary than men and promotion in rank for women required consideration of 5 more variables than for men with a somewhat lower resulting multiple R, indicating greater difficulty

in predicting ranks among women than among men (See Table 11). There was a significant difference in salary base (r = .13 v .26) between women and men (p = <.01). Even though the time spent in administration was a significantly weighted variable for predicting salary for both women and men, it ranked 6th in importance for men and 14th in importance for women. The other variables having larger "F" ratios when considering amount of salary for women v men (over and above years spent in administration) were (1) doctoral degree, (2) university, (3) size of institution, (4) tenure, (5) selectivity of institution, and (6) years employed in academe. Two more variables ranking higher in importance than years spent in administration for predicting women's salaries which did not enter into the regression equation for predicting men's salaries were (1) private sectarian institution and (2) Roman Catholic instituion. The professional/medical degree and Department of Fine Arts were significant variables for women while divorced, number of children, and Department of Engineering were significant variables for men in prediction of salaries. It was interesting to note that years in academe ranked at the bottom of the list of 32 variables needed to predict men's salaries while this same variable ranked 13th among 26 variables in the prediction of women's salaries.

State and Federal Agencies

Analysis of information taken from state education directories for the years 1950, 1963, and 1973, in state departments of education throughout the U.S. showed that the total percentage of women in policy-making positions had decreased from an average of 14.5% in 1950 to an average of 6.8% in 1972 (Marr, 1973). Throughout the country male employees held many more educational policy-making positions in educational administration than did females; e.g., in the California State Department, women were channeled into positions that reflected the traditional

woman's roles (nutrition, library services, and homemaking); and only 14 women out of a total of 430 employees in "titled" positions fell into other types of positions (Marr, 1973). Discrimination may not have existed for those positions in which women were "traditionally" hired, but this concept needed generalization to all career areas.

In the Connecticut State Department of Education, April, 1973, women constituted 17% of the professional and 84% of the nonprofessional force (Taylor, 1973). In addition, Taylor (1973) reported a $5,000 male-female differential in the average salary as summarized below:

Average Age	School Administrators	Average Salary	% over $15,000
33	80,000 male	$13,625	37
37	18,000 female	8,625	16

In the U. S. Office of Education on October 30, 1972, women occupied 5% of all leadership positions in Grades 16, 17, and 18, as shown below (Taylor, 1973):

	Women	Men	% Women
GS 18	0	4	0.0
GS 17	2	11	15.0
GS 16	1	34	3.0
Total	3	49	5.0
Average Grade	GS 7	GS 14	

Professional Organizations and Educational Research

In the National Education Association, Taylor (1973) reported an almost equal number of women and men who were state association presidents (24 v 24), but 50 men and no women were Executive Secretaries. Women headed some teachers' unions, too. Though the American Federation of Teachers actively supported equal rights for women, only 150 of its 900 union locals had women presidents (Thompson, 1973).

The field of educational research, dominatedby and controled for men's interests, showed a decided lack of participation by women. The American Educational Research Association was run primarily by men (Taylor, 1973). A women's caucus had been convened, a task force on women in education had been formed, as well as a special interest group for next years' convention. A survey of program titles showed that only 4 of 300 programs involved issues concerned with sex bias at the 1973 AERA conference and 16 were concerned with racial bias. Female subjects dealt with (1) Perspectives on Female Education, (2) Sex Role Development and Sexism, (3) Racial, Ethnic, and Sexual Bias in College Admissions, and (4) Distaff Feedback.

In the area of budget for educational research, the college and university's share of funding rose by 12% in 1973, an increase of $.3 billions distributed as follows: (1) National Science Foundation, an increase from $391 million to $446 million; (2) the Department of Health, Education, and Welfare, $1 billion to $1.2 billion administered, in part, through the National Institute of Health; (3) Research Applied to National Needs, $80 million, a 43% increase; (4) $4 million for efforts to improve research management at universities; (5) $28.7 million increase in science research projects; with (6) a $6 million decrease in graduate student support and no funds for graduate science programs (Fields, 1972).

