

# Resiliency Through Data

---

**A Survey on the Federal Government's Data Optimization**

# Table of Contents

Overview .....	3
Executive Summary .....	4
Research Findings .....	5
Final Considerations .....	23
Industry Insights .....	24
Respondent Profile .....	25
About .....	28

# Overview

## Purpose

2020 presented unprecedented challenges to government agencies that surely won't be the last. From the pandemic to civil unrest, federal agencies have been under significant strain to act swiftly and appropriately to emerging developments with their current capabilities. But have agencies shown resiliency in the face of national crises? Has data supported or limited agency response and capabilities? What role will data play in the future of agency resiliency?

To answer these questions and more, Government Business Council (GBC) conducted a survey in December 2020 and January of 2021 to analyze performance among federal agencies.

## Methodology

GBC deployed a survey from December 2020 to January 2021 to a random sample of federal government employees. After screening, 434 federal government employees were included in the study. Eighty six percent of respondents are federal civilian workers, and 14% are defense civilians. Of the total sample, 49% of survey participants have some level of involvement in their agency's IT. Sixty two percent of respondents are involved in decision making in their agency. A majority of survey respondents are ranked GS/GM-13 and above, up to the Senior Executive Service (SES) level.

# Executive Summary

## **Effective data usage and management may bolster resiliency**

Respondents are generally divided on the question of agency resiliency, which in this study is described as the ability to adapt or innovate in facing a crisis. Thirty seven percent of respondents report poor or fair resiliency, while 37% report very good or exceptional agency resiliency. Those that indicated poor or fair resiliency are more likely to report greater room for their agency to improve data usage than those that indicated very good or exceptional agency resiliency. Respondents who reported poor or fair agency resiliency also experience more difficulty obtaining the data they need to make informed decisions, suggesting a positive correlation between data efficiency and an agency's ability to adapt in the face of crises.

## **However, agencies struggle with attaining data efficiency**

Respondents suggest that their agencies are not leveraging data in ways to support agency decision making. Sixty one percent of respondents agree that their leadership could improve data usage to inform the decision-making process. Respondents report having poor experiences with data given that 97% report being inconvenienced when searching for critical data and 96% report being delayed when making decisions because of insufficient or inaccurate data. Furthermore, only 5% of respondents are always able to generate value from data, suggesting that data literacy could be improved across federal agencies.

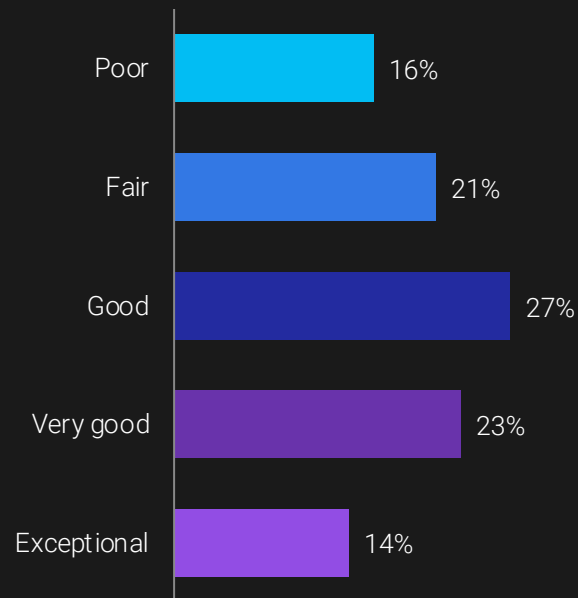
## **Respondents are pessimistic that agency leadership will act accordingly**

A majority of respondents report that improving data efficiency could help their agency better serve its constituents and shorten the decision loop between stakeholders. However, respondents are not very confident that their leadership will implement a data management strategy, data literacy programs, or data analytics technology in the next year. 59% of respondents are not at all to just slightly confident that their leadership will prioritize improving data usage and management in 2021. If leadership chooses to improve their agency's data efficiency, respondents suggest numerous benefits to agency decision making and constituent services.

