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career, employment, working at home

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The Impact of Working at Home
on Career Outcomes of Professional Employees

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ABSTRACT

The Impact of Working at Home on the Career Outcomes of Professional Employees

This research examines the claim that working at home adversely affects employees' career progress, by comparing the career achievements of professional employees who work at home and those who do not. The findings contradict assertions of negative consequences of working at home. Implications for research and practice are discussed.

The Impact of Working at Home on the Career Outcomes of Professional Employees

The growing use of work at home arrangements represents one facet of a potentially significant transformation taking place in the contemporary workplace, one that has sometimes been labeled "externalization." Fundamentally, externalization entails the weakening of structures that have traditionally tied employers to employees (Pfeffer and Baron 1988; Davis-Blake and Uzzi 1993). Both work at home practices and the use of part-time and temporary employees are considered to be primary manifestations of this phenomenon. In this context, work at home arrangements are viewed as loosening the social bonds that normally develop between individuals in organizations through casual, face-to-face interactions that occur among individuals working in close proximity on a daily basis.

The effects of these changes, and of working at home in particular, on traditional career patterns have just begun to be considered. A number of analysts have argued that employees who work at home (in lieu of working at the office during normal working hours) are likely to be penalized in terms of their career progress, an argument that is premised on the assumption that a lack of visibility in the office is apt to be interpreted by supervisors as signaling lower commitment and effort (Shamir and Salomon 1985; Lediner 1988; Olson 1989a; Perin 1991; Bailyn 1993). In this study, we examined empirical evidence of the validity of this argument by comparing the career achievements of professionals who work at home with those who do not.

Based on survey data from a sample of over 400 engineering and computer professionals employed by three major corporations, we investigated the impact of working at home on three aspects of employees' career progress: salary level, rate of promotion, and perceived career progress. The results of the research directly challenge assertions of negative career consequences for employees who work at home.

In the following section, we provide background for our research by discussing the rapid diffusion of work at home arrangements that has occurred in the last decade, some of the social forces underlying this diffusion, and existing theoretical and empirical work on the consequences of such arrangements for employees' career progress. The third section of the paper describes our study, presenting sampling, measurement, and analytic procedures; the following section reports the results of the analyses. In concluding, we consider the implications of our study, both for practice and for further research.

Contemporary Work at Home: Causes and Consequences

Although work at home is not a recent organizational innovation (see Albrecht [1982] for an historical review of work at home practices in the U.S.), its widespread use among professional and managerial-level employees is a contemporary phenomenon. Up until the early 1970s, work at home arrangements were confined almost exclusively to employees who worked in relatively low-skilled occupations and were compensated on a piece-rate basis (e.g., data entry operators, electronic subassemblers, knitting machine operators, etc.)

The oil crises of the 1970s, in conjunction with advances in computer technology led to an initial surge of interest in "telecommuting" among white collar workers. But it was not until

the development of personal computers and networked systems in the mid- to late-1980s that work at home arrangements experienced significant growth in this country, growth that has been particularly marked among executives, managers, scientists and engineers in large corporations (Bureau of National Affairs 1991). There are a number of societal factors that have contributed to the recent spread of work at home arrangements within the ranks of white collar employees, including demographic changes in the work force, recent environmental and social legislation, and advances in communication technologies.

For members of the growing numbers of dual-earner and single-parent families, work at home arrangements offer potential relief for some of the problems of juggling work and personal responsibilities (Bailyn 1993). In addition, recent legislative acts, such as the 1992 Americans with Disabilities Act and the 1991 Clean Air Act, have provided incentives for many companies to offer work at home arrangements to employees in order to comply with the laws' mandates. At the same time, increasingly sophisticated and economically affordable communications technologies, including fax machines, telephone answering systems, and computer networks, have eliminated many of the barriers to coordinating work activities among geographically dispersed employees.

