

# Federal Telework

## Obstacles and Opportunities



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August 2013

Sponsored by:



## Global Workplace Analytics

Business Strategies for Today's  
Mobile Workspace



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# Background

## Introduction

Despite long-standing laws and mandates that require federal employees to telework to the maximum extent possible, in 2012 less than 7% did so at least once a week.

That's not because the employees don't want to; 88% say they would if they could.

That's not because they can't, in 2012 nearly a third were considered eligible—a number that will grow as federal agencies understand eligibility issues better. Some agencies have already proven they can manage mobile workers with over 75% of their employees participating.

And low telework participation in the federal government isn't because they haven't been given enough encouragement. Congress has repeatedly endorsed telework and even chastised agencies for lack of progress.

Referring to himself as the Teleworker in Chief (he works from home, and is very mobile, after all), the President has repeatedly stated his position in support of telework.

What's more, our nation's enemies and even Mother Nature have offered clear demonstrations of the need for telework as a continuity of operations strategy.

## History

Telework in government is nothing new. In 1917 twenty-thousand civilian government employees were asked to work

from home to make uniforms because there wasn't enough room at the Jefferson Indiana Depot. What's more, they were asked to provide their own sewing machine—'Bring Your own Device' (BYOD) in today's terms.<sup>1</sup>

Decades passed until the next round of telework took off, quite literally, in 1961 when astronaut Alan Shepard demonstrated that a well trained, tech savvy worker with the proper infrastructure could work from just about anywhere. Crews in the International Space Station continue to do so 24/7/365.

In 2000, the threat of Avian Flu led to §359 of Public Law 106-346, with continuity of operations in mind.<sup>2</sup>

More than a decade later, Congress felt the need to pass Public Law 111-292, the Telework Enhancement Act of 2010 (TEA), to add rigor to prior legislation.

Meanwhile, leading public and private sector employers were beginning to formalize new workplace strategies, viewing telework not just as a tactical solution to temporary problems, but a strategic initiative aimed at leveraging an increasingly mobile and global workforce.

## Current Status

Today telework, along with other workplace strategies such as hoteling and desk-sharing, are being implemented by businesses around the world to solve office space problems, reduce costs, attract and retain talent, reduce work/life conflict, lower greenhouse gas emissions, and more.

Government, too, is making that shift. According to the *2012 Status of Telework in the Federal Government Report to Congress*, "Satisfying these requirements [of the Telework Enhancement Act] has meant a fundamental shift in how agency stakeholders view and implement telework—from a strictly individual employee benefit to a strategic organizational change program."<sup>3</sup>

While the impetus for telework may have shifted, the obstacles remain largely unchanged. Manager resistance has led the list for more than three decades, and still does. Solutions have been repeatedly proposed by those on the front line, but adoption remains slow.

Debate continues on how to measure the success of telework programs, how to comply with TEA requirements, how to maximize telework effectiveness, and even whether telework deserves a special focus in government.

## Methodology

This white paper will examine how the experts in government view the obstacles to telework. Based on their insights, those of industry experts, and our own observations, this paper will suggest solutions for overcoming those obstacles.

To capture the uncensored views of telework leaders, those in the trenches both inside and outside government, anonymity was offered to those who agreed to an interview or to participate in a survey.

## Interviews

Federal government executives (GS-11 to GS-15), Senior Executive Service members (SES), and current and former Presidential appointees with significant roles in federal telework were interviewed. Government contractors who provide telework-related services were also offered the opportunity to share their opinions about the obstacles and opportunities for telework in the federal government.<sup>4</sup>

No one declined to be interviewed, but most chose to speak off the record. Direct quotes required government approval.

Interview quotes, attributed or otherwise, are in **black bold face type**.

**“I am really hoping things will be different next year, but we have really had to dial back on how stuff is communicated and what is communicated. We took a real hit for even acknowledging our participation in Telework Week this year. The agency was worried about public backlash, fearing they would see it as Feds living the good life.”**

## Survey

An invitation to participate in the survey<sup>5</sup> was distributed to nearly 600 federal telework coordinators<sup>6</sup>, federal real estate and workplace leaders<sup>7</sup>, the GSA Workplace+ Community of Practice Group<sup>8</sup>, other government executives with telework-related responsibilities, and private sector providers of telework-related services. Twenty percent of those invited participated.

The survey was not designed to produce a statistically accurate representation of federal viewpoints. Rather, it was intended as a way to collect insights from experts on the front line regarding the obstacles to telework and opinions regarding ways to overcome those obstacles.

Most of the online survey questions offered multiple-choice answers, with space for optional comments. The answer choices were drawn from various documents including *The Federal Viewpoint Survey*<sup>9</sup>, the annual Office of Personnel Management (OPM) telework reports to Congress<sup>10</sup>, and OPM’s report: *Expanding Federal Telework: Overcoming the Barriers*.<sup>11</sup> Additional choices were added based on the authors’ own insights and knowledge of industry best practices.

A surprising 350 optional comments were written to elaborate on participants’ multiple choice answers. They revealed a strong passion for the topic and, in many ways, were more informative than the answers themselves.

Some of the comments are included in this document (in **bold blue type**)—including all of them would have made it prohibitively long. All the comments are available online at [GlobalWorkplace Analytics.com](http://GlobalWorkplaceAnalytics.com).

Some comments have been edited slightly to ensure anonymity. Most were written in a very informal way, without regard for spelling, punctuation, and tone. Honesty, not style, was the point.

A sincere effort was made to avoid bias in the wording of survey questions, selection of participants, and choice of which comments to include in this document. However, bias was inevitable as all agencies were not equally represented, and those who chose to comment may not reflect the general sentiment of those in government.

The authors’ opinions and editorial comments are included throughout this document, as well.

## Why Telework?

Before examining the survey responses and interviews, an underlying question has to be asked: Should federal employees telework?

## Telework Benefits

- Reduces real property holdings
- Increases sustainability
- Reduces greenhouse gases
- Promotes efficient spending
- Ensures continuity of operations
- Reduces foreign oil dependence
- Improves IT security
- Accommodates disabled workers
- Provides work opportunities for military dependents
- Increases diversity
- Increases efficiency and accountability
- Reduces the deficit
- Modernizes information technologies
- Encourages cloud-based technologies
- Increases digital government
- Reduces vulnerability to attack
- Reduces waste
- Reduces technology inefficiencies
- Improves workplace flexibility and reduces work-life conflict
- Competes with private sector employers in attracting talent, particularly younger workers
- Reduces the impact of lost intelligence associated with retirements
- Reduces storage space for paper files
- Reduces travel costs

The answer is simple. They already are. They’re on the road, at remote locations, in meetings; and increasingly they’re working at home, in coffee shops, at libraries, and other ‘third places’.

More than four in ten of the survey respondents who had conducted occupancy studies found their offices less than half occupied, on average, and only 70% occupied during peak periods. Private sector studies show similar results.<sup>12</sup>

Global Workplace Analytics Federal Telework Savings Calculator™ Assumptions	
<b>Total federal teleworkers</b>	<b>602,438</b>
<b>Average frequency of remote work (days per week)</b>	<b>2.03</b>
<b>% Reduction in office space (depending on freq.)</b>	<b>0% to 30%</b>
<b>% Reduction in absenteeism</b>	<b>31%</b>
<b>% Reduction in voluntary turnover</b>	<b>4%</b>
<b>% Increase in productivity</b>	<b>12.5%</b>
©2013 Global Workplace Analytics	
Assumptions are supported by solid research. However, every agency and sub-agency will have different costs and realize different benefits. The Telework Savings Calculator™, nevertheless, provides a framework based on a well-reasoned methodology, that is flexible enough to accommodate a broad range of user-specific assumptions, yet structured enough to provide consistency.	

Federal agencies—like many private sector employers—are just waking up to this reality. In many cases, they have let telework happen, rather than made it happen. In so doing, they have potentially left a lot on the table in terms of cost, efficiency, and productivity impacts.

Beyond the fact that employees are already mobile, there are many more reasons organizations are turning to telework. A broad body of evidence corroborates the many employer, employee, and societal benefits of telework and other emerging workplace strategies.

**“I have seen telework initiatives come and go many times over my 30+ year career in this field,” said Monica Babine, Senior Associate, Washington State University Extension Program for Digital Initiatives. “In a report titled *Perspectives on Successful Telework Initiatives*, a colleague of mine wrote: ‘The motivations and benefits of telework need to be viewed in the context of improving work processes that create best practice organizations.’ That was more than a decade ago and it’s as true today as it was when he wrote it. Organizations that have the resolve to make the shift to this new way of working will be the employers of choice in years ahead.”**

When deployed as a part of a broad workplace change initiative, telework has been proven to:<sup>13</sup>

- Increase productivity
- Reduce absenteeism
- Increase engagement
- Help in attraction and retention
- Reduce office space
- Reduce greenhouse gases
- Save employees money
- Build teamwork
- Increase efficiency
- Reboot meeting processes
- Enhance continuity of operations

Federal telework can also help agencies comply with numerous mandates and government priorities in addition to the TEA (see Telework Benefits sidebar, page 4).

For example, when combined with hoteling, desk sharing, and other changes to the office footprint, the federal government could substantially reduce its space requirements, and improve the efficiency, effectiveness, and productivity of its people and processes.

What’s more, telework can help uncover management weaknesses.

**As Sharon Wall, Regional Commissioner, GSA Federal Acquisition Service, New England Region put it, “Telework doesn’t create management problems, it reveals them.”**

**Martha Johnson, former GSA Administrator, and author of the forthcoming book [Leadership On My Watch: What Really Went On At GSA And Why We Need More Of It](#) shared similar thoughts. “Telework is a way to take the pulse of the management environment of an organization. It highlights very basic things such as trust, communications, collaboration. It’s an excellent way to surface the critical issues for organization change/reinvention.”**

## Potential Savings

OPM’s 2012 survey indicated that 32% of the federal workforce (685,000 employees) were eligible for telework (a number that will undoubtedly increase in the 2013 report). But, based on the 2012 numbers, only 2.1% telework three or more days a week, and only 6.2% do so at least once a week. That’s just a fifth of those eligible.<sup>14</sup>

### Federal Savings

We created a special [Federal Telework Savings Calculator™](#) (based on our proprietary Workplace Savings Calculator™) to model the potential employer, employee, and community savings for telework in government. The methodology behind the Calculator is summarized in a paper titled [The ROI of Telework in the Federal Government](#).

A [free online version of the calculator](#) allows federal agencies to estimate their own potential telework savings using more than a dozen customizable variables.

Using conservative assumptions—based largely on government data (see table above)—if those who were eligible in 2012 (32%) and who wanted to telework (88%)<sup>15</sup> did so at the same frequency as

existing government teleworkers (approximately two days a week)<sup>16</sup>, the federal government could have saved over \$6 billion a year.<sup>17</sup>

**Federal Telework savings \$6 billion/year**

Those results accrue from cautious estimates of increased productivity and reduced real estate, turnover, and absenteeism costs.

**“When it comes down to a choice between buildings and people, it’s the people that matter—they’re the productive asset.”**

**Employee Savings**

Telework has also been proven to save employees two of their most precious commodities—time and money. Assuming two day a week telework, a federal telecommuter could gain back the equivalent of nine workdays a year—time they would have otherwise spent commuting.<sup>18</sup>

For the 28% of extreme commuters in the DC area<sup>19</sup>, the savings would add up to more than 22 workdays a year.

**Employee savings up to \$4,000/year**

Two day a week teleworkers would also save between \$400 and \$4,000 a year in commuting and other expenses (net of extra home energy costs).<sup>20</sup>

**Environmental And Community Savings**

The environment would also benefit from a fully executed federal telework program. If the 32% of eligible federal employees teleworked at the same frequency as existing federal teleworkers, the reduction in greenhouse gases could total more than 200,000 tons a year. The reduction in oil imports as a result of gas savings—even when extra driving on telework days is figured in—could total more

than 5 million barrels and almost half a billion dollars a year.<sup>21</sup>

**Reduce oil imports \$450 million/year**

When implemented in tandem with other workplace changes, additional environmental and community impacts could be realized through related reductions in paper usage, business travel, office construction, parking lot maintenance, vehicle fleet expenses, traffic congestion, highway maintenance, disaster recovery time, and building/equipment energy.

**“This is something government can’t afford not to do,” said Martha Johnson.**

**Return On Investment**

An estimate of the return on investment (ROI) of telework must take into account that many of the costs involved in supporting telework also benefit other initiatives. For example:

- Much of the IT, infrastructure, and training required to support telework are needed anyway. A modern workforce without remote access to files, security protocols, mobile devices, collaboration technologies, and so forth, is a crippled one.
- Regular technology refresh and replacement cycles are already moving in the direction of mobility.
- “Bring Your Own Device” (BYOD) trends are already forcing government IT managers to adopt new strategies for security, technical support, data access, training, and more.

