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# Work Values and Their Effect on Work Behavior and Work Outcomes in Female and Male Managers

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A longitudinal sample of over 800 MBA graduates surveyed across a 16-year period was recruited to investigate the relationship of work values to work effort, salary levels, and other work outcomes. As predicted, certain work values were related to higher salary levels and to the number of hours worked. Changing companies more often and receiving more promotions were also significantly related to work values. Work values did not differ for women and men in the sample, except that women were higher in the value of wanting to do an excellent job. Controlling for work values did not explain significantly higher salaries for men as compared to women. Implications of these data are discussed.

**KEY WORDS:** salary; work values; managers.

It is widely assumed that one's values affect one's behavior, although these linkages have not always been clearly demonstrated in empirical studies (Bardi & Schwartz, 2003). One specific type of values has been labeled "work values" (MOW, 1987). These values relate to what people most want in their work. Some commonly researched work values include the idea of being recognized for one's work, taking pride in doing a good job, wanting to make money, and wanting to help people (MOW, 1987). Although there have been a number of studies of the relationship between work values and work behavior, most of these studies have been focused on men in a single organization (e.g., McClelland & Boyatzis, 1982). The present study was designed to take advantage of a longitudinal data set from a sample of MBA graduates surveyed in 1984, 1991, and 2000–2001, as studies of the effects of work values over time are particularly lacking in the existing literature (Harpaz & Fu, 2002). The sample includes primarily men and women business managers across a large set of different organizations. This data set provides a unique opportunity to examine the relationship of work values to work outcomes for managers of both sexes.

## Work Values of Managers

A few researchers have examined work values as they relate to work behavior and outcomes. In a classic study of managerial values related to work and nonwork activities, England and Lee (1974) found that, for male managers in the United States, salaries were correlated with a greater importance placed by the managers on making profits, having influence over others, and taking risks. Less financially successful managers in the U.S. and other countries were found to be low on achievement orientation, and they stressed security as a general value and other nonwork values. In a later extension of this research, that

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largely concerned low level (often not college graduates) male and female managers, Ryan, Watson, and Williams (1981) found that valuing power and aggressiveness was related to higher salaries for male managers, but there were no significant predictors of higher salaries for female managers. Research related to personality and salary levels is limited, though, for male managers, and there are few, if any, studies showing a relationship between personality and salary for female managers.

Theorists have suggested that work values may be tied to work performance and salary (e.g., Roe & Ester, 1999), but there has been little empirical research on this possibility. In one of the few studies of correlates of values with a composite measure of career success (i.e., income, job level, and expectations for advancement), Thomas (1997) found that those managers who placed a higher value than other managers on being ambitious and capable were more successful, whereas those who placed a higher value than other managers on love relationships had *lower* levels of career success. Similar patterns of relative weighting for different values in more and less successful managers were found for women and men and for Black and White managers, although the subgroup sizes were relatively small, and statistical tests were not always possible. Thus, there is limited information available regarding the relationship between work values and career success, especially for women managers.

**Motivation and Work Behavior**

Achievement motivation is defined as a long-term concern about doing things better, continuing to meet or surpass one's standard of excellence, and/or wanting to do something challenging or unique. Individuals high in achievement motivation have been found to work hard and persist in attaining their goals. Achievement motivation is associated with having a long-term time perspective and being willing to delay gratification. It is assumed to be a relatively stable motive in adults. Classic studies indicate that *men* who are higher in achievement motivation are more work-oriented and tend to be more successful in their work than men with lower levels of achievement motivation (e.g., McClelland, 1961, 1987). The relationship of achievement motivation to work success for women is less clear, although theory suggests that a similar relationship exists (e.g., Frieze et al., 2004; McClelland, 1987).

Another, less investigated, motive is power motivation. The power motive is defined as a concern about having control, impact, and/or influence over others (McClelland, 1987; Winter, 1973). This is most often expressed as a desire to be recognized and to have an influence on others. Those high in power motivation often have a high interest in their image and how they are viewed by others. They also value having prestige possessions. The type of possession considered to have prestige varies across social groups and is defined within particular groups (Frieze et al., 2004; McAdams, 1988; Winter, 1973). Power motivation, too, is associated with career success, especially for male managers who work in large companies (e.g., McClelland, 1987). Thus, successful male managers in large corporations have been found to be high in both power and achievement motivation. Again, there is little, if any, evidence of a relationship between workplace behavior and career success and power motivation for women, although the theory predicts that such a relationship exists (e.g., Frieze & Boneva, 2001; Jenkins, 1994; Winter, 1988).

