Rapid technological advancements are dramatically changing the ways we communicate, manage data, buy goods, share news, interact personally, and collaborate professionally. Just as today’s technology bears little resemblance to that of the year 2000, the digital advances of 2015 will be soon outdated.

Both companies and individuals have embraced evolving technological advancements as matters of necessity, convenience, and competitive viability. Accordingly, our society has developed ever-increasing expectations for the access and convenience new technology provides. As private citizens, we embrace technological advancements like laptops, tablets, smartphones, and now “wearables” that make our lives easier. We communicate constantly, first with mobile phones and now with smartphones that bring tremendous computing power and virtually unlimited data to the palms of our hands.

The pace of change challenges even the most tech-savvy private sector organizations to adopt and apply new technologies effectively. Rising expectations and competition demand that companies invest in customer experience and service delivery, process larger data sets faster, enable colleagues to seamlessly collaborate from anywhere in the world, and anticipate external threats before they affect the bottom line.

These developments pose great challenges and opportunities for government as well.

**What do we mean by “digital technology”?**
Technology that systemically connects people with each other and with information (data or content). This includes transactional services (online forms, benefits applications, e-commerce) across a variety of devices (mobile, tablet, desktop), and delivery mechanisms (websites, mobile applications, and social media). For the purposes of this study, the term “digital technology” does not include the underlying IT systems that provide infrastructure or computing platforms.

**The Federal Government’s Digital Technology Challenge**
Digital technology can assist the federal government in better serving the public, engaging stakeholders, and communicating with vendors. Some Americans, however, believe their government lacks the incentive and agility to keep pace with the private sector’s adoption of technology. Indeed, the federal government faces inherent constraints applying new digital tools, such as complex legislative, budgetary, and acquisition processes while lacking competition that drives companies to evolve. Nonetheless, as the American people, government stakeholders, and private sector adopt technology for their own needs, their expectations rise that the government will as well.
Federal employees—particularly younger ones—are increasingly exposed to digital technologies in their private lives and expect access to similar tools in the government workplace. Further, federal workers require new skills to leverage both new and available technologies to enhance stakeholder engagement and satisfy the demands of an increasingly mobile workforce.

Digital technology is hardly foreign to the federal government, of course. The U.S. government has played a crucial role in funding some of today’s most common technologies. ENIAC, the first electronic digital computer, was financed by and built for the U.S. Army; the Internet evolved from networks developed by the Department of Defense and the National Science Foundation.

Even with its challenges, use of digital technology in government today is widespread. The question is whether, and to what extent, the federal government’s unique challenges hamper its ability to make effective use of technological advances.

The Federal Leaders Digital Insight Study

The Federal Leaders Digital Insight Study, conducted by the National Academy of Public Administration (the Academy) in collaboration with ICF, is the inaugural report designed to survey Federal Leaders’ perspectives about the pace with which the government is adopting, applying, and leveraging technological advancements in service to its constituencies.

The Academy has convened an expert Panel of its Fellows to guide the Academy/ICF study team’s design and implementation of the survey, study its results, and offer key findings and recommendations.

The Federal Leaders Digital Insight Study addressed the following broad topic areas:

- Use of Digital Technology
- Job Interaction with Digital Technology
- View of Agency’s Adoption of Digital Technology
- Acquisition of New Digital Technology

The findings revealed a fascinating picture of how the federal government acquires, adopts, and applies technology.¹

In summary, Federal Leaders believe the government is reaping benefits from having adopted technology, and that technology helps agencies achieve their missions. Further, Federal Leaders want the government to continue investing in technology as it evolves. Yet they are concerned that the government cannot keep pace either in procuring rapidly changing digital technology or with the private sector’s use of it.

About the National Academy of Public Administration

The Academy is an independent, nonprofit, and nonpartisan organization established in 1967 to assist government leaders in building more effective, efficient, accountable, and transparent organizations. Chartered by Congress to provide nonpartisan expert advice, the Academy’s unique feature is its over 800 Fellows with expertise across all levels of government, in the private and nonprofit sectors, and in academia. Through its Fellows and highly qualified professional staff, the Academy provides expert and timely advice to an array of senior public sector officials and is committed to improving government.

