

## Attitudes Toward Women as Managers in Library and Information Science

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*This study reviewed the current literature for attitudes toward women as managers, level of managerial attainment by women, and the promotion/evaluation process in the field of library and information science (LIS). Eighty percent of the LIS work force consists of women, but 80% of management positions are held by men in the LIS profession. One reason could be the sex stereotypical view of women by evaluators. Another reason could be the attribution of women's successful performance to luck rather than to effort and ability. Thus women are not given an equal chance for promotion. A survey questionnaire was administered to the LIS students currently enrolled in master's degree programs (MSLS/MLS) in the 11 southeastern United States LIS schools. Data were collected on the Women As Managers Scale designed by Terborg and others. Personal data were also gathered on sex, age, marital status, parental influence, etc., to assess the attitudes of students toward women as managers. This study showed that a vast majority of both male and female students felt women are capable of being good managers. They felt women are emotionally stable, responsible, adventurous, objective, aggressive, and as capable of handling managerial situations as men.*

During the past 20 years there has been a growing acceptance of the idea that men and women ought to be accorded equal educational and vocational opportunities. With 50% of the work force constituted by women, it has become acceptable for married women with children to work outside the home. Despite these attitudinal changes and the substantial percentage of women who are employed outside the home, the labor force continues to exhibit marked segregation by gender. Prestigious, well-paying administrative positions in library/information science (LIS), as in other professions, tend to be male dominated, whereas the female dominated jobs tend to be

relatively low in both prestige and pay. Women hold only 1-6% of top management positions, but 85% of entry level positions (Kenady, 1989; U.S. Women's Bureau, 1988; Harriman, 1985) Women managers in comparable occupational categories and with comparable qualifications are still paid less than men managers.

A considerable level of research now exists indicating that women do possess the qualifications required of management level positions (Katz, 1988; Larwood & Ghattiker, 1987; Spence & Helmreich, 1983; Thomas, 1987). There is an increasing interest in exploring the reasons for the slow progression of women into top management positions in the field of LIS. One of those factors is the evaluation process. It is important to have a better understanding of the evaluation process and the attitudes towards women as managers, in order to understand why the majority of women do not succeed in their efforts to attain top management positions in the LIS profession in the same proportion as their numbers in the work force.

### *Attribution Theory*

From the first years of life, children infer causality, through socialization and observation. They imbibe certain values and attitudes from their parents and friends, and they use these values to judge their own behavior and that of others according to those attributes. According to the attribution theory, behavior is caused either by internal forces such as ability or effort, or by external forces such as difficulty of task or luck (Heider, 1958). Individuals who attribute success to stable internal factors such as ability are likely to feel successful outcomes are under their control, and will approach new achievement situations with confidence, persistence, and intensity. Conversely, when individuals attribute their success to external factors like luck or ease of task, and their failure to personal lack of ability, they may be reluctant to strive for success.

If the manager evaluating a woman holds positive attitudes toward women, and attributes their performance to an internal locus of control, the chances of the woman's promotion will be the same as that of men performing at the same level. On the other hand, if the persons evaluating a woman holds a stereotypical attitude toward women in management, and believe females are less predictable (stable) and less competent (able) than males, the woman's success would be attributed to luck or to an easy assignment. They may reflect these general social expectations in their decision-making process (Harvey & Weary, 1984). Even when judged equal, the woman may not be promoted because of attribution. Thus the key to the evaluation process appears to lie in the attitudes toward women in management. (Clinedell & Clinedell, 1980; Osmond & Martin, 1975).

*Attitudes Toward Women*

Most personality studies have not found any differences between the personalities of males and females occupying the positions of leadership (Gold & Pringle, 1989; Nieva & Gutek, 1981). Personality studies conducted on LIS professionals and/or LIS students depict that female librarians have remarkably similar personality profiles to male colleagues in their motivation to manage (Bryan, 1979; Coker, 1958; Douglas, 1957; Rainwaters, 1962; McMahon, 1967; Wahba, 1973; Dayani, 1980; Swisher et al., 1985; Murgai, 1988). In Swisher et al.'s and in Murgai's studies, the highest scores were among females. Dayani reported that women were more concerned than men about job behavior for managerial effectiveness, like planning, organization, execution of policy, relating with associates, coordination and integration of activities, technical competence, work habits, adjustment to job, etc. (p. 170).

