Phoning It In

Telecommuting hasn't become the commonplace work alternative its advocates anticipated. Still, the flexibility it offers has helped a significant number of companies and employees

<mark>BY CHARLE</mark>S GERENA

Three years ago, Malcolm McLeod didn't know how much longer he could endure his daily commute. The 60-year-old environmental engineer remembers leaving his home in Caroline County, Va., at 4:30 a.m. every morning so he could drive to the nearest Virginia Railway Express station, catch a train, and get to his office in Washington, D.C., two and a half hours later. In the evenings, he would leave work at 4:15 p.m. and get home well after 6.

Sure, McLeod could have moved, but he preferred a less urban environment and wanted to remain in the farmhouse he had purchased and renovated 30 years ago. He also could have retired or looked for employment closer to where he lived, but he had already put in several decades at the U.S. Army Corps of Engineers and generally found his job rewarding. The agency didn't want McLeod to leave, either - he manages the decommissioning of three nuclear plants built more than 40 years ago by the Army Corps, plants he knows inside and out since he helped engineer them.

So, several days a week McLeod trades his desk in D.C. for one of the workstations at the Fredericksburg Regional Telework Center, located in an old shopping center off Interstate 95 and just nine miles from his house. "Depending on how many stoplights I hit along Route 17, it takes me about 10 to 15 minutes to get to the center," he describes. For McLeod, working from the center part-time has been a lifestyle change. "I would have seriously considered retirement unless I was able to do this."

The Fredericksburg center is one of 14 locations operated by the General Services Administration for federal employees like McLeod who don't drive to their place of employment every day. Instead, they "telecommute" or "telework," using communications technology to perform their jobs remotely on a regular basis, usually from home or a location that's nearby. The government agencies pay a daily rate of \$25 to \$49 for every employee based at a telework center, as well as foot the bill for longdistance calls.

From the outside, the Fredericksburg center looks like any other plain storefront. Inside is a microcosm of the typical office environment, accessible 24 hours a day, seven days a week with the swipe of a card at the front door. Thirty workstations are scattered around the open floor plan, each with a telephone and a desktop computer networked to the outside world. Telecommuters have access to a conference room for meetings and locked cabinets for storing confidential paperwork.

McLeod and the other regulars at the center get to use a reserved workstation. Some personalize their space like Mary Ann Delaney, a national account manager for military construction at the Army Corps. Delaney, who has worked at the center since 1994 and spends three days a week here, likes to display pictures of her dog.

"It is completely seamless," Delaney says, using a word that McLeod also used to describe his current work arrangement. "I deal with people in Europe, I deal with people at the home office, [and] I deal with people at the Pentagon. It's amazing."

Despite these and other success stories, the Fredericksburg center was pretty quiet on a fall Tuesday morning. Typically, it's booked at 60 percent of capacity on Tuesdays, notes Jennifer Alcott, who manages this facility and two others in Woodbridge and Stafford in Northern Virginia. Overall, the utilization rate of the 14 telework centers is about 55 percent, amounting to 469 federal and nonfederal employees.

This trend mirrors what has happened in the private sector telecommuting hasn't been widely adopted despite efforts to encourage its use since the 1970s, frustrating its proponents. While this arrangement gives businesses and workers greater flexibility, the benefits accrue to only a particular type of employee doing a certain kind of work in certain industries. Just because people can do a variety of jobs from a laptop on their kitchen table doesn't mean that telecommuting is automatically the most economically rational choice for everyone.

Winning Converts

Those who have studied telecommuting or advocated its adoption say that the ranks of telecommuters have grown over the long term, with a leveling off occurring after 2000. But don't try to pin them down to exact numbers.

"Firms do not need to report teleworkers to anyone, nor do individuals need to do so," says Diane Bailey, a professor of management science and engineering at Stanford University who has studied telecommuting. "Additionally, definitional problems about who to count ... make counting difficult."

Instead of braving the congested roads of Northern Virginia, Juliet McBride and Malcolm McLeod telecommute from the Fredericksburg Regional Telework Center.



A variety of government surveys include data on people who work from home, from the U.S. Census Bureau's American Housing Survey to the Department of Transportation's National Household Travel Survey. Nonprofits like the International Telework Association and Council (ITAC) have done surveys too. The problem is some of them count a person as a telecommuter if he works outside of the office full-time, while other surveys also count people who telecommute irregularly, work offhours at home, or are home-based entrepreneurs or consultants who rarely spend time in a traditional office.

With these limitations in mind, the most recent estimates from the Bureau of Labor Statistics and ITAC place the number of people who telecommute at least once a week at 21 million to 22 million, or 15 percent to 16 percent of the total work force. These numbers are higher than estimates calculated in the 1990s, but still less than what some experts had projected.