# TAKEAWAY

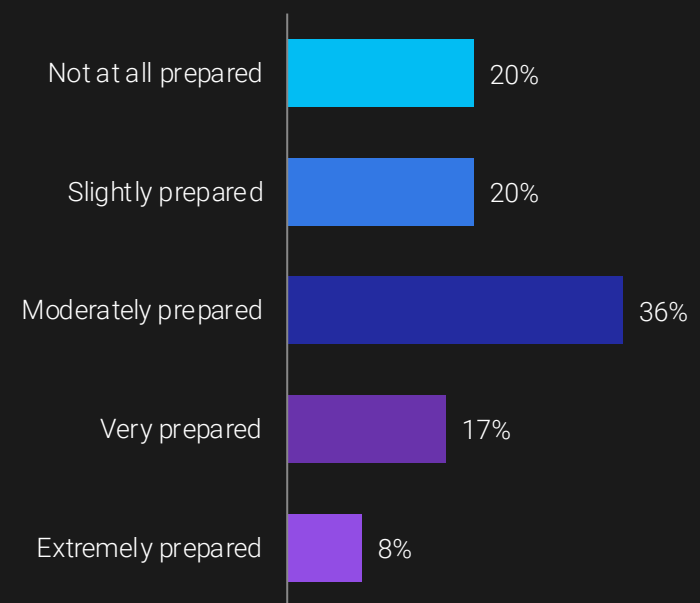
A majority of agencies were adequately prepared to respond to the COVID-19 crisis, but some respondents report that their agency resiliency could be improved

How would you grade your organization's overall level of resilience that it showed in 2020?



Percentage of respondents, n=199  
Note: Percentages may not add up to 100% due to rounding

How prepared was your organization in responding to the initial challenges raised by COVID-19?



Percentage of respondents, n=197  
Note: Percentages may not add up to 100% due to rounding

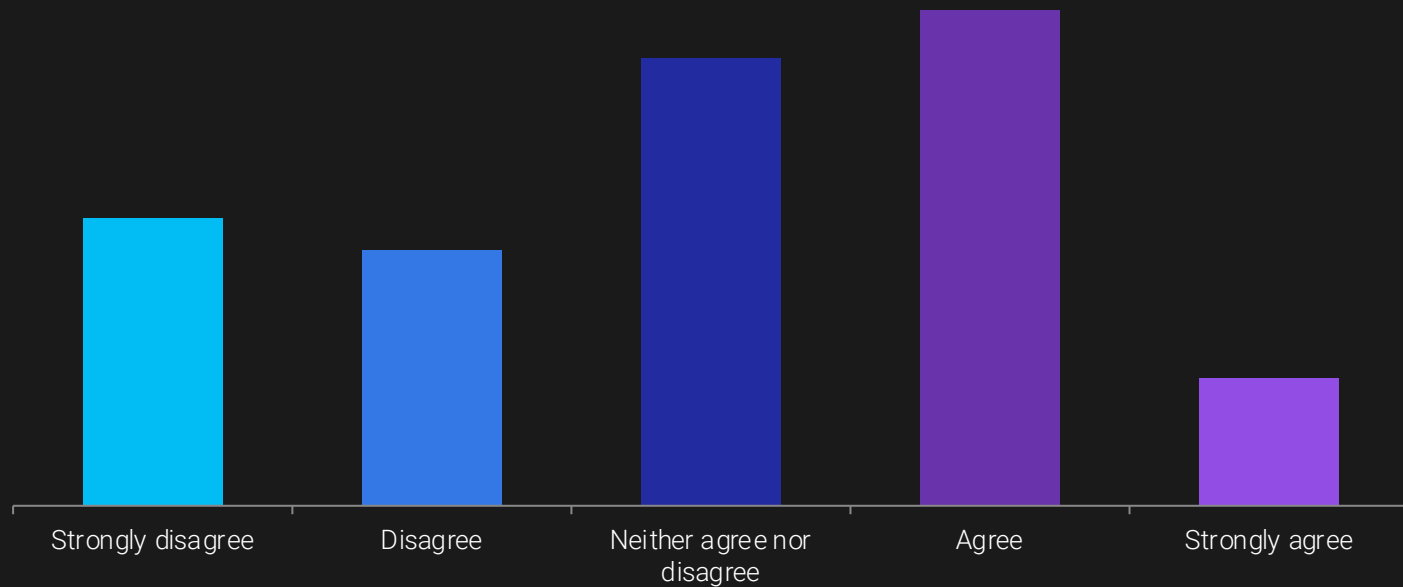
**63%** of respondents gave their agency a good to exceptional grade of resiliency.

**40%** of respondents report that their agency was not at all to slightly prepared in responding to the unfolding pandemic.

# TAKEAWAY

Only 39% of respondents note that their agency adapts with agility

To what extent do you agree or disagree with the following statement: "My organization anticipates new developments and adapts with the necessary agility."