A time series analysis from 1969 to 1984 of college freshmen indicated a dramatic increase in the value women place on status achievement goals. They strive to be financially independent, to be an authority in their field, to obtain recognition from colleagues, and to have administrative responsibility. At the same time there was no comparable decrease in the value placed on domestic nurturing goals. As the value placed on status achievement goals by males has not increased, the gap between the sexes is narrowing. Further, there is a dramatic increase in the percentage of women pursuing graduate degrees and aspiring to the highest status in professional and executive occupations like law, medicine, engineering, and higher education. Contemporary cohorts are likely to view their jobs as lifetime careers, and to perform both their occupational and family roles with an eye toward career advancement (Florentine, 1988).

Still women are perceived as being dependent, passive, and subjective, and as lacking in competitiveness, ambition, and leadership abilities (Kaufman & Richardson, 1982; Nieva & Gutek, 1981). In the business context women are perceived as too emotional and unfit for managerial positions (Cook & Mendleson, 1984; Nelson & Quick, 1985; Nieva & Gutek, 1981). Schwartz (1989) has indicated that corporations exhibit conflicting attitudes toward women. On one hand, corporations do not like women who are career minded; on the other hand, they do not like those who trade their career ambitions for raising a family. Thus women are negatively perceived if they behave like traditional women and/or if they behave like men (Nelson & Quick, 1985; Schaffer, 1981; Terborg, Peters, Ilgen, & Smith, 1977). Younger managers, even though they believe women are competent, aspiring, and committed, when actually critical stage of decision making comes, are controlled by social norms and expectations rather than by actual performance (Kenady, 1989).

### *Individual Factors*

Theoretically, maximum self-esteem would be associated with a tendency to have internal, stable attributes for successful performance. Women do not appear any higher or lower in self-esteem than men (Kaufman & Richardson, 1982). High-achieving women have high expectations in both career and home areas (Adams, 1984; Astin, 1984; Diamond, 1984; Gilbert, 1984). The basic motivation seems the same for men and women—to be financially independent and to prepare for a career (Austin, 1984; Katz, 1988).

For women the way to prepare for management and to develop self-confidence would be through education and training. Today 54% of college students are women, and 36% of them are enrolled in business management programs (U.S. National Center for Educational Statistics, 1990; U.S. Women's Bureau, 1988). Irvine's survey of American research librarians showed that twice as many women as men had obtained business administration degrees along with the master's degree in library/information science (1985). Also, ever since 1978–1979 more women than men have earned (57% in 1987) doctoral degrees in library and information science (U.S. National Center for Educational Statistics, 1983). Women are undertaking in-service training and continuing education courses to increase their skills, and to stay abreast of the career needs and innovations in library science. They are training men who later become their supervisors. Peter Hiatt (1983a,b) during his training of administrators, said that such training makes women aware of their strengths and boosts their self-confidence. Women with more education, however, show greater desire for independence and opportunity to perform managerial roles (Brenner, 1989), and when such opportunities to perform are denied to them, the results are low self-esteem, low self-confidence, and curtailed achievement level (Basow & Medcalf, 1988).

