Telework: A Productivity Paradox?

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Telework could potentially offer significant savings on fuel, office space, and carbon emissions, improve productivity and morale and even reduce the outflow of US jobs overseas. Many companies have enthusiastically embraced it, but pitfalls loom. It appears that the public sector, especially the federal government, is behind on deploying telework opportunities. The challenges of setting up office system replicas in homes or telecenters are significant. Yet the payoffs, measured in productivity gains and real estate savings alone, could make the investment pay off handsomely.

Is it a solution to our reliance on foreign oil? A reversal of the trend toward outsourcing US jobs overseas? A technology fix that will change the way we live? The subject is *telework*, and a growing number of advocates feel that it's an underreported answer to several major challenges. Telework — moving the work to the workers instead of the workers to work — is a term originated by researcher Jack Niles more 30 years ago (http://jala.com/definitions.php). Also known as telecommuting, it's widely used in the private sector and is gaining popularity in the public sector, as more government branches mandate its implementation. A Washington state senator, noting that the average commute in his Central Puget Sound constituency had risen significantly in three years, said "I can't tell you the number of people who told me if they could just work from home, they wouldn't have to get on the road every day."[1] The senator believes that telecommuting is a better solution than building new roads.

Telecommuting seems like an obvious policy initiative because it can accomplish many desirable goals, such as save office space, reduce transportation costs and automobile emissions, improve employee morale and job retention, and increase productivity. It can also be part of a contingency plan to increase productivity and restore orderly operations in disaster control scenarios.

It's difficult to determine the precise number of US teleworkers because the estimates vary from millions to tens of millions. The problem lies partly in defining a teleworker — some might work infrequently in that mode, while others might operate in it entirely. A 2005 Gartner Group study indicated that, by 2008, roughly 35 million Americans will telework more than eight hours per month, and roughly a third of these will telework more than eight hours per week. Roughly 100 million people will telework worldwide, with the largest concentrations in the US, Western Europe, and Japan,[2,3] but these statistics might omit the workers who own their own work-at-home businesses.

Despite telework's benefits, in 2007, the US Office of Personnel Management determined that only 6.61 percent of federal workers actually performed any level of telework (www.telework.gov/surveys/2006_TW20Report.pdf). State and local government ratios are similarly low. As a point of comparison, IBM and many other private-sector firms have half or more of their employees working from home or at telecenters — offsite locations where the worker is linked to the full range of capabilities available at the regular office site that offer an alternative to teleworking from home.[4] Thus, we might ask, is legislation needed to encourage telework?

Further Reading

These sources track current and emerging telework issues and are updated frequently:

- *Telework Exchange* (teleworkexchange.com): Dedicated to promoting telework, especially in the federal government, this extensive site has case studies, check-off lists, and other information, plus a running total of annual government savings in gas and emissions through telework.
- *Journal of E Working* (www.merlien.org/oj/index.php/JOE/index): An excellent source of the latest academic research on telework.
- *Telework.gov* (www.telework.gov): A federal government site with information on seminars, special training, and other telework-related activities.
- *Jala International* (www.jala.com): A helpful site for determining cost and benefit trade-offs associated with telecommuting.

Legislating Telework?

In 1999, the US Congress authorized five pilot telework programs in the National Air Quality and Telecommuting Act, but almost a decade later, only 6.61 percent of the federal workforce telecommutes. To help raise awareness about teleworking, many advocacy groups are springing up. Existing federal government guidelines describe telework's purpose as improving recruiting, helping employees manage long commutes, reducing auto emissions and infrastructure impact on urban areas, saving on government real estate costs, and ensuring continuity of operations in times of emergency (www.opm.gov/pandemic/agency2a-guide.pdf). Earlier this year, the US House of Representatives passed HR4106, which enables eligible employees to telework 20 percent of every two-week work period, but the Senate has taken no action on the bill and has introduced its own version — S.1000, Telework Enhancement Act of 2007. Neither bill is expected to pass quickly.

