

## Science Editors and Telecommuting: Perspectives from the Literature and from the Field

### Judith McIntosh White

According to urban legend, everybody's doing it—and those who aren't already want to someday. Doing what? Working from home, telecommuting, waking each morning to shuffle in bedroom slippers and pajamas the 10 ft from bed to desk and get right down to the day's business simply by logging onto a home computer. What's the truth? And what does it mean to science editors?

No figures are available for the number of science editors who telecommute. But, to investigate the topic, I mounted a modest review of the literature on telecommuting, then talked to some telecommuting science editors—and their bosses.

### What Is Telecommuting and Who Telecommutes?

Telecommuting has been defined as “periodic work out of the principal office, one or more days per week either at home, a client's site, or in a telework center”,<sup>1</sup> although any number of variations of this definition exist.

According to the International Telework Association and Council (ITAC), “an estimated 17 million teleworkers work from home [in the United States] at least once a month. A much larger number (29 million in 1999) are ‘day-extenders,’ catching up on reading, e-mail and other tasks from home instead of staying longer at the office. Some 8 million are full-timers

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and work remotely all the time. Of those workers who don't currently telework, 39% would like to.”<sup>2</sup>

A study by Telework America 2000 (an ITAC educational initiative) found that most current telecommuters (65%) are male; are older and more experienced in their jobs than comparable nontelecommuters; live in urban areas; report to locally based supervisors; work at home only some of the time, commuting to their offices for the rest of their workweek; have longer commutes than those who do not telework; and “tend to be heavier users of computer technology than workers in general.”<sup>3</sup>

Another ITAC survey, completed in September 2001 and reported in *American Demographics*, puts the number of workers who telecommuted at least 1 day per week in the preceding year at 28.8 million—one fifth of the US adult working population—and notes that 14.5 million office-bound workers would like to telecommute. Of those surveyed, ITAC found 70% to be “quite or very satisfied” with their jobs, with 72% feeling more productive when they worked outside their offices, although more than half the respondents said they worked longer hours when working from remote locations. The survey found that most telecommuters live in the Northeast or West and have higher levels of education and income than nontelecommuters. However, no significant differences in race, ethnicity, age, or marital status were found between the two groups.<sup>4</sup>

The Web site eWorkingWomen.com touts telecommuting as “a great work option for women”, citing such benefits as flexible schedules for working parents, freedom from stressful and long commutes, and peaceful home work environments. Telecommuting case studies mentioned on this Web site include women working as a nuclear engineer, a chief executive officer of an online women's clothing company, a state auditor, and Governor Jane Swift of

Massachusetts.<sup>5</sup>

Most studies agree that a successful telecommuting arrangement requires the right type of employee. Not everyone will adjust well to working in an unstructured environment far from coworkers and computer support. Nor is every household suited for telecommuters.<sup>6</sup>

Successful telecommuters are thought to share particular personality traits, including self-discipline and self-analysis, positive reactions to working alone in an unstructured work setting, appreciation of the extra time afforded by not having to commute, and a “comfort level with office technology”.<sup>3</sup>

The August 2001 issue of *Black Enterprise* suggested four points to help evaluate whether telecommuting might work in a particular situation: form a task force of personnel who will become inhouse experts on telecommuting; consider the job to be converted to telecommuting, evaluating whether its tasks are sufficiently portable; look closely at the people to be selected to telecommute, remembering that employees who are struggling to meet performance goals in the office will only get worse when working remotely; and look at the environment in which proposed telecommuters will be working, remembering that it must be as spacious and safe as the worker's office work space.<sup>7</sup>

### Pros and Cons of Telecommuting

#### What's to Like About Telecommuting?

Telecommuting has been called “the new frontier”.<sup>8</sup> It promotes worker flexibility and mobility, allowing workers to spend more time in the field with customers and often yielding savings in real estate costs and increasing productivity.<sup>9</sup>

Benefits to telecommuting employees can include reduced commuting time and job-related costs, increased ability to manage work and family responsibilities and to participate in community activities, improved work environment, more-flex-