### *Attitudes Toward Sex Roles*

Some authors state that women are expected, and very content, to play a supportive role to men. Hooyman and Kaplan (1977) commented:

Women are socialized to perform a "stroking function" which disqualifies them from competitive challenging jobs, and deflects them from their highest potential achievement. Until recently, women entered the profession idiosyncratically rather than as a result of deliberate planning. (p. 109)

Some of the recent research, however, indicates that the conflict between career and family responsibilities, and consequent competing demands on time and energy, affect both males and females (Wiley & Eskilson, 1988). In the past, home and child care responsibilities were expected of women more

so than men, and stereotypically the majority of the males feel the same, even today. Research also indicates that women are more likely to give up or reprioritize home functions that conflict with job-related functions (Frank, 1988; Katz, 1988; Osipow, 1985). Irvine remarked:

Certainly marital status can be controlled by individuals. For women making career decisions regarding executive positions, the prognosis is rather discouraging for combining family and career lives. With the trend toward fewer children and two career couples, however, future studies may reveal a more propitious pattern for women who seek to combine family and career roles. (1985, p. 253)

Our social structure is based on what could be expected of the male employees, who traditionally sacrificed their father role in marriage consistently to resolve work/family conflicts in favor of a job (Cunningham, 1983; Rix & Stone, 1984). It is usually the woman who must stay home for family reasons, even if it means losing a day's pay. As long as women earn significantly less than men, this will be the prevalent pattern.

Sex discrimination takes place within the home as well. Studies reported at The American Library Association and The American Psychological Association conventions indicated that even if their wives work, most men do no more than one-third of the household tasks. Many men consider participation in "feminine" tasks a threat to their masculinity. They change this attitude only when they are faced with a crisis in the form of illness, divorce, or death (Cunningham, 1983; Schiller, 1980).

Professional women who have been successful in combining career and family life and have made it to top managerial positions feel they have achieved professional success at great personal and emotional costs (Martin, 1983). The majority of these women are single, divorced, or separated. The institutions hold women to male work values that do not accommodate to the pressures that working mothers or wives face. As Gilbert (1984) notes:

Women scientists are hampered in their efforts to combine family life with a career in the sciences by the common belief among males that to be successful they need to work 90 hours a week. "Can a concept of career that includes involvement in family and occupational roles (and principles of equity between men and women) realistically co-exist with social institutions that embody the values of a patriarchal society?" (p. 129)

"Successful" professional women are asking for a plan to develop separate career norms for women (Diamond, 1984; Gutek & Larwood, 1987). They assess the costs against the rewards, and feel organizations should provide for parenting, child care, and equal wages for equal performance. Provision of proper child care and equal wages would enable women to contribute their best to the profession, to overcome socially imposed role conflicts, and lead a happy normal life (Schroeder, 1990; Gutek & Larwood, 1984; Osipow, 1983).

Many recent studies report that differences between work values of men and women disappear when occupation and education level are held constant (Murgai, 1988; Spence & Helmreich, 1983; Swisher et al., 1985; Rosen & Jerdee, 1974), but more men than women still view women in their traditional sex role (Katz, 1988).

### *Organizational Factors*

Women generally are not looked upon as leader types by the "public," so they are rejected for promotion (Kronus & Grimm, 1977; Ivy, 1985; Lowenthal, 1971). In an academic environment where male faculty predominate and where males occupy the majority of administrative position, male library managers may be more readily acceptable than females as leaders by the administrators (Tarr, 1973). Female LIS professionals have found it harder to obtain directorships when they were external candidates than when they were internal candidates (Moran, 1983; Metz, 1978). Women's issues have gained visibility in academia because the members are relatively well educated and are becoming increasingly vocal. Still, the process of adding women in executive positions has been slow. Once given an opportunity, women in mixed groups present more assets than liabilities (Rozell & Vaught, 1989). They are serious about their professional careers. The idea that women cannot manage is more a perception than a reality, it seems (Birley, 1989).

The wage and recognition gap between male and female managers within the LIS profession, as well as between library jobs and comparable male-dominated jobs with government units, ranges from 10 to 50% (Kenady, 1989, pp. 1-2). Pay equity studies, using job evaluation techniques undertaken by states like Minnesota, Washington, California, Virginia, Connecticut, Florida, and by some institutions of higher education, have documented the wage gap between male- and female-dominated jobs. Gains have been reported as a result of affirmative action, comparable worth laws, and unionization and systematic pay equity studies. "Women's work is underpaid because women do it. The same work would be paid more if it were done by men" (Kenady, 1989, p. 3; Treiman & Hartman, 1981).