In 2007, the US Government Accountability Office's Strategic Issues director, Bernice Steinhardt, testified to a Congressional committee that telework results had not been impressive, stating that "everyone is looking to telework to yield a whole variety of benefits [...] but all these aspira-tions have never been translated into program goals [...] because no one is managing them, setting targets and evaluating existing programs."[5] The Commonwealth of Virginia's 2008 telework legislation's goals are similar to the federal guidelines but add improved productivity and accessibility for disabled persons. Incidentally, all of these goals are recommended, not mandated. Virginia's new telework law directed that, by 2010, 20 percent of the state's eligible workforce participate in either alternate work schedules or telework (www.otpba.vi.virginia.gov/telework.shtml). More than half of the 50 states and many large municipalities have legislated some type of telework.

The Business Case for Telework

The financial decision for deploying telework capability involves a trade-off between the considerable costs of establishing a secure site outside the office and all the possible benefits. A recent study of more than 1,400 CFO's by Robert Half International reported that a third found telework to be the top incentive for attracting the best employees, and nearly half of the rest thought it was the second best incentive — after money.[6] Moreover, a national Gallup poll found that most Americans believe that teleworkers are at least as productive as office workers (www.gallup.com/poll/24181/One-Three-US-Workers-Telecommuted-Work.aspx).

Many large US companies, such as IBM, Microsoft, Sun Microsystems, Bank of America, Procter and Gamble, and Cisco, have had teleworkers for many years — more than two decades in some cases. Nearly half of IBM's 330,000 employees telework from home or other sites, and the company claims more than US$50 million in annual savings in real estate costs alone. IBM's retention rate for teleworkers is higher than for non-teleworkers, with teleworkers exhibiting a roughly 10 to 20 percent higher productivity rate than their in-house counterparts. The company extensively uses its own Second Life site, which IBM calls the Metaverse. The tools imbedded in this virtual universe are integral to creating an efficient collaborative environment for remote workers.[7]

Some previously outsourced call-center jobs might also be headed back to the US through telework. A McKinsey study found that returning some IT jobs to rural America — "rural in-shoring," could save 50 percent of call-center costs compared to 15 percent or less savings for off-shoring to India or other overseas sites.[8]

West Corporation (www.west.com), LiveOps.com, and Arise.com have more than 40,000 home-based employees for part-time work and are expanding significantly. Some offer benefits and even permanent status.[9]

The Productivity Paradox

In spite of some high-profile success stories, researchers are careful about attributing abundant productivity advantages to telework. And government employee data — federal, state, and local — show that most of the attributed advantages so far are associated with improved fuel savings, morale, and retention, but not productivity or real estate benefits.

Some of the claims for telework's potential seem extravagant, such as that a national telework strategy will increase GDP, reduce the national debt, and bring about a favorable trade balance.[10] Author and blogger Kate Lister describes such potential payoffs: "Currently, only 4 percent of the US workforce works from home, but research shows that about 40 percent have jobs that could be performed at home. Our analysis shows that if they did, these 50 million new teleworkers could annually save 587 million barrels of oil (roughly equivalent to 74 percent of our annual Gulf Oil imports), reduce greenhouse gases by 101 million metric tons of CO_2, and save almost US$52 billion at the pump. Each worker individually would save 26 work-days and over $1,000 – time and money now wasted commuting. That's the equivalent of an extra 5 weeks vacation a year!" (http://undress4success.com/work-from-home-earth-day).

Surprisingly, some organizations sidestep the productivity issue even though higher worker productivity has always been a tenet of telework implementation. A decade ago, professor Ralph Westfall proposed a group of hypotheses concerning telework productivity, suggesting that there were many pitfalls in achieving measurably higher yields for telework that might help explain this reluctance. He speculated that reported gains could be severely biased by factors such as selection of better workers for telework than for "normal" work, unreliability of self-reported productivity gains, inability to separate improvements due to telework from overall management improvements, additional costs for telework not included in analyses, and difficulty in gauging returns that companies gain from telework as more employees participate. He concluded that most reports of improved productivity were in danger of seriously overstating the bottom-line gains, leaving the productivity issue moot.[11]