Many of the studies that support a linkage among motivation, work behavior, and work success are quite old and often included only male participants. Based on the definitions of the motives reviewed above, it was assumed that achievement motivation would be associated with the work value of wanting to do things well, as the desire to meet a standard of excellence is part of the definition of the motive. Power motivation was assumed to be related to the work values of wanting to become recognized in one's field as recognition by others is one of the defining characteristics of power motivation. We also assumed that wanting to make a lot of money would be an indicator of power motivation because money is itself a "prestige" possession and having money allows one to purchase other desired possessions. All three of these achievement and power motivation-related work values were expected to be related to higher salary levels and more promotions, the two indicators of work success available in our data.

The other work value assessed in the present study was wanting to help other people. This was not seen as being directly related to either traditional power or achievement motivation, although helping others is sometimes associated with certain forms of power motivation (Frieze & Boneva, 2001).

### Workplace Behavior, Work Values, and Motivation

Other hypotheses of relationships between work values and work behavior can be derived through the association of the work values with underlying motives. Characteristics of those high in achievement motivation are being success-oriented and *working hard*. For managers, the work value of wanting to do an excellent job is expected to be associated with working longer hours. Another work behavior is changing jobs. Both achievement motivation and power motivation have been found to be related to upward mobility in business for men. For this reason, we hypothesized that those high in achievement-related and power-related values would be more likely than those lower in these values to move from one company to another. Such behavior might be related to upward striving (achievement motivation) and desire to better one's position (power motivation). Some of our earlier work with this sample of MBAs did show that those with more frequent moves had greater salary increases than those who moved less often (Murrell, Frieze, & Olson, 1996). Both of these associations between work values and work behavior were expected to exist for both female and male managers.

### Gender, Work Values, and Salary

Many researchers have reported that, in general, women and girls tend to have different work values than men and boys do. Rokeach (1973) found significant gender differences for a number of his basic value constructs. Men were more likely than women to value being ambitious, being capable, receiving social recognition, and having a sense of accomplishment. Betz and O'Connell (1989) reported that, in their sample, men emphasized self-expression and having a sense of accomplishment through work, whereas women emphasized extrinsic job conditions. In a large meta analysis of over 200 studies of work values, Konrad, Ritchie, Lieb, and Corrigall (2000) reported that, overall, men placed more value on salary and the opportunity for promotions, whereas women placed more value on having good hours and an easy commute. Based on these findings, we predicted that the gender differences in work values reported by other researchers would be found in our MBA sample. Women were expected to score lower than men on work values related to wanting higher salaries and higher on work values such as wanting to help others.

We also hypothesized that work values would affect work interruptions for both sexes, although the reasons might differ for men and women. Part of the male role in our society is that men should work for pay most of their lives and do well in their jobs. Based on such social norms, we expected that those who place less emphasis on taking pride in doing a good job, or care less about recognition for their work, or who are less likely to value high pay would be most likely to drop out of their high paying managerial jobs. The situation is somewhat different for women. It has been customary for women to drop out of the labor force or to work part time in order to make time for family duties. Indeed, many studies, including our own (e.g., Olson & Frieze, 1989; Schneer & Reitman, 1995), have shown that women managers have more interruptions to full-time work than men do, especially when they become parents. So, although the overall percentage of women who do not work continuously may be higher than it is for men, we expected that work values might differentiate those women who do and do not have work interruptions. Women managers, especially those who highly value doing a good job, getting recognition for their work, and having a high salary, were expected to have fewer interruptions to full-time work than the other women in our MBA sample. Thus, the same work values should predict less part-time work or unemployment for women and men.