Percentage of respondents, n=194  
Note: Percentages may not add up to 100% due to rounding

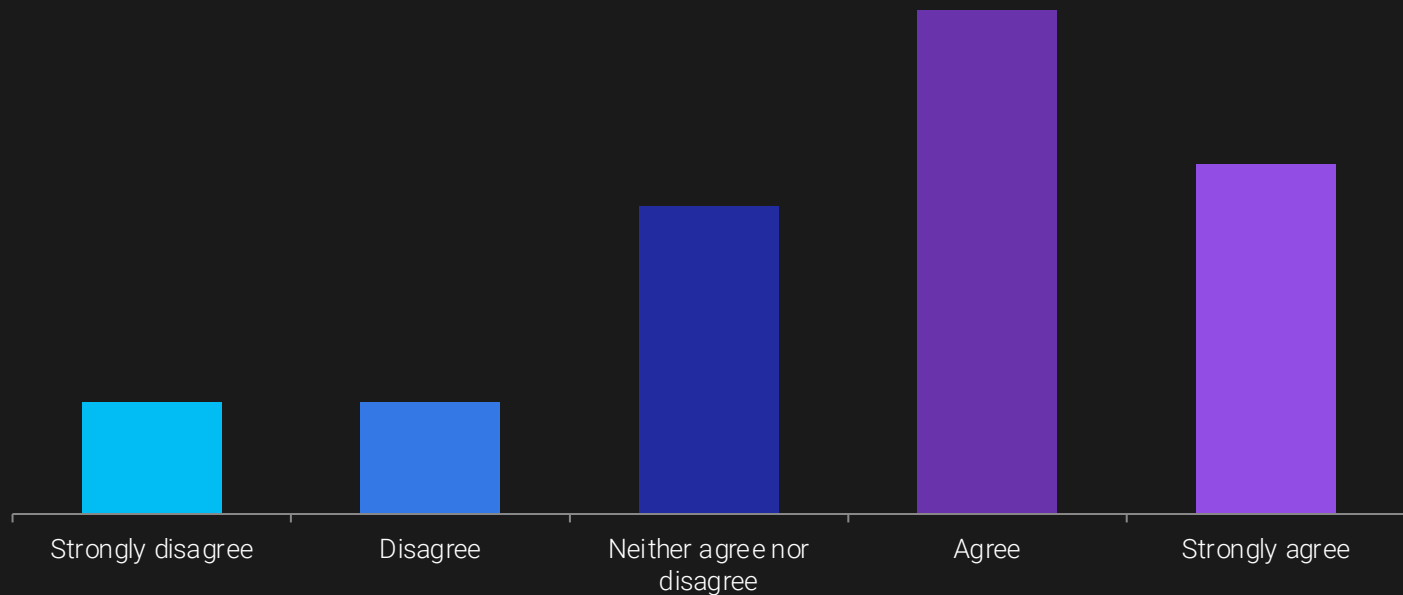
63%

of federal workers reported they were working from home in 2020, indicating a tremendous feat by agencies to adapt and move employees to telework without disrupting essential services and functions.<sup>1</sup> Taking that percentage into account, it is estimated that 1.3 million federal employees were shifted to telework by late 2020.

# TAKEAWAY

Respondents mostly agree that agencies could leverage data better for decision making

To what extent do you agree or disagree with the following statement: "My agency leadership could better leverage data to inform its decision making."



Percentage of respondents, n=201  
Note: Percentages may not add up to 100% due to rounding