The 1974 National Institute of Education Budget was cut from $162 million to $142 million by the House and (in mid-October) emerged from the Senate at $75 million (Stivers, 1973).

> . . . But a new joint congressional provision for fiscal '74 operations ties the amount of a continuing resolution to the lowest figure approved by either house , . . in short, if . . . , vetoed, the NIE budget for fiscal '74

could not exceed the Senate-approved $75 million level (Stivers, 1973, p. 9).

The above statement (operating under a continuing resolution at a level of $75 million) was reaffirmed by the Director of NIE, Department of Health, Education, and Welfare (Glennan, 1973).

Board of Trustees

Over all schools sampled, women trustees averaged 1 in 8 (Robinson, 1971). Data from institutional reports were sparse.

Trends

The recent trend of cutbacks and terminations in higher education also had discriminated against women. In Illinois, the point to note was that women were being fired at twice the rate of men, and married women at an even greater rate (Saperstein & Kaspar, 1973).

Platitudes were continuously voiced about the supply of superior intelligence found in women, but at each level of advancement within the educational system the participation of women declined more than it did for men. Reports, such as "Escape from the Doll's House" by Saul Feldman, submitted to the Carnegie Commission, urged that barriers to the advancement of women through higher education be removed and proposed actions to eliminate loss of talent and unfair discrimination against women (Birnbaum, 1973). The emphasis also had shifted to universal postsecondary education. In light of this trend, recommendations that would benefit women at all age levels that followed from the literature are listed below. The broader objectives have been incorporated, but more extensive treatment on program objectives can be found in the Joint Task Force Report entitled "Sexism in Education" (Pennsylvania Department of Education, 1972).

1. Survey female personnel for interest in administrative positions.
2. Design professional career ladders leading to promotions and follow through with appropriate action for women.

3. Analyze all personnel policies and eliminate any which directly or indirectly support discriminatory practices, including policies about leaves of absence, pregnancy, part-time employment, and child-care services.
4. Analyze all educational policies and programs for their capacity to encourage female students to become professionals and to develop the capacities basic to multiple career options, and eliminate practices which discriminate against female students.
5. Seek female applicants for all posts in educational administration and other jobs when interviewing for these positions.
6. Identify the hiring of professional women for state administrative positions as an organizational priority.
7. Analyze alternative means for certification as school and school district administrators.
8. Publicize widely position vacancies on all openings through job postings and listings in university and professional media. Listings in publications should include title, minimum qualifications required, person to contact, and a deadline for application.
9. Analyze hiring policies toward its own graduates to determine if they had a differential effect on women.
10. Review all policies and practices to eliminate those which have the effect of discriminating against the members of one sex; e.g., pregnancy, not acknowledging receipt of applications, etc.
11. Appoint committees with propotional representation of women to deal with recruitment, promotion, salary, tenure, etc., of administrators, faculty, and staff.
12. Provide the employee who works part-time with the option of participating in fringe benefit programs.
13. Provide social security payments for all part-time employees

and as a second option to full-time employees.

14. Initiate recruitment and incentive programs to encourage the participation of women and men students in all academic units and at all levels of study.

15. Conduct career planning programs aimed at encouraging women and men to consider new fields of study and work.

16. Inform publishers of the standard interest inventories to revise the instruments, manuals, and norm groups to eliminate sex stereotyping of women.

17. Inform women and men students who are eligible for assistantships and instructorships as to availability and award equally to both sexes.

18. Have the gradute office monitor the selections for assistantships and instructorships made by the academic units.

19. Develop child-care/development programs for children of staff, faculty, and students, with costs according to ability to pay.

20. Distribute athletic facilities and funds equally for females and males, all ages.

21. Monitor all recruiting literature, rejecting all literature that advertises positions specifying sex of the applicants, or uses language indicating that only men are acceptable applicants.

22. Survey women who have taken part in university-arranged interviews for the purpose of identifying those companies whose representatives discourage women applicants.