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ible hours and schedules, higher levels of perceived control, and improved quality of life.<sup>3</sup>

Society and employers can benefit, too, from such things as reduced traffic congestion and environmental pollution, increased productivity, improved employee motivation, increased work-time availability, flexible staffing, and tax incentives.<sup>3</sup>

Additional favorable organizational effects of telecommuting can include lower absenteeism, increased feelings of belonging and loyalty to the organization, organizational flexibility and retention of the best employees, decreased office rental costs and crowding, better use of information systems, and improved response to customers and to unexpected events.<sup>10</sup>

### What's Not to Like

#### About Telecommuting— and How Can One Cope?

Although many proponents of telecommuting wax lyrical over the advantages of this work arrangement, it is not without its drawbacks for both workers and managers.

Employers may face legal questions about a telecommuter's employment status, necessitating clear definitions. It's important to establish whether the telecommuter is an employee or an independent contractor because different laws and tax rules apply to the two types of worker.<sup>11</sup>

An employer must be aware that if a telecommuter is recognized as a regular employee, the same protective laws apply as to those who work in the office, for example, with regard to worker safety.<sup>12</sup> ITAC is engaged in a struggle with the US Occupational Safety and Health Administration (OSHA) to limit federal home-workplace regulations that extend employer liability and discourage bosses from letting employees telecommute.<sup>2</sup> OSHA's current stance is that although employers might not be responsible for guaranteeing "a safe and healthful home office", they are liable for record-keeping about all work-related injuries, no matter where they occur.<sup>13</sup>

An article in *Black Enterprise* notes that employers must also be aware of the effects

that adding telecommuters to the payroll will have on timekeeping, insurance, worker-compensation, and liability-insurance issues. The magazine cautions that employers and employees should have a clear understanding of who pays for what, keeping in mind that technologic tools used by the telecommuter must be consistent with those used in the office.<sup>7</sup>

Adverse organizational effects of telecommuting can include the absence of the best employees from the office, the loss of synergy in an organization, increased data-security concerns, and difficulty in managing telecommuting and objectively evaluating its financial effects.<sup>10</sup>

Another possible telecommuting pitfall for employers is "a perceived loss of management control of employees". Even when the perception does not match reality, it probably will have to be addressed successfully if the arrangement is to flourish.<sup>14</sup>

Popular wisdom holds that telecommuting increases productivity, but the evidence to support this belief is not strong, being based in most cases on subjective perceptions rather than measurements.<sup>15</sup> For example, studies estimate support costs for a telecommuting worker at \$2100 to \$3600 per year, largely because most telecommuters require computer equipment and support at a home-based office. Such costs might not be offset by productivity gains.<sup>16</sup>

For American employees, telecommuting most often carries the connotation of substituting information technology for travel, but the nature of the telecommuting experience depends largely on the type of work being done; dissatisfaction and feelings of social isolation are greatest in those (usually women) who are engaged in low-paid, unskilled, repetitive work at home.<sup>8</sup>

Telecommuters may miss the social environment of the office and may suffer career damage because of their reduced visibility or resentment on the part of employees not chosen for telecommuting, may feel continually compelled to work, and may suffer family and other household distractions.<sup>16</sup>

Aspiring or novice telecommuters are cautioned not to expect their new work arrangement necessarily to resolve family tensions—the jury is still out, in terms of research, as to whether working at home helps parents to balance work-family conflicts or has an adverse effect on relationships at home. Above all, "working at home is not just a cheap substitute for child care."<sup>17</sup>

### Experiences of Telecommuters— and Those Who Supervise Them

To explore science editors' experience as telecommuters, I interviewed several science editors who have telecommuted. I also interviewed two supervisors of telecommuting editors. Although the responses might not be fully representative, they can be useful to draw on.

Of the two supervisors, Stacy Christiansen, director of copyediting at the *Journal of the American Medical Association* (JAMA), has had one employee working offsite for 3 weeks per month since late in 2001. She also offers onsite staff some flexibility to telecommute from home as needed or desired.