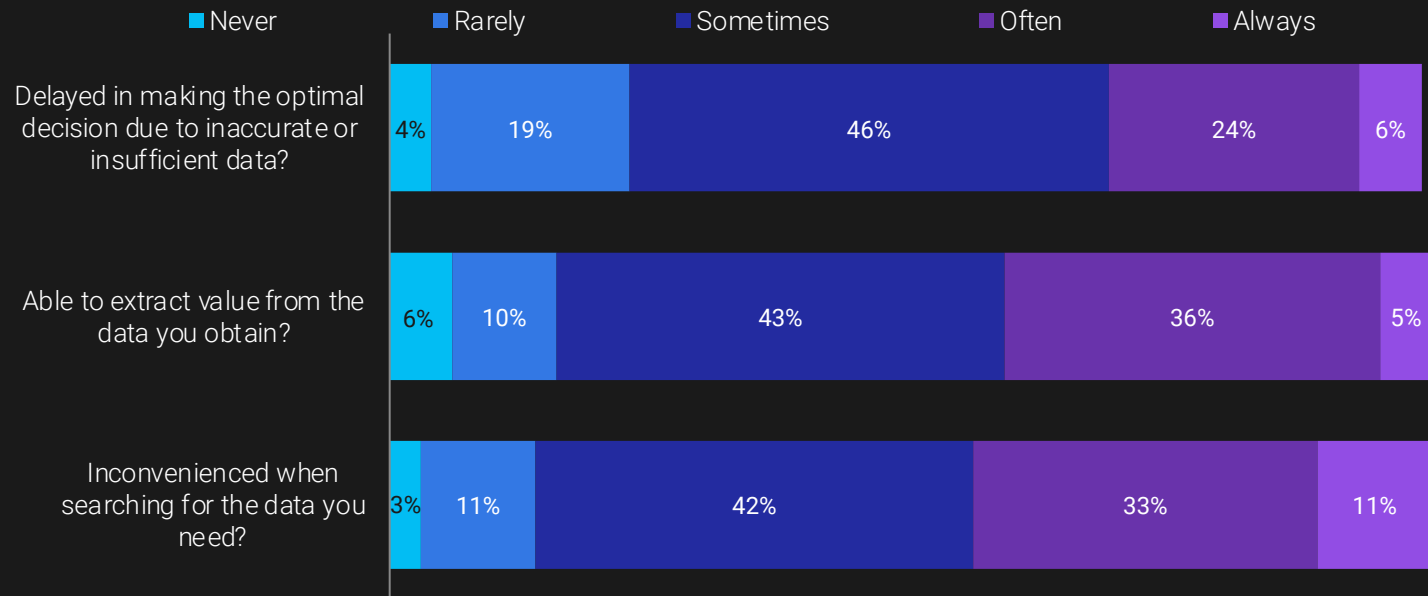
71%

of respondents who rate their agency's resiliency as poor or fair agree that their agency could better leverage data compared to just 45% of respondents who rate their agency's resiliency as very good or excellent.

# TAKEAWAY

A majority of respondents face challenges when searching for or using data

How often are you \_\_\_\_



Percentage of respondents, n=193

Note: Percentages may not add up to 100% due to rounding

**35pp**

There is a 35pp gap between respondents who rate their agency's resilience as poor or fair and very good or excellent in their experience with data. Respondents who report that their agency has poor or fair resilience are regularly inconvenienced (67%) when searching for the data they need compared to respondents who rate their agency's resilience as very good or excellent (32%). There is a positive correlation between resiliency and use of data.





**Our current infrastructure is insufficient and outdated which causes disruptions to daily workflow processes. My agency has not reached that level of capacity at present partly due to the pandemic situation.**