23. Refuse use of facilities to employers who have been found to discriminate.

24. Recruit women as students in programs related to leadership positions in education, including educational administration.

25. Implement flexible registration and enrollment practices in

all degree programs.

26. Grant financial support to women based on individual requirements, independent of marital status.

27. Provide legal counsels for students, faculty, and administration with appeal procedures and due process of law.

28. Develop procedures for the handling of student complaints regarding the discriminatory treatment of women in the classroom and for reprimanding of those staff members and faculty who violate this sensitivity and civility toward women.

29. Encourage all departments and faculty members to re-evaluate their course offerings and contents; and, where pertinent, to add courses and sections of courses thatpertain to women and their contributions.

30. Ensure that all libraries contain all basic works with respect to such subjects as the history of the women's rights and suffrage movements and the participation of women in the professions and politics; e.g., women in law, bibliographies, and feminist materials in general.

31. Eliminate sex-segregated classes, programs, activities, and courses of study.

32. Eliminate special rules for women and men (housing, hours, athletics, jobs, etc.).

33. Establish the same admission qualifications for women and men.

34. Include information on women, presentation of female role-models and feminist perspectives of history, psychology, sociology, and politics, economics, and law. Include all ethnic groups and encourage such qualities as tolerance and compassion.

35. Set annual goals for hiring, training, and promoting women of all races and all ages at every level of employment.

36. Develop women's studies as an integral part of the curriculum.

37. Reflect the same balance of staff and faculty by sex and race in each job class at all employment levels (including administration) of the state's general labor force.

38. Implement women's studies programs in universities; women's studies courses in colleges, high schools, and feminist programs; units in women's studies, sex education, alternative roles in family structures in elementary and junior high schools.

39. Implement non-sexist counseling at all levels.

40. Eliminate sex-segregated classes, especially in elementary, junior high and high schools, and of sex-segregated activities in kindergarten and elementary schools.

41. Eliminate sexist textbooks.

42. Create summer institutes, especially in educational schools, which give teachers academic credit for taking consciousness-raising and teaching-of-feminism courses.

43. Establish a "continuing education" center in the appropriate existing institutions of higher education for women returning to finish college, for those who have not yet begun a college education and/or have not finished high school, and for those who wish retraining.

44. Publish evaluation criteria for each program.

45. Monitor the implementation of established policies. If a school is violating any basic policies, e.g, not meeting any required criteria, the evaluators shall send an official letter stating violations and giving the school a reasonable time in which to implement the policy or to show cause.

46. Allow each school an opportunity to show cause for failure to follow the established policies.

47. Withhold funds from school districts until such time as the school meets the required evaluative criteria.

48. Organize public meetings and programs to discuss sexism in the schools.

49. Develop a working relationship with the school personnel (teachers, parents, and students) and people in the school district.

50. Report any problems to the state department of education and and conduct public hearings for this purpose.

51. Prepare periodic evaluation reports, including specific suggestions on what to do and on how the school can improve.

52. Provide for flow of information from the state department of education to concerned community members.

53. Request more research money for scientific investigations in education.

Footnote 1

The author wishes to thank Dr. Eugene Lawler, Emeritus Professor, Educational Administration, Southern Illinois University, Carbondale, and Helen Lawler for helpful editorial suggestions.

Table 1

Occupational Preferences of Female High School Seniors[1]

Female Preferences[2]	% Favorable	
	Low A (N = 11,230)	High A (N = 11,728)
High Preference by Low A Students		
Nurse	59	49
Office Manager	56	40
Bookkeeper	55	32
High Preference by High A Students		
Author of Novel	60	76
High School Teacher	45	64
College Professor	33	62
College President	43	55
Sculptor	27	50
No Difference by Ability		
Social Worker	79	78
Elementary Teacher	66	68
Guidance Counselor	57	60
President of a Large Company	51	48
Housewife[3]	85	84

1 Abstracted from Table 18, pp. 94-95 (Cross, 1972).

2 Females did not choose auto mechanic, army officer, electrical engineer, space person, U. S. Senator, or police officer. Males did not choose sculptor, social worker, elementary or high school teacher, and guidance counselor.