The concatenation of such social, legal and technological changes has thus produced a significant and continuing increase in work at home arrangements over the last decade. One recent study (Calem 1993) found that the number of part and full-time telecommuters rose to 6.6 million by 1992, an increase of 20 percent within a year's span. Similarly, a study of Fortune 1000 companies and large public employers conducted by Home Office Computing reported a five-fold increase between 1992 and 1993 in the average number of employees working at home at least two to five days each week (HR Reporter 1993). (It should be noted that the latter figures refer to employees who work at home on a regular or occasional basis during normal work hours; other studies have suggested that when after-hours work is included, up to two-thirds of all wage and salary employees report workign at home at least occasionally [see Horvath 1986].)

The growth of work at home arrangements is also reflected in organizational level data. For example, based on a representative survey of medium-sized firms in 1992, Link Resources reported that over a third of the firms had work at home arrangements by 1992 - although only 14 percent had formal work at home policies (HR Reporter 1992). The absence of formal structures for work at home arrangements suggests the relatively uninstitutionalized nature of such arrangements, despite their continued spread.

Given both the increasingly rapid growth in work at home pratices and the problematic legitimacy of such practices, it is perhaps not surprising that the consequences of working at home, both for employers and employees, have been the subject of considerable speculation and, to a lesser extent, empirical investigation. The majority of research conducted in this area thus far has focused on the twin issues of the effects of working at home on employees' job satisfaction and work attitudes, and of the determinants of supervisors' attitudes toward employees who work at home.

Research on the first issue, consequences for employee attitudes, has produced mixed evidence. A variety of studies have indicated that employees who work at home experience less job-related stress, as well as a greater sense of productivity and autonomy, thus increasing their

job satisfaction (McClintock 1985; Kraut 1987; Olson 1987, 1989a; Bailyn 1989). At the same time, studies have suggested that employees who work at home tend to perceive more problems in relations with supervisors and co-workers and in their compensation than other workers, and that these perceptions produce a negative impact on job satisfaction (Ramsower 1985; Olson 1989a).

The work on supervisors' attitudes toward work at home employees, on the other hand, has produced much less ambiguous results: Most studies have documented strong resistance by supervisors to the use of work at home arrangements, stemming from concerns about the loss of control over employees and potential declines in employee productivity (Olson 1987, 1989a, 1989b; Perin 1989; Bureau of National Affairs 1991; Bailyn 1993). Thus for example, Olson summarizes findings from a study that encompassed both supervisors responsible for formal work at home programs and those supervising employees with only informal arrangements (1989a: 333):

> Supervisors tended to discount changes in output or quality of the homeworkers. They were concerned that they did not know what an employee was doing much of the time and felt uncomfortable with employee estimates of improved performance. Thus supervisors tended to estimate conservatively that employee performance did not increase...

Given the evidence of strong negative reaction among supervisors to work at home arrangements, a number of researchers have concluded that, all else equal, one of the major consequences of working at home for employees is likely to be significantly slower career progress relative to other employees. Perin (1991) argues that office presence is a key element in supervisors' assessment of professional employees' performance because "invisible" workers are suspected of not working at all. Such an attitude is reflected in Bailyn's interview with one manager who, while expressing his support for allowing a "trusted subordinate" to spend a day working at home, noted (1993: 80), "Of course, if there were an important game on TV, I might be tempted to check and see whether he was working!" Perin attriburtes the lower than predicted use of work at home arrangements by professional employees (see Niles et al. 1976; Toffler 1980), despite apparent advantages of such arrangements, to employees' awareness of the long-term career costs of working at home.

However, most of the empirical work on the career consequences of working at home conducted thus far has been anecdotal and often based on inferences drawn from supervisors' expressed attitudes. To our knowledge, no studies systematically have examined the actual career progress of employees who work at home. The research reported here investigated the impact of working at home by examining objective and subjective measures of career achievements in a sample containing both professional employees who worked at home and those who did not. In the following section, we describe the procedures used to collect and analyze data to address this question.