Susan Harmon, managing editor of *RadioGraphics*, has allowed copyeditor Scott Shafer to telecommute since spring 2001. Shafer had completed the journal's requisite 12-month training period before he started telecommuting. He is not evaluated any differently because of his different work arrangement.

#### Reasons to Telecommute

Most employees who responded became telecommuters either for convenience or because they needed or wanted a change of geographic scene but didn't want to give up their jobs. Most, at least at first, spent part of their worktime in their offices.

Shafer, who lives in Indiana and works in Chicago, got tired of his daily 130-mile round-trip commute, which took 90 to 120 minutes each way, and began looking for jobs closer to home. To avoid losing his services, his employer lets him work 2 days of each week at home and work in the office on the other 3 days. "This schedule makes the job doable for me", Shafer said.

Ann Donaldson, managing editor of the *American Journal of Sports Medicine*, initially began telecommuting because she just couldn't take Boston winters any longer. "I thought I would probably be giving up my job when I told my boss I was unhappy living in Boston", said Donaldson, who had moved there from Georgia. "Instead, he told me he didn't care where I lived as long as I didn't give up my job! I'd been there for 4 years when I moved to Virginia and began working out of my home. I spent 4 weeks, one per quarter, in the Boston office and also spent 2 to 4 months at a time there when I had to hire or train new staff. I worked like this for 7½ years." Since then, the journal's main office has been moved to Donaldson's locale, and she no longer telecommutes.

Donna Tilton, production editor for the *American Journal of Sports Medicine*, moved to Georgia for family reasons and began her telecommute from her home there in September 1994.

When Ellen Chu (now an independent editor and ecologist) moved to Seattle for personal reasons in the middle 1980s, she landed in the forefront of telecommuting—"I did a lot of work by phone." She now once again finds herself working from home as a result of downsizing.

In another instance, a managing editor for several biomedical journals moved across the country to accommodate a spouse's job. She has been telecommuting for more than 12 years.

### The At-Home Setup

Except for Shafer's "3 days on, 2 days off" schedule, the telecommuters noted above have worked from home full-time, most of them in computer-intensive offices in dedicated rooms of their abodes. The typical setup includes a computer, fax machine, fast Internet connection, photocopier, telephone, and e-mail capability. Most of the respondents indicated that they owned their equipment.

Shafer's situation differs, perhaps because he splits his time with going into the office. He has no home office, but rather works from hard copy at the kitchen table or even on the front lawn.

Telecommuting editors typically receive their work by delivery service or mail or over the computer, and all said they could not dispense with telephone contact with supervisors, authors, and coworkers.

### Accountability—and the Telecommunicator's "Typical Workday"

Tilton works fairly independently, being required to keep supervisors up-to-date but not following a regular reporting schedule. Chu's supervision arrangements depend on the client with whom she's working.

Donaldson, as a managing editor, is both worker and supervisor: "Others have said that the higher-level supervisory positions would not easily transfer to telecommuting, but we have done this successfully for 8 years."

Shafer says there's no such thing as a "typical day" working at home—"how it goes doesn't matter, just so long as the work gets done." Tilton, however, maintains regular 8:30-5 work hours, to be available for telephone and e-mail contact with co-workers, freelance copyeditors, authors, and commercial printers during the times when the others are in their offices.

Donaldson stresses the need for discipline. She didn't do anything else around the house when telecommuting—"I was always at my desk at the same time as the in-office people; indeed, I expected everyone to consider me as being in the same office. The only problem I found with working at home was that the tendency is to just keep working. The work is always there, so it is tempting to just continue on for a bit or to just sit down for a while on the weekends."

Chu describes her typical workday as "still under construction" but tries to vary her activities so as not to sit too long or spend long unbroken periods on just one task; she describes herself as working in "bursts".

Another editor describes the workday as beginning with checking e-mail and faxes at 7 a.m. and ending with transmission of the journal database from her home office to the central office via modem sometime between 4 and 6 p.m.