**“In one of our offices, telework and mobility allowed us to reduce our physical footprint by 66%,” said Sharon Wall. “There were some initial costs, but we were able to show a positive ROI in just one year.”**

While an estimate of the ROI each agency might expect from its telework program cannot be determined without an appropriate allocation factor that accounts for the above considerations, research suggests that telework programs more than pay for themselves. For example:

- The Congressional Budget Office’s estimated the entire five year cost of implementing telework throughout government (\$30 million) at less than a third of the cost of lost productivity from a single day shut down of offices in Washington DC due to snow.<sup>22</sup>
- In a report prepared for the U.S. General Services Administration by Booz Allen in 2006, 80% of the estimated costs and benefits of telework was allocated to non-telework programs. The estimated telework ROI was pegged at between 200% and 1,500%.<sup>23</sup>
- The Patent and Trademark Office reported a 21% first year ROI and 54% in subsequent years. The average first year spend for IT, equipment, virtual infrastructure, hoteling support services, and connectivity was \$7,920 per person and the savings totaled \$9,630; in subsequent years the spend was \$4,570 while the gross savings stayed the same.<sup>24</sup>

**Five year telework implementation cost: \$30 million**  
**Single snow day loss: \$100 million**  
**Source: GAO**

## Measuring Success

Obviously, the premise of the government’s telework strategy is that it will result in some or all of the benefits discussed. But is that happening?

To answer the question, success has to be defined, and measures of the impact of telework have to be established. That’s not easy to do, at least partly because neither can be considered in a vacuum.

**“Talking about telework in isolation is a non-starter because it becomes about control,” said Martha Johnson. “When it’s discussed in concert with good IT, clear management goals, and team protocols, the dependencies and systems impacts emerge. Then the impact of telework is relevant.”**

In any case, agencies *are* trying to measure success. When asked how they do it, 61% of survey respondents said they counted the number of regular teleworkers to a large or very large degree, 51% said they simply counted telework agreements, 33% said they measured success based on money saved, and only 31% said they tracked other positive effects such as reduced turnover, attraction and retention of new talent, etc. See Chart 1.

Some survey respondents additionally indicated that they track reduced transit subsidies, improved sustainability, reduced absenteeism, and greater continuity of operations.

Regardless, agencies that measure telework success by simply counting telework agreements or how many employees are doing it, have some work to do. In their defense, it’s not because they don’t want to, they simply don’t know or don’t have the resources to do so.

**“It’s not fair that some agencies simply count agreements while we report only those who actually telework.”**

**“There’s no way to measure any of this. We spent six months trying to find ways to measure telework impact, in the end, could not find a concrete, repeatable way.”**

Some respondents expressed concern that there is no way of telling if, for example, real estate savings are the result of telework or an agency’s response to the broader issue of mobility. And how do they determine whether a telework program’s failure is due to poor execution or the initiative itself?

## By The Numbers

Many respondents expressed concerns about the usefulness of simply counting teleworkers:

**“Unless telework is paired with other workplace strategies, such as right-sizing, desk-sharing, or open-plan environments, there may be little or no cost savings at all.”**

Even just counting heads isn’t as easy as it sounds.

For example, whom do you count? Is someone who takes work home on weekends a teleworker? Is someone who works at home (or elsewhere) once a year, or once a month? Do you count when forest rangers are patrolling the woods, or when employees are visiting remote offices? And should someone who works at home be counted in the same way as someone who works from a co-working facility, library, or coffee shop?

The answers to these questions have real legal, tax, compensation, travel reimbursement, union, and regulatory implications. Both public and private sector employers are struggling for answers.

Even if you know whom to count, how do you track them? Frequent changes in methods make it impossible to make year-to-year comparisons.

One interviewee indicated that his agency tracks telework based on their VPN and Citrix system traffic. Other agencies use their payroll system to capture telework data, although—with at least a half dozen different payroll systems deployed across the federal government—even that can introduce inconsistencies.

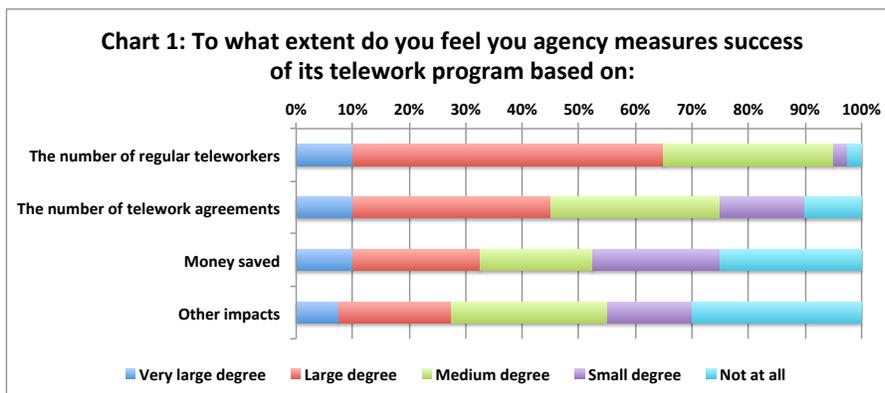
In the summer of 2012, OPM began piloting a program to provide an automated way of counting teleworkers—something they reminded Government Accounting Office (GAO) following public criticism in a June 2013 report. OPM is working with payroll providers to complete the automation project by the 2015 telework status report.<sup>25</sup>

Unfortunately, there is no official baseline from which to analyze telework growth.

## Government vs. Private Sector

How does government telework progress compare to that of the private sector? Again, this is difficult to answer. It’s not just because of the inconsistencies in government numbers, but because most private sector employers don’t publicly report their numbers.

While the numbers (see table next page) indicate that government telework participation is greater than that of the private sector, Dr. Wendell Joice, telework expert and former Federal telework



Class of worker	% who work at home at least half time
Federal government employee	3.3%
Private not-for-profit employee	2.9%
Private for-profit employee	2.6%
State government employee	2.5%
Local government employee	1.2%
<b>Total Employee Workforce</b>	<b>2.5%</b>

Source: 2012 American Community Survey

**Public/Private Sector Comparison Of Telework Participation**

Based on ACS data, 3.3% of federal workers worked at home at least half the time in 2012, a significantly higher percentage than any other class of worker (see table).<sup>27</sup>

Interestingly, ACS

reports a greater level of federal telework than OPM, at least in the “three times a week or more” category—3.3% to OPM’s 2.1%—an indication that perhaps the inconsistency in counting issue has resulted in undercounting rather than over-counting federal teleworkers.<sup>28</sup>

**Federal Telework Growth Slower Than Private Sector**

In terms of growth, ACS data shows federal telework is falling behind all other sectors.

Following a huge surge in participation in 2005 (424%), the year of Hurricane Katrina, federal telework growth has failed to keep pace with the private sector. See Chart 2 below.<sup>29</sup>

Since 2007, private sector employers, and state and local governments, have expanded telework by between 27% and 39%. Meanwhile federal telework grew by just 8%.<sup>30</sup>

Because available ACS data is based on surveys collected prior to the passage of the TEA, its impact is not reflected. Even when the 2012 ACS data becomes available in the Fall of 2013, the data will only reflect a partial year of impact.

Based on the author’s observations, however, and those of the interviewees who provide telework-related products and services to federal agencies, the Telework Enhancement Act *has* had a positive impact on telework participation.

Survey respondents reinforced that impression with 64% indicating a positive impact and another 15% indicating a very positive impact.

**“The Telework Enhancement Act gave the agency permission to be bold and push the envelope.”**

While the majority of comments on this question echoed that sentiment, a few felt the Act had actually hindered their progress.

**“We were already doing all the things prescribed by the act by the time it was signed. It actually set us back. Instead of looking at the broader issue of mobility, we’re focusing on just this one little piece (telework).”**

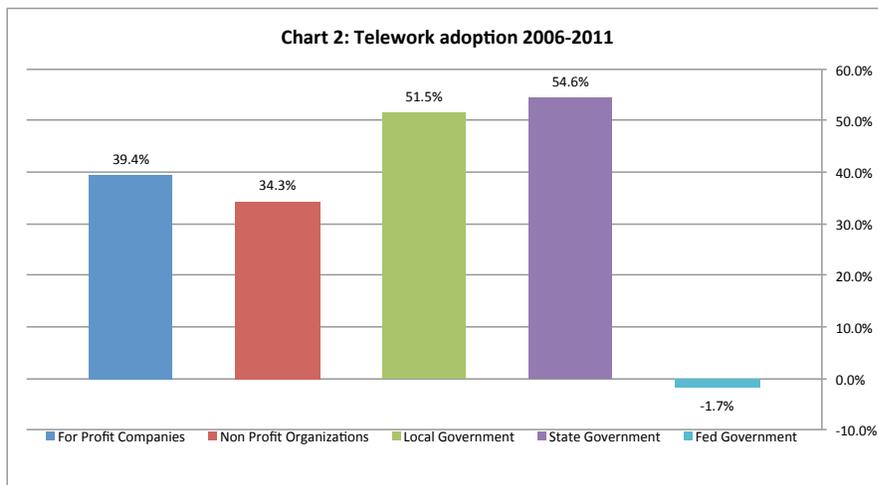
leader, points out that keeping up with the average US company isn’t the point.

**“As is often stated by federal leaders, the government does not seek to be a mediocre or run of the mill organization,”** said Joice. **“Instead, it seeks to be a world-class employer, employer of choice, and a top performing organization. In this regard the federal government clearly falls short in its overall adoption / implementation of telework.”**

Leading organizations around the globe have redesigned their entire workplace strategy around telework and mobility, and they are realizing the benefits (see Measured Telework Impact in the Private Sector, next page).

While a number of government agencies have embraced telework in a big way—notably Patent and Trademark Office, General Services Administration, Treasury Department—the majority have not.

Fortunately, there is one source of data that offers a consistent method of counting at least a portion of the telework population. The U.S. Census American Community Survey (ACS) asks respondents: “How did you usually get to work last week?” One choice is “worked at home.”<sup>26</sup>



## Measured Telework Impact in the Private Sector

### Reduced Real Estate Costs

- Forty percent of the IBM workforce operates without a dedicated office space. The employee to desk ratio is currently 4:1, with plans to increase it to 8:1 in field locations. IBM saves \$450 million a year in reduced facility infrastructure and associated initiatives through telework.<sup>31</sup>
- Deloitte LLP offers most of its 45,000 employees nationwide the option to telecommute as many as five days a week and has done so for 15 years. As leases came up for renewal, the consulting firm was able to reduce office space and energy costs by 30%.<sup>32</sup>
- Through telework SCAN Health Plan realized a 22% reduction in space requirements, a 38% reduction in provisioning costs, and re-provisioning time went from 12 weeks to 3 days.<sup>33</sup>
- A survey of over 100 Fortune 500 companies found that the percentage of employees with assigned workspaces has shrunk to 66%, a 10% decline from just two years ago.<sup>34</sup>
- Ninety percent of the 40 organizations surveyed by Knoll Research in 2011 offered some form of remote work. The consensus reported a 33% first year cost avoidance over conventional workspaces with consistent savings thereafter.<sup>35</sup>

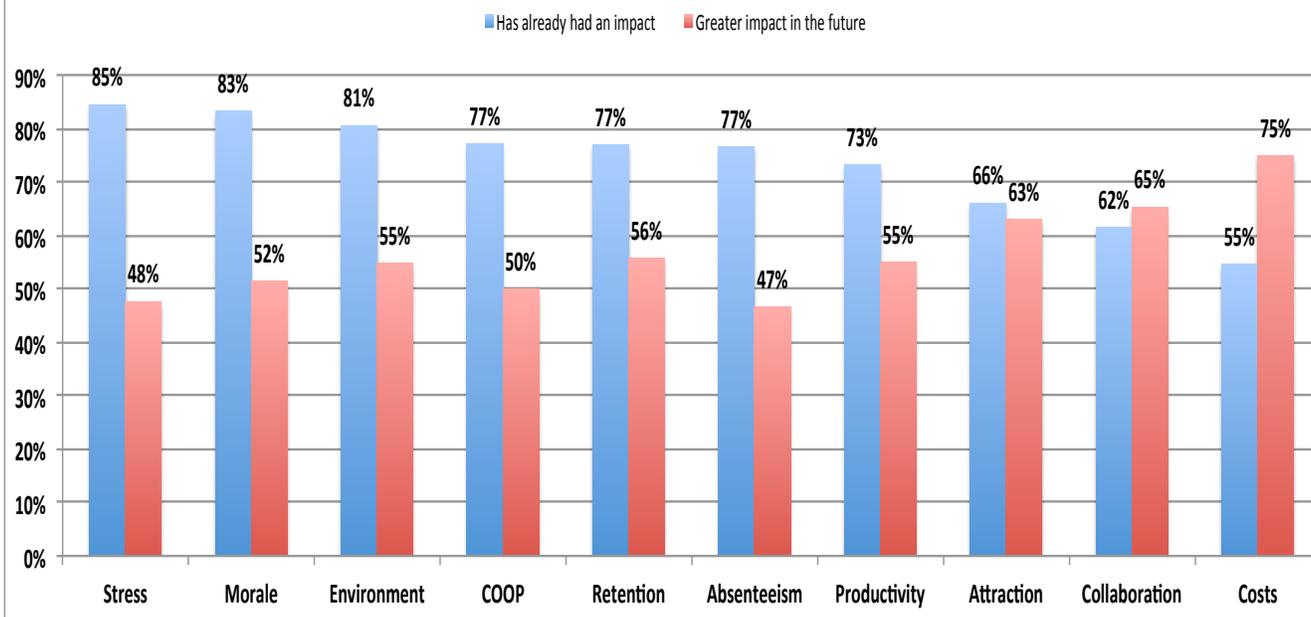
### Increased Productivity

- British Telecom, one of the pioneers of telework, now has 15,000 homeworkers out of 92,000 employees. The company finds homeworkers to be 20% more productive.<sup>36</sup>
- Fifty-nine percent of respondents to a Microsoft US survey on remote work said they are more productive when working remotely. Only 11% said they were less productive.<sup>37</sup>
- Ninety-five percent of AT&T employees and 98% of managers agree or strongly agree that they are more productive when working at home.<sup>38</sup>
- Ecolab, a Fortune 500 sanitation and food safety company, reported a 16% increase in the number of calls answered and a 10% increase in quick call resolution among its teleworkers.<sup>39</sup>
- In a study of more than 24,000 global managers, 80% agreed that productivity increases in a flexible environment and that employees with flexible schedules and telecommuters were able to work 18 more hours a week before they felt work interfered with their personal lives. Office workers reached their limit at just 38 hours a week.<sup>40</sup>

### Lower Absenteeism and Turnover

- British Telecom realized a 64% reduction in absenteeism due to its flexible work program.<sup>41</sup>
- In a 2009 survey by the Society for Human Resource Management, 89% of HR professionals felt that flexible work arrangements have positive impact on employee retention. Seventy-five percent felt it helped them attract employees. And 86% felt it improved employee commitment.<sup>42</sup>
- Fifty-six percent of hiring managers say Gen Y workers are more difficult to recruit and to retain (as reported by 64% of hiring managers), but they are particularly attracted to flexible work arrangements (ranking it 8 on a 10 scale for impact on overall job satisfaction).<sup>43</sup>
- More than a third of college student in the US (37%) say they would take a lower salary (up to \$10,000 less) for the option to work wherever they are most productive and happiest. When the same question was put to existing employees, the percentage who would take a lower salary was 38%.<sup>44</sup>
- Almost 80% of employees say they would like to work from home, at least part of the time.<sup>45</sup>

**Chart 3: Have you seen any positive impact on the items below as a result of telework at your agency? Do you think the impact will be greater in the future?**



**“It’s now a case of the tail wagging the dog. People need a variety of workplace settings. By putting the focus on telework, we’re missing out on other workplace strategies.”**

This kind of split response was a recurring theme throughout the survey responses. Perhaps this is a function of: 1) the fact that some agencies are much further along in telework than others; and/or 2) some individuals are more outspoken than others.