Sample, Measures and Analysis

The data used in this study were collected through a survey administered to engineering and computer professionals in three major, U.S.-based corporations. These occupational groups

were targeted for a number of reasons. First, we wished to ensure that a reasonable proportion of our respondents had work at home experience, because we wanted to compare career outcomes of employees who had work at home experience to those who did not. Informal discussions with a number of human resource managers suggested to us that work at home employees were most likely to be found in these occupations. In addition, the members of such occupations are of particular interest since they represent a large and growing group of white collar workers in many organizations today, ones that are often critical to organizations' success.

Sampling:

Two of the corporations that served as research sites for the study are part of the telecommunications industry, and the other is a highly diversified company, whose products range from health care to graphic arts and audio visual supplies to traffic and personal safety products. Corporate-level human resource managers were contacted in each corporation, who referred us to the managers of departments and subunits staffed primarily by the occupational groups we had targeted. Two different subunits were identified in one corporations, and a single subunit in each of the others. Arrangements for distributing the survey instruments to all employees within these subunits were made with the subunit managers. An initial mailing with one follow-up mailing yielded response rates from each organization of 50% (N=230), 42% (N=75) and 57% (N=171) respectively.

Measures:

The questionnaire that was administered to respondents was divided into three main sections. The first section contained items measuring respondents' personal demographic and job characteristics; the second contained items designed to tap a variety of attitudes toward work; and the third contained items measuring work at home experience. Three main dependent variables are our focus here: *current annual salary* which was measured in seven ranges, beginning with "less that $20,000" and ending with "more than $60,000"; *rate of promotion*, measured by the number of promotions (defined as an assignment to a new position involving an increase in job responsibilities and a salary increase) a respondent had received in the organization divided by the total number of years with the organization; and *perceived career progress*, measured by a three-point item, "slower than expected," "about as expected," and "faster than expected."

Our independent variables included measures designed to control for the effects of factors that have been shown to influence salary levels and other career outcomes (age, education, job and occupational experience, number of subordinates, sex and race), along with measures of work at home status. We defined working at home for respondents as, "Carrying out work responsibilities from a home office, on at least an occasional basis, in lieu of working at your employer's office during normal working hours." Our measures of work at home status included a dummy variable, coded " 1 " for those who currently work at home, and two measures intended to tap quantitative differences in the level of work at home involvement. The first is based on a question that asked respondents to indicate the percent of working hours spent working at home in an average month. Responses to this measure ranged from zero to 90. The second is a measure of the number of years of work at home experience a respondent had; those

who had worked at home for less than a year were coded ".5" on this measure, which ranged from zero to five.

Analysis:

Multiple regression models were used to assess the effect of working at home on each of the three career outcomes. The first set of analyses included all respondents, allowing comparison of the career progress of employees who work at home and those who do not. Separate analyses were conducted using different measures of working at home (the dichotomous measure, and each of the measures of level of involvement in work at home, described above). The second set of analyses further explored the impact of variation in the level of work at home involvement, by examining effects of measures of involvement on the career outcomes only among the group of employees who worked at home.

Results

Table 1 presents descriptive statistics, including means and standard deviations and intercorrelations, for the variables used in the analyses. As can be seen from the statistics shown at the bottom of the table, most of our respondents were between 30 and 50 years of age, and the average respondent had completed four years of post-high school education. There was considerable variation among respondents in the number of years spent in their occupation and in the current organization. Of the thirty percent who worked at home, 51 percent were male. As indicated by the correlation matrix, the measures of working at home have a fairly small, but positive relationship to salary, and no relationship to either the measure of promotion rate or perceived progress.

-Table 1 about here-

Examining this further, Table 2 presents the results of the regression of salary on the control variables and the work at home measures. This analysis suggests that, contrary to expectations of negative career effects, employees who work at home actually have higher salary levels than employees who do not. The coefficients for the dummy variable, and for each of the two measures of level of work at home are positive and significant. When all three measures are entered simultaneously into the analysis, the coefficient of each becomes non-significant; however, this may well be an outcome of the high level of intercorrelation among these measures. The positive effect of working at home on salary levels may reflect organizational practices of permitting only higher status, more "trusted" (and hence higher paid) employees to work at home. This interpretation is discussed further below.

