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*The Academy of Management Journal*, Vol. 24, No. 3. (Sep., 1981), pp. 619-625.

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It is important to stress the limited goals of this study. In describing the jobs of city managers, the study did not attempt to differentiate between effective and ineffective managers or between managers in different occupational specialties. Nor did the study seek to identify the abilities or other attributes that managers need to do their jobs. Additional studies to probe into these areas are in the planning stages.

### REFERENCES

1. Fayol, H. *General and industrial administration*. London: Sir Isaac Pitman & Sons, Ltd., 1949.
2. Gulick, L. Notes on the theory of organization. In L. Gulick and L. Urwick (Eds.), *Papers on the science of administration*. New York: Columbia University Press, 1937, 3-45.
3. Hemphill, J. K. *Dimensions of executive positions*. Columbus, Ohio: Ohio State University, Bureau of Business Research, 1960.
4. Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. The job(s) of management. *Industrial Relations*, 1965, 4, 97-110.
5. Mintzberg, H. The manager's job: Folklore and fact. *Harvard Business Review*, 1975, 53 (4), 49-61.
6. Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. *Statistical package for the social sciences*. 2nd ed. New York: McGraw-Hill Book Co., 1975.
7. Tornow, W. W., & Pinto, P. R. The development of a managerial job taxonomy: A system for describing, classifying, and evaluating executive positions. *Journal of Applied Psychology*, 1976, 61, 410-418.

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1981, Vol. 24, No. 3, 619-625.

### NUMBERS AND POSITIONS OF WOMEN ELECTED TO CORPORATE BOARDS

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The years 1971 to 1980 have seen increasing interest in the addition of women directors to boards of publicly traded corporations (Conference Board, 1972; Orr, 1977; Bacon & Brown, 1977). During this period some popular business literature has treated women directors as if they were representatives of special interest groups who conceivably could inhibit boards from acting irresponsibly. But there also has been research that has suggested that women directors might provide useful role models for female middle managers, audit the results of hiring and promotion policies with respect to women, or better represent the firm to a constituency by which it has been largely misunderstood in the past (Korn, 1973; Carson, 1973; Schwartz, 1980; Harris, 1972).

The present study presents findings concerning the corporate board structure of 112 firms. These findings indicate the types of industries that

are more likely to elect women directors to their boards and the occupations those women are most likely to represent. They also provide insights concerning the types of industries that employ relatively higher proportions of women in middle manager positions.

A report by Heidrick and Struggles (1977) suggested that the likelihood of a company electing a woman director was positively correlated with its size and the extent of its involvement in consumer goods. Other studies have suggested that the prime qualification for service on boards is the ability to make a significant contribution (Mace, 1971). If this were indeed so, it would be expected that as women progress in the fields of law, economics, finance, advanced technologies, politics, communications, social problems, and education, they will be included with increasing frequency on corporate boards. Because women in management have earned relatively few executive positions within U.S. corporations (Heidrick & Struggle, 1978, 1979a, 1979b), it would be expected that women directors would not likely be chief executives but would be more likely to come from the ranks of law, education, or the not-for-profit sector rather than from within corporate ranks. The exception to this pattern might be found within smaller firms in which women may have helped to found the organization or were related to its founder. Field studies supplementing this survey found that such major shareholders might claim a board position by virtue of their ownership position and were more likely to serve as "private investors" rather than as officers of the firm.

## Method

Board composition was studied in 112 publicly traded firms using a questionnaire that was mailed to 200 firms headquartered within a common metropolitan center (a 56 percent response rate). The research instrument was sent to firms whose sales volumes ranged from \$1 million to \$1 billion and which were listed by census data as employing between 10 and 10,000 middle and upper level managers. Criterion indices were obtained from chamber of commerce profiles. The multibusiness firms responding listed and ranked as many as five Standard Industrial Codes (SIC) as comprising their principal sources of revenue. They were classified by types of industries according to the codes they provided. The sample's businesses spanned the full range of SIC indices, but underrepresented process manufacturing businesses and heavy manufacturing firms when compared with the national average indicated in the United States *Census of Manufacturers*. Hence the sample is not representative of U.S. industry in this respect.

The dependent variable in this study is the probability that a corporate director will be female. The major independent variables are sales volume, total number of employees, and ratio of female middle managers to total middle managers. Binary variables indicating the major classifications of the firms' SIC businesses were included to assess the relative likelihood of

women directors serving on the boards of different types of businesses. These classifications include: high technology businesses, process, extractive, and fabrications (light manufacturing) technology firms, financial institutions, service firms, and holding companies. The pattern of industries in this sample is compared with that of the 1978 *Fortune* 500 industrials, utilities, and financial firms. A descriptive table amplifies the findings tested in the model of women directors.