About ICF

ICF (NASDAQ:ICFI) provides professional services and technology solutions that deliver beneficial impact in areas critical to the world’s future. ICF is fluent in the language of change, whether driven by markets, technology, or policy. Since 1969, we have combined a passion for our work with deep industry expertise to tackle our clients’ most important challenges. We partner with clients around the globe—advising, executing, innovating—to help them define and achieve success. Our more than 5,000 employees serve government and commercial clients from more than 70 offices worldwide. ICF’s website is www.icfi.com.

¹ For more details on referenced statistics, see the companion Findings Report at www.icfi.com/napadigitalstudy
Survey Methodology

The Academy and ICF partnered to execute this study in a methodologically sound manner to achieve statistically relevant information from leaders in the federal government workforce.

For this study, the Academy convened a Panel of five of its expert Fellows. The Academy’s Fellows are elected to the organization due to their expertise in and significant contributions to the field of public administration. The Panel of Fellows convened five times throughout the study to guide the work of the study team. The Panel is:

- **Dan Chenok (Panel chair)** — Executive Director of the IBM Center for The Business of Government and former Branch Chief for Information Policy and Technology with the Office of Management and Budget.
- **Governor Parris N. Glendening** — President of Smart Growth America’s Leadership Institute and former Governor of Maryland.
- **Bev Godwin** — Former Director, Federal Citizen Information Center, U.S. General Services Administration.
- **Jeffrey Neal** — Senior Vice President, ICF International and former Chief Human Capital Officer, U.S. Department of Homeland Security.
- **Dr. Sally Selden, PhD, SPHR** — Professor of Management and Associate Dean for Academic Affairs, Lynchburg College.

The Panel first guided the Academy/ICF study team in drafting the web-based survey. It included approximately 50 questions, some soliciting open-ended responses, with an estimated completion time of 15 minutes. Once the Panel had approved the final survey design, the study team randomly selected 10,000 senior federal civil servants—generally GS-13 and above—from the Leadership Directory database to receive the online survey via email. All respondents’ identities remain confidential.

ICF administered the survey between August 28 and September 26, 2014. In all, 510 participants completed the survey from a final sample size of 8,967 who received it, for a response rate of 5.7% and an overall margin of error of +/-4.2 percentage points. The sampling error for individual questions may be considerably lower. Conversely, the sampling error for specific demographic breakdowns will be higher and will vary depending on the number of participants within each demographic.

To assess the accuracy of the findings, ICF conducted two types of non-response analysis. First, ICF compared the surveys of early responders and late responders (those who responded only after several reminders and can be considered a proxy for non-respondents) and found no difference in their responses. ICF also compared agency representation of those in the sample versus those who completed the survey and found only small variances.

ICF processed and analyzed the results, providing the Panel with tabulated data, a full list of open-ended responses, and a word cloud analysis. The Academy’s Panel analyzed this preliminary results document, and over the course of four meetings between October-December 2014 formulated the Findings and Recommendations presented in this report.

The Panel’s analysis of the survey data revealed five factors that determine to success in the adoption of digital technology. These led to a framework anchored by a comprehensive digital strategy (incorporated in agency Strategic Plans) at its center, supported by effective planning and execution of Acquisition processes, Workforce Training and Development, Recruiting and Retention, and Work/Life Integration and Balance.

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2 ICF is a charter member of the American Association for Public Opinion Research (AAPOR) Transparency Initiative, which recognizes those organizations that pledge to practice transparency in their reporting of survey-based findings. For more information, please see: [http://www.aapor.org/AAPORKentico/Transparency-Initiative.aspx](http://www.aapor.org/AAPORKentico/Transparency-Initiative.aspx).
The Government Digital Technology Environment

In addition to the framework areas, the Panel derived several overarching themes from the study: The survey responses reveal federal employees are digital workers who embrace technology and its benefits; that federal employees view digital technology as a business imperative; and Federal Leaders are concerned their agencies may be unable to keep up with the pace of change.