Lawmakers have been trying to encourage broader use of telecommuting to reduce energy consumption and improve air quality. Reducing traffic in metro areas also has become a way to increase transportation capacity without building more roads, which can be politically difficult to accomplish, and to improve quality of life. In both cases, growth would be encouraged in communities.

Therein lies a problem with using telecommuting and other alternatives

like mass transit and carpooling to reduce traffic. If congestion eases in a metro area, more people want to live there. A similar phenomenon occurs when new roads are built — traffic problems are relieved in the short run, but this induces more people to drive, clogging the roads with traffic once again.

"You just bring more people into urban areas. The physical number of people would be the same, or perhaps larger," notes economist Elena Safirova. Based on her research at Resources for the Future, a Washington, D.C.-based think tank, Safirova says that telecommuting programs cannot be relied upon to sustain the reductions in congestion they initially achieve.

In addition, studies on the transportation impact of telecommuting have found reductions only in daily trips and vehicle miles traveled on an individual basis. "Thus, although an individual telecommuter may experience a sharp reduction in [vehicle miles traveled], total benefits depend on how many people are telecommuting and how often they are doing so," wrote Safirova and Margaret Walls in a 2004 paper.

Even as the technology has emerged to allow people to work remotely and independently, embracing telecommuting still requires a major shift in thinking for both employers and their employees. The benefits have to outweigh the costs to make it worth the change.

The Future of Human Resources Management?

Advocates point to several potential benefits of telecommuting for employers. Number one on their list is that it increases productivity.

By allowing employees to telecommute, companies can reduce absenteeism and tardiness. Instead of trying to come to the office when an overturned tractor trailer has shut down the interstate, employees can stay home and work. Or, when they have a doctor's appointment or a school emergency close to home, telecommuters don't have to take as much time off.

Another way telecommuting could benefit companies is to help match jobs with workers. "Employers [that offer telecommuting] have access to a wider work force than they would if they relied on only the local work force," Safirova explains. "Some people don't want to live in large cities," but they might work for companies in those locations. Similarly, the flexibility provided by telecommuting can help a company retain employees, especially in tight labor markets. Take ORC Macro International, for example. The management consulting firm's division in Bethesda, Md., started offering telecommuting in the late 1990s to hang on to its data collection and dissemination workers who were moving away.

"These people were going to be hard to replace," recalls Guy Garnett, the division's vice president of network systems and services. "They knew how we work and the projects, so they were more valuable than a new hire." One employee was married to a member of the military who was posted to Bosnia. When she decided to go with him, the company allowed her to telecommute from six time zones away.

Today, ORC's Bethesda employees telecommute from Massachusetts, Pennsylvania, and even Eastern Europe. Last April, Vladimer Shioshvili started telecommuting from Georgia — the former Soviet Republic, not the Peach State — to be closer to his family. The senior programmer/analyst works from a small room in his girlfriend's apartment, outfitted with a computer desk and chair, a laptop provided by the company, and a printer, along with a view of the busy streets below.

"It can get a little loud sometimes," Shioshvili says, and it took awhile to get used to the eight-hour time difference. But there have been no problems with his intercontinental telecommute so far, other than an occasional dropped call.

Finally, telecommuting promises to reduce a company's need for office space. Jennifer Alcott, the Fredericksburg telework center manager, points to the U.S. Patent and Trademark Office as an example. According to Alcott, the PTO will have to hire about 3,000 examiners within the next few years. This influx of new hires will require doubling the size of its campus in Alexandria. To lessen that expense, the agency is expanding its 10-year-old telecommuting program.

Don't Move My Cheese

Despite these and other fruitful implementations of telecommuting, there are many managers who remain unconvinced. They need hard evidence that increased productivity and cost savings will compensate for the startup and ongoing expenses of a telecommuting program.

Claims of improved productivity

have been based largely on case studies of individual companies and surveys, both of which are subjective measures that have their limitations.

"You can measure the productivity impacts of telecommuting as well as you can measure [white-collar] productivity generally," says Patricia Mokhtarian, director of the Telecommunications and Travel Behavior Research Program at the University of California at Davis. "It is pretty hard to quantify," though it can be done in

Government Sweetens the Telecommuting Pot

Since the Arab oil embargo in 1973 and 1974, government officials on the federal level have been nudging private companies to offer telecommuting as a way to reduce energy consumption. Later, Clean Air Act mandates forced states to take a hard look at ways to get cars off the road, including having more people work from home. In both cases, the results of their efforts have been mixed.