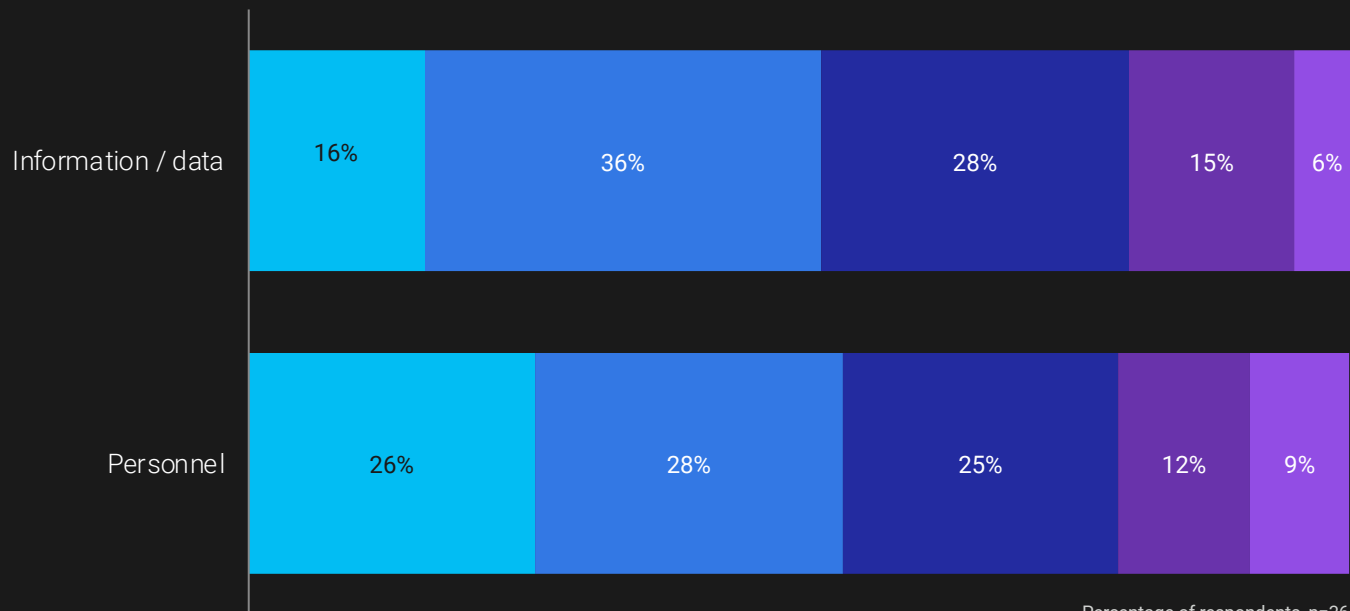
- Survey Respondent

# TAKEAWAY

A majority of respondents express at least some difficulty reaching the right data or personnel to make informed decisions

How difficult is it for you to reach the right \_\_\_ to make informed decisions?

■ Not at all difficult   ■ Somewhat difficult   ■ Moderately difficult   ■ Very difficult   ■ Extremely difficult



Percentage of respondents, n=365  
Note: Percentages may not add up to 100% due to rounding

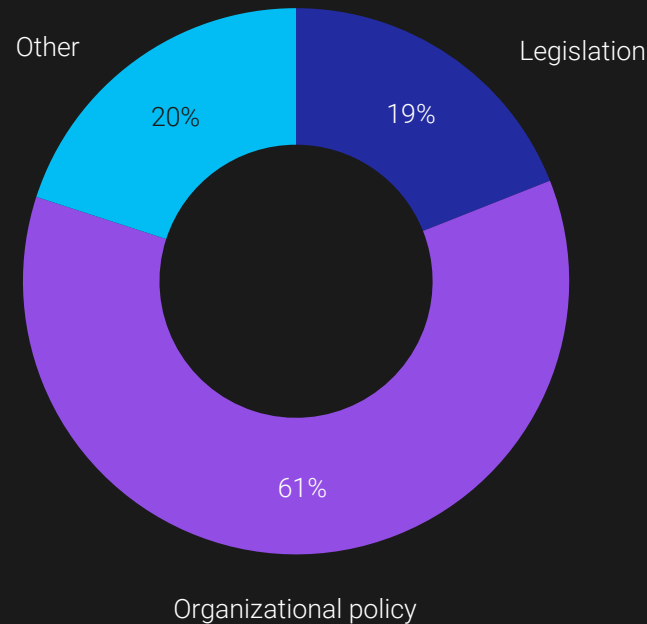
33%

of respondents who rate their agency's resilience as poor or fair report that it is very or extremely difficult to reach the information and data they need to make informed decisions. This compares with just 13% of respondents who rate their agency's resiliency as very good or excellent.

# TAKEAWAY

Organizational policy is the most common culprit of data barriers, according to respondents

When you encounter data limitations or barriers, are these more often the result of your organization's policies or the byproduct of existing legislation?



Percentage of respondents, n=372  
Note: Percentages may not add up to 100% due to rounding