The modern system of management is matrix management or participative management. Due to the information explosion, rapid growth, competition, new technology, and perpetual change, organizations are shifting duties and responsibilities, authority, discretion, and related uncertainties to the middle management. The majority of professional women are handling these challenges. During team work many of their talents are recognized as essential for group dynamics, decision making, and problem solving. Their caring, nurturing yet decisive style of management has been hailed by

management advocates like Manz and Sims (1989). Yet the credit for their work goes to top male managers who reward women according to traditional male attitudes. Managers place talented women in staff rather than line positions. These women are allowed to contribute, but they are excluded from the power network. Such a practice limits their ability to function as effective managers even after years of experience (Schein, 1978; Thomas, 1987).

When men move into female-dominated professions they reach top management levels much faster than women in male- or female-dominated professions (Moran, 1983; Ray & Rubin, 1987; Heim and Phenix, 1984; Schiller, 1969). Kathleen Heim so correctly said:

I firmly believe that more than 15 percent of our 85 percent female work force have as much motivation to succeed as men in our profession. I firmly believe that those 15 percent males are not all supermen who would rise to the top no matter what their field. (1982, p. 4)

## STUDY

### *Purpose*

This study was undertaken to examine if male and female LIS students (future managers) differ in their attitudes toward women as potential managers. LIS students were selected because they have already developed adult attitudes towards gender roles (90% of sample 25 years or older, and 77% employed part time or full time). Students also provide an insight into the changing attitudes of the coming generations toward management. Students are generally used for such studies because their values are as important to the researcher as those of LIS practitioners; an added advantage of surveying students is an immediate feedback (Campbell, 1986; Greenberg, 1987).

## METHOD

### *Instrument*

The following six item were selected from Moran's study (1983) to test the respondent's attitudes toward women as managers. Moran in turn had selected these statements from the Women as Managers Scale (WAMS; Terborg, Peters, Ilgen, & Smith, 1977). The content validity of each item was related to an achievement motivation construct by Moran.

The 14 demographic questions were used by the American Library Association in their study (1981) of racial, ethnic, and sexual composition of librarians. These demographic items were designed to gather personal data

from respondents, which permitted testing of sex, mobility, level of education, marital status, age, economic status, parental level of education attainment, etc. (Appendix A).

A forced Likert-type format with four response alternatives—*Agree*, *Strongly Agree*, *Disagree*, and *Strongly Disagree*—was used. The responses for the categories of Strongly Agree and Strongly Disagree were collapsed, because of the low response.

### *Statements*

1. Challenging work is more important to men than it is to women.
2. It is less desirable for women than men to have a job that requires responsibility.
3. Women have the objectivity required to evaluate library situations properly.
4. Women would no more allow their emotions to influence their managerial behavior than would men.
5. Women cannot be aggressive in managerial situations that demand it.
6. Women are not ambitious enough to be successful in managerial positions.

### *Procedure*

Permission to conduct the survey was sought and obtained from 11 deans of library/information science schools in the southeast region of the United States. Personal letters were mailed to each student attending LIS via satellite. As Table I indicates, some of the campuses with low response rates were surveyed a second time, using a different population.

### *Population and Demographic Information*

The population consisted of both full-time and part-time LIS students enrolled in the 11 Southeastern LIS/LISE (Association for Library and Information Science Education) member schools in the United States. As Table I shows, a total of 1433 survey questionnaires were mailed and 665 usable responses were received. Of these, 82% (543) were females and 18% (122) males, which is representative of the field. A majority of males (47.50%) were younger than the females (41.90%). Forty-nine percent of the males and 57% of the females were married. More males (5.0%) than



**Table I.** Names of Schools Participating in the Survey, Number of Questionnaires Mailed, Number and Percentage of Returns

