

# How the Government Can Support & Prepare Federal Technology Leaders

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# What does Federal technical leadership look like?

Right now, the Federal government and public interest technology communities are launching multiple efforts to bring more technologists into government. Other efforts seek to empower current Federal employees to enter technical leadership roles. This report is intended to be complementary to this larger conversation, to help increase modern technical capacity in government, and to set future leaders up for success.

We spoke to over twenty leaders including present or past Assistants to the President, Directors and Deputy Directors of large Federal agencies, Chief Information, Innovation, and Operating Officers, Executive Directors, Senior Advisors, team leads, policy experts, and oversight bodies. Nine are or were political appointees (with and without Senate confirmation) and six were Senior Executives. Six held the rank of GS-15, the highest level on the Federal Government's "General Schedule" pay band. All are currently working in government or had worked for the government in the last two years. We compiled their answers into common attributes and repeatable behaviors. We also noted areas where leaders could use more support.

Our findings show that successful Federal technical leaders have prior experience building products or services. They facilitate success by absorbing risks, removing blockers, and flattening organizational communication, allowing people at all levels to surface problems and run with new ideas. Great leaders approach technology as a tool, but only one of many, to help address program and service delivery outcomes.

With this research we wanted to understand the current state of the Federal government and what technical leaders are prioritizing now. Staying in the Federal space allowed us to look at challenges specific to large, Federal technology initiatives. There are many different kinds of leadership across the Federal government, most of the people we interviewed worked at the very highest levels. Some were current or recent former Political Appointees, Senior Advisors, Executive and Senior Executives. Some have been Federal employees for over a decade, while some have been in their roles less than a year.

We conducted this research in late winter and spring of 2023 as nationally we emerged from the COVID-19 pandemic. COVID changed the way the Federal government operated, forcing agencies to stand up remote work, convert previously in-person services to online delivery, and put new demands on data collection and reporting. COVID and its associated emergency responses influenced many of our leaders' experiences and priorities.



In this report we chose to let our participants speak for themselves wherever possible under a promise to remain anonymous when quoted. This is a work in progress and may be updated periodically to reflect new insights and additional research interviews.

Quotes have been edited for clarity and anonymity. Changes are marked in brackets. Omissions are marked by ellipses.

### A working understanding of current technology & terms

Working as a Federal government leader today means striving toward more user-focused and iterative technical solutions while still holding responsibility for aging technologies with their own history and constraints. The space between these two existences is fraught with tension that is difficult to navigate.

Technology savviness in government is not measured the same way as it is in private sector tech companies, nor should it be. It is not always necessary for Federal leaders to have deep technical expertise in the cutting edge technologies that people are talking about at the moment. It is, however, important to have a working knowledge of product and service delivery best practices.

Today's leaders need to have a strong understanding of the technologies they are responsible for in order to be good stewards of their mission. They must be able to set project goals and communicate them to their team. Lastly, they have to understand the costs and benefits of product delivery to manage the tax dollars funding these efforts. This kind of technical competency is critical in the following ways:

- Hiring competent technologists onto their teams and knowing when and how to trust their expertise
- Hiring competent technology vendors during the procurement process
- Advocating for and supporting software development best practices
- Advocating for the end users of their products or services
- Implementing meaningful metrics and measures to track outcomes over time
- Understanding that specific technology solutions are not as important as an iterative approach to product development
- Understanding the limits of their own technical knowledge

The leaders we spoke with talked about their own technical backgrounds and expertise along with their experience in advocating for more current technology best practices:



"I don't think the [Agency] commissioner, for example, needs to know which digital platform needs to be brought into place. But that person needs to have the folks in place that understand that and also have an understanding of the problems that need to be solved."

"I understand technology and I can have a conversation and make decisions around, you know, do we need to purchase this technology... These two technologies do the same thing. Which one are we going to go with?"

"I find that a lot of the instances of technologies that have failed is because people are dreaming up these big and maybe fabulously great ideas, but if you don't actually understand how to use the thing that you're supporting, then how do you really understand what it is that you're working on?"