**Digital Environment Finding #1:** Federal Leaders are digital workers who recognize the value of digital technology, believe it increases their productivity, makes their agencies more effective, and helps them serve external stakeholders.

“Without question, the ability to access agency systems from home gives me opportunities to complete assignments during non-standard work hours. This flexibility is critical to meeting deadlines and keeping customers happy.”

“We work harder, get more done in less time, and are always available to our clients.”

An overwhelming majority across all demographics (93%) embraces digital technology in the workplace, reporting it has improved productivity and helps serve agency stakeholders (88%). Nearly three-quarters (72%) of respondents use an agency-issued smartphone and 46% use a similar personal device for business purposes. Further, solid majorities report their agency’s productivity has significantly improved as a result of digital technology and that agencies' investments in it have improved or transformed their operations.

**Digital Environment Finding #2:** Federal Leaders view digital technology as a business imperative and want their agencies to invest more in it.

More than 8 in 10 (82%) of Federal Leaders say job-related online information and transaction services should be available at any time and on any device. Just over four in ten (42%) believe their agency dedicates appropriate resources to leverage digital technology as effectively as possible. Nearly three-quarters say they would be more productive if their agency invested more in technology to improve access to information and 64% say their agency effectively uses digital technology to engage employees.

“I don’t know what I would do without this technology. There is more technology that I want to access and use.”

**Digital Environment Finding #3:** Federal Leaders are concerned that their agencies are not keeping pace with rapid change in the technology industry or meeting rising expectations to adopt technology.

Seventy-five percent of Federal Leaders think their agency’s stakeholders will increasingly demand digital engagement, but a slim majority doubts their agency is keeping pace with the private sector’s ability to adopt it. Further, only 15% believe their agency is making new technology available to its employees at the same pace as the private sector.

“We need to stop pretending that most of what we do is so unique that any change in our current philosophy of how we apply new technology will make us less efficient, effective, or safe. So far all the approaches to implementation are designed to perpetuate legacy processes and workflows, and management styles.”

**Digital Strategy**

On May 23, 2012, President Obama issued a directive entitled Building a 21st Century Digital Government, which included a one-year roadmap directing agencies to achieve specific digital milestones. The strategy builds on prior efforts, including Executive Order 13571, Streamlining Service Delivery and Improving Customer Service, and Executive Order 13576, Delivering an Efficient, Effective, and Accountable Government. In 2014, the Administration launched a number of high profile initiatives to further agencies’ efforts to implement its strategy, including OMB’s U.S. Digital Service, a best practices playbook and TechFAR handbook, and GSA’s Office of Citizen Services and Innovative Technologies “18F” program. In light of these efforts, the Panel elected to pose a series of questions to gauge Federal Leaders’ awareness of and attention to them.

“We seem to get it that customers expect digital services. We don’t seem to recognize the importance of leveraging digital technology in the workplace to accomplish work.”
Digital Strategy Finding #1: Too many Federal Leaders are unaware of whether their agencies have or are implementing a digital strategy.

Sixty-five percent of respondents don’t know if their agency has a documented digital strategy that is currently being implemented. Nearly 75% of respondents (including 52% of SES–level respondents) with no influence on technology procurement do not know if their agency has a documented digital strategy. Fifty-three percent of all respondents who do influence procurement were aware of their agency’s digital strategy.

About half (53%) report that their agency does a good job considering digital technology in strategic planning and execution.

Digital Strategy Finding #2: Many Federal Leaders are unaware of whether their agencies are measuring progress against goals.

Sixty-six percent do not know if their agency is satisfied with the return on investment to date in digital technology and more than half (56%) are not aware whether their agency measures it.

One-third (33%) of respondents do not know if stakeholders are satisfied with the way their agency engages them digitally; 35% of respondents do not believe their agency does. This is based upon either the lack of a strategy or ineffective communications regarding the agency’s existing strategy. The Office of Personnel Management’s Federal Employee Viewpoint Survey shows that failure to adequately communicate agencies’ goals and priorities is a widespread concern.3

Panel Recommendations – Digital Strategy

Recommendation #1: Agencies should develop and execute comprehensive, relevant, and actionable digital strategies that build on the government’s existing Digital Strategy, support the agency’s mission, and are integrated within the agency’s Five Year Strategic Plan, Executive Order 13571, and subsequent directives.