3 No counterpart was recorded for males such as househusband, houseman, or homemaker.

Table 2

Life and Subject Preferences of Women High School Seniors[1]

Preferences	% Favorable: Interest Subgroups: Business	Health	Lib. Arts	All Women in CGP Group
Kind of life preferred				
Academic (Teaching, research, etc.)	8	13	68	26
Business	62	2	3	12
Professional (Doctor, lawyer, etc.)	1	50	4	11
Home and Family	12	11	11	19
Undecided	8	8	6	14
Other	8	17	8	17
Subject most liked				
English	24	18	28	27
Mathematics	10	11	5	9
Physical Education	13	8	10	12
Sciences	4	35	5	11
Shop or Commercial	26	2	2	6
Social Sciences	11	13	29	14
Other	11	13	21	21
Would like counseling on educational and vocational plans and opportunities	73	75	79	69
Know exactly work desired after education	31	65	38	28
Caucasian	35	34	55	74
Black American	54	56	38	19
Other	11	9	7	7

[1] Abstracted from Table 13, pp. 64-65, (Cross, 1972).

Table 3

Rates of Acceptance to College

4-Year Liberal Arts College[1]

(N = 711 men and 601 women applicants)

	% Women	% Men
High School Class Rank		
Top fifth	66	87
Second fifth	14	44
Third fifth or below	20	22

State University[1]

(N = 1921 women and 1835 men)

Top tenth	92	98
Second tenth	52	83
Third tenth	21	43
Fourth tenth	22	32
Fifth tenth	31	23
Lower half	25	41

Wayne State University[2]

% Women Enrolled Fall Quarter, 1971

College	Undergrad.	Graduate	First Professional
Engineering	2	2	
Business Administration	8	2	
Pharmacy	21	16	
Liberal Arts	42	35	
Education	65	60	
Nursing	95	94	
Medicine			10
Law			11
Social Work			63

Table 3 Continued

621 Professional Schools[3]

School	Mean Percentage Women	Minority	Student-Faculty Ratio	Full-Time Faculty	School's Budget from University Funds
Engineering	2	7	18	87	71
Forestry	4	1	17	86	56
Optometry	5	19	4	35	15
Business	10	6	28	80	82
Dentistry	10	4	4	48	40
Law	10	8	19	71	84
Theology	10	19	7	68	34
Medicine	11	14	2	55	30
Architecture	12	9	13	73	89
Veterinary Med.	13	3	11	91	53
Pharmacy	25	8	13	73	62
Public Health	38	14	3	80	31
Journalism	43	5	24	80	90
Education	60	10	37	80	78
Social Work	60	19	7	78	54
Library Science	75	8	46	63	84
Nursing	96	7	11	89	68

1 Source; Computed from data given in the College Handbook, 1969, Abstracted from Tables 31 and 32, pp. 150-151 (Cross, 1972).

2 Abstracted from Table 1, Sanders, 1972, p. 5.

3 Abstracted from Table 2, Margulies and Blau, 1973, p. 27.

Table 4

Percentage of Doctorates Awarded to Women Nationally (1960-1969)[1]

Academic Unit	% Women
Engineering (Total)	.44
Business Administration (Total)	2.82
Pharmacy (Total)	4.26
Education	
Educational Administration	12.86
Music Education	13.69
Secondary Education	15.94
History and Philosophy of Education	20.29
Educational Guidance and Counseling	20.70
Special Education	23.41
Educational Psychology	25.60
Art Education	26.80
Physical Education	27.53
Business Education	29.67
Elementary Education	38.28
Home and Family Life Education	99.19
Liberal Arts	
Physics	2.00
Geology	2.47
Geography	5.58
Economics	5.62
Mathematics	6.50
Chemistry	6.82
Political Science	8.80
Philosophy	11.05
History	11.71