"There's a lack of knowledge for how to manage technology products in complex bureaucratic organizations. And so instead of what would happen in a small startup where the tech team would demo to the product manager, the product manager...or the design lead would demo the working software to the executive team. The executive would demo the working software to the board of directors. Those mechanisms are not as well known and used in government. And so, there are fewer safety nets to catch problems than there might be in the organization where more people are technologists by trade."

"I hired a Security person, which was my first priority. We're releasing data, we better know where our data's going and what we're doing to protect it."

"I think fundamentally it means that you understand how modern technology is built enough that if you got stuck into a room, you would have a bit of a BS detector and you'd be able to get that product to a better space than where it was."

Government moves at a different speed than private sector technology companies and with different constraints. Even the most effective Federal leaders can have a hard time keeping up to date. We frequently heard echoes of imposter syndrome mixed with self-identified knowledge gaps, even from experienced technology experts:

"It's hard to be an executive in government, especially a tech executive, and maintain your currency in your hard tech stuff. And I see that getting a little more stale each month that goes by, I guess I'm technology-adjacent is the way that I would say it."



"I know what it means to go to the cloud. I think I know something about the financial dimensions, security dimensions, operational dimensions, but I don't know that much. I know what an API is, I don't really understand what it means to change the way our systems work. There's a whole bunch of lingo that I get and can use a little bit, but I think some focused learning to become more fluent would be quite valuable. But it would have to be really good."

"You can't just say, oh, I'm not a technology person. You can't just say, well I'm not a data person. Like, that is not a sufficient response. But to get people over that hurdle, it's understanding their anxiety, understanding their uncertainty, because I think we all like to exercise some element of control."

#### Communication & collaboration at all levels of the organization

Participants all noted their responsibility to maintain clear communication inside as well as outside their teams. The Federal government is vast and interconnected in unexpected ways. Ongoing projects and legacy systems have complex histories, including policy, contracting, and development decisions that affect their current state. This isn't always obvious to leaders who are new to government. Those who spend time finding existing subject matter experts and connecting with them learn more quickly. During stressful moments, leaders with well-developed relationships are more successful. With teams, transparency about direction and goals help people collaborate and make more unified decisions.

#### Attributes that stand out include:

- Developing interpersonal relationships with key stakeholders
- Interacting directly with frontline staff
- Limiting distractions to keep teams focused on their work
- A willingness to work across silos
- Curiosity and a learning mindset

"Information is like currency in government. You can't really introspect passively on a government system. It's all relationship based. You just have to figure out who to talk to, build a relationship, build trust, and then, be able to talk to that person when you need something or you need to know what's happening."

"I've always been someone who's cared about having a vision, having a direction that you want to move in. I don't think I always did a great job of communicating that. I think it took me a long time to learn how many times [and] how much I have to communicate to get that vision through with my staff."



"It's just not clearly visible to everybody if they don't understand how you're running. So asking for help and making sure that you can not only control what's happening within, but kind of announce or create some kind of communication outside of that so people can better understand it, I think is something that I wish I would've done earlier on because we definitely hit some stumbling blocks there."

"I found starting in this job first as deputy and then as a director is [that] a lot of this had to do with mindsets, and creating psychological safety for people that work in government...the ability to experiment and the feeling that there's renewal and opportunity to try new things. So safety and opportunity for renewal and this sounds, probably a little bit [aspirational], but just changing the ways that we talk to each other in the [organization], and trying to model that for people."

#### Focus on the needs of teams & outcomes for the public

Leaders see themselves as stewards of their teams. Every single leader we interviewed also talked about how the results of their work had a direct impact on the American public. Successful leaders helped their teams focus on public outcomes.

#### **Teams**

The leaders we interviewed thought deeply about the structure, makeup, and dynamics of their teams. All stressed the importance of matching the right people to the right problems especially when many leaders inherit existing teams and projects. Leadership meant facilitating success for these people while always looking to hire into existing skill gaps.

"I am responsible for unblocking some really amazing people from accomplishing the mission and vision that we have for our team."

"For me, government service is the way to have the most possible impact that is in line with my values even though it comes with all these other constraints, like it's just really hard and really annoying to do. But it's something where in general I feel like I have the ability and the power in this role to be able to drive forward values aligned work for myself and my 500 person team."