-Table 2 about here-

Tables 3 and 4 present the results of the regression of the measures of promotion rate and perceived progress, respectively, on the control and work at home variables. While the coefficients of the work at home measures are negative in these analyses, they have relatively large standard errors and are not significant. When all three measures are entered simultaneously into the analysis, the coefficients remain non-significant, as is the analysis of salary.

-Tables 3 and 4 about here-

Tables 5 and 6 present similar analyses, using only the sample of respondents who currently work at home. These analyses permit us to examine the possibility that the results in

the preceding analyses are affected by unobserved differences among employees who work at home and those who do not.

-Tables 5 and 6 about here-

The results shown in these two tables suggest the same conclusion as analyses conducted using the full sample: Working at home has little discernible effect on career outcomes. Among those employees who work at home, increasing levels of work at home involvement have no effect on either salary or perceive career progress. However, the length of time an indiviual has engaged in work at home does have a significant negative effect on promotion rate, indicating that, *ceteris paribus*, the longer an employee has worked at home, the slower his or her rate of promotion. This effects holds when both measures of work at home involvement are included in the model simultaneously. However, this result may well reflect the general characteristics of employees who have worked at home longer. Typically such employees are older, more experienced and higher salaried (see Table 1) - i.e., employees who are probably near the top of their career ladder and hence, who should have slower rates of promotion.

Discussion

The research described here, focusing on the consequences of working at home, represents part of an effort to understand more fully the nature and implications of one aspect of an apparent trend toward more loosely-bound employment relations in the contemporary workplace, a trend that includes the use of temporary and part-time workers, as well as work at home arrangements.

Most analysts have viewed work at home as having significant liabilities for individuals in terms of career achievements. It might be expected that this would be true particularly for white collar and professional employees since their work often involves decisions and products whose value is extremely difficult to gauge (e.g., research findings, ideas for new procedures, etc.) Under these circumstances, assessment of performance and productivity, and hence assignment of rewards by supervisors, are likely to rest on supervisors' perceptions of employees' commitment and effort. Such perceptions, in turn, are likely to be enhanced when employees' work activities (if not outputs) are visible to supervisors (see Thompson 1967: 84: Turcotte 1974; Ouchi and Maguire 1975).

However, our research suggests that, contrary to expectations, working at home has few negative effects on the career outcomes of professional employees. If anything, our data indicate that employees who work at home have <u>higher</u> salaries than those who do not. Although this result is encouraging, given the growing use of work at home arrangements, we also recognize that it must be interpreted with considerable caution for a number of reasons.

First, the strong positive relationship between working at home and salary level may simply reflect the more trusted and higher status of employees who are allowed to work at home (see Whalley 1986) compared to other employees, as noted earlier. That is, our work at home variable may be picking up the underlying privileged status of employees, which could create a spurious relationship between working at home and salary. Some support for this argument is provided in analyses using only employees who work at home; in the latter, the relationship between salary and the measures of work at home is negligible. In this context, one possible interpretation of our findings is that facilitating trust in the supervisor/subordinate relationship is

a critical consideration in creating effective work at home arrangements. Arrangements that enhance supervisors' confidence in employees may be important in reducing adverse impacts of working at home on employees' careers.

Second, it should be noted that most of the respondents in our study had worked at home a relatively short time (the longest reported time for work at home arrangements was five years). It is possible that the costs of working at home are likely to be evinced over a fairly long time span. But if this is the case, it also suggests that the effects of working at home on career achievements are relatively weak, and must accumulate over a fairly long time before they are observable.

Third, it could be argued that working at home is more institutionalized among members of the occupational groups that were the subjects of this study, and thus negative effects are less visible than they would be for individuals in other occupations where working at home is less accepted. The rapid spread of work at home arrangements, however, suggests that such arrangements may be well on their way to becoming institutionalized among a wide variety of occupations. Whether individual "pioneers" of such arrangements in organizations pay a career price that is noticeably higher than that paid by later adopters remains to be explored in further research.