School	Questionnaires mailed	Questionnaires returned	% Return
Atlanta University	47	12	25.5
Atlanta University <sup>a</sup>	28	28	100.0
Florida State University	75	25	33.0
University of Kentucky	100	28	28.0
University of Kentucky <sup>a</sup>	150	96	64.0
Louisiana State University	100	42	42.0
U. N. Carolina Chapel Hill	50	20	40.0
U. N. Carolina Greensboro	100	58	58.0
U. N. Carolina Central	100	59	59.0
University of S. Carolina	220	103	46.8
University of S. Florida	150	46	30.7
University of S. Florida <sup>a</sup>	63	63	100.0
University of Mississippi	60	35	58.7
University of TN/Knoxville	100	27	27.0
University of TN/Knoxville <sup>a</sup>	100	23	23.0
Total	1433	665	46.4

<sup>a</sup>Two different populations surveyed at the same school.

females (1.0%) had doctoral degrees, and more females (2.5%) than males (.8%) had advanced certificates. Many more males (56.6%) than females (38%) were full-time students. Eight-six percent of the males and 75% of the females worked or received tuition benefits and/or scholarships. It is easier for full-time males to get scholarships and fellowships than full-time females in the LIS field. Many more females (54.5%) than males (34.5%) felt their personal limitations due to family responsibility would limit their capability in seeking jobs. The parents of more males were college educated than parents of females. Sixty percent of the mothers of the respondents did not work outside home, and the occupational status of the mother did not exhibit a significant difference by gender. The education and employment status of the father showed a significant difference. Similar percentages of males and females held membership in regional, state, or local professional organizations. (See Table II.)

### *Treatment of the Data*

The *Statistical Package for Social Sciences* was used to construct the frequency tables, mean scores, and chi-square. As the data were nominal a stepwise discriminant analysis was used to determine the significant differences among male and female responses to each question, at the  $< .05$  level of significance. The responses from the survey were scored from 1 to 4, with

**Table II.** Demographic Variables: Percentage Response by Gender<sup>a</sup>

Questions	Female nos.	Female %	Male nos.	Male %	Total nos.	Total %
Respondents	543	81.6	122	18.4	665	100
Age (25-34)	226	41.9	58	47.5	284	42.9
Married	309	57.2	60	49.2	369	55.7
Education						
Doctorate	5	.9	6	5.0	11	1.7
Advanced certificate	13	2.5	1	.8	14	2.2
Student classification						
Full time	206	38.2	69	56.6	274	41.6
Part time	333	61.8	53	43.5	386	58.4
Work/tuition benefits	389	74.7	102	85.7	491	76.7
Scholarships, assistantship	110	70.5	42	82.4	152	73.4
Personal limitations	285	54.5	41	34.5	326	44.5

<sup>a</sup>Relationship significant at  $< .05$ . Based on chi-square analysis.

the higher number indicating more favorable attitudes. The responses for categories Strongly Agree and Strongly Disagree were collapsed into Agree and Disagree, because of the low response.

An overwhelming majority—95% of females and 89% of males—disagreed with the statement that challenging work is more important to men than to women. The relationship was significant at a  $< .05$  level between male and female respondents (Table III).

Ninety-seven percent of the males and 99% of the females disagreed with the statement that it was less desirable for women than men to have a job that requires responsibility. A majority of both sexes felt (79% males vs. 83% females) that women have the objectivity required to evaluate library situations properly. Seventy-five percent of the males and 80% of the females agreed with the statement that women would no more allow their emo-

**Table III.** Percent of Respondents by Gender and Attitudinal Questions

Questions	Females % agree	Males % agree
1. Work challenge	4.8 <sup>a</sup>	10.7 <sup>a</sup>
2. Responsible	1.5	3.3
3. Objective	83.1	78.7
4. Emotional	80.3	75.2
5. Aggressive	45.0	40.0
6. Ambitious	3.0	3.2

<sup>a</sup>Relationships significant at  $< .05$ , based on chi-square analysis.