Congestion and air-quality concerns are what drove local governments in the Washington, D.C., region to include telecommuting as part of their regional transportation planning. "We were designated as a severe non-attainment area for nitrogen oxides and volatile organic compounds by the EPA," says Nicholas Ramfos, who manages the telecommuting initiatives of the Metropolitan Washington Council of Governments. In order to receive federal transportation funding, the region had to show it was taking steps to reduce those pollutants.

Government programs support telecommuting for another reason — to open doors to employment for those who have difficulty finding and keeping a job. These include the homebound (i.e., stay-at-home parents, the physically handicapped, and the elderly), spouses of military personnel who are subject to relocation at any time, and residents of isolated rural areas.

Since 2001, Telework!Va has provided incentives for Virginia businesses to establish or expand telecommuting programs. The state-funded program offers a maximum of \$3,500 per employee for up to 10 employees to help cover program expenses over a two-year period. Reimbursable costs include leasing office equipment for home use, renting space at a telework center, and consulting and technical services.

So far, two dozen companies in the Northern Virginia, Richmond, and Hampton Roads regions have received \$302,000 in grants, the majority going to firms closest to the nation's capital. That is just a fraction of the \$3.2 million budgeted for the program by the General Assembly.

Through its Telework Partnership with Employers program, Maryland had offered state-funded grants of up to \$15,000 to pay for a consultant to assess a company's potential for telecommuting, then develop and implement a program. Russ Ulrich, who coordinates air-quality outreach programs at the Baltimore Metropolitan Council, says that most of the money set aside by lawmakers for the eight-year-old program has been spent. Still, telecommuting was slow to catch on in the Baltimore metro region.

"There was a lot of skepticism, especially for those businesses that had never heard of teleworking and had no firsthand experience with it," Ulrich notes. "The idea of working remotely wasn't fully understood." Even though the regional economy is changing, it still has a "blue-collar mentality." Employers expect their workers to show up at their place of business, and for many of the region's top industries, telecommuting simply is not feasible. — CHARLES GERENA some industries like telemarketing and sales.

Furthermore, actual improvements in the productivity of telecommuters may be limited to those who are already disciplined, hard workers. Relatively unproductive workers don't magically become "Employees of the Month" if they are allowed to telecommute. These employees need monitoring, which telecommuting makes more difficult. Productivity gains are also constrained when people telecommute only part-time.

Cost savings from reducing office space have been documented. The caveat, in this case, is that the company must achieve a critical mass of teleworkers in order to realize those savings. "You've got to have enough people out of the office for enough days during the week that you can reconfigure your office space,"

A Small Slice of the Work Force

Among the 82 federal agencies surveyed in 2004, only 4 percent of their 1.8 million employees telecommuted at least once a week.



says Harriett West, a senior manager at Clifton Gunderson. She has tried to develop a telecommuting specialty practice at the accounting and business consulting firm since 2001, but hasn't had many takers.

While the benefits of telecommuting seem unclear, many managers are concerned about what might be lost if employees are allowed to work from anywhere. Some say it would be harder to ensure that telecommuters are doing their jobs. Others don't want to lose the fruits of collaboration.

Mokhtarian says academic studies have demonstrated the value of having workers physically present. While information technology is supposed to make working remotely as good as being in the office, managers lose the body language, the ease of getting people together, and the side conversations that convey a lot of meaning and information. "In many cases, there is a legitimacy to the idea that we need to be face to face," she adds.

There is also the monetary cost of creating a virtual office. While 42 percent of adults have broadband Internet access at home, the company or the worker has to be willing to pay for connecting those households without it. In addition, telecommuters need the proper equipment in place, from fax machines to PCs with secure network access. "For some federal agencies and contractors, security for remote access is a huge concern," says Nicholas Ramfos, director of the commuter program at the Metropolitan Washington Council of Governments.

Such costs vary from company to company, but a telework study done for the Virginia Department of Transportation in 2001 arrived at some general estimates. For a program with a minimum of 50 participants telecommuting at least twice a week, startup costs were pegged at \$6,000 for home-based telecommuters and \$9,500 for those who work at a telecenter. The annual recurring costs ranged from \$2,500 to \$3,500 per person. (The General Services Administration's cost estimate for home-based telecommuters also falls within this range.)

Finally, legal issues have to be addressed. Most states - including Virginia, West Virginia, and the Carolinas – reserve the right to tax a company's income if it has workers telecommuting from those states. Then, there are liability questions: What is the employer's obligation to ensure that the telecommuter's home office adheres to workplace safety standards? Do union contract requirements apply to employees who work at home? Each question can be addressed in the telecommuting agreement signed by the employer and employee, but every additional provision adds costs to the arrangement and undermines its flexibility.

The Employee Perspective

Managers aren't the only ones who weigh the potential benefits and costs of telecommuting. For employees, the advantages of working from home have to be worth the effort.