## Results

There were no women directors in 79.5 percent of the firms in the sample. There were several directors in some of the other firms. As Table 1 indicates, the average probability of a firm electing at least one woman director was 20.54 percent. The likelihood of a woman director being elected is positively influenced by firm size (sales volume) and is statistically significant at the 1 percent level. The ratio of female to total managers is positively correlated with this probability. The number of total employees negatively influenced the likelihood of a woman director being elected. Only the extractive businesses and holding company variables are negative influences of large magnitude on the probability term, and these are statistically significant at the 5 percent level. The most substantial positive influences on the dependent variable are the process technology firms (these include pharmaceuticals and cosmetics as well as chemical processing

**TABLE 1**  
**Contributions to the Probability That a Woman Director**  
**Will Be Elected to the Board of 1 of 112 Firms<sup>a</sup>**

Coefficient of Multiple  
 Determination ( $R^2$ )

$$.2054P_w = .1622A + .0885F/T + .0001S - .0001E + .0185I_1 + .0804I_2 + .0582I_3 - .0167I_4 \\
 (.1612) \quad (.091) \quad (.274) \quad (.000) \quad (.000) \quad (.139) \quad (.108) \quad (.097) \quad (.093) \\
 - .2268I_5 + .1061I_6 - .3049I_7 \\
 (.113) \quad (.111) \quad (.144)$$

Where  $P_w$  = Average probability of a woman director  
 A = Intercept term (base case = service firm)  
 F/T = Ratio of women middle managers to total middle managers  
 S = Sales volume (in millions)  
 E = Employees in total firm  
 I<sub>1</sub> = High technology firms  
 I<sub>2</sub> = Financial firms  
 I<sub>3</sub> = Consumer-related businesses  
 I<sub>4</sub> = Light fabrication and manufacturing establishments  
 I<sub>5</sub> = Extractive industries  
 I<sub>6</sub> = Process-related technologies  
 I<sub>7</sub> = Holding companies

<sup>a</sup>Figures in parentheses indicate standard error of estimate.

\* $p < .05$

\*\* $p < .01$

firms), service firms, and financial institutions. These variables are not statistically significant, however. The relative average influences of these industry variables on the probability of a woman director being elected are summarized in Table 2, which was generated by subsetting the data base according to SIC categories.

Eight women directors in the sample were "insiders," one was a chairman of the board, two were financial vice presidents, two held other vice presidential positions, and the remaining three were listed as holding "other" insider positions. Among the "outsider" directors, two women were chief executives, one was an attorney, another an academician, and five were listed simply as "other." Six women directors were private investors, and four were retired government officials. Table 2 compares the patterns of outsider categories for men and women directors by industry.

High technology firms' boards more frequently included former government officials who understood defense customer needs and could provide the benefits of their political contacts. The larger boards of financial institutions, representing a cross-section of the customers they served, elected academic representatives frequently as well as a relatively large proportion of women directors who were private investors. In preliminary tests of the likelihood that a private investor (regardless of gender) would be elected to a firm's board of directors, the sales variable always had a negative sign, indicating that as sales volume increased private investors were less likely to be elected, and became statistically significant at the 5 percent level when this model was tested for the financial institutions subset.

Table 2 indicates that high ratios of female middle managers to total managers are found more frequently in those businesses that must interface with the community. One should accept these findings with some caution, however. Field interviews with 19 of the 112 respondents revealed that some firms counted administrative secretaries as middle managers and that vice presidencies are abundant within banking establishments. As Table 1 indicates, there is weak statistical support (significant at the 28 percent level) that a woman director who also is an "insider" will be more likely to be elected if the ratio of women middle managers to total managers is high.

## Discussion

Like the *Fortune* 500 patterns shown in Table 3, this survey of smaller firms found that a large proportion of women directors were elected to the boards of banks, companies producing toiletries, soaps, and drugs, and insurance firms. Unlike the women directors in the *Fortune* 500 firms, however, 24.4 percent of these directors were "insiders" (compared with 6 percent of the *Fortune* 500). A larger proportion of female industrialists

**TABLE 2**  
**Numbers and Positions of Managers and Directors Within Industry Groupings**

	High Technology (12)		Financial Products (31)		Consumer-Related (50)		Fabrication/Manufacturing (34)		Extractive Industries (18)		Process-Related (16)		Holding Companies (9)		Service Firms (68)	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Average frequency of women directors <sup>a</sup>	25	29	28	18	0	25	0	26	0	26	0	26	0	26	0	26
Average proportion of total board which is female <sup>b</sup>	3.16	6.38	5.54	2.85	0	5.28	0	5.16	0	5.16	0	5.16	0	5.16	0	5.16
Frequency of inclusion of position on board (Frequency of women in this position):																
Private investor	25	55	52	29	33	38	49	33	33	38	49	33	33	38	49	33
Former government officials	(0)	(13)	(10)	(3)	(0)	(6)	(9)	(0)	(0)	(6)	(9)	(0)	(0)	(6)	(9)	(0)
	25	13	16	18	6	13	6	6	6	13	10	0	0	13	10	6
Academic official	(17)	(0)	(4)	(9)	(0)	(6)	(3)	(0)	(0)	(6)	(3)	(0)	(0)	(6)	(3)	(0)
	25	32	26	21	11	25	21	22	11	25	21	22	22	25	21	21
	(0)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(0)	(0)	(0)	(1)	(1)
Frequency of ratio and women middle managers to total middle- and upper-level managers:																
0%	0	16	14	9	17	6	9	21	17	6	6	6	56	21	21	21
Less than 5%	17	6	8	18	16	31	18	18	16	31	18	31	0	7	7	7
5% to less than 10%	25	3	10	21	28	28	21	21	28	31	11	31	11	12	12	12
10% to less than 20%	25	13	24	32	33	32	32	32	33	13	22	13	22	20	20	20
20% to less than 30%	25	32	20	6	6	13	6	6	6	13	11	13	11	22	22	22
30% or more	8	26	24	15	0	6	15	15	0	6	0	6	0	18	18	18