**Other Measures Of Success**

In spite of all the frustration around measuring results, the majority of survey respondents (73% or greater) felt telework has already had a positive impact on stress, morale, retention, absenteeism, productivity, and the environment. In addition, a smaller majority felt there had been a positive impact on attraction (66%), collaboration (62%), and costs (55%). See Chart 3.

In response to whether they expected the impact of telework to be greater in the future, a majority of survey participants

felt that it would in all categories except absenteeism, stress, and continuity of operations.

These findings are predictable since a small amount of workplace flexibility goes a long way toward impacting these categories. One private sector survey, for example, indicated that job satisfaction increased when flexibility options were offered, *even when they weren’t used*.

Others telework benefits, such as impacts on costs, collaboration, and attraction are largely realized some time after organizations have had time to adjust to the changes.

# Obstacles

Organizational culture, manager resistance, and the need for office coverage have ranked as the top three obstacles to federal telework since OPM first started tracking them in 2005.

We'll look at those obstacles and others next, but first let's look at how respondents felt their agency's telework initiatives were progressing.

## General Impressions Of Telework Progress

When respondents were asked to rate their agency's telework program, the scores were surprisingly positive. Almost 80% rated their program as either good or very good. See Chart 4.

When asked about the extent to which they felt their manager, their agency, and the administration supported telework, the responses were largely positive as well. See Chart 5.

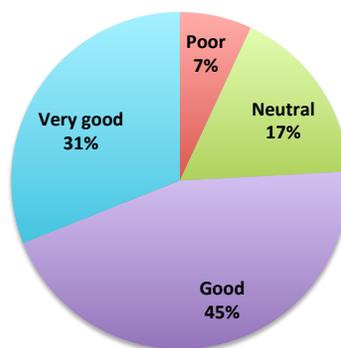
However, industry experts agree that strong support from leadership is key to telework success, so the 20% who rated support as 'weak' or 'non-existent' suggests that there is significant room for improvement.

Survey respondents felt strongly about their telework programs—posting more comments on the aforementioned multiple choice questions than on any other.

While the questions drew largely positive multiple-choice responses, the comments, in direct contradiction, complained of poor support from middle and senior managers, and the need for managers to learn how to manage by results.

Similar sentiments were shared in our interviews with government executives (see sidebar page 21 and a full list of comments online at [GlobalWorkplaceAnalytics.com](http://GlobalWorkplaceAnalytics.com)).

Chart 4: Overall how would you rate your agency's telework program?



## Ranking The Obstacles

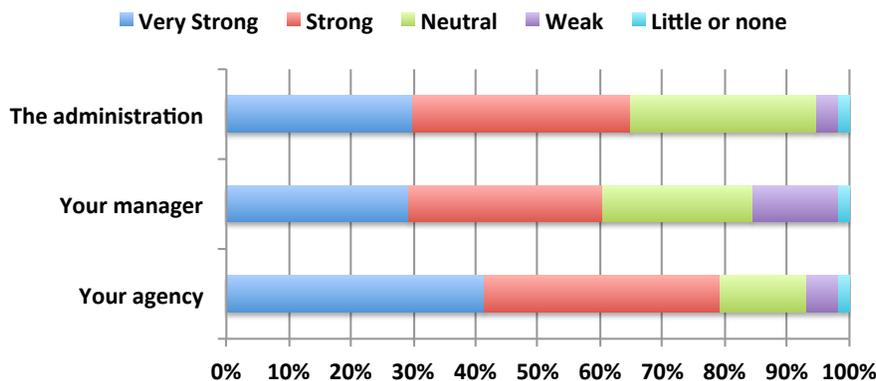
Obstacles to telework, gleaned from government and private sector experience, were presented and survey participants were asked to rank them based on their telework program experience.

The results, discussed below, were consistent with other research in both the public and private sector.<sup>46</sup>

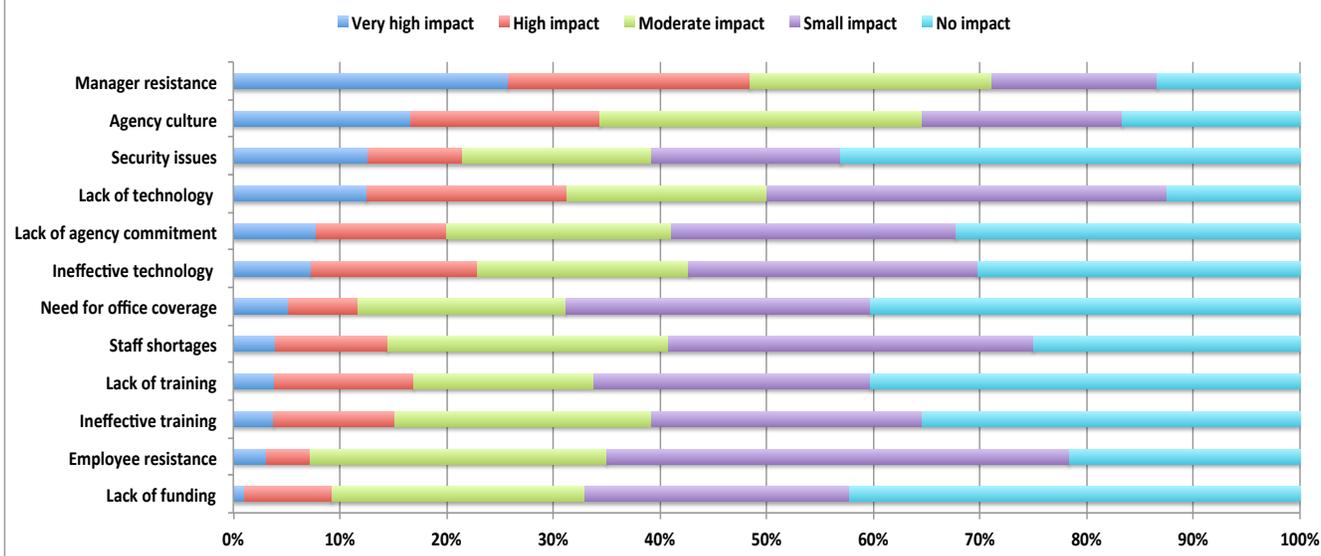
## Cultural And Managerial Resistance

**“The nature of work has changed and we have to change with it if we expect to compete for talent,”** said Dr. Kim Wells, OPM’s Lead Research Psychologist, Work/Life/Wellness, during an interview. **“The problem is, too many in government see this as just another push for telework when in reality, what we’re talking about is an entire workplace change, one that will not succeed unless culture change and training issues are addressed head on.”**

Chart 5: What level of support is there for telework from:



**Chart 6: To what extent do you feel the following are a barrier to your agency's telework success?**



As noted, cultural and managerial resistance topped the list of obstacles. See Chart 6.

**“Without a doubt, the reigning number one challenge confronting the telework initiative is the existing management culture which is still vigorously resisting changes such as telework....Most current managers were trained and excelled in operating in an industrial era workplace and now they are being asked to change ingrained attitudes and behaviors,”** wrote Dr. Joice more than 12 years ago.<sup>47</sup>

Here and throughout the survey, respondents offered impassioned comments on the need for new management styles—ones that focus on results and outcomes, not presence.

**“Very few managers will allow it, and the majority of managers will not even consider it.”**

**“Many managers will admit that the trust isn't there and they know their employees already don't produce, so holding them accountable outside the office, would be impossible.”**

**“Some supervisors still want a great amount of detail as to how**

**teleworkers spent their day and what they accomplished, (but) they don't ask the employees that work in the office about daily accomplishments. The majority of federal managers don't know how to manage. They were simply promoted out of a technical position and are expected to know what to do. They don't.”**

**“The challenge is that it's about culture and not process. All this seems to be very process driven. Establish this policy and/or goal, etc... OPM should start having conversations with senior government leaders about what the future government workforce looks like”** In answering that question, **mobility, trust, performance based will all emerge as defaults.”**

The need for greater accountability was similarly revealed in the latest Federal Employee Viewpoint survey which indicated that only two out of ten federal employees felt pay raises were related to their job performance and only three out

of ten felt promotions were based on merit.<sup>48</sup>

**“One of the biggest problems around here are the office slackers. You can't fire them.”**

In an effort to move to a more results-based culture, in 2010 OPM decided to pilot a program called Results-Only Work Environment (ROWE) with the help of the concept's inventor, CultureRx.<sup>49</sup>

In March of 2012 the program was cancelled. While citing that results were a “mixed bag,” OPM Director John Berry acknowledged the agency's own failings. Specifically he indicated that employee goals were not set clearly enough, metrics for managing results were lacking, communications were poor, and training was insufficient.<sup>50</sup>

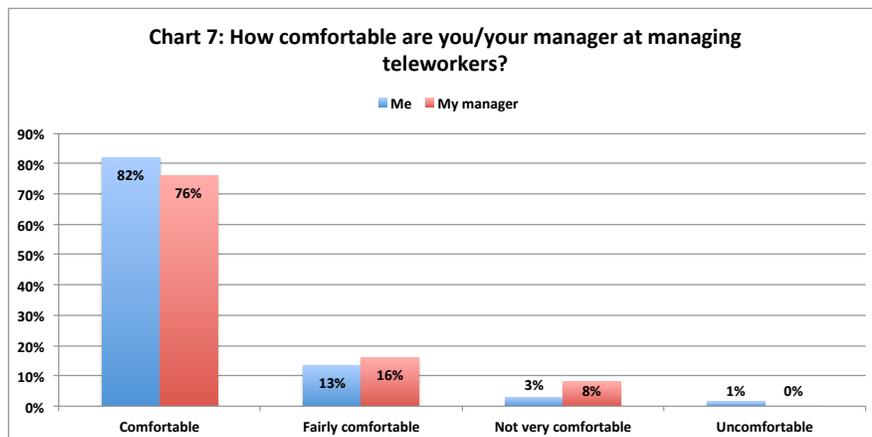
It's important to note that [CultureRx's ROWE program](#) and telework are not the same thing. ROWE is the extreme in workplace flexibility. It offers an environment where: everyone is free to work where and when they want; people have as much time off as they want as long as their work gets done; every day feels like Saturday; all meetings are optional; and more.

**Only Two Out Of Ten Federal Employees Feel Pay Raises Relate To Job Performance**  
*The Federal Viewpoint Survey*<sup>9</sup>

It is the antithesis of the “command and control” nature of government.

One hallmark of success in result-based

ties. Eighty percent said they were comfortable managing teleworkers and 75% said their manager was too. See Chart 7.



work programs is that voluntary turnover goes down while involuntary turnover goes up—the slackers have nowhere to hide. However, an independent report prepared by Deloitte on the results of ROWE, stated one of the problems OPM encountered was that “managers said they felt ill-equipped to measure employee’s performance, reward high performers, or hold poor performers accountable.”<sup>51</sup>

**“What is discouraging is seeing NO ACTION taken about non-performing staff, whether teleworking or not.”**

That’s where ROWE and telework are similar—success is predicated on the premise that employees should be measured by and held accountable for what they do.

Survey respondents expressed frustration along these lines.

**“I think most managers would rather build out policies and rules for low performers and nudge/wink for high performers rather than developing policies that would be expected in a high performing organization.”**

Responses regarding manager resistance and their inability to manage by results were no surprise. What was a surprise was how positive respondents felt about their own and their managers capabili-

ties. Eighty percent said they were comfortable managing teleworkers and 75% said their manager was too. See Chart 7.

If everyone is so comfortable, why does management resistance continually top the list of obstacles to telework? And why do so many survey respondents talk about a lack of trust?