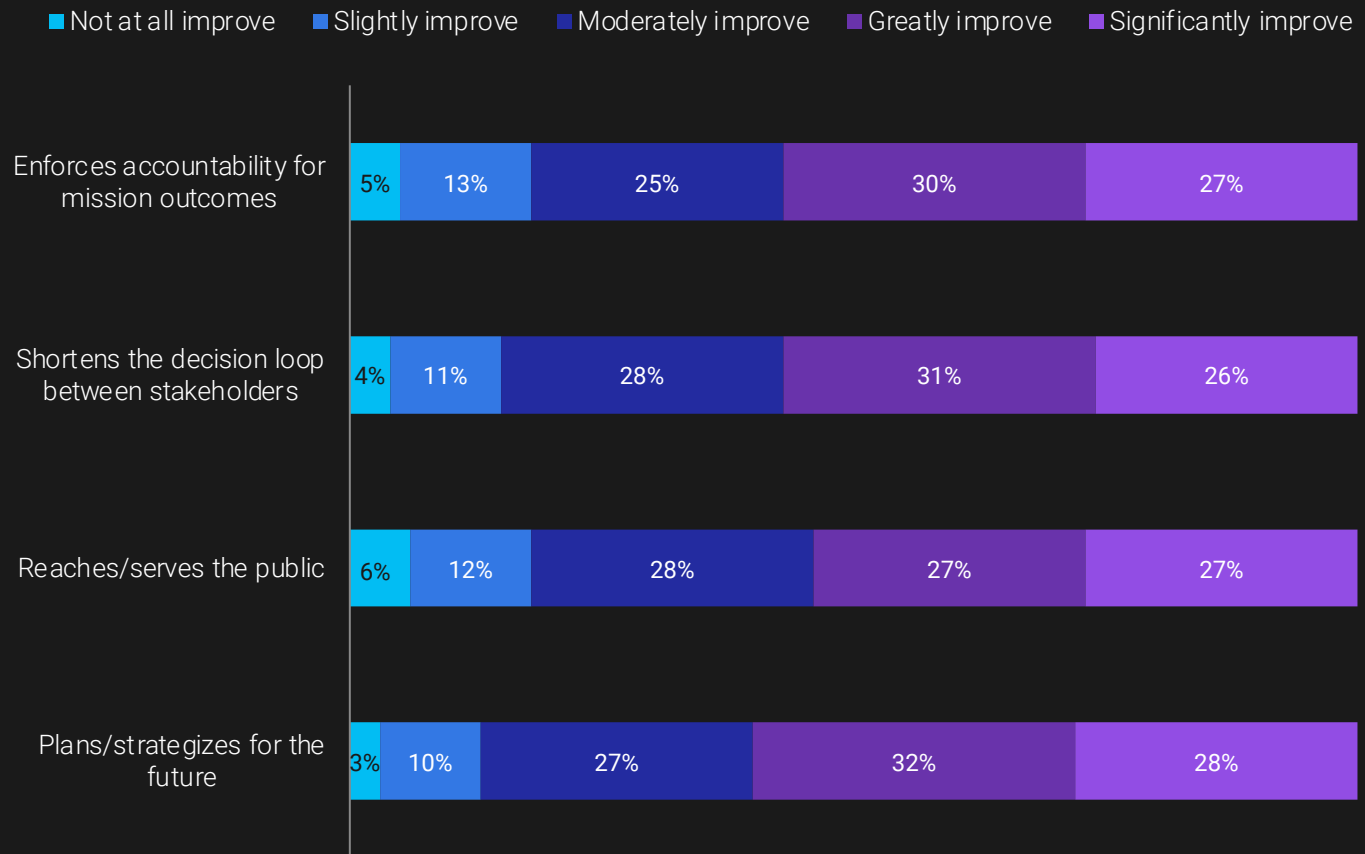
**IT infrastructure policies enforced by our parent organization are siloed and outdated, as we are an outward facing agency and they are an inward facing agency. It does not have the capacity to support our outward facing work, as opposed to their inward facing work.**

- Survey Respondent

# TAKEAWAY

A majority of respondents cite potential great or significant improvements to agency functions when increasing data efficiency

To what extent would increasing data efficiency improve how your agency \_\_\_\_?



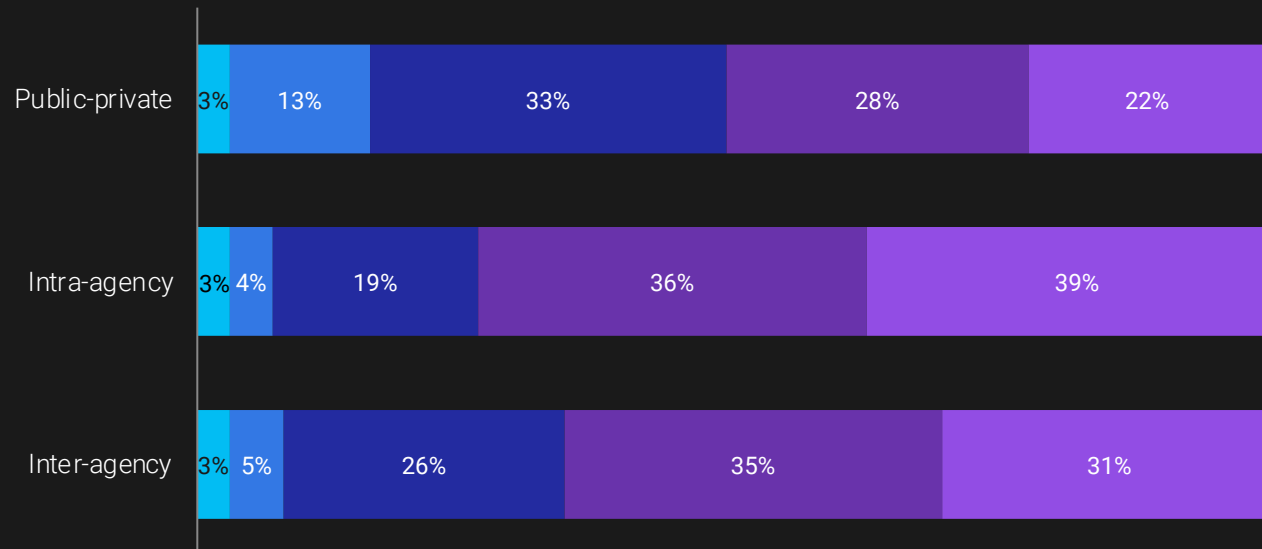
Percentage of respondents, n=338  
Note: Percentages may not add up to 100% due to rounding