Finally, our data allowed us to examine another question that has been raised in regard to why women generally earn less than men do within specific occupations. The argument has been made that gender differences in work values may relate to differences in salaries (e.g., de Vaus & McAllister, 1991). A number of studies have indicated that, even after controlling for work experience and job type, men earn more than women do (Olson & Frieze, 1989; Stroh, Brett, & Reilly, 1992). One explanation for this is that men's work values lead to their being more productive within traditional work environments, and it is their work values that are the reason for their higher salary levels. This possibility was investigated in the present study with a hypothesis that value differences would be a more important predictor of salary than gender. [We do make this formal prediction in order to test this idea, but we do not expect the hypothesis to be supported, as we believe that various forms of discrimination better account

for women's lower salaries, as discussed in Frieze and Olson (1994)].

### Research Overview

Questions about work values were asked of a sample of MBA graduates from the University of Pittsburgh in 1984. This same group was surveyed again in 1991 and in 2000–2001. Salary data and other data on work-related behavior and outcomes also were collected in 1984, in 1991, and in 2000–2001. These longitudinal data were used to test the following hypotheses:

1. Men would rate the importance of the power motivation-related work value of having high pay higher than women would. Women would rate the importance of helping people higher than men would.
2. The achievement motivation-related work value of wanting to do an excellent job would be positively correlated with working more hours, with promotions, and with more job changes in future years.
3. Power-related work values (e.g., wanting to be recognized in one's field, wanting high pay) would be positively correlated with working more hours, with promotions, and with more job changes in future years.
4. Those with high achievement values would have fewer work interruptions as shown by the number of months of part-time work and the number of months of not working.
5. Salary levels would be predicted by both achievement- and power motivation-related work values.
6. Men were expected to have higher salaries than women, but this gender difference was expected to disappear once value differences were controlled. Thus, values were expected to be a more important predictor of salary than gender.

## METHOD

### Sample and Survey Administration Procedures

People who received the Master of Business Administration degree from the University of Pittsburgh during the period from 1973 to 1982 were sampled. In the spring of 1984, an initial survey was sent to 2041 MBA graduates. After two follow-up mailings, a total of 1433 surveys were returned, yielding a response rate of 70% for this initial survey, calculated as a percent of the sample we could reach who returned the survey. In 1991, a second survey was sent to the 1301 respondents from the initial survey whom we were able to locate. After two follow-up mailings, we received 967 usable surveys, yielding a 74% response rate. At the end of 2000, a third survey was sent to the respondents of the initial survey whom we were able to locate. After two follow-ups in early 2001, 840 usable surveys were received, yielding a 64% response rate. Because of our interest in salary, we only analyzed the data from those who were working full-time at the time of the survey they were responding to. This included those in salaried positions and those who were self-employed for at least 35 hr per week. The resulting sample sizes are indicated in Table I. The natural log of the mean salaries is included as well as the absolute salary because the log of the salary is used later in the regression analysis.

In all three surveys about 95% of the respondents were White, of European descent. Three percent were African or African American and 2% were of Middle Eastern or Asian backgrounds. The men were somewhat older than the women. In the first survey the average age of the men was 34 and the average age of the women was 32. In the second survey they were 41 and 39, and in the third, 50 and 48. The men were more likely to be married than the women. In the first survey 79% of the men and 51% of the women were married. In the second survey, the numbers were 89% and 57%, and in the third, 90% and 63%.

### Measures

Surveys administered at each time period were quite different. They were quite extensive, asking about work and family variables. Only those questions used in this study are discussed here.

The first survey contained four items that assessed work-related values. In the first survey, respondents were asked to rate on a 1 (*Not at all important*) to 5 (*Extremely important*) scale the importance to "you personally" of "becoming recognized in your field," "doing an excellent job, no matter what field you are in," "helping people," and "making a lot of money." These items were taken from other studies of work values (MOW, 1987).