**Jack Nilles, a former NASA rocket-scientist turned consultant, coined the terms telework and telecommuting more than three decades ago. In an interview he said “the biggest barrier to telework continues to be fear. Managers are afraid that employees won’t work unless they’re watching over them.” He once argued with Tom Peters about Peters’ theory of management-by-walking-around. “That’s fine for crumby organizations that don’t trust their employees,” said Nilles, “but if managers establish goals and criteria for meeting those goals, they can show employees what they want and get out of their way.”<sup>52</sup>**

### Other Obstacles

Besides management resistance and organization culture, none of the other obstacles suggested in the survey were considered high or very high barriers to success by more than 1 in 5 respondents See Chart 6, previous page.

Perhaps that’s good news. Agencies that felt some obstacles were insignificant may

have knowledge or processes they can share with others.

Ranked from most to least significant, the remaining obstacles included:

### Security Issues

While government security issues are real—particularly as they relate to classified and personally-identifiable information—many agencies and private sector organizations have found ways to overcome most of them.

A report titled “*Final Report on Technology Barriers to Home-Based Telework*,” available at [Telework.gov](http://Telework.gov) (an interagency Web site established by GSA and OPM), says this on the topic:

“Security of agency information and systems in the course of telework implementation was viewed as an important but manageable concern moving forward. CIO staff and IT management contacted throughout the analysis generally indicated that the technology and management tools to address IT security issues are available now, but effort needs to be placed into identifying security risks and designing solutions to mitigate these risks.”<sup>53</sup>

The report further indicated that the need to securely deliver information is not unique to telework. It is essential to supporting an increasingly mobile workforce.

### Technology

In a related realm, ineffective technology and the lack of technology solutions were suggested as two separate obstacles in our survey.

While individually, they were named as having a ‘high’ or ‘very high’ impact by only 22% and 18% of respondents, respectively, together they would have trumped agency culture for second place as an obstacle. Adequate IT infrastructure for a mobile workplace is clearly a key requirement.

**“Technology helps. Even just being able to see one another’s availability on chat, was a big help.”**

In frequent meetings with government executives, technology is often an issue. Typical problems include: softphones that garble voices; no access to, or familiarity with web-based meeting solutions such as GoToMeeting™ or screen sharing; difficulty arranging conference call bridges; not knowing how to use software or hardware; inability to access office files; and painfully slow computers and Internet connections. One agency indicated that some of their offices were still using dial-up Internet service.

**“I recently watched a GS-15 try to build a simple list on a PowerPoint™ slide,” said one government contractor. “His government laptop was so slow it took several minutes for each dot-point to be displayed. What an incredible waste of taxpayer money.”**

### Lack Of Agency Commitment

Twenty percent of respondents indicated a lack of agency commitment had a ‘high’ or ‘very high’ impact on telework success, and another 21% indicated a ‘moderate’ impact.

**“Our environmental management office did a study on what would most reduce greenhouse gas emissions and looked a fair number of variables—telework by far, had the greatest impact and ROI given the cost. While the report was prepared for the senior political appointee who oversees all Department administrative functions, it was never briefed. And because of the lack of support from the previous Secretary, it may not have made a difference.”**

### Need For Office Coverage

When asked by OPM to describe the ongoing challenges they face to fully implement telework, the need for office coverage was mentioned more than any other issue in each year from 2005 to 2010.<sup>54</sup> In the 2012 report, however, the issue had fallen to 7th place.<sup>55</sup>

In this survey, only 14% of respondents said the need for office coverage has a ‘high’ or ‘very high’ impact on telework success.

Much of government is customer facing, but as technologies improve more and more customers look to the Web for answers rather than visiting government offices.

While face-time will offer a richer level of communications for the foreseeable future, video-conferencing and teleconferencing are a viable alternative much of the time.

### Ineffective Or Absent Training

Both ineffective training and absent training for employees, managers, and even executives were offered as responses on the question of barriers.

While individually neither was rated as having a ‘high’ or ‘very high’ impact by more than 20% of respondents, together they were significant. See Chart 6, page 12.

**“It’s an unfortunate truth that most organizations don’t invest in the training around remote work. Properly designed, it can make the difference between success and failure not just in making change initiatives stick, but in maximizing their potential,”** said Kate North, VP of Global Development at e-Work.com.

**“Managers need to learn how to manage virtual teams, maintain an esprit de corps, set clear goals, and manage by results,”** said GSA’s Sharon Wall. **“People need to not just have the right tools, they need to know how to use them. And there needs to be an understanding of the differences between generations and how individuals prefer to work.”**

The fact is, most leaders already telework because of their travel. Executives need to pass those values and skills down to their managers through training programs.

### Lack Of Funding

In spite of the fact that our survey was administered at the height of the sequestration threat, lack of funding was rated as a significant or very significant obstacle by only 7% of respondents.

**“The problem isn’t lack of funding per se; there’s lots of money there,”** said Bryant Rice, former head of DEGW’s government team (currently with SideMark). **“The unused funds can’t be reallocated for something else.”**

**“You don’t need to spend a lot of money at this. We started with a small pilot. We did some training with managers and employees—just home grown stuff. One year later we went to full implementation. We were able to cut our space in half and save a million dollars in one office.”**

What’s more, 36% of respondents indicated that sequestration and budget cuts actually had a positive impact on their telework programs.

# Overcoming the Obstacles

The balance of the survey asked respondents to rate proposed solutions for overcoming the barriers to telework. We felt it crucial that the solutions come from within government as most outsiders can not really understand what it's like to work for the largest employer in the world.

Many of the multiple choice answers proffered as solutions were drawn from a synthesis of the recommendations presented in a 2010 OPM report titled *Expanding Federal Telework: Overcoming the Barriers*.<sup>53</sup> It was the result of two web-based Ideation Challenge surveys and insights from over 60 federal leaders who represented the executive branch agencies. The report included specific actionable items to help agencies move their telework programs forward.

Many of those who contributed to the 2010 report, also participated in our survey and interviews.

The solutions proposed in our survey were organized into the broad categories of leadership, communications, training, technology, standards, and rewards.

## Leadership Initiatives

**“What the agencies need most is executive support and leadership that walks the talk,” said Sharon Wall, Regional Commissioner at GSA.**

Experts in workplace change agree—without a visible and unwavering commitment from leadership, a change initiative cannot succeed.

**“Previous Secretary was not supportive of telework and as a result, it has not been possible to obtain Secretary level (or senior political level) active and visible support.”**

This is particularly true in government where aversion to risk is high and, as a senior interviewee indicated, “many feel it is easier to simply wait until the next administration or change in priorities. Sadly, it's a valid tactic because both have historically resulted in ‘on again, off again’ focus on telework.”

**“At the Fall Telework Exchange, the Deputy Secretary from Transportation explained how DOT had, and was going to incorporate telework in contingency exercises by requiring the DOT headquarters staff to telework during their annual COOP exercise. This is the kind of top leadership support that will make telework successful,” said Ralph Charlip, FACHE, Program Executive for Human Resource Strategic Initiatives and Executive Sponsor for DOI Telework Program**

**“One of the things that contributed to our telework success is that the messaging came from the top. And it wasn't ‘you must telework’, it was ‘here's why telework makes so much sense’. That really transformed things around here. It used to be you'd get the hairy eyeball when you asked about teleworking, not anymore.”**

## Have A Budget To Fund Telework Training

Over 60% of the respondents felt that providing a budget specifically for telework training and technology would ‘likely’ or ‘definitely’ help. And another 25% said it ‘might’ make a difference. See Chart 8 on the next page.

**“Leadership focus is on minutia and missing great opportunities to reduce footprint by up front investment in change management, training, coaching and putting people first and footprint reduction second.”**

All but one of the other leadership solutions was rated ‘likely to help’ or ‘definitely would help’ by more than half the respondents (see Chart 8).

## Require Every Manager To Telework At Least Once A Week

Research shows that managers who telework are more likely to support it because teleworking helps managers overcome their fears. They discover that they *can* stay in touch, they *can* maintain productivity (or increase it), they *can* achieve their agency mission.

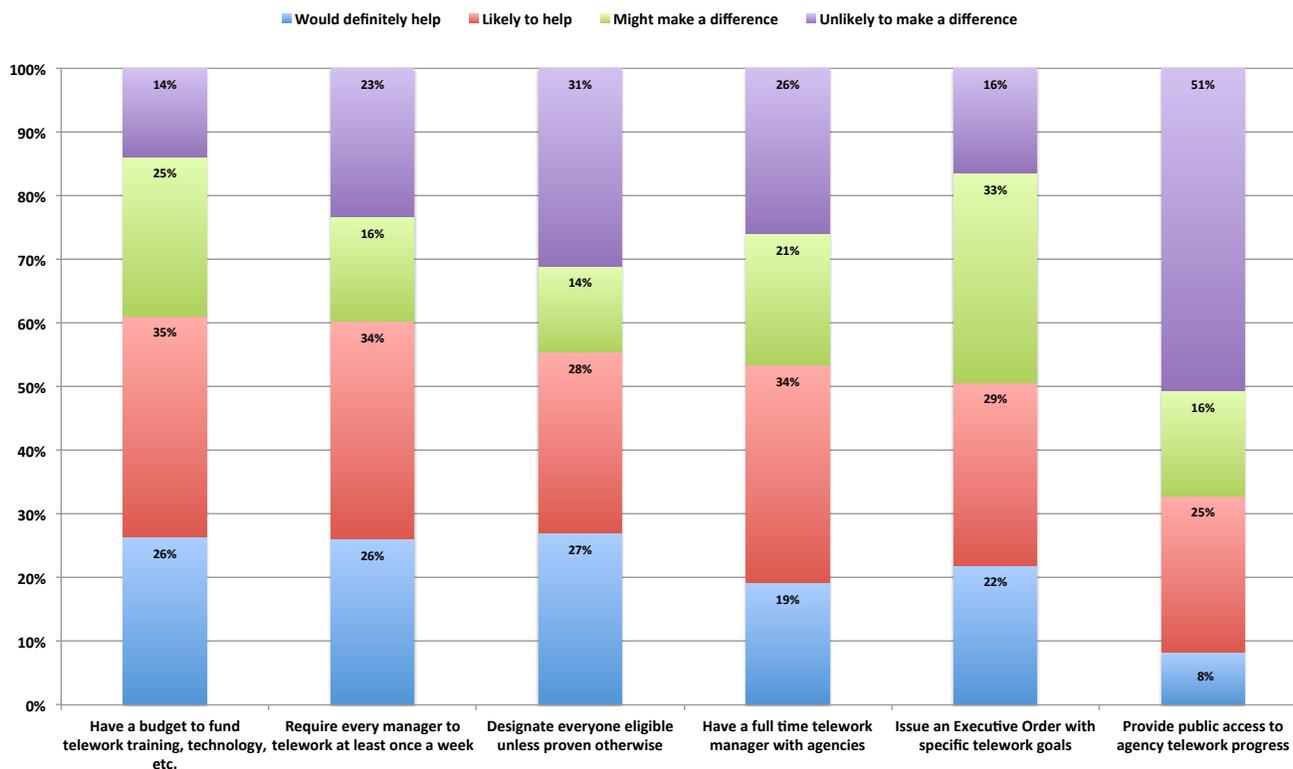
## Designate Everyone Eligible Unless Proven Otherwise

Early versions of the TEA proposed making everyone telework-eligible unless proven otherwise.

The final version however, left eligibility at the discretion of management.

The only real parameters defined by the TEA was that employees were automati-

**Chart 8: To what extent do you think each of the following leadership initiatives would impact the success of your agency's telework program?**



cally ineligible if they: have daily on-site duties, handle secure materials on a daily basis, had been absent without notice for five or more days, or—interestingly—they had watched pornography using government equipment.

**Have A Full Time Telework Manager In Each Agency**

Telework Coordinators within agencies and sub-agencies deal with the day-to-day operational issues related to telework. Before the TEA, however, most lacked access to agency leaders—those who have the clout to influence change. For this reason, the TEA required that every executive branch agency designate a Telework Managing Officer (TMO) to assist the Telework Coordinators in gaining Secretary-level support. TMOs are the primary point of contact with OPM.

While not all survey respondents agreed the TMOs had increased their agency's telework success, data from the most recent 2012 *Status of Telework in the Federal Government* report showed that the agencies with the highest proportions of TMOs scored the highest in leadership support, labor relations, technology, communications, training, and program participation.<sup>55</sup>

**"Many underestimate or fail to consider the culture change issue," said Dr. Wells. "It's important that TMOs and others in agency leadership positions present a uniform and consistent message of support for telework."**

According to that same report, Telework Coordinators play an important role too. Those agencies with the highest proportion of Telework Coordinators scored highest in communications, policies, rec-

ognition of telework as benefit, data collection, managing space issues, program participation, leadership support, unscheduled telework, and successful telework drills.

**Issue An Executive Order With Specific Telework Goals**

While the TEA stopped short of including specific goals for agency telework, 84% of survey respondents felt this would have had at least a moderate impact on telework success.

While the support for specific goals was largely endorsed, a number of respondents were adamant about leaving specific goals at the agency discretion.

**"The federal government is hugely complicated from an organizational point of view," said Clark Sept, co-founder of Business Place Strategies, a firm that has worked with a wide vari-**

ety of government agencies and private sector clients. **“For this reason it is unrealistic to apply simplistic programs, such as telework, with possibly arbitrary participation rates regardless of agency or function. It is not uncommon for distinct differences to exist within the Agency-Bureau-Office-Division hierarchical structure of government that preclude uniform application of generalized programs like telework.”**

### **Provide Public Access To Agency Telework Progress**

While providing public access to agency telework progress received positive responses from 48% of respondents, it also received the highest level of negative responses.