Studies on Teleworkers

Researchers have studied telework extensively, and some of the most helpful studies are meta-analyses of many reports – studies of studies. In a detailed review of 46 different sources, Penn State researchers Ravi S. Gajendran and David A. Harrison found that when workers teleworked fewer than 2.5 days per week, they had a greater sense of autonomy, which had slight but recognizable positive effects in work-family conflict and no significant negative effects on work relationships. For more than 2.5 days per week, the sense of autonomy and work-family relationships improved even more, but relations with coworkers declined.[12] Another study investigated how employee telework impacts the degree of work-family relationships by separating the family conflict variable into two parts: work-to-family and family-to-work. They found that with increased telework, the level of conflict caused by work impacting the family decreases, but conflict increases as family members interrupt their work. The researchers also investigated other factors, such as the level of job autonomy and scheduling flexibility as well as household size. Generally, individuals who telework extensively have greater conflict if they also have low flexibility or a large household size. "We found that the more extensively individuals telecommute, the less work interferes with family and the more family interferes with work."[13]

The Downside of Telework

So with all these potential benefits, why isn't everyone telecommuting already? First, roughly half the 140 million jobs in the US are appropriate for offsite arrangements. Second, serious management challenges exist because some workers who are eligible for telecommuting aren't able or willing to operate in that mode. IT journalist Jody Gilbert suggests 10 reasons why many aren't cut out to be teleworkers. Among them are difficulty in handling distractions, inability to work independently, problems in relationships with manager and coworkers, and reluctance to miss out on collaborative opportunities. Also, some are unwilling to send children to childcare while in telework mode, as many telework agreements require (http://blogs.techrepublic.com.com/10things/?p=290). Third, it takes a special kind of manager to cope with a worker who is only occasionally in sight. Managing by task completion rather than always observing progress is difficult. As a Sun Microsystems vice president said, "If you have to manage by monitoring, it's not for you."[14]

Fourth, the technical challenge and cost of creating a replica of the secure office environment at an individual's home or a telecenter is significant, especially when many connections are wireless. It's crucial to provide FIPS-certified (federal information-processing standard) virtual private networks, protect the remote system with an endpoint firewall, and set up a secure Internet connection. The laptop or PDA at the remote site can itself be a security danger – if a teleworker forgets to disconnect from the network before leaving, an intruder could then gain access to system data. Frequent training, for network personnel as well as users, is also essential. Safeguarding implementations such as these is just the beginning. As the potential risks multiply, so must the complexity – and cost – of the organization's security procedures.[15]

Many of the world's most successful companies have embraced tele-

work and incorporated it into their mainstream activities, saving hundreds of millions of dollars annually in real estate and productivity gains alone. When you add the importance of telework as a motivator, morale booster, and fuel and emissions reducer, it would seem that everyone who's eligible should be teleworking. Some argue that telework can appreciably affect the US dependence on foreign oil. But the reality is more complicated. The major beneficiaries of telework seem to be in higher-paid, skilled jobs. It's not clear that tens of millions of average or below-average pay positions are easily shifted to telework mode. The federal government, despite legislation, pilot programs, and publicity, has achieved relatively low percentages of participation after a decade or more of trying. Perhaps telework will do all the things its most optimistic advocates predict, but it seems more likely near term that the companies, large and small, that are already reaping telework benefits, especially those which show both productivity and real estate savings, will continue to increase bottom line savings. For the rest, including many government applications, the pace will be considerably slower.

Just last month, James Peake, US Secretary of Veterans Affairs (VA), had to apologize to Representative Frank Wolf (Republican, Virginia) for a VA policy that penalized teleworkers by requiring them to work 140 hours more than nontelework employees to be deemed qualified to work from home. The secretary, on learning of the policy, immediately rescinded it, but this case is a reminder of the obstacles still ahead (www.federalnews radio.com/?nid=169&sid=1490549). In spite of the challenges, many people, especially in the private sector, feel that there's no turning back from telework. IBM's Don Pelino, general manager of the company's healthcare and life sciences division, put it this way, "We have this feeling of being cut off, but no one is interested in going back to the old way of coming in everyday, the bricks and mortar and who gets the best parking spot." ☐

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