**Table IV.** Canonical Discriminant Function Coefficients<sup>a</sup>

Variable	Coefficient
1. Work challenge women/men	.79514
2. Women/men responsible position	.67896
6. Women ambition success manager	.42712
3. Objective evaluation situation	-.32880
4. Female vs. male emotions	.28386
5. Aggressive manager woman	-.05275

<sup>a</sup>Significant at  $< .05$ .

tions to influence their managerial behavior than would men. Forty percent of the males and 45% of the females disagreed with the statement that women cannot be aggressive in managerial situations that demand it. Ninety-seven percent of both sexes disagreed with the statement that women are not ambitious enough to be successful in management situations. No significant differences were found between male and female respondents on the above 5 statements.

A stepwise discriminant analysis was applied to develop the discriminant functions, as the data was nominal. Also, a group classification matrix was developed to see the percentage of cases correctly placed by the above method. All of the six attitudinal questions were used for this analysis. Table IV shows all significant variables in receding order of their discriminating strength. Statement 1—challenging work and its relative importance to men and women—had the highest correlation followed by statements 2, 6, 3, 4, and 5. It must be noted that the sign of coefficient does not indicate a negative or positive degree of association. The group centroids that represent the mean score of each group on discriminant function were  $-.43$  for males and  $.10$  for females. Based on the coefficients given in Table III, the model had a 62.79% predictability by 100% of the grouped cases were correctly placed. As Table V shows, 60% of the males and 63.4% of the females were correctly placed by this model.

**Table V.** Classification Results Matrix: Predicted Group Membership<sup>a</sup>

Actual group	No. of cases	Male	Female
Male	120	72 (60.0%)	448 (40.0%)
Female	533	195 (36.6%)	338 (63.4%)

<sup>a</sup>Percent of grouped cases correctly classified: 100.0%.

**Table VI.** Canonical Discriminant Function Coefficients<sup>a</sup>

Variable	Coefficient
Challenging work	-.46653
Student classification	.41859
Objectivity women	.36804
Personal limitations	.35188

<sup>a</sup>Significant at <.05.

When the 6 attitudinal and the 14 demographic variables were entered into the equation, Statement 1 was still the most discriminating factor of all (Table VI). The group centroids were .63 for males and -.14 for the females. Table VII shows that 64.1% of the males and 74.5% of the females were correctly placed. These figures represent an overall 72.5% correct classification. By random assignment the expected correct classification would have been the sum of the squares of the percentage of exponents in each category or  $(.19)^2 + (.81)^2 = 0.6922$ . Thus the model has reduced the proportion of error by  $0.725 - 0.6922 = 0.0328$  or 3.28%.

The chi-square analysis also showed a significant difference as did discriminant analysis on statement 1, dealing with the importance of challenging work and gender response. The two demographic questions student classification and personal limitations that showed significant difference were also significant by chi-square. Statement 3—women have the objectivity required to evaluate library situations properly—was not significant by chi-square.

Table VIII presents a summary of the significant relationships in proportion of female and male responses for the 6 statements dealing with the WAMS and the demographic variables that showed significant differences.

*Statement 1.* Although the majority of all respondents (94.3%) felt challenging work was important for both males and females, part-time students (majority females) felt so significantly more strongly than did full-time students. Additionally, respondents who held professional association memberships demonstrated the importance of challenging work more strongly than those who did not belong to a professional association.

**Table VII.** Classification Results Matrix: Predicted Group Membership<sup>a</sup>

Actual group	No. of cases	Male	Female
Male	117	75 (64.1%)	42 (35.9%)
Female	510	30 (25.5%)	380 (74.5%)

<sup>a</sup>Percent grouped cases correctly classified: 72.5%.