"I always felt that as a leader, no matter where I was, that I had to provide the cover and I had to really ensure that people believed that these things could be done and that when they ran into a roadblock it was my job to fix it."



"I think the best examples I've seen have been where leaders have been able to sort of push and work with the organization to demonstrate in really real ways that they value employees enough to not have them doing manual data entry 10 times to get an application from an application to a payment. Like, I value your time enough and I know you have things that you could do that would make our world a better place with that time."

#### **Public**

All participants spoke about the mission of the Federal government: a responsibility to provide services to the people they serve. Leaders want to positively impact the lives of people who interact with the government.

"I try to always orient our goals and our work around what's best for users and for the public because that's the point. It's easy to get caught up in the swirl of political priorities or in the weeds of this one agency...But at the end of the day, what we need to be doing, what really counts as innovation, is delivering results for users."

"It was, and I mean this, it sounds trite, but it was an absolute honor to serve the American people, an absolute honor to be there to try to help the American people in a time of great need."

"I think people in the Federal government sometimes forget who they're working for. Yes, the executive branch is under the administration, but our money comes from Congress and a direct line from the US taxpayers. And so our clients are the US taxpayers...our clients are Americans."

"Let's get rid of the thought process that some people have that the government doesn't work. Let's prove them wrong. And I think that our entire team is really pushing to make that a reality."

#### Successful leaders think beyond their own tenure

One way that interview participants saw their ability to have impact was planning for how their projects and their team will continue on after they leave the role. People at the highest levels can move in and out of roles quickly in government, sometimes unexpectedly. This is true for both term-limited leaders and career officials. Because of that, leaders are often working with undefined timelines.

The leaders we spoke to focused on the sustainability of the work they were doing and how their efforts would outlast their time in the role. This took a number of forms. They



discussed hiring delivery focused employees and vendors, building sustainable teams and empowering them to deliver products, and setting policy precedents. The most common refrain was about the impact of hiring people, particularly those with skill sets not yet built into Federal role descriptions.

Participants also noted the need for continuity even when they might not agree with the previous person in the role. Some struggled with standing up entirely new offices or reestablishing their office after an absence of leadership. Others were challenged with a shift in political priorities related to administration changes. All, however, discussed the need to improve and sustain the work of government over time.

"I never criticized the person that came before me. And I think that's really important because that undermines all the leaders, the past leaders, the current leaders, the coming leaders. I think you pick out the things that they did well and praise that, and drop the other stuff."

"I inherited a role that had no vision or mission. It had no meaningful scope of responsibility, it had no goals, it had no plan, it had no measures of success."

"For me, I'll be successful in this position if I feel that the foundation of the organization has what it needs to continue functioning at a high level into the future. This is the first time that I've taken a job where I actually think I know what success looks like and when I'll feel either comfortable stepping away from it, or enjoying it and want to continue staying on that journey with it."

"One part is establishing this program at this new level of scale so that it can stand on two legs and hopefully have a lot of impact for many years to come. You know, I am term limited, even though my staff, they're all career. I myself know I'll have to move on at some point. So a lot of what I'm thinking about is just how do I set things up so that it can run without me?"

#### Belief in the mission of Federal work

Leaders are attracted by the Federal government's impact and mission, taking an often once-in-a-lifetime opportunity to help provide services to millions of people across the country. They work across agencies that have vastly different funding, priorities, and levels of technical maturity, bringing their expertise to support making government benefits and service delivery better. Great modern technical leaders take jobs because they believe the work is important. This philosophy is shared by many career civil servants and is a key to attracting future talent into government.



"There's really no substitute for the kind of things you get to work on anywhere else that I've ever worked. The kinds of things you get to work on or that I got to work on were unlike anything I had ever seen in my professional career."

"I feel like I've been a little negative about working in government. It's hard, but it's also really rewarding. And so I think it's important to note that the things that we do are really, really important...You can find those pockets of positivity and change and it's been a fantastic journey."

# Where can the government focus support for Federal technology leadership?

Many efforts are currently in play that focus on bringing large numbers of technologists into government and government leadership. Coupled with layoffs happening across the technology private sector in 2023, now is a great time to be helping people find opportunities to bring their skills into government.