Table 4 Continued

Academic Unit	% Women
Journalism	12.08
Music	13.51
Biology	13.82
Speech and Dramatic Arts	15.87
Sociology	17.07
Art	18.18
Psychology	20.20
Anthropology	21.44
English and Literature	24.09
Latin and Greek	25.30
Foreign Language and Literature	28.52
Home Economics	76.26

[1] Source: Council for University Women's Progress, University of Minnesota, June, 1971. Percentages reported by the U. S Office of Education for Earned Degrees Conferred from 1966-1969 (Sandler, 1972).

Table 5

% Women in Administrative Positions in Illinois, 1968-71[1]

Position	1968-69	1970-71	% Change Between 1968-1971
Elementary Teacher	79.3	77.9	-1.4
Secondary Teacher	42.0	41.4	- .6
District Superintendent	5.0	4.0	-1.0
Administrative Asst.	13.4	10.0	-3.4
Asst. Superintendent	6.6	3.4	-3.2
Elementary Principal	21.4	18.2	-3.2
Jr. High Principal	6.0	4.1	-1.9
Sr. High Principal	1.6	1.5	- .1

[1] Abstracted from Chesebro, 1972, p. 142.

Table 6

% Women in Educational Administration, N. Y. State, 1970-71/1971-72[1]

Professional Field	1970-71	1971-72	% Change Between 1970-1972
Superintendent	0.4	2.6	+2.2
Deputy Superintendent[2]	11.9	7.1	-4.8
District Principal	1.8	1.8	0.0
Business Official	10.3	4.3	-6.0
Administrative Assistant	20.8	12.7	-8.1
Elementary School Principal	21.1	20.1	-1.0
Middle School Principal	4.6	7.8	+2.9
Jr. High School Principal	8.0	7.8	-0.2
Sr. High School Principal	22.6	1.7	-0.9
Elementary School Teacher	82.7	82.6	-0.1
Junior & Senior School Teacher	58.3	47.1	-11.2

[1] Source: Public School Professional Personnel Report 1970-71 and 1971-72, the State Education Department, Albany, N. Y. Abstracted from Lyon and Saario, 1973.

[2] This category includes Assistant Superintendents.

Table 7

Indicators of Administrative Post

Source of Data	Indicator	% Women	% Men
57 2-year colleges	Full teaching loads		
168 4-year colleges	(9 or more class		
78 Universities			
(Astin & Bayer, 1972)	hrs./week)	63	49
Respondents:	Undergraduate teaching	69	48
N = 60,028	Undergraduate teaching-		
Eligible Sample:	ing, universities only	48	24
N = 17,273 men	% teaching faculty	19	81
N = 4,583 women	Salary of $17,000 or		
Weighted Random Sample:	more	4	19
N = 3,454 men	Salary under $10,000	63	28
N = 3,438 women	Achieved high rank	25	44
	Research interests	11	27
	Graduate Research		
	Assistants	19	38
	Never published in a		
	professional journal	63	39
	Doctoral Degree	22	46
	M.A. or less	62	36

Table 8

% Women in Top Administrative Posts

Name of University	Chancellor	President	Dean	Chair	Committees
City Univ. of N. Y. (The Status of Women at CUNY, 1972)	0	10	10	15-55	
U. of Illinois, Champaign-Urbana (Ferber & Loeb, 1970)	0	0	0	7	9
Southern Illinois Univ., Carbondale (Mines, 1973)	0	0	0	2	some
Florida School System (Robinson, 1971)	ranged from 2-12%				
118 institutions[a] National Association of State University & Land-Grant Colleges (Arter, 1972a)	0	<2[b]	Nursing and Home Economics Only		
34 coeducational institutions (Robinson, 1971)	0	0	0	2	some[c]
U. of California, Berkeley (Robinson, 1971)	0	0	0	0	<1
Cornell (Cook, 1972)	0	0	0	6 depts,	some
Wayne State (Sandler, 1972)	3% administrative; 19% administrative and professional				

Table 8 Continued

[a] 60% appointed no women in the 1st 5 years; 17% considered women in the last 5 years; 1/3 had not considered women; 1/2 did not answer the questions; and the following 17 states had no females in top-level administration: Arizona, Arkansas, Connecticut, Hawaii, Idaho, Kansas, Kentucky, Maine, Maryland, Mississippi, Montana, New Hampshire, New Mexico, Oklahoma, South Dakota, West Virginia, and Wyoming (Arter, 1972).