There was a clear sense in the comments, in fact, that many felt the burden of reporting would outweigh the benefits.

## **Other Leadership Initiatives**

The following two additional leadership solutions were proposed in separate multiple choice questions.

### **Set Specific Goals**

As noted, the TEA required agencies to set and report telework participation goals, but only *encouraged* rather than *required* them to establish other goals. At last report, only about half of agencies reported a participation goal, though the majority had set a handful of other goals including ones for improvements in emergency preparedness, employee attitudes, employee recruitment and retention, and reduced commuter miles.<sup>56</sup>

With the management maxim, “that which is measured is done” in mind, respondents were also asked: “To what extent do you think it would help if agencies were required to establish and report telework results such as absenteeism, per person real estate costs, time to fill new positions, customer service ratings, number of employees able to telework on snow days, etc.?”

The need for some level of accountability drew support from the majority of respondents. More than half (55%) felt these more specific measures of success would ‘be likely to’ or ‘definitely would’ help and another 30% rated it ‘maybe’.

**“There are still some managers who resist it, but they're coming around. It helps when they actually see the impact on the bottom line.”**

**“Much of what's being stressed in government telework right now is efficiency,” said Melissa Marsh, a consultant on the GSA 2020 Workplace project and founder of PLASTARC, a design metrics firm. “What's been lost is the concept of effectiveness.”**

**“Require the agency to reduce office space 10-15% every year, make agencies justify the cost of a cubicle/workstation for every employee when 1 workstation could easily serve 3 or more mobile employees, and hold low level managers accountable for results.”**

Many of the write-in comments however cautioned that collecting and reporting this kind of information would be a time consuming and, in some cases, an impossible task.

In its June 2013 letter to GAO, OPM indicated that it will be working to help agencies in this regard.<sup>15</sup>

### **Coordinate Mandates**

As discussed earlier, telework has the potential to impact the workforce, the workplace, the environment and more. For this reason, the most successful telework initiatives are the result of a collaborative workplace change program that involves HR, IT, real estate, sustainability, procurement, finance, and other stakeholders.

In government, however, much of the emphasis on telework and other priorities of the Administration are driven by mandates and Executive Orders. This has the effect of creating silos around specific efforts. The result is often tension, conflict, and redundancy because disparate groups are channeling their efforts toward similar goals but never looking at how

their efforts overlap or serve the bigger purpose.

**“You need to change the business processes first,” said John Vivadelli, president of Agilquest, a GSA contract holder. “Then and only then can you think about what workspaces best support them.”**

**“Stop looking for a quick solution, this is after all our future. Mobility and productivity will follow nicely if properly introduced and vetted. . . . I fear we will see quick win approach to direct solutions, claim victory, politically move to next big crisis and the rest of government is stuck trying to live with the next priority while never addressing the real issues of increased productivity and mobility.”**

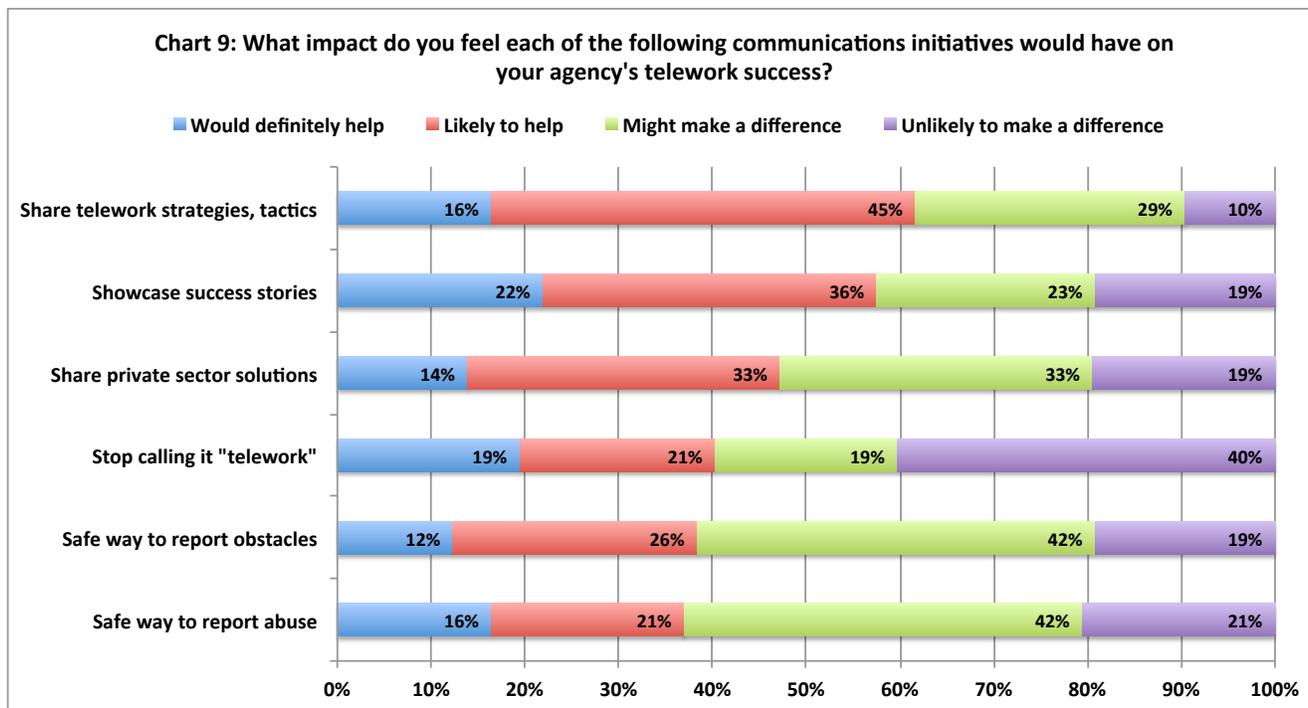
When asked, “To what extent do you think creating greater integration of mandates (e.g. cost sharing, combined RFPs, information sharing, cross-mandate teams) would have on telework success?” Thirty percent of respondents felt it would definitely help, another 32% felt it would likely help, and 35% felt it might make a difference.

**“Launching a telework PMO [Program Management Office] right after the signing of the Telework Enhancement Act was critical. The PMO pulled together telework experts from within the agency and paired them with change agents who reported directly to the agencies top leader, the Administrator. This allowed the PMO to cut across the various silos, such as HR for policies and CIO for mobile technologies. It also allowed the Administrator to lead by example and demonstrate that this is a series initiative. “**

**“Telework opens the door on many topics. It's not a silo topic. Mobility is in everything we do and as such should be integrated with other policies and organizational goals.”**

## **Communications Initiatives**

Changes in how programs are communicated, experiences are shared, and con-



versations are encouraged can make a pivotal difference in program success.

When asked how communications initiatives might impact telework success, sharing telework strategies and showcasing success stories received the highest percent of ‘likely to help’ or ‘definitely would help’ responses. See Chart 9.

**Share Telework Strategies, Tactics, Etc.**

Ninety percent of respondents felt more sharing of telework strategies and tactics would help achieve telework goals.

In our experience, we see very little of it. We often answer questions for one agency by picking up the phone and talking to another. There’s a great deal of duplicated effort and little learning from one another’s mistakes. While it’s true that one size fits none, more sharing of what works and what doesn’t—particularly as it relates to documentation, technology, training, and culture change initiatives—could dramatically improve the efficiency and effectiveness of programs.

We had a conversation with one agency about the fact that they were having trouble engaging employees in discussions

about telework. At the same time, another agency we were working with couldn’t afford enough conference lines to accommodate the thousand-plus people who wanted to be participate in a virtual town hall.

**“In terms of technology, while each agency needs the freedom to make its own decisions about which hoteling software to use, or which training program to buy, it’s an incredible waste of time and money for each to start at ground zero in its evaluation.”**

**“Our IT guys are actually writing their own hoteling software if you can believe it. With all that’s commercially available and working effectively in other agencies, this is a real waste. It’s just this ‘not invented here’ syndrome.”**

**“We do have ways to share telework strategies and tactics (government or private sector). But there is little agency willingness to implement them and even fewer resources to be able to do it.”**

**Showcase Success Stories And Share Private Sector Solutions**

Showcasing success stories and sharing private sector solutions each drew positive

(‘might’ or ‘definitely would’ make a difference) from 80% of respondents.

A number of organizations outside of government are focused on providing a venue for doing this. Notably, the Mobile Work Exchange offers an informative web site and holds regular events aimed at sharing telework and mobile work successes and good practices both inside and outside government.

**Stop Calling It “telework”**

The question of whether it was time to retire the word “telework” drew mixed responses. Some felt strongly that the word had outlived its usefulness or carried too much baggage:

**“We should expand our focus from telework to recognize that the very nature of work is changing,”** said Dr. Wells.

**“The word "telework" generates an immediate negative reaction among many of the managers in my agency. I look forward to the day when it's just ‘work’ like any other day in the office or out of it.”**

**“The distinctions between mobile work and telework are sometimes polarizing. It ought to be just work.”**

Forty percent felt changing the name would have no impact.

Similar polarity regarding the word *telework* exists in the private sector. The reality is that the employees have already left the building. As a result, instead of focusing on telework as an endpoint, industry leaders are looking at the bigger issue of what workplace mobility can do for them.

The problem in government however, is that words like *telework*, and *mobile work* have very separate and distinct meanings. As mentioned, whether an employee is doing one or the other has implications on payroll, FSLA, travel reimbursement, taxes, insurance and more.

**“In some ways, many of the regulations we have to comply with are badly in need of an update. They’ve been band-aided over the years and it’s time for an overhaul.”**

Another reality, like it or not, is that it is the *Telework Enhancement Act*.

**Provide A Safe Way To Report Telework Obstacles Or Abuses**

Providing a safe way to report telework obstacles and abuses drew little support from respondents. While about 80% said it might have a positive impact, about half of those fell into the weakest, ‘might make a difference’, category.

**“In [our agency], I believe we have safe ways to report obstacles and abuse. What we don’t have is agency support to do anything about it.”**

**Training Initiatives**

Throughout the survey and in our interviews, respondents clearly agreed that training was crucial, but ratings of their existing training efforts were less than stellar. See Chart 10.

While telework isn’t difficult, it is different. Training is key to maximizing the efficiency and effectiveness of not just telework, but a variety of emerging workplace strategies such as open office environments, unassigned desks, office sharing, and even non-mobile work.

Manager and non-manager training is also key to gaining buy-in, ensuring lasting culture change, and minimizing conflict.

**“When organizations commit to preparing and training their managers and employees for remote work, they not only experience a higher satisfaction with the initiative, but they get everyone on board faster. That’s when the positive inertia really starts to help,” said e-Work.com’s Kate North. “We’ve seen some organizations increase the overall employee satisfaction more than 25% when they receive training versus when they don’t.”**

**“Managers need performance management, communications, and team building training targeted at managing a virtual workforce,” said one respondent. “Teleworkers need training in planning telework time and using communication and collaboration technologies to keep them connected.”**

In fact, over 60% of the respondents felt that providing a budget specifically for telework training and technology would ‘likely’ or ‘definitely’ help. And another 25% said it ‘might’ make a difference. See Chart 8, page 16.

**Training Sources Rated**

We asked respondents where their agencies obtained their training programs. A little more than half indicated they created their own. About two out of five said

they use OPM materials, in some cases customizing it for their specific needs (27%). About a quarter used materials provided by outside vendors. And 45% used a combination of sources.

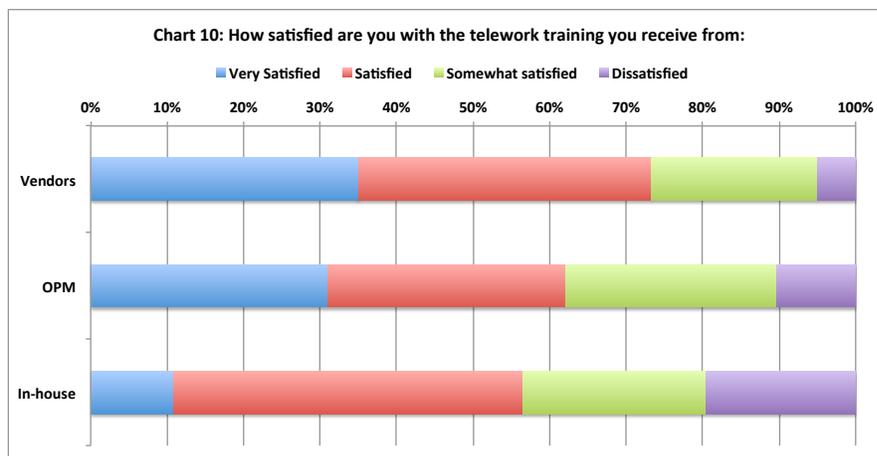
But not all training is created equal. Among the three sources, in-house training received the highest satisfaction scores with more than 70% of those who use it indicating they were ‘satisfied’ or ‘very satisfied’, and another 22% indicating they were ‘somewhat satisfied’. Sixty-two percent of those who used training from outside vendors indicated they were ‘satisfied’ or ‘very satisfied’ and another 28% said they were ‘somewhat satisfied’.