# TAKEAWAY

Respondents note gaining the most value from intra-agency data sharing

In your opinion, how much value can be gained by improving data sharing through the following channels?

■ No value   ■ Little value   ■ Some value   ■ Much value   ■ A great deal of value



Percentage of respondents, n=348  
Note: Percentages may not add up to 100% due to rounding



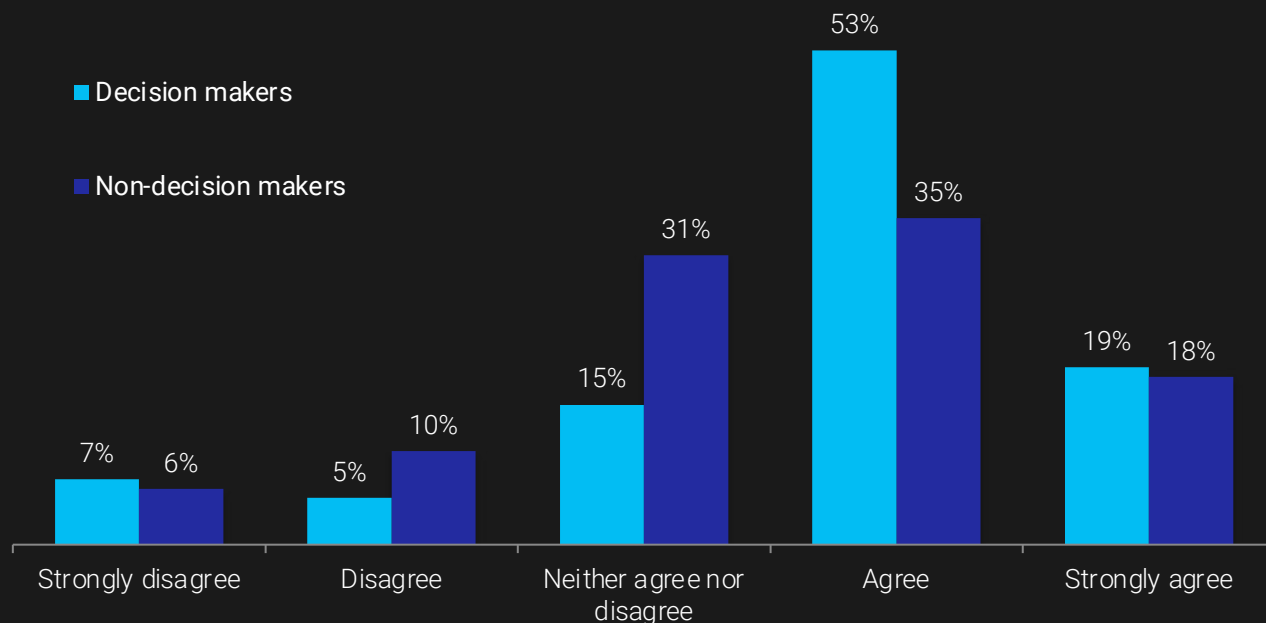
**[For] my immediate organization, as opposed to my agency, the top data concerns are more visibility into budget and human resources planning. My program and projects have excellent data for decision making about performance, operations, and planning. [However], I lack data external to my program.**

- Survey Respondent

# TAKEAWAY

Respondents generally agree that intra-agency data access is vital to mission success

To what extent do you agree or disagree with the following: "Being successful in my mission depends on accessing and interpreting data often held by other points in the organization."



Percentage of respondents, n=214 (decision makers), n=114 (non- decision makers)  
Note: Percentages may not add up to 100% due to rounding

19pp

There is a 19pp gap between decision makers and non-decision makers in perceptions of data and mission success. Respondents involved in the decision-making process (or respondents that indicated that they have involvement in the decision-making process) at their agency are more likely to agree that being successful depends on accessing and interpreting data held in other parts of their organization.