Recommendation #2: Each agency should design and implement a plan to ensure that the agency’s Digital Strategy is integrated into its business practices as well as strategic, operational, and communications decisions. This requires effective communication of and input into the agency’s Digital Strategy by technical experts, employees, and external stakeholders, followed by consistent outreach to employees and stakeholders, monitoring to measure results over time, and adjusting goals and implementation tactics to ensure consistent evolution and improvement that keeps pace with advancing technological capabilities.

Digital technology enables and even necessitates reimagining the 21st century workplace. The federal government acknowledges this already and promotes telework and other workplace flexibilities. A June 2014 study by the White House Council on Economic Advisors concluded that flexible workplace “policies and practices may well offer benefits to more firms and workers, and for the U.S. economy as a whole.” The study built on the Telework Enhancement Act of 2010 and initiatives aimed at leveraging a virtual workforce to reduce federal office space, cut costs, and support continuity of operations during emergencies.

“I am a Federal Executive with three small children. With my blackberry and laptop I have been able to be present for my children while still meeting the requirements of my job. I have been able to be on the road, pick up kids, and do a telecom before their school activity. Without this technology I would have to miss important moments in their lives or not take the job I have today.”

**Work/Life Integration and Balance Finding #1: While flexible work environments benefit agencies and allow workers to blend personal and business tasks, they risk creating never-ending workdays that can adversely impact workers’ quality of life. Such issues may drive lowered morale, increased turnover, and—ultimately—lower productivity.**

Respondents were roughly evenly split as to technology’s impact on their work/life integration and balance: 37% said technology improved it; 35% responded that technology harmed work-life integration and balance; and 27% remained indifferent (see Exhibit 2).

A closer look at the demographic differences in responses reveals that results are mixed when it comes to perceptions about work/life balance issues. A slightly higher percentage of senior Federal Leaders say digital technologies have improved their work/life balance: Almost half (48%) of Senior Executive Service employees and nearly four in ten (39%) Federal Leaders with over 26 years in government service indicate that digital technology has harmed work/life balance.

> “24/7 access via many mediums is great but we have not learned how to control expectations or use email as effectively as possible. Expectations for quick answers far outweigh the real need and the ability for one to do real work in between electronic engagement.”

Open-ended responses revealed additional insights. For those who have seen an improved work/life balance, responses include an appreciation for flexibility, enhanced productivity, the ability to telework, and the possibility of having more personal time. For those who said digital technologies negatively impacted work/life balance, participants cited 24/7 “always on” accessibility, lack of downtime, and higher expectations.

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4 White House Council of Economic Advisors, June 2014. Available at: [http://www.whitehouse.gov/sites/default/files/docs/updated_workplace_flex_report_final_0.pdf](http://www.whitehouse.gov/sites/default/files/docs/updated_workplace_flex_report_final_0.pdf)
“Uses of digital technology has allowed me to telework and continue working in non-office-based settings. It is possible to send time-sensitive replies at all hours of the day and no matter my physical location (which also assists when traveling as part of work). While to some, this crosses the line of work/life balance by allowing work to intrude into home life, I find these are not my feelings for it. As my job is largely reactionary to external stakeholders and partners, it allows me to better manage my time (i.e., not sitting at a desk for eight hours in the hopes that my partners across four time zones all communicate with me during my official time).”