<sup>a</sup>Calculated as a binary variables, where 1 = presence of woman director.

<sup>b</sup>Calculated as absolute number of women directors per firm divided by total number of directors per firm.

**TABLE 3**  
**Women Board Members Grouped by Industry<sup>a</sup>**

	<i>Fortune 500</i> Percent ( <i>N</i> = 221)	<i>This Sample</i> Percent ( <i>N</i> = 33)
Aerospace	1.8	0
Air transportation	1.8	15.2
Banks	12.7	33.3
Chemicals	3.6	0
Conglomerates	0	6.1
Construction	1.3	0
Drugs, soaps, toiletries	7.2	6.1
Electrical equipment	3.2	0
Electronics	0	3.0
Food/agricultural, lumber and wood	14.1	3.0
Food, lodging, and travel	.5	0
Health care	1.4	0
Insurance	10.0	0
Leisure services	1.8	0
Machinery (heavy)	1.4	3.0
Measurement equipment	0	0
Metal fabrication	0	0
Metal mining	.5	0
Motor vehicles	1.4	0
Newspapers/publishing	4.1	0
Office and computing machinery and services	1.8	3.0
Paper	0	0
Petroleum/natural gas	3.2	3.0
Radio, TV, household appliances	.9	0
Railroads	.5	0
Retailing	10.0	3.0
Rubber	0	0
Specialized machinery and metal working	0	0
Steel	1.0	0
Textiles and apparel	3.2	0
Trucking	.5	0
Utilities	6.8	0
Wholesaling	0	3.0
All women directors	100.0	100.0

<sup>a</sup>Numbers may not sum to 100 due to rounding error.

(6.7 percent of the women directors) served on the boards of these smaller firms (compared with 1.4 percent of the *Fortune 500*), and a larger proportion of the females were private investors in this study (18.2 percent and 5.9 percent of the women directors, respectively). Also, a smaller proportion of the women directors in this study were academicians (3 percent vs. 19 percent, respectively) compared with patterns of directors in larger firms such as those in the *Fortune 500*.

The findings suggest that there may be a greater opportunity for women to become insider directors in smaller firms than in the larger firms. Outside directorships in firms that deal with the public also seem to offer greater opportunities for women to participate in corporate governance. Women managers have been an underutilized resource (Schwartz, 1980). The mandate of the Foreign Corrupt Practices Act (§2), which requires the

board to ensure that fair and accurate records are maintained and important facts are disclosed, has resulted in increasing activism with regard to policy matters for many firms' boards. The need for enlightened corporate governance suggests that it would be in the interests of the firm and society to elect the most conscientious directors to administer these responsibilities. If these directors are women, they should not be overlooked. The findings from this survey indicate that a larger proportion of the directors are women within smaller firms than within the leading U.S. corporations.

### REFERENCES

1. Bacon, J., & Brown, J. K. *The board of directors: Perspective and practices in nine countries*. New York: The Conference Board, 1977.
  2. Carson, L. Black director—black or mostly director? *Management Review*, August 1973, 41-43.
  3. The Conference Board. *The board of directors: New challenges, new directions*. New York: The Conference Board, 1972.
  4. Harris, P. Quoted in GM's style: Woman on the board. *Business Week*, October 7, 1972, pp. 34+.
  5. Heidrick and Struggles, Inc. *The changing board profile of the board of directors*. Chicago: Heidrick and Struggles, 1977.
  6. Heidrick and Struggles, Inc. *Director data: Characteristics of outside directors*. Chicago: Heidrick and Struggles, 1978.
  7. Heidrick and Struggles, Inc. *The changing board 1979 update: A profile of the board of directors*. Chicago: Heidrick and Struggles, 1979a.
  8. Heidrick and Struggles, Inc. *Director data: Characteristics of outside directors*. Chicago: Heidrick and Struggles, 1979b.
  9. Korn, L. B. Why would anyone want to be a director? *Management Review*, February 1973, 15-21.
  10. Mace, M. *Directors: Myths and realities*. Boston: Division of Research, Harvard Business School, 1971.
  11. Orr, L. H. Out of the typing pool—Onto the board: A list of women directors. *Business and Society Review*, Summer 1977, 27-31.
  12. Schwartz, F. N. Invisible resource: Women for boards. *Harvard Business Review*, 1980, 58 (2), 6-18.
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