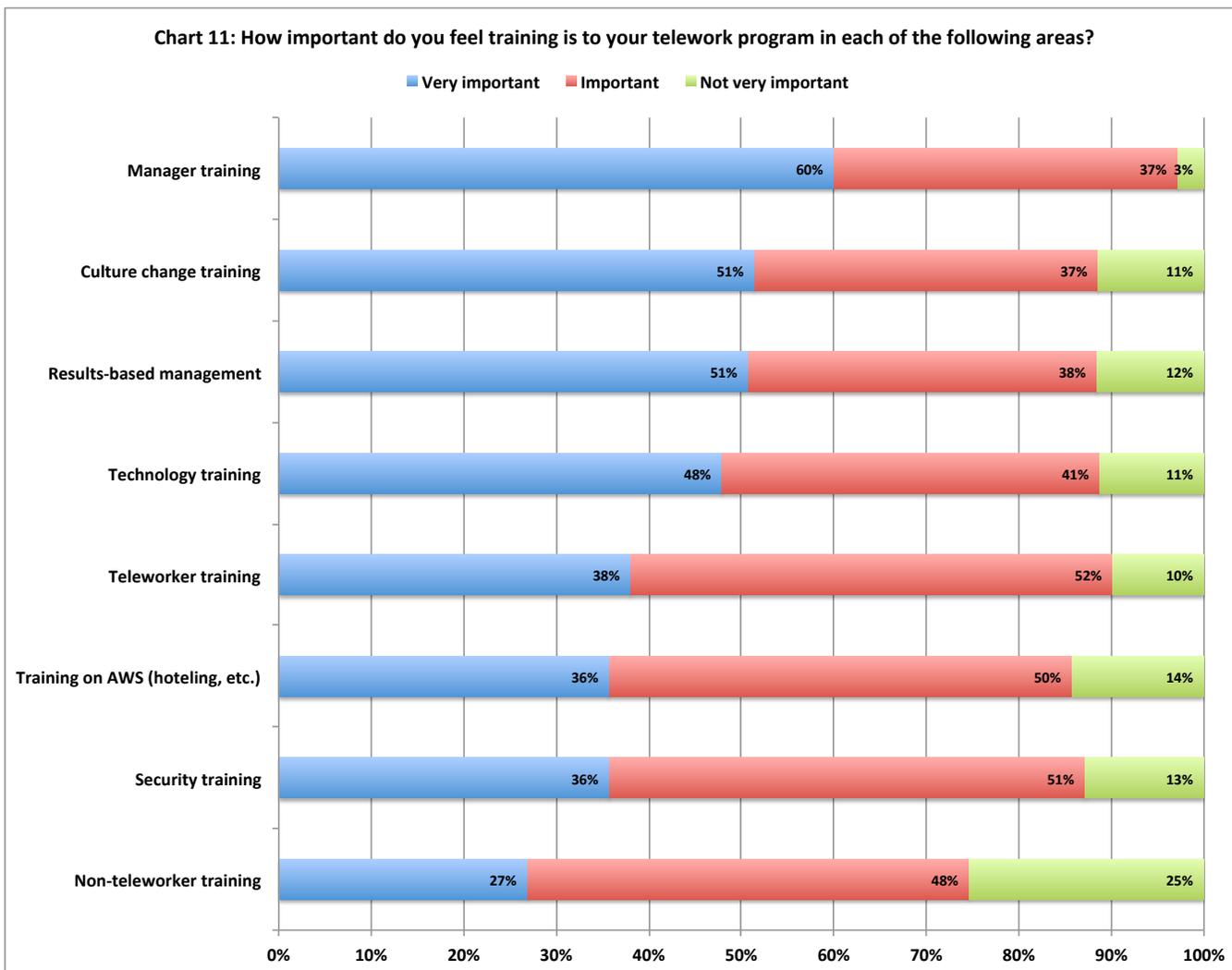
Slightly more than half of those who used OPM’s training indicated they were ‘satisfied’ or ‘very satisfied’ with it, and another 24% said they were ‘somewhat satisfied’. OPM’s training also drew the highest percent of ‘dissatisfied’ ratings (20%) and a fair number of disparaging write-in comments.

**Importance Of Training By Type**

When asked how important respondents felt various types of training were, manager training was rated ‘very important’ or ‘important’ by nearly 100% of respondents. See Chart 11 on the next page.

While manager training outweighed the rest of the categories, all of the suggested categories were deemed important by at least three quarters of respondents. In





order of importance ratings (important or very important) they included:

**Manager Training**

Managers primarily need to learn: how to manage distributed teams; communicate and collaborate effectively; build trust; assess job and employee eligibility; create accountability; anticipate employee concerns; garner support; overcome obstacles; lead change initiatives; understand and communicate the benefits of telework; and ensure compliance with telework-related process, rules and regulations.

**Teleworker Training**

Teleworkers primarily need to learn: how to assess whether they are right for telework; their telework rights and re-

sponsibilities; how to work in a distributed team; how to set up their telework office; good communication practices; how to build trust with their manager and co-workers; how to manage workloads; and how to remain productive.

**Technology Training**

Many of the comments in the survey focused on the need for better training in the use of technologies that support remote work such as teleconferencing, video conferencing, virtual collaboration, remote access to files, etc.

**“One of the side benefits of telework is that it forces you to get comfortable with technology tools that can make you more effective when you are in the office too.”**

But just having the technology is a waste of money if people don’t know how to use it.

**Culture Change Training**

The need for culture change training received the second highest percentage of ‘very important’ or ‘important’ ratings (behind manager training). See Chart 11.

**“Without a doubt, the reigning number one challenge confronting the telework initiative is the existing management culture which is still vigorously resisting changes such as telework,”** wrote Dr. Wendell Joice in a report more than 12 years ago. **“Despite a wide array of specific concerns expressed by managers, the basic**

issue is that the world is transitioning into new ways to work and new work cultures. Most current managers were trained and excelled in operating in an industrial era workplace and now they are being asked to change ingrained attitudes and behaviors. It's not easy and, for the most part, it's not happening."<sup>57</sup>

He could have just as easily said the same thing today. Managers and employees both need to understand why they are being asked to change and what it will mean to them. Agency leaders and managers need to lead by example.

**"The web of values and norms that defines agencies tends to play the most important role in whether or not telework is supported. That's why I continually say that that advancing telework in agencies really is just a big culture change exercise."**

**"There is a 'telework underworld' that sees this as an 'attempted invasion' of federal worker's personal space to further balance government on the workers backs... and management that sees this as a direct affront to their management responsibilities (or lack thereof)."**

### **Results-Based Management Training**

The need for results-based management training tied with "culture change" training for the highest 'very important' ratings.

Throughout the survey and in interviews, people constantly commented that performance-based management is severely lacking in government.

In his bestselling book, *Drive: The Surprising Truth About What Motivates Us*, Daniel Pink observes that "despite four decades of scientific research on human motivation, there's an immense mismatch between what science knows and what management does."<sup>58</sup>

For a technologically adept workforce in a global, mobile workplace, management styles that were born in the days of sweatshops and typing pools don't work at best, and sabotage success at worst. "While carrots and sticks worked successfully in

#### **Survey comments on results-based management**

**"I know many people who do not telework because they can go into the office and goof off so they refuse to telework. But teleworkers are held to a higher standard."**

**"You need to set expectations and goals and you don't have to 'see' what they are working on to know if did what they were supposed to do. That's just bad management."**

**"It's about balance and trusting employees/teams to make the right decision to work where they are most productive as dependent on their current tasks. I like to encourage employees to come into the office to kick off a project and brainstorm, go home to research and draft, return to the office to upgrade and validate work, work anywhere to finalize content and gather at the office to present."**

**"Low level managers aren't comfortable giving up control, or as I call it, the babysitting routine and focus too much on where an employee is at, rather than what an employee is actually accomplishing."**

**"Government is a highly risk-averse culture and telework requires substantial changes in how it looks at and evaluates work in a telework environment. Very little is being done to support managers in this area or to integrate performance management and telework."**

**"I don't understand why so many managers fear it. Do they think they really know what you're doing when you're in the office? I have a buddy who refers to his time the office as 'in-house leave'. It has to be about results. My manager says 'I don't care where you do your job, just do it'."**

**"Successful telework is based on productivity, it should not matter from where you are working as long as the work gets done nor should it matter when you work as long as you are available during basic core hours of 9AM to 3PM."**

**"Why does where I am working matter? The whole point of telework and what is being pushed is you can work ANYWHERE. Why does it matter if you are at home or at a library or a coffee shop as long as you are working and following the security procedures?"**

the 20th century, it's precisely the wrong way to motivate people today," wrote Pink.

#### **Security Training**

Security training is essential to not just telework, but any work. Even paper files or overheard conversations can cause a security breach. Of course, not all employees will need the same level of security, but they all need to be aware of the risks and how to guard against information leaks.

#### **Training On: Hoteling, Activity-based Work, Open Office Plans, Etc.**

Office hoteling, activity-based work, open office plans, and other new workplace strategies often go hand in hand with telework. While most employees would like to telework at least occasionally, getting them to relinquish their assigned space or desk is another story. Yet, without these strategies, real estate savings will not materialize.

Global trends are clearly toward lower per person office space, more collaborative space and less private space, and higher person to desk ratios. Some organizations, such as HP have successfully increased the person to desk ratio from 1:1 to as much as 20:1 in some places.<sup>5</sup>

**“Employees need to be guided into these new settings in a way that reduces resistance, fear, and stress,” said Kate North at e-Work.com.**

**Non-teleworker Training**

While this category scored the lowest of the training categories with a quarter of respondents indicating that they didn’t think it was necessary, industry ‘good practices’ suggest it is worthwhile.

**“We are living in an increasing global and mobile world. It would be a rare employee who doesn’t at least occasionally work away from their desk or collaborate with others using technology.”**

What’s more, such training is key to maintaining effective continuity in emergency situations (COOP) when non-teleworkers may need to work remotely.

**Technology Initiatives**

Next the survey gave respondents a chance to rate the extent to which technology initiatives might impact the success of their agency’s program. The highest rated, by a wide margin were: easier access to online files, more collaboration tools, and access to video conferencing. About seven in ten respondents said each of these tools ‘would definitely’ or be ‘likely’ to help.

Detailed ratings for these and other proposed technology initiatives are shown in Chart 12.

One of the proposed solutions was providing a way to monitor where, when, and what employees were working on. It was offered as a way of investigating what level of respondents felt “watching over their shoulder” measures would be preferred to managing by results. Although a majority thought these solutions could help, a substantial percentage felt they would not and expressed strong support for performance-based measures in their comments. See sidebar page 21.

**Standardization Initiatives**

To test the desire for help in these areas, we asked survey respondents to rate the extent to which certain standardization initiatives would help. See Chart 13, page 23.

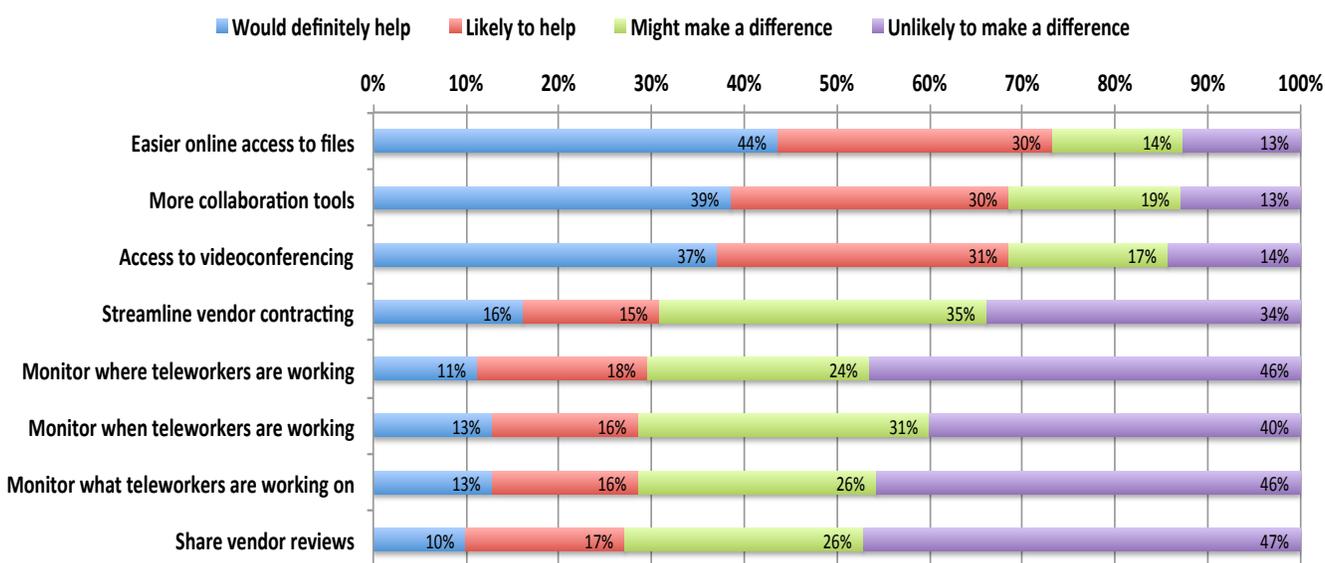
The highest votes were for establishing standards for measuring/reporting agency telework results. Six in ten it would ‘definitely’ or be ‘likely’ to help and another 26% said it ‘might’ help.

While the majority liked the idea of some standardization guidelines, many of the write-in comments reflected a concern that guidelines be just that and not dictums.