In addition, thousands of exceptional leaders already work for the government. Many of them do not consider themselves "technologists" but our research found that deep technical expertise is not a key trait of leading a successful technology project. With support and encouragement, more existing Federal employees can step into technology leadership roles.

We identified 4 areas where the Federal government can foster technical leadership from within and hire and integrate new technologists into successful digital careers.

- 1. Operational training
- 2. Peer networks
- 3. Human-centered design
- 4. Hiring reform

#### Operational support for new-to-government individuals

Learning how to operate inside the Federal government is a skill. Onboarding into government, especially as a new leader, can be incredibly challenging. The government exerts significant effort to hire and onboard technical experts and leaders into government. This support should not end after their first week on the job



"I entered the administration as a senior advisor before this...it was a baffling environment at the time... the way that people described problems was just totally unfamiliar given my tech industry frame of reference."

"I'm seeing that in my first Federal leadership role how often I get surprised by, 'oh you have to spend a shocking number of hours now that you didn't know were coming on this thing.' That's basically going to mean that the thing you thought you were going to get done this month is probably going to be at least next month if not two or three months later before you can get to do it. And those surprises happen all the time. It's crazy."

"Working in government is very different ... It's definitely a transition for people coming in from industry because there's always this question of 'why is everything so many steps and why is everything so hard'? And then sometimes there's a desire to push against bureaucracy and be like, you know what, this is all nonsense, let's do it this new way. Sometimes that's the right answer and sometimes there are good reasons that the people you're working with can't change or why the bureaucracy exists."

"I have learned more from my career Federal colleagues that I sought out. One of the people on my team is a career GS 15 Federal employee. He's the one who's actually taught me a lot more about how hiring works and how to work with other staff and I've learned more from him than I have from other government technology people."

#### More opportunities for formalized learning & development

Just as new-to-government leaders can be surprised by how differently things work compared to other sectors, many leaders don't have opportunities for training when they begin their roles. Procurement and budget training in particular are needed to help bring leaders up to speed more quickly on Federal government-specific processes. This is especially true for leaders who are new to government but ongoing procurement and budget training would benefit all leaders, ensuring they continue to take advantage of modern best practices.

"They do have management training at [my agency] where it teaches you how to hit the buttons and do the things that you're supposed to be doing. I have not been exposed to anything in the way of leadership training, not formally...."

"I've been doing this for a long time and in the private sector I actually ran teams of like 100 to 200 people and have hired probably hundreds of people in my career. So I did come into this having a lot of those fundamental skills: management, hiring,



technical leadership, product management. So I feel like I had an advantage in that, but I had to learn a lot of stuff on the job around government... But no training that I know of sadly."

"I think I was really fortunate in having a lot of training in the military, which at the time I thought was worthless. I love that. I was very mad that they made me do all of this leadership training and management training and EEO training and business training and purchasing training and budget training.... But that ended up being the most valuable part of my Federal management and training. And at the time I thought all agencies did that. None of them do."

"I was hired specifically to do transformation work, starting with the infrastructure layer and then also the human capital layer. And, there wasn't a lot of training because the roadmap for a lot of that had not been established in the Federal space."

"I became a COR level three (contracting officer representative), over the course of the year, so I could do contracting work. I had to learn a lot about budget and management and all the dos and don'ts."

#### Connections to peers make a difference

Leadership roles can be incredibly isolating, especially in siloed environments. Federal leaders are juggling many different sets of responsibilities, conflicts, and demands on their time. They are operating in bureaucratic environments where successes are few and failures can make front page news. There is little time for reflection and, especially in term-limited roles, there is a tendency to drive towards burnout as an exit strategy.

"There's just more work than anyone can ever do and there's so many challenges within government. I think there's a leadership and an organizational challenge to figure out how to pitch in meaningfully without getting spread too thin. And also how to help government agencies build the kinds of tech capacity that they need to be able to do this kind of work."

"It's nice to have somebody to talk to who is going through the same kind of things that you're experiencing. Some of it is just, you know, I'm trying to hire. I've posted I don't know how many times and each time the position is closed unsuccessfully...