**Table VIII.** Significant Differences Between Women as Managers Scale, of LIS Students (Work Challenges, Objectivity, Aggressiveness, Responsibility, Ambition, and Emotions) and Demographic Variables (Student Classification, Professional Association Membership, Personal Limitations, Professional School Preference, Marital Status, Scholarships, Age, and Their Education)

Question	Student class	Personal limitations	Age	Professional school preference	Professional association membership	Marital status	Scholarship	Education student
1. Work challenge men/women	.000 <sup>a</sup>	.788	.247	.443	.026 <sup>a</sup>	.870	1.000	.282
2. Women/men responsible position	.502	.126	.271	.169	.861	.271	.030 <sup>a</sup>	.219
3. Objective evaluation women/men	.196	.002 <sup>a</sup>	.179	.020 <sup>a</sup>	.080	.165	.072	.618
4. Female/male emotions	.398	.892	.398	.881	.157	.315	.068	.014 <sup>a</sup>
5. Aggressive woman/man	.091	.060	.048 <sup>a</sup>	.134	1.000	.127	.617	.362
6. Women/men ambition successful/managers	.468	.142	.887	.306	1.000	.690	.008 <sup>a</sup>	.880

<sup>a</sup>Relationships Significant at < .05 based on chi square analysis.

*Statement 2.* The majority (98.2%) of all respondents felt it is equally desirable for males and females to have responsible jobs, but those who were married felt more strongly than singles.

*Statement 3.* More females than males felt personal and family responsibilities would limit their ability in seeking a job outside the immediate geographic area. Geographic location of the school was the most important factor in selecting the professional school.

*Statement 4.* The majority at all levels of education felt women would not allow their emotions to influence their managerial behavior any more than men.

*Statement 5.* At all age levels, an overwhelming majority felt women could be aggressive when the managerial situation demanded it; however, respondents in the age group of 25–34 felt this more strongly than others.

*Statement 6.* The majority of students (97%) with or without scholarships or assistantships felt women were ambitious enough to be successful as managers. Those without scholarships or assistantships felt twice as strongly about women having managerial ambitions as those with scholarships and/or assistantships.

## CONCLUSIONS

A majority of both the male and the female respondents felt challenging work is as important to men as it is to women. Women can handle similar levels of job responsibility. In managerial situations women can be as objective, ambitious, and aggressive as men, and women will not let their emotions influence their performance as managers any more than men. Except for the variable of aggressiveness, where the gender responses were almost split, the other 5 variables showed remarkable similarities in personal values of respondents. Physical aggressiveness in any case is negatively viewed in our culture. The locus of control was found to be internally placed among the sexes.

Younger respondents in the age group of 25–34 years were more willing to accept women as managers than others. Other studies (Coswal, 1983; Irvine, 1985) show similar results.

The data from this study establish that the majority of both male and female LIS students feel that women are capable of handling management-level responsibilities. Traditional attitudes of managers toward the feminine role are perhaps the biggest hurdle preventing women from attaining managerial positions in LIS. Traditional managers even today do not perceive women as leaders, even though empirical studies repeatedly show a change in the attitude and expectations of the work force.

While the data reveal a similarity in attitudes and values of sexes, there are major limitations concerning the attitudes of students. The attitudes of students, who have yet to go through the administrative process of becoming managers, have not been researched. Whether these students will be able to translate these values into practice is yet to be seen. But in spite of these limitations the data do show that the attitudes of sexes are converging on the subject of the capabilities of women to be as successful as men managers. Such studies call upon managers to change their attitudes while evaluating women's performance. Another project should be undertaken to research the practitioner's attitude toward women as managers.

In order to change the attitudes, and to detect and correct the sex bias existing in job evaluation, the following steps have been suggested by pay equity advocates:

1. Design a job evaluation study.
  - (a) Use a single evaluation system for all jobs.
  - (b) Criteria of job worth should be explicit.
  - (c) The factors used to rate jobs and the relative weights assigned to them should conform to the policy of job worth.
  - (d) Job descriptions should be as complete and as concrete as possible (Kenady, 1989, p. 28).
2. Conduct the job evaluation study.
  - (a) Gather the work force data and select the predominantly male and female jobs to be evaluated.
  - (b) Perform the job evaluation, using a standard, and assign them point value.
  - (c) Obtain current salaries for each job class.
  - (d) Identify the comparable female and male jobs and compare their salaries.
  - (e) Calculate two salary trends lines to show female salary inequities before and after pay equity.
  - (f) Estimate pay adjustments and the total cost for remedying pay inequities (Kenady, 1989, p. 35).
3. Critique the study and negotiate over the implementation of its recommendations, particularly pay adjustments.
  - (a) Organize a group.
  - (b) Plan a strategy.
  - (c) Determine a time table (Kenady, 1989, p. 49-54).
4. Assist library staff who wish to appeal their job classification.