[b] At CUNY.

[c] Only 7 campus reports mentioned participation of women in faculty governing bodies; e.g., over the past 10 years at the University of Chicago, only 2 women appeared on the list of 100 to 110 university boards, committees, and council appointments (Robinson, 1971).

Table 9

% Women Holding Administrative Posts at CUNY[1]

Post	Number of Men	Number of Women	% Women
Registrar	15	0	0.0
Higher Education Officer	43	3	6.5
Assistant Business Manager	20	2	9.1
Dean	94	10	9.5
Assistant Business Manager	39	7	15.2
Assistant Dean	35	7	16.7
Higher Education Associate	69	15	17.9
Associate Dean	49	16	24.6
Assistant to Business Mgr.	74	28	27.5
Associate Registrar	15	11	42.3
Assistant to Higher Educ. Officer	98	74	43.0
Assistant Registrar	34	38	52.8
Higher Education Assistant	66	37	55.9

[1] Abstracted from the Status of Women at CUNY, 1972, pp. 11-12.

Table 10

Representation in the Dean Series, CUNY, Fall, 1971

(N = 41 Functional Units)

Administrative Post	Different Functional Units Represented by		Women	
	Women	Men	Number	%
Dean	5	24	6	10.0
Associate Dean	7	20	8	19.0
Assistant Dean	3	10	4	16.0
Total	14	38	18	17.0
By Race: Black	1	9	1	5.5
Latin	1	3	1	5.5
White	13	37	16	89.0

Table 11

Time Spent in Administration: A Predictor of Academic Rank, Tenure, and Salary (N = 3,438 women; 3,454 men)[1]

	Rank		Tenure		Salary	
Predictor	Male	Female	Male	Female	Male	Female
R (Women & Men Combined)	.79		.72		.80	
No. of significant predictors in regression equation	30		23		33	
Rank position of time spent in educational administration	5		6		11	
R	.80	.77	.73	.70	.81	.76
No. of significant predictors	22	26	17	15	32	26
Time Spent in Administration						
Zero order r	.25	.25	.22	.19	.26	.24
Rank position	R5	R8	R6	R12	R6	R14
Predictors ranking higher than time spent in administration (in order from highest to lowest on basis of F ratio reported)						
2-year institution	R1	R5	R3	NS[2]	R4	R3
Doctorate	R2	R1			R7	R4
Years employed in academe	R3	R3			R32	R13
No. of articles published	R4	R2				
Age	R7	R4	R11	R7	R3	R6
Size of institution	NS	R6			R9	R8
Single	NS	R7				
Rank (Academic)			R1	R2	R2	R2
Years employed at current inst.			R2	R1		
No. of children			R4	R3		
No. of library volumes			R5	R5		

Table 11 Continued

Predictor	Rank		Tenure		Salary	
	Male	Female	Male	Female	Male	Female
Public Institution			NS	R4		
University			R8	R6		
Private Sectarian institution			NS	R8	NS	R7
Percent Ph.D.'s on faculty			NS	R9		
Year of degree			R15	R10		
Major in humanities			NS	R11	NS	R11
Salary base					R1	R1
Department: Humanities					R5	NS
University					R18	R5
Roman Catholic Institution					NS	R9
Tenure					R22	R10
Selectivity of institution					R10	R12

[1] Abstracted from Tables 1 through 9, Astin & Bayer, 1972, 111-115.

[2] NS = Nonsignificant

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