**Table I.** Means and Standard Deviations of Variables Used in the Study

| | Men | | Women | |
|---|---|---|---|---|
| | Mean | Standard deviation | Mean | Standard deviation |
| *Wave 1 – 1984* | | | | |
| Values (946 men and 363 women) | | | | |
| Doing an excellent job. . . | 4.57 | 0.670 | 4.68 | 0.558** |
| Recognition in field | 3.51 | 1.084 | 3.61 | 1.033 |
| Making lots of money | 3.77 | 0.807 | 3.69 | 0.802 |
| Helping people | 3.84 | 0.891 | 3.83 | 0.907 |
| Work related (924 men and 355 women) | | | | |
| Years of full-time work experience prior to MBA | 5.28 | 5.448 | 3.88 | 3.866*** |
| Current salary (in thousands of $) | 44.54 | 18.445 | 35.30 | 12.720*** |
| Natural log of current salary | 10.628 | 0.391 | 10.415 | 0.336*** |
| Years full-time work since degree | 6.22 | 2.999 | 4.51 | 2.412*** |
| *Wave 2 – 1991* (587 men and 194 women) | | | | |
| Work related | | | | |
| Current salary (in thousands of $) | 86.48 | 62.022 | 63.35 | 29.257*** |
| Natural log of current salary | 11.226 | 0.493 | 10.969 | 0.410*** |
| Hours worked per week | 50.37 | 7.278 | 47.77 | 8.027*** |
| Number of promotions since 1984 | 1.55 | 1.334 | 1.68 | 1.343 |
| # Company changes since 1984 | 0.74 | 1.053 | 0.70 | 0.914 |
| Years full-time work since graduation | 12.95 | 3.166 | 11.14 | 2.616*** |
| Any unemployment since 1984 | 0.104 | 0.305 | 0.150 | 0.357 |
| Any part-time work since 1984 | 0.049 | 0.217 | 0.144 | 0.352*** |
| *Wave 3 – 2000* (350 men and 119 women) | | | | |
| Work related | | | | |
| Current salary (in thousands of $) | 175.66 | 189.539 | 129.02 | 95.442** |
| Natural log of current salary | 11.812 | 0.653 | 11.556 | 0.642*** |
| Hours worked per week | 50.55 | 7.688 | 48.41 | 8.620* |
| Number of promotions since 1991 | 1.33 | 1.382 | 1.29 | 1.256 |
| # Company changes since 1991 | 0.75 | 1.162 | 0.97 | 1.301 |
| Years full-time work since graduation | 21.62 | 3.268 | 19.07 | 3.784*** |
| Any unemployment since 1991 | 0.174 | 0.380 | 0.252 | 0.436 |
| Any part-time work since 1991 | 0.089 | 0.285 | 0.252 | 0.436*** |

*Notes*. All work-related changes are from one wave to the next, unless otherwise noted.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Salary questions were asked at all three time periods. In the first survey, respondents were asked for their initial starting salary after receipt of the MBA and their previous year (1983) salary including any bonus. In the second survey, in 1991, the MBAs were asked for their 1990 salary including any bonus, and in the third survey they were asked for their basic salary and the amount of any bonus for the previous year, 2000. Income levels for 2000 were computed as a sum of the base salary and any bonuses.

## RESULTS

The first hypothesis, that work values would differ by gender, was only partially supported, as shown in Table I. To test this, a one-way multivariate analysis of variance across the two gender groups, using the four work value ratings as dependent variables, was calculated for all respondents in the first survey who were working full-time at the time of the survey. The multivariate main effect for gender was statistically significant, $F(4, 1304) = 3.780$, $p < .005$, as predicted. However, the only significant univariate effect for gender was for the value of wanting to do an excellent job, $F(1, 1307) = 8.528, p < .004$, and this was in the opposite of the predicted direction. Our women MBAs, contrary to the prediction, were *higher* in the achievement-related value of wanting to do an excellent job. There were no significant differences in wanting to help people or in power-related work values, contrary to our hypotheses.

Table I also demonstrates other gender differences in our sample of MBA graduates at the time of the Wave 1 data collection. The overall

multivariate main effect for gender differences in the work-related variables was significant, $F(4, 1274) = 34.526$, $p < .001$. As can be seen, men had more full-time work experience before they entered the MBA program, $F(1, 1274) = 19.768$, $p < .001$, their salaries at Wave 1 were higher, whether looked at as actual salary, $F(1, 1274) = 75.262, p < .001$, or as the log of the salary, $F(1, 1274) = 82.167$, $p < .001$, and the men had worked more years after graduation, on average, than the women, $F(1, 1274) = 92.878$, $p < .001$, either because of graduating earlier or because they had fewer work interruptions. (There were proportionally more men in the MBA program in the 1970s than in later years, so it is not surprising that they would have worked more years on average, since the men in the sample were generally older. The natural log of salaries is included because it is used in the salary regressions discussed later.)