**“There seems to be a lot of duplication of effort in creating telework policies, figuring out appropriate goals, and the like.”**

**“Goals—cool but if you interfere with Agency goals you lose; Templates—good idea but what makes OPM the expert on a good telework program?; Best practices—great idea, it will shake up some agencies and force action. Telework related costs—not your [OPM’s]**

**Chart 12: To what extent do you feel each of the following technology initiatives would impact the success of your agency's telework program?**



area to interfere with Agency budgeting practices. This could back-fire especially with the constrained budgets already in place. Standards for measuring—good idea but you are already doing this and it is not forcing a tipping point. BYOD [Bring Your Own Device]- again not your [OPM’s] lane to interfere with IT security and records/file management. PUSH Sustainability goals that force management decisions.”

### Reward / Recognition Initiatives

Of the five choices related to rewards and recognition, the highest scores went to making telework success part of a manager’s performance goals—three-quarters of respondents felt this ‘definitely would’ or was ‘likely’ to help. Chart 14, page 24

offers additional details about these and other proposed initiatives.

“Many around here are just trying to make it to the next administration or retirement. Government employees are largely risk averse. They don’t want to stick their neck out or try new things.”

“Looking at resistance as a given to be managed creates an unproductive climate around change. It’s better to view and address the resistance as a product of uncertainty,” said Reza Ahmadi, Ph.D., a senior consultant with Emergent Solutions, Inc. “Simply put, supervisors are uncomfortable with change because they are unsure the conditions for their success will exist in the future.”

Unlike in the most of the private sector, managers don’t control their own budget

and their income is not tied to performance.

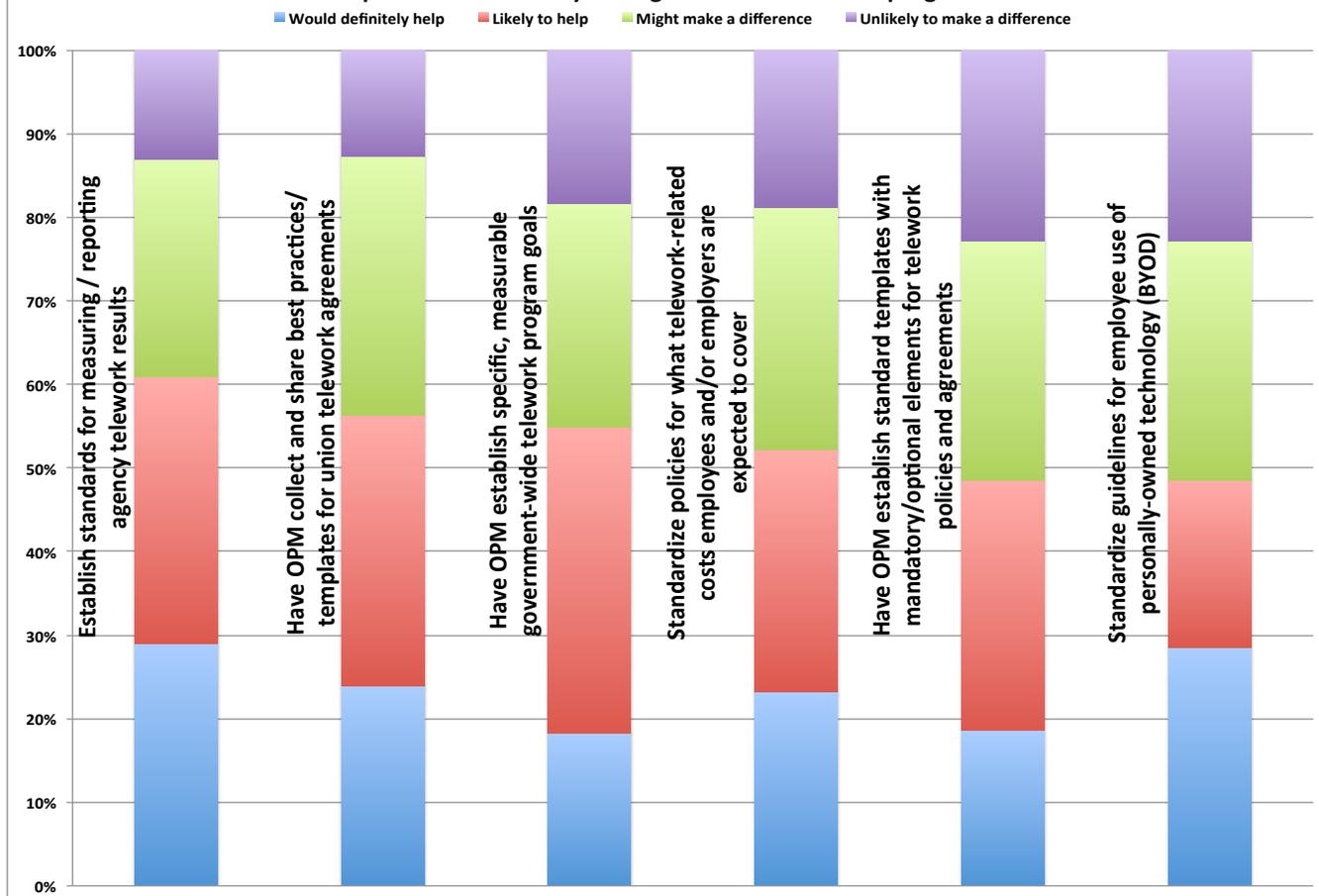
Allowing agencies to use their telework savings scored the second highest—71% rated it ‘definitely’ or ‘likely’ to help.

“Agencies don’t have real financial incentive to push telework—they don’t get to keep what they save.”

“Managers would be more inclined to support telework if the agency was allowed to utilize cost savings realized from telework on other agency projects.”

“I know of one example that had to trade the ‘color’ of money to get their telework enabling investment. They said to OMB, ‘You can take out \$XYZ M of dollars from my real estate budget over 10 years, if you will give me \$ABC operating and technology funds this year to get my

Chart 13: To what extent do you feel each of the following standardization initiatives would impact the success of your organization's telework program?



workforce ready.’ It requires thinking of different types of accounts/funding types as well as different points in time. Right now, that’s a very hard argument to make.”

Making telework success part of the agency’s performance goals ranked third—67% rated it ‘definitely’ or ‘likely’ to help. Recognition and rewards for telework success and sanctions for the lack of same garnered the fewest supporters and a fairly high level (more than a third) of negative votes.

“Making workforce mobility and related savings part of the agency/manager/SES [Senior Executive Service] performance plan will work but again, it can easily backfire by having 1 or 2 employees being designated as full time teleworkers and that serves to cover perhaps 4 people who would not be allowed to telework.”

“Our agency already has goals through 2020. If we did not, we certainly would benefit from having them. I don’t like the idea of sanctions only because Congress thinks that’s the way to get performance instead of using incentives—prefer incentives (if you exceed your goal by X, you get Y).”

### Ranking The Solutions

Of all the proposed solutions, the need for training scored higher than any other. See Chart 11 on page 20, and chart 15, page 26. Seventy-five to one hundred percent of respondents agreed that each category of training was ‘important’ or ‘very important’.

The number of responses in the training category as compared to others suggests strong feelings at best and problems at worst.

Among the other solutions proposed, the highest ranked was ‘making telework a part

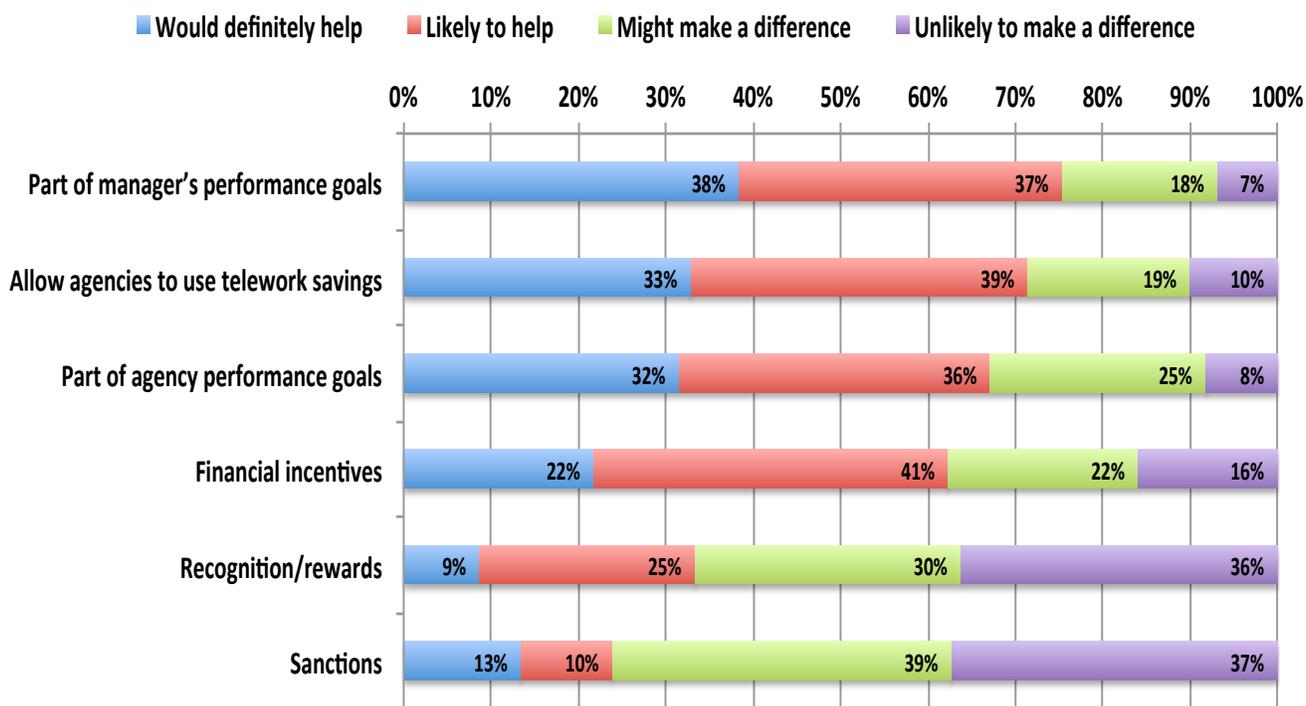
of a manager’s performance goals’. Over three quarters of respondents felt doing this would be ‘likely to’ or ‘definitely would’ help.

The other solutions respondents felt held the greatest potential included:

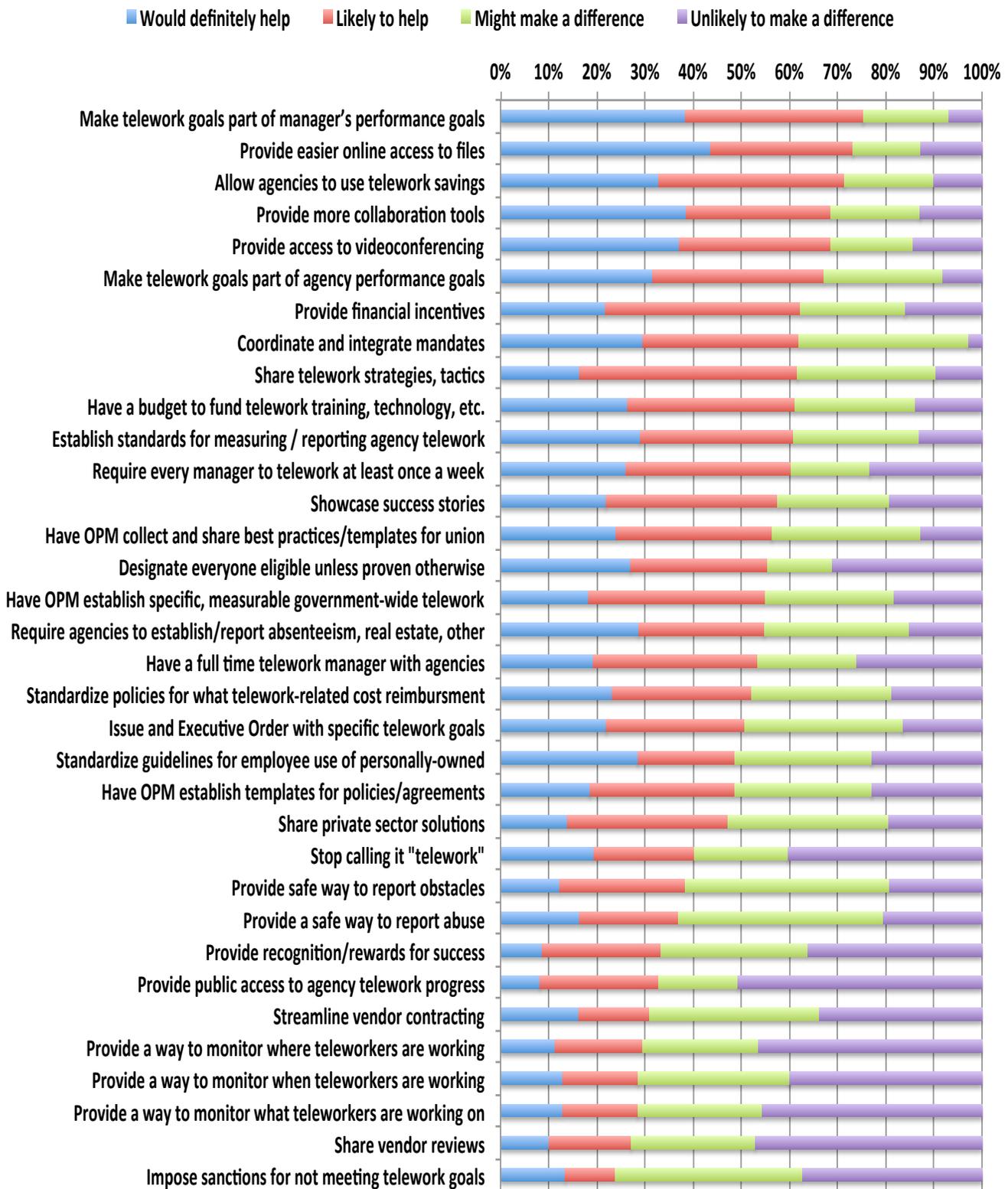
- Providing easier online access to files
- Allowing agencies to use telework savings
- Providing more collaboration tools
- Providing access to videoconferencing

Of course, each agency and sub-agency may rank these proposed solutions differently. Some might want to poll their own staff regarding these and other ideas. Which ones an agency decides to try will also likely take into account the cost or ease of each. A lower rated idea might even take precedence over those at the top of the list because it can be more easily or inexpensively delivered.