As more jobs are analyzed, women will know where to concentrate increased job skills and make inroads into male-dominated roles.

Higher wages will prompt professional women to devote more time to paid work and will prompt men to share household and child care responsi-

bilities, thus giving both males and females another avenue of personal satisfaction. Household work will gain market value as more men realize what is involved.

Institutions like Wang Laboratories and Mobil Corporation have even set up training and awareness programs to prepare managers to be bias free in their evaluations (Braham, 1989). Such programs aimed at confronting men with their prejudices and providing data on popular myths about women help eliminate problems resulting from ignorance rather than goodwill.

The problem of female underrepresentation in LIS administration is serious. Women have similar motivations, career aspirations, and personality characteristics to men. In recent years women have improved their numbers in administrative ranks, but still fall behind in salaries compared to men. Objective evaluation of jobs, collaborative management, and studies like these can assist traditional managers to change their attitudes toward women in management.

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**APPENDIX A***Personal Data*

1. At what type of library/informational organization/institution would you like to work, after your graduation?
  1. Academic
  2. Public
  3. Special (Specify if you can; e.g., medical or business or other \_\_\_\_\_)
  4. Information technology industry
  5. Other (Please indicate \_\_\_\_\_)
2. Indicate your student classification  
\_\_\_\_\_ part time \_\_\_\_\_ Full time
3. Sex
  1. Male
  2. Female
4. Age
  1. Under 25
  2. 25-34
  3. 35-44
  4. 45-54
  5. 55-64
  6. 65 and over
5. Marital status
  1. Married
  2. Single
  3. Other
6. Do you have personal or family responsibilities that would limit your ability in job seeking?
  1. Yes
  2. No
7. Highest level of education attained
  1. Bachelor's degree List major \_\_\_\_\_
  2. Master's degree is a subject area
  3. Advanced certificate or specialist degree in a subject area
  4. Doctorate in subject area
  5. Other (please specify \_\_\_\_\_)
8. What was your highest priority in your selection of a professional school?
  1. Its geographic location
  2. The reputation of the school
  3. The type of program offered by the school

4. The reputation of certain faculty members of the school
5. Other (please specify \_\_\_\_\_)
9. From what type of undergraduate institution did you graduate? (For purposes of this study, a small college is one with a student body of less than 1200).
  1. A small coeducational college/university
  2. A large coeducational college/university
  3. A small single-sex college/university
  4. A large single-sex college/university
10. Do you work for money or tuition benefits while you study for your Library/Information Science degree?  
\_\_\_\_\_ No \_\_\_\_\_ Yes
  1. I work within the school I am attending
  2. I work outside the school, in library/information field
  3. I work outside the school, in another field
11. Do you receive any scholarship, fellowships, assistantships, or other awards while working toward your degree in Library/Information Science.  
\_\_\_\_\_ No \_\_\_\_\_ Yes
12. Have you ever been a member of a committee, section, or division of a state, regional, or professional association?  
\_\_\_\_\_ No \_\_\_\_\_ Yes
13. Highest level of formal education completed by your parents.  
Father \_\_\_\_\_  
(indicate level by number)
  1. Elementary
  2. High school
  3. Junior college
  4. Bachelor's degree
  5. Master's degree
  6. Doctorate
  7. Other (please specify)  
Mother \_\_\_\_\_  
(Indicate level by number above)
14. Does/did your mother work outside the home?  
\_\_\_\_\_ No \_\_\_\_\_ Yes