Those things are really frustrating. So having somebody [to ask], 'hey, what have you done that has been successful'? Or, you know, 'How do you handle this kind of scenario'? So having somebody help on the day-to-day things is nice, but also what are the things that we could do to be more strategic and not the work that we do, but



helping our employees grow...that's my number one thing that I'd love to partner with somebody on."

"The tech community, the Fed Tech community and the business community, even though those hard silos...exist, there are things we can and should be doing to act as one government working together to generate citizen focused delivery of service that is done regardless of the internal appropriations and organizational boundaries that exist in government."

"It's very difficult to step beyond your comfort zone. I mean I'm going to be very clear. It is difficult. My first year in [my agency], you know, I went home every night incredibly discouraged. I was like, I am never going to get this culture, I'm never going to understand the system. I had no allies because the last thing they wanted was somebody outside of their [agency] group to come in."

"The government tech leadership community is amazing. I met a couple of people in it and they introduced me to basically everyone else in it. And it's like this, I can 'bat signal' that community any question about anything and at some point someone will connect me to someone who has the answer."

"I think for a lot of people in the government that only work in one agency, they know how their agency works, but they have no idea how to work with anyone else because they don't realize that each agency has a very different culture."

#### **Incorporate human centered design practitioners & practices**

Successful projects are built with the people who will use the product or service, including the public and civil servants who work on the front lines of government. We heard a lot of interest from leaders in human-centered design (HCD), user experience (UX), and customer experience (CX) but there was inconsistency in the understanding and usage of these terms. When and how to implement these aspects of service design is still in the early stages at many Federal agencies.

"The other big piece to me that has changed is Human-centered design has become a concept that the average businessperson, an average Federal employee has heard of, even if they do not fully understand. And the idea of making things better and easier for the people they are trying to serve, I think is aligned very well with the ethos of the civil service and you know, ensuring that government works, and continues to work for the average person."



"In this administration, there's been a huge emphasis on Human-centered design and it's been written into executive orders and agencies have been told you need to do this category thing. And then agencies are like, okay, but what do those words mean? How do I even do this?"

"Something that allows people to do user research and have an understanding of user needs before we go off and buy something and have that user need brought to the table and prioritized as part of the procurement action. We're doing a pilot right now for that and I didn't think it would be as eye-opening as it is but it really has been quite eye-opening that no one talks to users today to find out how things could be better. Like it seems so obvious...and so even before we invest millions of dollars, like 'how's it going?"

"I'm about to make a selection for a UX designer...first one at [my agency]... We've always known Human-centered design is an important element of what we do. But, you know, prioritizing what kind of skill sets that we hire sort of led to where we are now that three and a half years after our establishment, now we have the capacity to talk about UX."

### Federal hiring is laborious

We heard story after story about challenges in and around the Federal hiring process. In a competitive job, it can be incredibly hard for a Federal leader to hire the expertise they require. It can be equally complicated for an applicant who is highly skilled in competencies the government needs to navigate the lengthy and confusing hiring process. While we have included it here because of the frequency with which it was mentioned, hiring was not a core focus of this report. We will delve into hiring research in great depth in a future project.

#### Adding new roles into the hiring process is challenging

"I had posted positions numerous times and each time we closed the position without the qualified candidates. Because either we get into an argument with our HR office to say, 'these people aren't qualified, you can't send these people on the list. They're just not the right people. You're missing the right candidates or there is an issue.' Well, same goes for, they're sending over lists of veteran candidates who I'd hire on the spot if they have the qualifications, but they just don't and they prioritize them. So it's just, it's been a lot of paperwork. It's extremely painful. They don't necessarily understand the roles that we're trying to fill. And so it's a lot of back and forth and it results in no success."



#### The hiring process is time-consuming and difficult

"No one mentioned to me that when I said yes to helping with an SES hire that I was going to lose 25 hours to resume reviews and that's for one SES role"

"They don't always see just quite how hard it is to actually hire Federal civil servants... it's just pathological. It is so broken. It's, in my opinion, the worst part of government. Like far and away it leads to every other problem that we have."

"Part of that is we also make sure that we go through a very rigorous evaluation process. My philosophy is, I'd rather have no one than have someone who can't do the work, right? Because once they're onboarded, [it's] very difficult to offboard them."