Both longitudinal research and additional comparative research on different groups of employees is needed to enhance our understanding of the actual impact of working at home on career patterns and progress. Given the growing pressures on most organizations for more flexible employment arrangements, working at home is likely to become an increasingly important topic for research, findings from which can contribute to immediate practical knowledge as well as to a better theoretical understanding of the notion and nature of careers in a changing workplace.

References

Albrecht, Sandra. 1982. "Industrial homework in the United States: Historical dimensions and contemporary perspectives." Economic and Industrial Democracy 3: 413-430.

Bailyn, Lotte. 1989. "Toward the perfect workplace?" Communications of the ACM 32: 460-471.

_____. 1993. Breaking the mold: Women men and time in the new coporate world. New York: Free Press.

Calem, Robert. 1993. "Workign at home, for better or worse." New York Times (April 18), Section C: 1.

Davis-Blake, Allison and Brian Uzzi. 1993. "Determinants of employment externalization: A study of temporary workers and independent contractors." Administrative Science Quarterly 38: 195-223.

Horvath, Fredrick. 1986. "Work at home: New findings from the current population survey." Monthly Labor Review 91: 31-35.

HR Reporter. 1992. "Digital digs into telecommuting in earnest." Vol. 9: 1.

_____. 1993. "Telecommuting: Fear and loathing of loss of control." Vol. 10: 4-5.

Kraut, Robert. 1987. "Predicting the use of technology: The case of telework." Pp. 113-134 in R.E. Krauut (ed.), Technology and the transformation of white collar work. Hillsdale, NJ: Erlbaum Associates.

Leidner, Robert. 1988. "Homework: A study in the interaction of work and family organization." Research in the sociology of work 4: 69-94. Greenwich, CT: JAI Press.

McClintock, Charles. 1984. "Expanding the boundaries of work: Research on telecommuting." Paper presented at the 1984 meetings of the American Association for the Advancement of Science. New York, N.Y.

Niles, J.M., F.R. Carlson, P. Gray and G.G. Hanneman. 1976. The telecommunications-transportation tradeoff. New York: Wiley and Sons.

Olson, Margarethe. 1987. "Telework: Practical experience and future prospects." Pp. 114-131 in R.E. Kraut (ed.), Technology and the transformation of white collar work. Hillsdale NJ: Erlbaum Associates.

_____. 1989a. "Work at home for computer professionals: Current attitudes and future prospects." ACM Transactions on Office Information Systems 7: 317-338.

_____. 1989b. "Organizational barriers to professional telework." Pp. 215-230 in E. Boris and C.R. Daniels (eds.), Homework: Historical and contemporary perspectives on paid labor at home. Urbana IL: University of Illinois.

Ouchi, William and Mary Ann Maguire. 1976. "Organizational control: Two functions." Administrative Science Quarterly 20: 559-569.

Perin, Constance. 1991. "The moral fabric of the office: Panoptical discourse and scedule flexibilities." Research in the Sociology of Organizations 8: 241-268. Greenwich, CT: JAI Press.

Pfeffer, Jeffrey and James Baron. 1988. "Taking the firms back out: Recent trends in the structuring of employment." Research in Organizational Behavior 10: 257-303. Greenwich, CT: JAI Press.

Ramsower, Robert. 1984. Telecommuting: The organizational and behavioral effects of working at home. Ann Arbor, MI: UMI Research Press.

Shamir, Boas and Irving Salomon. 1985. "Work at home and the quality of working life." Academy of Management Review 10: 455-464.

Thompson, James. 1967. Organizations in action. New York: McGraw Hill.

Toffler, Alvin. 1980. The third wave. New York: Morrow and Co.

Turcotte, William. 1974. "Control systems, performance and satisfaction in two state agencies." Administrative Science Quarterly 19: 60-73.

Whalley, Peter. 1986. The social production of technical work: The case of British engineers. Albany NY: SUNY Press.