**Chart 14: To what extent do you feel each of the following recognition initiatives would impact the success of your organization's telework program?**



**Chart 16: Proposed Solutions Sorted by Highest Two Ratings Combined**





subject to bargaining agreement with the union. That made it impossible to implement in our agency because the unions were not willing to agree to this without substantial management concessions in other areas.”

“Even as a strong telework supporter, I think there is value in scheduled and unscheduled meetings face to face. As a manager, I am aware that my staff needs not only time to telework, but also to feel that the time we spend together as a team is worth it. I want to use telework as a way to improve the dialog that happens between supervisors and employees, the way they plan and work together.”

“[Telework is] tremendously beneficial to both employee and taxpayer, but we're at a point where agency mission is being compromised, due to decrease in performance.”

“It is obvious that technology is allowing us to work differently and is in essence driving this not the other way around. so if an organization doesn't have the technology, it can't be successful. furthermore, the manager who thinks you have to ‘see’ the person to know they are working is a thing of the past and they need to get over it. I do think that telework or mobile needs to be looked at in conjunction with the design of the workspace. Having a traditional office setting and incorporating telework without changing the office layout doesn't make sense. it has to be done together which is in line with the Presidential EO of reducing the real property footprint.”

“Should make a clear distinction between the adoption rate of telework and the success of telework. If all government employees started telework, but the government as a whole was not more productive the initiative has failed.”

“Telework should be implemented very deliberately and in ways that contribute to productivity. It should be implemented from the bottom up with buy in from first line supervisors.”

“Telework should remain a privilege not a right and should be earned then taken away if person is not performing until they can prove that are trustworthy to get their job done.”

“Kill the word telework except for specific work from home issues. Keep congress out of it. Don't let OMB drive it. Make it a grass roots effort and let it find its own course with best practices and no real end point... Advance new work practice with technology and people. Don't forget this is all about people, not the space, not the savings, not the heads of agencies.”

“Telework must focus on enhancing work outcomes, NOT reducing real estate.”

“Mission first, the right people, training, change management, IT tools, then space (configured for the mission).”

“I think the conversation on telework and mobility is important because it opens the door on other conversations the government is too afraid to have. For example, it forces conversation on:

- Entitlement
- Special treatment
- Degree of Trust between managers and employees
- Management through line of sight vs. outcomes
- Identifying and communicating actionable outcomes”

# Conclusions

Through surveys, interviews, and a synthesis of existing research, we have examined the obstacles to telework and summarized what those on the firing line feel hold greatest potential for overcoming them.

Four themes clearly bubbled to the surface: the need for greater accountability, increased emphasis on culture change, better training, and greater integration of technology solutions.

## Accountability

Leaders at all levels need to both talk the talk and walk the walk. Middle managers, in particular, need to learn how to manage by results rather than presence, and employees need to held accountable for those results.

## Culture Change

All of this requires a huge cultural shift in any organization, but perhaps even more so in government where rules, rank, and command and control management styles are deeply engrained.

## Training

Training plays a key role in culture change, ensuring a smooth transition to new workplace strategies, and optimizing the potential of new work processes and practices.

## Technology

Technology has forever changed the way people work and the genie is not going back in the bottle.

Access to, and proficiency in using, the tools and technologies that support remote work is fundamental to success.

## Summary

Pockets of success within government offer proof that telework can succeed and that the benefits are real.

It is time for all of government to look beyond telework as something that has been mandated or as a tactical solution to a specific problem.

What is needed now is for government to take a strategic approach to maximizing the potential of telework and other new ways of working by adapting its work places, work processes, and work practices to best support where, when, and how work is actually done.



# About

## Kate Lister

Kate Lister is the president of [Global Workplace Analytics](#), an independent research and consulting firm that specializes in making the management case for emerging workplace trends such as telework, office hoteling, and flexible work.

Her organization's proprietary [Telework Savings Calculator™](#) and Workplace Savings Calculator™ have been used by hundreds of organizations to estimate the people, planet, and profit impacts of emerging workplace strategies. Their research has been cited in the *Wall Street Journal*, *Harvard Business Review*, the *Washington Post*, and [numerous other publications](#).

Kate authored a web-based course for e-Work.com titled "The Case For Change." used to train over a hundred thousand employees worldwide, including many in government.

Kate has created and delivered workshops and webinars for organizations including U.S. General Service Administration, USDA, FDA, WorldatWork, the Society for Human Resource Management, Citrix, WorkshiftCalgary, and many others. She has authored industry-sponsored [white papers](#) on the ROI of telework in the federal government, results-based management, emerging workplace strategies in the U.S., U.K. and Canada, and related topics.

## Tom Harnish

Tom Harnish is Senior Scientist and head of the Telework Research Network, the research arm of Global Workplace Analytics.

Tom's expertise lies in remote work research, emerging trends, and futures forecasting. He was a carrier-based Navy flyer, taught information management to senior military and government executives in Washington, managed projects as a Consulting Scientist at Booz Allen & Hamilton, lead brilliant hardware and software engineers as Senior Scientist at the Online Computer Library Center (OCLC), and as a Division Director inspired and led development of 5 of 7 innovations cited in Reynolds and Reynold's annual report.

Kate and Tom have co-authored three business books, all published by John Wiley & Sons. Their most recent, *Undress For Success—The Naked Truth About Making Money at Home*, was a popular press book aimed at empowering employees to negotiate, find, or create home-based work opportunities.

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The Citrix logo consists of the word "CITRIX" in a bold, sans-serif font. The letter "I" is stylized with a dot above it. To the right of the word is a registered trademark symbol (®).

# Footnotes

1 GSA Telework presentation anecdote provide by survey respondent in survey comments

2 *Guide to Telework in the Federal Government*, Office of Personnel Management, April 2011

3 *2012 Status of Telework in the Federal Government Report to Congress*, Office of Personnel Management

4 The survey was distributed to 588 people in May of 2013. A one week window was allowed for responses. The survey was intended to capture the opinions of a range of individuals who are tasked with telework-related responsibilities in government.

5 [Federal Telework Obstacles and Opportunities survey](#) - link to study and comments

6 Federal Executive Branch agencies are responsible for their own telework policies, procedures, and strategies. All agencies have designated telework coordinators who deal with day-to-day operational issues related to telework, and receive guidance and support from the Office of Personnel Management (OPM). Many agencies designate telework coordinators at the sub-agency levels as well.

7 The primary real estate, workplace, and policy contacts for each Federal agency

8 GSA's WorkPlace+ Community of Practice is comprised of internal subject matter experts focusing on space, people, and technology solutions. It is an internal network sharing best practices and knowledge allowing GSA to provide customized solutions to the differing workplace needs of federal agencies that are seeking to reduce their real estate costs and increase their workplace efficiencies.

9 *2012 Federal Viewpoint Survey Results*, Office of Personnel Management

10 Status of Telework in the Federal Government, Office of Personnel Management, 2006 thru 2012

11 *Expanding Federal Telework: Overcoming Barriers and Building on Success*, OPM, 2010

12 *The Metrics of Distributed Work*, Knoll Workplace Research, 2011

13 [Workshifting: The Bottom Line Benefits](#), Global Workplace Analytics, 2010

14 *2012 Status of Telework in the Federal Government*, op. cit..

15 Ibid, only 12% said they did not want to telework

16 *2012 Status of Telework in the Federal Government*, Office of Personnel Management, June 2012

17 [Global Workplace Analytics' Telework Savings Calculator™](#) is based on a synthesis of over 4,000 case studies, research papers, and other documents related to telework and alternative workplace strategies.

**Note:** Telework Savings Calculator™ and the associated model are based on assumptions that are supported by solid research. However, it is important to note that every agency and sub-agency will have different costs and benefits. The model, nevertheless, provides a framework that based on a well-reasoned methodology. It is flexible enough to accommodate a broad range of user-specific assumptions, yet structured enough to provide consistency.

18 [Global Workplace Analytics' Telework Savings Calculator™](#) based on Washington DC travel times Assumes all work at home versus third places. Assumes only 75% reduction in travel on telework days. The wide range of travel time savings is due to differing modes of travel (car, public transportation, car pool).

19 Mega Commuters in the U.S.—*Time and Distance is Defining the Long Commute*, using the American Community Survey, US Census Bureau Working Paper, March 2013

20 [Global Workplace Analytics' Telework Savings Calculator™](#) based on Washington DC travel distances and regional costs for gas, auto wear and tear, public transit, food (less extra home food), parking, work clothes, less the cost of extra home energy.

21 [Global Workplace Analytics' Telework Savings Calculator™](#) based on EPA calculation of GHG, 20.3 average mpg, and \$100/barrel of oil.

22 *Telework: Weighing the Information, Determining an Appropriate Approach, A Report to the President and the Congress of the United States* by the U.S. Merit Systems Protection Board,

- October 2011. \$100M estimate was later revised to \$70 million due to those who were able to telework.
- 22 *Implementing Telework: Lessons Learned from Four Federal Agencies*, IBM Center for Government, 2011
- 23 *Recommendations to Assist Cost Recovery/ROI Strategies and Budget Planning*, Prepared for U.S. General Services Administration by Booz Allen, 2006.
- 24 *The Patent Hoteling Program is Succeeding as a Business Strategy*, Office of the Inspector General, February 2012
- 25 Letter from OPM dated June 19, 2013 in response to GAO's Review of OPM's 2012 Telework Report.
- 26 No large national survey tracks less frequent telework or telework in places other than home.
- 27 *The State of Telework in the US*, Global Workplace Analytics and Citrix, 2011
- 28 Ibid and *2012 Status of Telework in the Federal Government—Report to Congress* (report cautions readers that due to changes in reporting, year-to-year comparisons may not be possible)
- 29 *The State of Telework in the US*, op. cit.
- 30 Ibid.
- 31 *On Demand Government: Deploying Flexibilities to Ensure Service Continuity*, Partnership for Public Service and Booz Allen Hamilton, July 2010
- 32 *Make Telecommuting Pay Off*, HR Magazine, Society for Human Resource Management, June 2011
- 33 Work Anywhere Symposium speech by Bob Varma, Presiding Administrative Law Judge at California Office of Administrative Hearings, September 2011
- 34 *New Ways of Working in the Post-Recession Economy*, Third Biannual Global Benchmarking Study by New Ways of Working, 2011
- 35 *The Metrics of Distributed Work*, Knoll Workplace Research, 2011
- 36 *Home Working: Why can't everyone telework?*, BBC News Magazine, 2011
- 37 Microsoft U.S. Remote Working Research Summary, 2010
- 38 [AT&T infographic](#), 2012
- 39 *Exceeding Expectations! A New Way to Stimulate the Economy*, eWorkPlace, 2011
- 40 *Finding an Extra Day or Two*, Brigham Young University, June 2010
- 41 *Flexible Working: A Triple Win for Enterprise, People and the Environment*, WorkWiseWeek, 2007
- 42 *Workplace Flexibility in the 21st Century*, SHRM, 2009
- 43 *The Edge Report*, Robert Half International and Career Builder, September 2008; and *Generation Y, What Millennial Workers Want*, Robert Half International and Yahoo! HotJobs, 2008
- 44 *Cisco Connected World Technology Report*, Cisco survey of 1,441 college students and 1,412 full time employees, fielded in 14 different countries, 2011
- 45 *Telework Trendlines*, WorldatWork, 2009
- 46 *New Ways of Working Benchmark Studies*, 2008, 2009, and 2011, New Ways of Working LLC, March. Management concerns and organizational culture ranked as top two barriers to alternative workplace strategies.
- 47 *Federal Telework Topics*, Dr. Wendell Joice, GSA 2001
- 48 *2012 Federal Employee Viewpoint Survey Results*, Office of Personnel Management, 2012
- 49 *OPM ends flexible-schedules experiment after mixed success*, Federal Times, March 13, 2012
- 50 *OPM ends flexible-schedules experiment after mixed success*—referring to Deloitte's 2011 report on the results of ROWE at OPM
- 51 Ibid.
- 52 *Undress for Success: The Naked Truth About Making Money at Home*, Kate Lister and Tom Harnish, Wiley 2009

53 Final Report on Technology Barriers to Home-Based Telework:  
Executive Summary, Telework.gov

54 *Status of Telework in the Federal Government—Report to Congress*, Office of Personnel Management, 2005 to 2012

55 2012 Status of Telework in the Federal Government, op. cit

56 Ibid.

57 *Federal Telework Topics* by Dr. Wendell Joice, 2001

58 *Drive: The surprising truth about what motivates us* by Daniel Pink, Riverhead Books, 2011

59 Telephone interview with Chris Hood, Program Manager for the Hewlett Packard Global Workplace Initiative, December 16, 2010