### Home Work Climate—and Lessons Learned

Shafer said it is easier for him to work in the office than at home, in that the office has fewer distractions and more resources. Some of the other telecommuters said, however, that they suffered fewer interruptions and enjoyed greater ability to focus at home and could therefore get more done there. Despite heightened productivity, they mourned their isolation at home a bit and their giving up the office's opportunities for brainstorming, collegiality, and socializing.

Tilton, in contrast, sees little real difference between working in the office and working at home. "Because we are a journal office, the manuscripts come from all over the world. When I worked in the office, I was [still] working with the authors by telephone and mail (and some e-mail)."

Supervisor Christiansen says telecommuting can present workflow and technical issues. Telecommuting creates some problems for JAMA's process, she says; although the offsite editor can access files remotely, edit them, send them to authors, and insert them back into the system on completion, someone in the office must coordinate the creation of galleys with the production team and fax them to the editor. And because offsite editors cannot access the manuscript tracking system, Christiansen must continually update those computerized files.

Supervisor Harmon points out that telecommuting works out well with employee Shafer because "he is very responsible—and he has actually become more productive under this arrangement." Her greatest challenge has been in setting up Shafer's schedule because during weeks when deadlines are tight she will need him in the office all 5 days.

### Rewards and Challenges of the Telecommuting Experience

Although respondents rate their telecommuting experience overall as a good one, they cited technology challenges and household distractions as their biggest problems.

Shafer says he's better rested and more

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relaxed on the days when he works at home—"I'd recommend telecommuting to any editor."

Tilton cited her biggest hurdle as staying focused, not allowing herself to be distracted by other activities of life while working at home, although the absence of coworker distractions balanced this out, permitting her to work in large blocks of uninterrupted time. Donaldson had to police herself to avoid working extra hours.

The editor who's been at it the longest, 12 years, comments that "our agreement to work this way 12 years ago was rather revolutionary. It is gratifying to see technology—computers, fax machines, e-mail—enhance job portability in this way."

### Winning the Right to Work from Home

Respondents agreed that the best way to win the right to telecommute and then succeed at it is to be a good employee in the office, thus developing a trusting employer-employee relationship.

Donaldson says that editing translates easily into a telecommuting work style, but all the respondents said that some time spent in training onsite was essential both to ability to do the job remotely and to building trust.

Tilton thinks that "most people need to prove themselves in an office setting before they will be allowed to consider telecommuting. It seems that supervisors need to know you can meet deadlines and work without direct supervision before they will allow you the option of telecommuting."

Chu emphasized that telecommuters must thoroughly know the technology on which their jobs depend—"Too often, 'call system administrator' will mean 'do it yourself.'"

Christiansen plans to continue to offer telecommuting as a "perk" for her employees, but she says she can't set up her system to allow for more than a few editors to telecommute at the same time. And she noted that some staff members have no interest in telecommuting.

Harmon definitely plans to continue with Shafer's current telecommuting arrangement and, if her staff increases, might consider letting another editor

telecommute as long as he or she had completed the journal's 12-month training period.

Over and over, telecommuters cited the need for discipline, focus, daily goal-setting, maintaining open lines of communication with supervisors, and balancing work with outside interests and social contacts to avoid becoming a workaholic.

Christiansen stresses that for a telecommuting arrangement to work, it is crucial to have the direct supervisor's and upper management's support. Harmon adds that "editors who wish to telecommute should have impeccable work habits and work ethic and above all be flexible."

### Editing—a Perfect Telecommute

To Chu, "editing on paper has, like writing, always been quite a portable profession. I think—I am hoping—that effective editing tools like Word's Track Changes and PDFs are making it easier for publishers to think that offsite editors can turn manuscripts around as efficiently as on-staff editors."

Christiansen agrees that there's "usually little technologic reason that telecommuting can't work. The important issues are trust and support. The manager needs to trust the offsite worker to work just as hard as she would onsite without micromanaging. The offsite worker must be able to focus and limit distractions."

Another telecommuter calls CSE "a wonderful resource—members can offer tips to enhance the benefits and avoid the pitfalls of telecommuting."