The gender differences found at Wave 1 continued through Wave 2 and Wave 3. We again did separate one-way MANOVAS for gender for the work-related variables in Wave 2 and in Wave 3. Both showed significant gender effects (For Wave 2, the multivariate $F[8, 772] = 12.074$, $p < .001$, and for Wave 3, the multivariate, $F[8, 460] = 7.544$, $p < .001$). At Wave 2, univariate tests indicated that men continued to earn more than women, $F(1, 772) = 25.132$, $p < .001$, for actual salary and, $F(1, 772) = 42.794, p < .001$, for log salary. The men also worked significantly more hours per week, $F(1, 772) = 17.613, p < .001$. (This is the actual number of hours that people reported working per week; everyone in the sample was employed full-time.) Men continued to have had more years of full-time work experience since graduation, $F(1, 772) = 52.128, p < .001$. Women were more likely than men to have worked part-time during the period from 1984 to 1991, $F(1, 772) = 25.132, p < .001$. The average number of promotions from 1984 to 1991 for both sexes was between one and two promotions during this period. There were no gender differences in the number of times that the men and women had moved to a different company, and no significant gender difference in having experienced one or more periods of unemployment during this period.

Some of the same patterns can be seen in the Wave 3 data (also shown in Table I). Once again, men earned significantly higher salaries than women did, $F(1, 460) = 6.626$, $p < .010$, for actual salary and, $F(1, 460) = 13.733, p < .001$, for log salary. Men also worked more hours per week, although the difference was small (51 versus 48 hr per week, $F[1, 460] = 6.424$, $p < .05$). Men again had more total years of work experience since graduation, $F(1, 460) = 49.828$, $p < .001$. Women were more likely than men to have worked part-time since 1991, $F(1, 460) = 21.879, p < .001$. There was again no difference in the number of companies for whom the participants had worked; the average was less than one company change for both sexes. There was no significant difference in the number of promotions since 1991 for men or women.

Our next predictions concerned the relationships between the work value items and the hours worked, promotions, and other job variables. To test the hypotheses regarding the achievement- and power-related work values, a series of correlations were calculated for the values reported in Wave 1 and the work-related behaviors and outcomes in Waves 2 and 3. Results are shown in Table II.

Hypothesis 2, that the achievement-related work value of wanting to do an excellent job would be correlated with working more hours in the future, with more promotions, and with more company changes, was only partially supported. Men who were higher in this achievement-related work value did report working more hours in both Waves 2 and 3, as predicted. However, this effect was not found for women. We also failed to find significant correlations of the achievement-related work value of wanting to do an excellent job with promotions or company changes for either sex, as shown in Table II.

These same three work outcomes were predicted to correlate with the power-related work values in Hypothesis 3. These hypotheses showed somewhat better support. For men, there were significant correlations, as predicted, for wanting recognition and for wanting to make money with the variable of actual hours worked per week. For women, both power-related work values were also significantly correlated with working more hours in Wave 2, but the correlation at Wave 3, although in the predicted direction, was not statistically significant for working more hours. Women did show the predicted correlation at Wave 3 for working more hours and wanting high pay. The other predicted correlate of valuing recognition with the outcomes of more promotions and more company changes were not supported for either sex. However, those who wanted to make more money were more likely to report promotions, as predicted. Men who wanted to make more money were also more likely than other men to change companies between Waves 2 and 3. In general, there were nonsignificant or negative correlations for these