The word clouds to the right illustrate the open-ended responses related to work/life integration and balance issues. Exhibit 3 illustrates open-ended responses related by respondents who report digital technology has improved their work/life balance. Exhibit 4 illustrates open-ended responses from those reporting that digital technology has harmed their work/life balance. The larger the size of the word, the more often it was used.5

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5 The study team generated the word clouds using Tagul software (https://tagul.com/create). After excluding common words (i.e., "the"), the software creates a shape with remaining words. In some cases, certain words populating the cloud were not helpful in illustrating the responses. Typically these words were stated in the question and respondents repeated them in their phrasing but did not lend to their opinion. In those cases, the team removed the words before creating the final version of the cloud. A few examples of these words include technology, work, digital, and agency.
Work/Life Integration and Balance Finding #2: The top three tools that Federal Leaders think have the greatest impact to improve workplace performance are agency-issued smartphones, secure remote access to work systems, and agency-provided collaboration/team online sharing tools.

Q: Of the following technologies, which are the top 3 in terms of their impact improving your workplace performance or efficiency?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personally-owned smartphone</td>
<td>19.8%</td>
</tr>
<tr>
<td>Agency-issued smartphone</td>
<td>64.9%</td>
</tr>
<tr>
<td>Personally-owned computer</td>
<td>27.8%</td>
</tr>
<tr>
<td>Personally-owned tablet</td>
<td>8.5%</td>
</tr>
<tr>
<td>Agency-issued tablet</td>
<td>19.8%</td>
</tr>
<tr>
<td>Secure remote access to work systems</td>
<td>66.7%</td>
</tr>
<tr>
<td>Agency social media sites</td>
<td>5.2%</td>
</tr>
<tr>
<td>Agency-provided collaboration/team online sharing</td>
<td>38.5%</td>
</tr>
<tr>
<td>Cloud-based file sharing</td>
<td>5.6%</td>
</tr>
<tr>
<td>Workplace instant messaging</td>
<td>22.6%</td>
</tr>
</tbody>
</table>

NOTE: Percentages do not sum to 100%, as participants were able to select up to 3 responses.

Work/Life Integration and Balance Finding #3: A digital technology-enabled workplace presents tremendous opportunity to recruit workers interested in flexible work environments and to increase production while improving work/life balance.

Panel Recommendations – Work/Life Integration and Balance

Recommendation #3: The federal government should develop a roadmap towards creating a possible “workplace of the future”—centered on the most-used technological applications and supported by adequate processes, policies, and skills—to increase productivity for those working remotely. This is especially true for those agencies that have not yet provided widespread remote access to their employees. The Panel recommends that agencies look at best practices in other agencies and the private sector to create a “workplace of the future” that models effective use of digital technology.

Recommendation #4: An agency’s mission and culture are the most important factors in defining work/life balance issues where digital technology is concerned. Federal Leaders should recognize that their own behavior defines workforce expectations surrounding work/life balance. As many agencies provide vital services delivered by dedicated employees who will take the time needed to do a job well, Federal Leaders should model desired behavior and ensure technology is a tool rather than a tether that prohibits employees from having free time or privacy.

Recommendation #5: The Chief Human Capital Officers Council, in consultation with the Chief Information Officers Council, should work with agencies to develop model best practices access for work/life balance, use of email, and other technologies in off hours.

Recommendation #6: Agencies should develop written policies that define clear expectations and behaviors for use of technology during off-work time and train supervisors to ensure they do not excessively or unnecessarily burden workers after-hours. The Panel recommends agencies consider the context of their unique missions and types of occupations when developing such policies—considering needs of senior leaders, emergency personnel, personal use of agency devices, bring-your-own-device policies, and need for personal time.
Effectively leveraging digital technology requires a variety of new, existing, and evolving multi-disciplinary skills related to mission, information technology, acquisition, project management, communication, and more. In recognition of these needs, the U.S. Digital Services Playbook prominently highlights the role of a skilled and experienced team when developing and leveraging digital services.

“We do have a lot of employees who are so far behind in their skills in using technology of any kind, let alone digital tech.”

Training programs to develop skills are often among the first cut when budgets are limited. Consecutive years of reduced training have long-term negative impacts as employees’ skills atrophy.

“The agency is doing its best. It’s hard to move things forward but it’s much better than it was a few years ago. There needs to be more training of employees to get the workforce to be using the new resources more effectively.”

Employers often find that effective recruiting that delivers better-prepared and fully-skilled employees is more effective than the best training program. In this study, Federal Leaders did not see significant improvements to recruiting as the result of adopting digital technology.