Harmon stresses the possible benefits to society of increased telecommuting: "Considering the increasing congestion of traffic and the lengthening of the rush hour in metropolitan areas, I think more employers should consider the telecommuting option for employees who have a proven track record. If statistics were kept, I suspect that they would find their employees became more productive when telecommuting, rather than less, because they are no longer worn out with the commute."

Donaldson comments that "if you work for a journal or company that is considering letting you try telecommuting, copy-

editing is absolutely one of the best jobs to let you do this easily. If you think you have the discipline to work alone—without personal contact, being stringent about a schedule, not trying to do anything else along with your job, never looking at working at home as working around home—you should try it.

"Telecommuting requires supervisors who are willing to work with someone they do not want to lose and employees who are willing to give 100% of their effort without being told." 

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## Some Books for Telecommuters and Their Supervisors

### Judith McIntosh White

Hoping to telecommute? Deciding whether to let an employee do so? Wanting to improve a telecommuting arrangement? If so, the following books can help.

**The Virtual Office Survival Handbook: What Telecommuters and Entrepreneurs Need to Succeed in Today's Nontraditional Workplace.** Alice Bredin. New York: John Wiley & Sons; 1996. 259 pages.

This book contains valuable guidance for the aspiring or even the veteran telecommuter. Author Alice Bredin focuses on the process of becoming a telecommuter, from assessing one's own suitability and readiness to "selling" the idea to one's employer or establishing one's own business, and how to succeed in the arrangement once established.

Bredin covers how to set up a home office, including what technology to buy, and how to survive the vagaries of living in a telecommuting environment. She discusses such salient issues as structuring the work environment, coping with distractions and with the psychologic issues of working alone, maintaining organizational visibility, and communicating effectively when using teletechnology.

**The Distance Manager: A Hands-On Guide to Managing Off-Site Employees and Virtual Teams.** Kimball Fisher and Mareen Duncan Fisher. New York: McGraw-Hill; 2001. 252 pages.

*The Distance Manager* provides invaluable insights for supervisors of telecommuters. Husband-and-wife team Kimball Fisher and Mareen Duncan Fisher conceptualize effective supervision of telecommuters as more of a coach-player relationship than a boss-employee scenario. The book includes sections on

- Principles of distance managing (subtopics: supervisor competencies, effectiveness crippers, employee expectations, and types of virtual teams).
- Dos and don'ts of staying connected and coordinated with telecommuting employees (some subtopics: getting peak performance from employees, building teams, training, building trust,

overcoming employee isolation, when to meet face to face, and celebration from a distance).

- Successfully handling distance technology, from setting up a virtual office to video and Web conferencing.

It also includes case studies of distance managers in four types of businesses.

**Managing Telework: Strategies for Managing the Virtual Workforce.** Jack M Nilles. New York: John Wiley & Sons; 1998. 330 pages.

Author Jack Nilles, a "rocket scientist" (NASA engineer) turned management expert, discusses advantages and challenges of telecommuting arrangements. Addressing managers, he writes: "Your job is to provide specific, measurable, and attainable standards for the teleworker to meet so that he or she knows what must be done, why it must be done, and when and how well it must be done." Writing for the telecommuters themselves, he advises: "Home is definitely not the office that you are used to. Working at home gives you great new freedoms. That's the trouble. You have to find that balance between the new freedoms and the responsibilities of getting the work out. That involves cultivating some self discipline that you may not have needed in the office."

Nilles offers pointers for "keeping yourself working when you should be—and not working when you shouldn't be":

- Train yourself to maintain office-like conditions and demeanors in your home, setting boundaries for family and others who might be tempted to regard you as "retired", perhaps even dressing in business attire during work hours.
- Organize at-home and at-office materials so you won't have to carry the same work back and forth unnecessarily.
- Bunch "communicating time" into coherent periods during which you return calls, fax documents, and so on, and reserve blocks of uninterrupted work time.
- Make clear demarcations of when you're "at work" and "at home" and communicate the difference to family and others who may drop in.
- Communicate regularly and honestly with supervisors.