**Table II.** Correlations of Values With Work Outcomes (Other Than Salary) by Gender

| | Men | | | | Women | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Values in Wave 1 | | | | | | | | |
| Doing an excellent job | | | | | | | | |
| Recognition in field | .225*** | — | | | .157** | — | | |
| Making lots of money | .061 | .217*** | — | | .056 | .292*** | — | |
| Helping people | .348*** | .153*** | −.036 | — | .200*** | .174*** | −.042 | — |
| Work outcomes in Wave 2 | | | | | | | | |
| Hours worked per week | .074* | .124*** | .162*** | .064 | .061 | .109** | .157*** | .071* |
| Number of promotions from 1984 to 1991 | .015 | .011 | .097** | −.087* | .014 | .002 | .101** | −.081* |
| Number of company changes from 1984 to 1991 | .004 | .010 | .041 | −.007 | .009 | .036 | .035 | −.011 |
| Experienced one or more periods of unemployment from 1984 to 1991 | −.020 | −.044 | .035 | −.009 | −.003 | −.043 | .040 | −.001 |
| Worked part-time at some point from 1984 to 1991 | .059 | −.003 | −.071* | −.003 | .070* | .005 | −.063 | .004 |
| Work outcomes in Wave 3 | | | | | | | | |
| Hours worked per week | .146*** | .114* | .107* | .061 | .047 | .140 | .209** | −.025 |
| Number of promotions from 1991 to 2000 | .075 | −.068 | .108* | −.046 | .011 | .127 | .170* | −.060 |
| Number of company changes from 1991 to 2000 | .067 | .050 | .151*** | .039 | .069 | .073 | .088 | .054 |
| Experienced one or more periods of unemployment from 1991 to 2000 | .030 | −.044 | .057 | −.041 | −.028 | .015 | −.020 | −.028 |
| Worked part-time at some point from 1991 to 2000 | .012 | −.010 | .052 | .026 | −.154* | −.072 | −.051 | .036 |

*Statistically significant at the .05 confidence level.
**Statistically significant at the .01 confidence level.
***Statistically significant at the .001 confidence level.

work outcomes and the work value of wanting to help other people. No predictions had been made for this work value.

Hypothesis 4 predicted a negative correlation between the achievement-related work value of wanting to do an excellent job and the outcome of work interruptions. Because of skewness in the data on months of unemployment and part-time work, we dichotomized these variables. We then looked at correlations between the work values ratings and having had any experience of unemployment or any period of working part-time, as shown in Table II. As the work variables represent interruptions to full-time work, the expected correlation was negative. As shown, Hypothesis 4 received limited support. For Wave 3, the predicted negative correlation between wanting to do an excellent job and (not) working part-time was found for women, but not for men. There were no significant correlations with having experienced unemployment. It should be noted, however, that unemployment and working part-time was relatively rare in our sample, as indicated by the low values in Table I. By limiting our sample to those who were working full-time at each wave, we may well have omitted the group most likely to show effects of work values related to work interruptions.

Hypotheses 5 and 6, which related to salaries, were tested through a series of regression analyses. Results are shown in Table III.

Following Mincer (1974), it is common in earnings studies to use the natural log of earnings rather than actual earnings as the dependent variable in regression analyses. One rationale is that salary distributions tend to be positively skewed and conversion to natural logs reduces the skewness (Mincer, 1974). We found high levels of skewness and kurtosis in our salary data. When we transformed the salary data to natural logs, the skewness and kurtosis of the logs of the salaries were within acceptable levels (George & Mallery, 2001). Another effect of the logarithmic conversion is that the coefficients of the explanatory variables are interpreted as the proportionate change in salary for a one unit change in the explanatory variable (Johnston, 1984). This means, for example, that the coefficient for years of work experience can be interpreted as the percentage increase in salary for each year of additional work and the gender coefficient can be interpreted as the percentage difference between women's and men's salaries (controlling for other explanatory variables).

In Hypothesis 5, we predicted that both achievement- and power-related work values would predict salary. In testing this prediction, we included a number of controls for salary. These included years of full-time work experience before having received the MBA, as well as years of full-time experience after the MBA degree. We had seen (Table I) that men had worked more years than women had, so it was