The main promise of telecommuting for individuals is the flexibility it offers for balancing work and family duties. In her 2002 review of previous telecommuting research, Diane Bailey found that women, dual-career couples, and families with younger children often cite this benefit. Additionally, Bailey says telecommuters benefit from greater autonomy and the time and cost savings of working from home.

Still, telecommuting may not yield significant benefits for everyone. For example, some people don't mind having a long journey to work. One study done by Patricia Mokhtarian in 2000 found that people actually derive some benefit from a commute of moderate length — among 1,300 workers surveyed in the San Francisco Bay Area, the average commute desired was 16 minutes.

Why? Workers may need the journey between home and work to prepare for the workday ahead or to unwind before walking through the front door. "This is the time to decompress and change roles. It is a transition period between one role in your life and another," economist Elena Safirova notes.

Some workers believe they are judged by how much "face time" they have with management. Therefore, their chances of promotion would be hurt if they become less visible by telecommuting. Among 1,320 executives surveyed by recruitment firm Korn/Ferry International in late 2006, about 61 percent thought telecommuters are less likely to advance in their careers compared to employees working in traditional office settings.

"Even though workplace technology has made big leaps forward

compared to 20 or 30 years ago, the general mentality of the workplace is still the same: out of sight, out of mind," Safirova says.

In fact, this could be more perception than reality. Consultant Harriett West says workers allowed to telecommute are usually the ones that management thinks are the most trustworthy and productive. Korn/Ferry's survey confirms her assessment: 78 percent of respondents said telecommuters are either equally or more productive than their office-bound colleagues.

Finally, some telecommuters may have trouble stepping away from their desk at the end of what otherwise would be the normal workday. "If you wake up at 2 o'clock in the morning with an idea, the work is right here," West explains. "Some people need more of a barrier between work and home."

Reality Check

Like videoconferencing, telecommuting isn't right for every company, every job, or every person.

Service firms that focus on the creation, distribution, or use of information are a natural fit for telecommuting. This includes call centers, computer software firms, marketing organizations, and corporate support operations like payroll and human resources. Also, occupations where most of the work occurs outside of the office anyway are better suited for telecommuting, such as sales and auditing.

In contrast, workers at manufacturing plants, mines,



If the Telework Exchange and other nonprofit groups promoting telecommuting had their way, there would be more bumper stickers like this one on cars.

and building maintenance firms have to do their jobs on-site. In general, most of the production work force will probably never telecommute. Neither will those occupations where face-toface interaction is essential to the job.

Herman Miller, which offers workspace consulting services in addition to producing office furniture, outlined in a 2001 white paper what it considers to be the ideal telecommuting job: "Work that can be performed off-site is generally explicit enough to be achieved without further explanation or direction, paced and controlled by the worker, conducted over the phone," and involves soft skills like reading and planning. A Department of Labor report published in 2000 noted that telecommuting works best for jobs that demand a high degree of privacy and concentration, are predictable, and information-based.

Rita Mace Walston, general manager of a nonprofit advocacy group called the Telework Consortium, adds that people who are newcomers to their job, the industry, or the world of work in general may need a little seasoning in the office before they are ready to telecommute.

In general, the best telecommuters are self-directed and self-disciplined. These are traits that Vladimer Shioshvili possesses, and they help make telecommuting from Eastern Europe work for

him and his employer, ORC Macro International.

"I can motivate myself, most of the time," he says, although keeping himself on task can sometimes be a challenge when there are distractions in his apartment. He continues to work late once in a while, putting in more than eight hours a day like he used to back in Bethesda.

To stay in the loop, Shioshvili uses a messenger service, e-mail, and phone conversations in addition to instant messaging. Also, because the company has several dozen telecommuters, project teams hold biweekly conference calls to supplement physical meetings. "Sometimes, it doesn't feel like I'm that far away." **RF**

READINGS

Bailey, Diane E., and Nancy B. Kurland. "A Review of Telework Research: Findings, New Directions, and Lessons For the Study of Modern Work." *Journal of Organizational Behavior*, June 2002, vol. 23, no. 4, pp. 383-400.

Telework: The New Workplace of the 21st Century. U.S. Department of Labor, 2000.

Walls, Margaret, and Elena Safirova. "A Review of the Literature on Telecommuting and Its Implications for Vehicle Travel and Emissions." Resources for the Future Discussion Paper 04-44, December 2004.

Washington Metropolitan Telework Demonstration Project, August 1997-April 1999: Final Report. Metropolitan Washington Council of Governments, July 1999.

Westfall, Ralph D. "Does Telecommuting Really Increase Productivity?" *Communications of the ACM*, August 2004, pp. 93-96.