#### Hiring technologists competitively is important

"We're competing with other agencies, we're competing with the Amazons and Apples of the world. My personal perspective is that we usually talk about this from compensation and how governments underpay. I'm not sure that's necessarily a useful discussion because at the end of the day, there's nothing I can do about what OPM sets as a salary band. But I try to tap into that cohort of folks that genuinely want to make a difference".

"I would say the biggest challenge that I don't think we fully solved yet is the discrepancy in pay between what somebody can make building an ad product at Google versus literally making sure veterans have healthcare."

"Two things have to be true: We have to create a talent pool that has the skill sets we need and we need mechanisms to do that. And we also need to be able to hire people into jobs where we do not ask them to sacrifice things that they might not be able to sacrifice in order to take an opportunity serving the country. And until we can solve that second thing, I think the people we have, particularly in some of these very senior positions are going to continue to look like the people that we currently have. And all those people are lovely but I would hope in the future that there's more diversity in that population."

#### Job seeking candidates have a hard time navigating the process

"80% [of the strength of Direct Hiring Authority] is that literally you can submit a resume on a web form and someone will actually talk to you about what the job is



and you'll go through a normal hiring process that makes sense and you can actually get hired off of it, which is just not true in almost every other single agency"

"One, getting them interested and excited about joining government, having them go through the crazy process to apply to government, hiring them into government within a timeframe that's reasonable and then getting them adjusted into government, I think is a huge challenge."

#### **Leaders struggle with providing career momentum for their teams**

"My staff is probably the best staff across all of [my agency]. They rock, they're phenomenal, they're driven, they love the work that they do. They're collaborative, they help each other. How can I continue to help promote these people in this environment that we don't have the potential for people to move up like they would outside of government. How do I keep them motivated so that they don't want to leave?"

"Every single person I hire with the thought in the back of my mind is, how long will they stay here before I lose them? Just because I can't give them the things that they can get elsewhere."



## **Conclusion**

Many people think of Federal leadership as an exercise in finding a few rare, exceptionally talented people and elevating them to a more senior rank or offering them more responsibility. Our research reveals that the people we see as leaders have similar skills and abilities as thousands of other civil servants. What sets them apart is their willingness to engage in counter-intuitive behavior; to step into a role that might threaten their career because something needed to be done, to give up a lucrative job in the private sector when called to serve the public, or to push the boundaries of what is possible despite heavy government inertia and risk aversion.

Ensuring a basic knowledge of current design and development methods, government contracting, and direct access to users and systems is critical for Federal leaders. Defining success for specific programs, beyond cost and timelines, is crucial to knowing where to invest time and energy. Providing better tools with greater peer support and communication across departments and agencies facilitates knowledge transfer, improves morale, and reduces burnout. Improving the hiring process, streamlining onboarding, and providing training and opportunities to learn will create stronger teams and help foster more new leaders.

There are people working in government right now that, given the right conditions, could become the next wave of Federal technical leaders. Some of our participants spoke to the benefits and drawbacks of the current success narratives around elite groups of specialists coming to the rescue of failing projects. Although these stories show hope and the ability to turn around failure, they reinforce the idea that only special, rare people can pull these projects off. This idea is not only insulting to the efforts of the many civil servants who actually do the work, it limits our perceptions of who can lead technical change in government.

Fostering great individual leaders alone is not enough to change the way the Federal government delivers technology. The government must make policy changes, redefine success, use new metrics, and structure its contracts differently to support modern technical delivery. Talented people, good policies, and better processes all must all work together to deliver successful government services.

We hope this report contributes to a larger push toward concrete changes in the way the Federal government delivers technology and serves the people of the United States. We have included some ideas on where to start but know that further research in this space is needed to specify opportunities and craft policy.



# **Acknowledgements**

We limited our research to Federal leaders because each individual state and locality has unique challenges and laws that influence their needs. Although state and local technology projects can have just as much impact as Federal projects, these governments tend to work within unique cultural and economic circumstances based on their region. In the future, we hope to expand this research and include other levels of government to better understand technology leadership at those levels.

We would like to thank our leadership participants for taking time out of their packed schedules to speak with us about their experiences in government. We appreciate your candor, honesty, and willingness to be open and reflective in our sessions. Thank you.

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