**Table III.** Regression of Natural Log of Salary on Values, Gender, Hours Worked, and Years of Work Experience

| | Log of salary | | | | |
|---|---|---|---|---|---|
| | 1983 | 1990 | | 2000 | |
| Constant | 9.693 (.081)*** | 9.851 (.172)*** | 9.033 (.180)*** | 10.459 (.331)*** | 9.410 (.329)*** |
| Values | | | | | |
| Doing an excellent job | 0.044 (.015)** | 0.091 (.030)** | 0.073 (.028)** | 0.005 (.052) | −0.022 (.048) |
| Recognition in field | 0.019 (.009)* | 0.046 (.016)** | 0.033 (.015)* | 0.086 (.028)** | 0.068 (.026)** |
| Making lots of money | 0.059 (.011)*** | 0.075 (.021)*** | 0.050 (.020)** | 0.176 (.037)*** | 0.126 (.035)*** |
| Helping people | −0.011 (.010) | 0.004 (.019) | −0.002 (.018) | −0.033 (.035) | −0.036 (.032) |
| Other variables | | | | | |
| Being a woman | −0.085 (.021)*** | −0.186 (.040)*** | −0.134 (.037)*** | −0.195 (.070)** | −0.146 (.065)* |
| Hours worked per week | — | — | 0.021 (.002)*** | — | 0.030 (.003)*** |
| Years of full-time work before MBA | 0.027 (.002)*** | 0.004 (.003) | 0.005 (.003) | −0.012 (.008) | −0.009 (.007) |
| Years of full-time work since MBA | 0.056 (.003)*** | 0.037 (.005)*** | 0.037 (.005)*** | 0.025 (.009)** | 0.020 (.008)* |
| Adjusted $R^2$ | 0.347 | 0.143 | 0.246 | 0.129 | 0.253 |
| Number in regression | 1272 | 779 | 779 | 467 | 467 |

*Note*. Standard errors in parentheses.
*Statistically significant at the .05 confidence level.
**Statistically significant at the .01 confidence level.
***Statistically significant at the .001 confidence level.

especially important to control for this because those who had worked longer would be expected to earn more money, independent of gender or psychological factors such as values. We also included gender as a predictor of salary.

The first set of regressions within each wave all indicate that the achievement work value of wanting to do an excellent job and the power work values of wanting recognition and wanting to make money were generally significant predictors of salary, as expected. The only exception to this is that wanting to do an excellent job did not predict 2000 salary. The coefficients for wanting to help people were all close to zero.

As noted earlier, working longer hours was found to be related to both achievement and power work values. In order to determine if it was simply the effect of working more hours that predicted salary, we added hours of work as an additional predictor for Wave 2 and Wave 3. This did increase the adjusted $R^2$ for the equations, but the achievement and power values continued to be significant predictors of salary.

Finally, we looked at the effects of gender on salaries and whether or not this effect would disappear when work values were included as predictors (Hypothesis 6). First, as shown in Table III, gender was always a significant predictor of salaries, such that men earned more than women. This was true, even though we also included years of work experience as predictors. The results do not support the hypothesis that differences in work values can explain gender differences in salaries.

## DISCUSSION

A major goal of this research was to examine the hypothesis that work values are indeed related to salary differences and other workplace behaviors and outcomes for both female and male managers. Our data showed strong support for the hypothesized relationship of achievement- and power motivation-related work values to salary. The regression coefficients in Table III can be interpreted as percentage increases in salary for each level rated on the work values scales. The ratings on wanting to do an excellent job were most important in Wave 1, early in the careers of our sample. At that time, each unit on this work value added 4% to the person's salary. The power-related work values contributed more to salaries later in the careers of these MBA graduates. In Wave 3, each unit on the desire for recognition work value contributed about 9% to salary levels and each unit of wanting to make a lot of money contributed 18%. These values were lower when we also added hours worked to the regressions, but this work behavior was related to the work values, so the values without this variable can be seen as better indicators of the effects of the work values on salary. In summary, although the coefficients were small, they do translate to meaningful data in these MBA graduates' lives.

Work values were also related to a number of other behaviors in the workplace. Those higher in these work values were found to work more hours. The power-related work values of wanting recognition and wanting to have a high salary were found to be related to promotions and job changes, as predicted. Some of the hypothesized relationships for the achievement-related work values were not supported. Overall, it appeared that, for this sample of MBA graduates, power-related work values were more predictive of workplace variables than achievement-related values were. This is consistent with earlier work by McClelland (1975), who theorized that power motivation may be especially important in managerial jobs.