Workforce Training, Recruiting, and Retention Finding #1: Digital technology has improved access to training.

Seven in ten (70%) believe digital technology has improved access to training relevant to agency mission. A larger percentage (77%) of respondents who influence procurement agreed with this statement, as well as 65% who did not influence procurement.

A significantly larger percentage (76%) of GS-13s agree with this statement, as well as 57% of Senior Executive Service employees.

Workforce Training, Recruiting, and Retention Finding #2: Federal Leaders believe they have been adequately trained on new technologies, but they do not believe the general workforce at their agencies receives enough training.

The vast majority (76%) of Federal Leaders report they are adequately trained to take advantage of digital technologies in the workplace, but only 36% believe their agency’s employees are adequately trained. Survey respondents consider the lack of skilled employees to be one of the top 5 barriers (ranked 4th) to better implementing digital technology in the workplace.

“I have not been given the proper training to support the higher expectations. My concern is that I spend much more time working due to a lack of proper skills instead of the normal amount of required time to complete tasks.”

Workforce Training, Recruiting, and Retention Finding #3: Federal Leaders are aware that their agencies are creating new offices, positions, and career steps related to technology.

Over four in ten (43%) Federal Leaders acknowledge that their agency has created offices or positions to assist with the implementation of new digital technology; that number jumps to nearly six in ten (58%) if the respondent has a role procuring digital technology.

Some of the new positions and offices cited by Federal Leaders include:

- Innovation Offices
- Digital Diplomacy/e-Diplomacy Office
- Departments/Centers for New Media
- Social Media Engagement Specialists/Managers
- Customer Relations Officers/Managers
- E-Commerce/Shoppers Insight Division
- Cyber Czar
Workforce Training, Recruiting, and Retention Finding #4: Federal Leaders view keeping current with new and innovative technology as an important recruiting and retention tactic, especially for skills related to digital technology. Few Federal Leaders believe adopting digital technology has had an impact on recruiting and retention.

Only one-third of Federal Leaders say their agency’s adoption of digital technology has had a positive impact on recruiting and retention; less than a quarter see their agency’s adoption of digital technology as a recruiting and retention competitive advantage.

“The ability to telework from home reduces my commute time (which thus increases my family time), thereby reducing my stress levels and my carbon footprint.”

Panel Recommendations - Workforce Training, Recruiting, and Retention

Recommendation #7: Agencies should invest in, develop, and implement training when deploying new technology and to reinforce the use of existing technologies.

Recommendation #8: Training programs should recognize varying levels of technological literacy and accommodate diverse skill levels.

Recommendation #9: The Panel recommends a blended approach to technology-related training that mixes classroom with online courses, mobile learning, and on-the-job-training.

Recommendation #10: The Chief Human Capital Officers Council and Chief Information Officers Council should jointly convene interagency groups to discuss lessons learned and share best practices as agencies develop training programs and establish new positions and offices.

Digital Technology Acquisition

Acquisition reform is a popular topic in both government and industry.

Some say the federal procurement process is broken, while others say the unique nature of federal procurement necessitates a degree of complexity greater than that in the private sector.

“The old ways of doing contracting and the speed of technology do not match.”

This survey asked Federal Leaders about their views on technology acquisition. The findings show agencies have much work to do to align acquisition processes with a digital government environment.

U.S. Digital Services took an incremental approach by developing TechFAR, a guide to using existing regulations to better procure technology. Recently, Anne Rung, the Office of Federal Procurement Policy Administrator, released a memo6 that provided guidance to agencies to improve procurement for innovative technologies.

“We need knowledgeable contracting officers in place to assist with this type of acquisition. It is complicated and we are often trying to procure very technical, specific capabilities using staff that doesn’t really understand what we’re trying to do.”

Administrator Rung’s memo said, “Stakeholders cited as problems, among other things, 100 page request-for-

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proposals with overly prescriptive, government-unique requirements, significant contract duplication across government, and very little sharing of pricing and other contract information between agencies and industry.”

Many Federal Leaders believe that these problems are the result of execution of the procurement process rather than regulatory requirements. Consistent with the TechFAR, the Panel believes that while acquisition modernization can certainly benefit from a review of current law and policy, significant reforms can be accomplished within the confines of the existing Federal Acquisition Regulations (FAR).

The survey reinforces that idea: While almost 40% of respondents influenced procurement, only one of the open-ended responses related to acquisition cited the FAR specifically.

**Digital Technology Acquisition Finding #1:** Acquisition processes, rather than the FAR, are seen as a significant barrier that might slow digital technology adoption.

Respondents identified their top five barriers to acquisition. Slow acquisition processes were cited as one of the top 5 barriers (ranked 3rd) to implementing digital technology. In the survey, Federal Leaders rated “security/privacy concerns” as the second most significant barrier to implementing digital technology in the workplace (behind “lack of sufficient budgets”) but in the open ended responses, some respondents claimed that they are also used as a crutch or an excuse for inaction.

“(We need) improved collaboration with other agencies that are further ahead while guarding against a one-suit-fits-all approach.”

One-third do not believe (and 39% don’t know whether) their agency is able to procure innovative technology.

“We are able to acquire innovative technologies, but it’s not always very easy to do so, and a risk-adverse culture in the agency can also be an obstacle.”

Further, Federal Leaders don’t feel that they have access to free digital technology. Two-thirds of Federal Leaders do not believe or do not know whether their agency is able to leverage free digital technology tools from companies that have signed a Federal Terms of Service agreement.

Only 21% believe acquisition processes and procedures could keep up with the pace of technological change and, again, only 15% report their agency is able to keep pace with the private sector in terms of making technologies available to employees. Only 29% say that procurement of digital technology will become simpler in the next three years.

**Panel Recommendations - Digital Technology Acquisition**

**Recommendation #11:** Agencies should adopt best practices that have been shown to improve technology acquisition. Some agencies have shown they can get good results, without substantial revisions to the FAR and DFAR, by streamlining their processes, ensuring requirements are thoroughly defined and communicated, producing clear statements of work that take into account latest technological advances and that industry can understand, and improving communications between requirement owners, offerors, and other stakeholders.

**Recommendation #12:** Agencies should consider innovative strategies in pursuit of technology acquisition, including the creation of a “digital acquisition professional” specialty within the GS-1102 Contract Specialist job series (called for in the December 4, 2014 OMB Memorandum) and pilot acquisition projects.

**Recommendation #13:** Agencies should ensure adequate processes to identify technology requirements, project, and measure return on investment in support of achievement of mission achievement, and make the necessary tradeoffs to fund mission critical projects.

**Recommendation #14:** The Panel recommends that agencies articulate guidelines for use and availability of freely-available technology.
Conclusion

This study shows a federal workforce that is knowledgeable about digital technology, has seen productivity increases as a result of it, believes technology makes agencies more efficient, and that it helps government better serve the public. The findings reveal a number of challenges, including concerns that the government cannot keep pace with the rate of technological advances and the perception—not always supported by reality—that the private sector procures and adopts technologies more effectively. While some workers felt ever-present digital technology harmed private life, others thought it produced a much better work/life balance. Respondents clearly expressed the need for federal workers to receive training when digital technology is deployed and on-going training to maintain skills.

Federal Leaders are virtual workers who embrace digital technology across the key demographics of age, GS level, and tenure. Age-based differences were surprisingly not in evidence. These findings provide an insight into the “workplace of the future.”

The Panel recognizes the challenging political environment in which the government operates and chose to avoid lofty recommendations that would require legislation or lengthy regulatory changes. These recommendations are based upon the Panel’s decades of experience in and around government, and were chosen because they are practical, would result in dramatic improvements, and can be implemented now. Most are within the control of individual agencies.

The fact that Federal Leaders have embraced digital technology and hunger for more to improve their ability to carry out their missions, combined with the ability to make substantial improvements without Congressional approval or a long and cumbersome rewrite of the FAR, bodes well for the future of Digital Government.