Our data also support the often-cited finding that male managers earned more than female managers, no matter what factors were controlled. Not only were there significant gender differences in salary levels in each wave of data collection, but the gender difference tended to increase over time. As noted in Table III, by Wave 3, gender explained almost 20% of salary levels, even after we controlled for work experience.

As discussed earlier, it had been suggested that women might lack motivation and that this could account for their lower salaries. In a direct test of this idea, we found no evidence that controlling for values explained the gender gap in salaries. We also found that, although the women in our sample did work fewer hours than men did, this did not explain their lower salaries. (We found that when we added hours worked to the regression equation, it lowered the gender coefficient so that gender *only* explained 15% of the differences in salary. But, one should also note that, even after we controlled for as many key factors as we could, the salary difference for women and men persisted.) This is an important contribution of our longitudinal research. Schneer and Reitman (1995) concluded that the "gender penalty" has a significant and negative impact on women's

career outcomes such as salary, bonuses, and overall satisfaction with work. Our data suggest both good and bad news concerning the gender penalty. Clearly work values and hours of work are related to salary for both men and women. So, regardless of gender, work values and hours worked are key drivers of one index of career success—salary. However, the bad news is that the gender gap in salary is not explained by differences in work values or hours worked. Although both sexes earn more when they work more hours, men continue to earn more than women.

We did find a small, but statistically significant, effect for women to be higher than men in the achievement-related work value of wanting to do an excellent job. This may reflect the fact that women who choose to enter management are especially highly motivated. Our data further indicate that, overall, men and women in management do not differ on power-related values. Perhaps this relates to the fact that the women and men in our sample had a similar educational background, as all were MBA graduates. They had chosen a similar occupation, and value differences do affect career choice (Moss & Frieze, 1993; Tan, 1998). Once people have selected an occupational area, the men and women within that area tend to be similar in their attitudes and values related to work (Lefkowitz, 1994). For example, in a sample of MBA students from a U.S. university, Browne (1997) found that the men and women placed equal value on salary, flexible hours, interesting or challenging work, and a sense of accomplishment. In Browne's sample, the women actually valued having a chance for promotion more than the men did. Thus, the lack of gender differences in achievement values in our sample is consistent with the results of other studies of people from one particular occupational group.

Overall our data showed no correlation between wanting to help others and salary levels across the 16-year period of our survey. Although this could lead to the assumption that the value of helping others does not positively impact career outcomes, caution should be taken before making this interpretation. Salary is one indicator of career outcomes and success, but it is clearly not the only indicator. Individuals who place a high value on helping others may de-emphasize the importance of money as an indicator of their career success. (We did find a negative, but not significant, correlation between these two work values for both sexes.) Other outcomes variables, such as job satisfaction, life satisfaction, and perceived success, may show a stronger relationship to this work value than salary does. This is an area for future researchers to explore.

Although our longitudinal data offer important insights into the connection between work values and salary, there are some important limitations of the current work. We focused on salary as the work outcome variable across our three surveys. This variable is quite sensitive to changes in the external business environment. During this 16-year period, a number of economic and social changes occurred that were not measured in our survey. Clearly salaries are impacted by changes in the job market, organizational restructuring, industry fluctuations, and a host of other environmental and economic factors. Some of these factors may have had differential effects on women and men. This is especially true for our work interruptions variable, which is quite sensitive to economic conditions and has shown large disparities by gender (Schneer & Reitman, 1990).

Despite these limitations, we are confident that this research supports an alternative explanation to a pure economic theory perspective on the gender gap in salary. Our work supports the idea that human capital factors (e.g., work experience, knowledge, education) are important to include in any model that attempts to explain gender and work outcomes. Our research adds to this existing literature by emphasizing the importance of work values as explanatory factors for both career outcomes (e.g., salary) and career engagement (e.g., working hours, work interruptions) of men and women across a variety of different organizational settings. Our work also suggests an alternative method of looking at work motivation, which builds on the existing literatures of motivation theory and work values. Recent researchers have suggested that new approaches may be needed to understand work behavior and personality (Adler, 1996) or motivation (Steers, Mowday, & Shapiro, 2004). Our data do indicate that psychological factors such as work values may be related to income and other work behavior over a period of many years.

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