# What Respondents Say...

How has removing data silos helped your organization?

“Integrating information has allowed us to gain a better perspective in searching for and obtaining results.”

“It allows us to get the correct data at the correct time that we need it.”

“It has made it easier for managers and employees to access data that is owned by other departments by simplifying the structure of data.”

“It streamlined processes and reduced redundancies.”

“Removing silos to virtual environments has improved the overall technical and administration layers required to upgrade, patch, and refresh technology.”

“Improved the accuracy of employee knowledge in achieving organizational goals.”

“Improved transparency.”

“Improved decision making.”

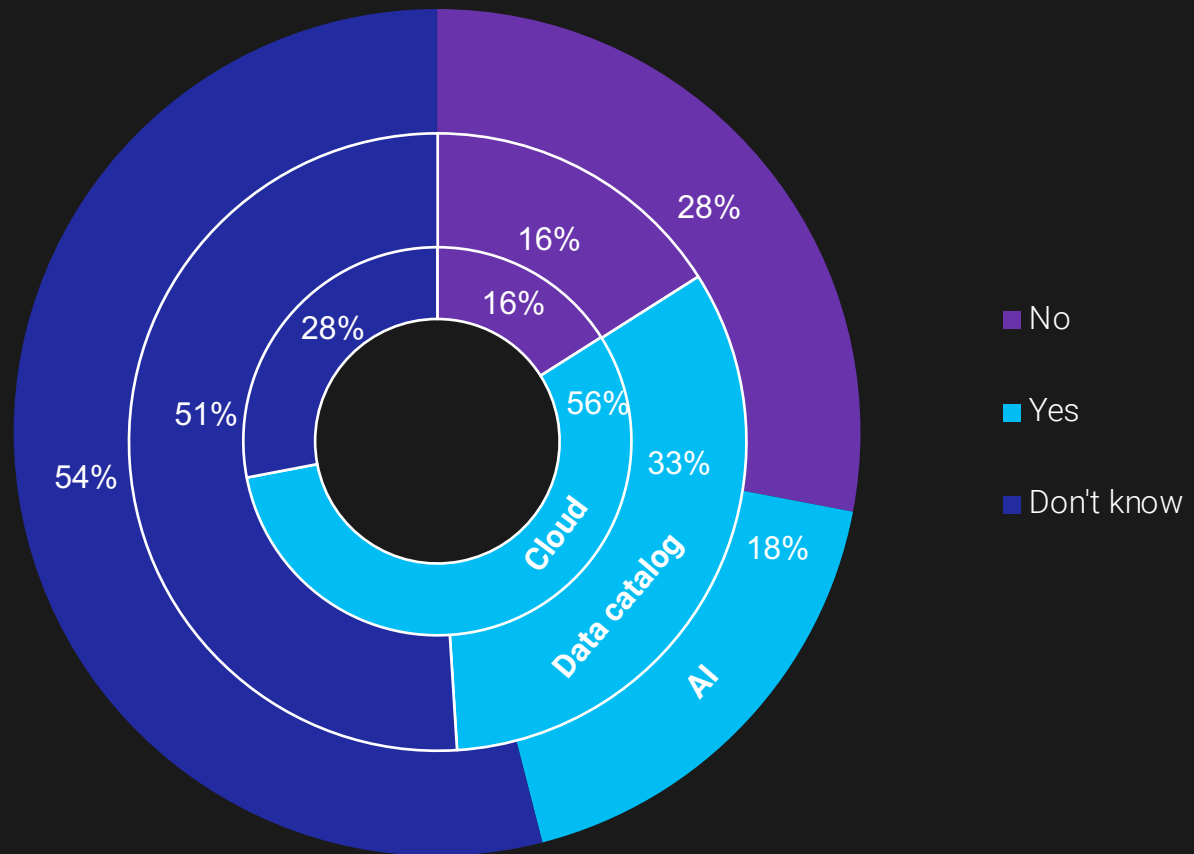
“Access to needed data can only increase efficiency.”

“It has helped with virtual meetings with the offices being spread out that has made us think differently. Working on the cloud has made documents and immediate information quick and easy to access.”

# TAKEAWAY

A majority of respondents report that their agency uses cloud to manage data

Does your agency use any of the following tools to store, analyze, or manage data for improved business outcomes?



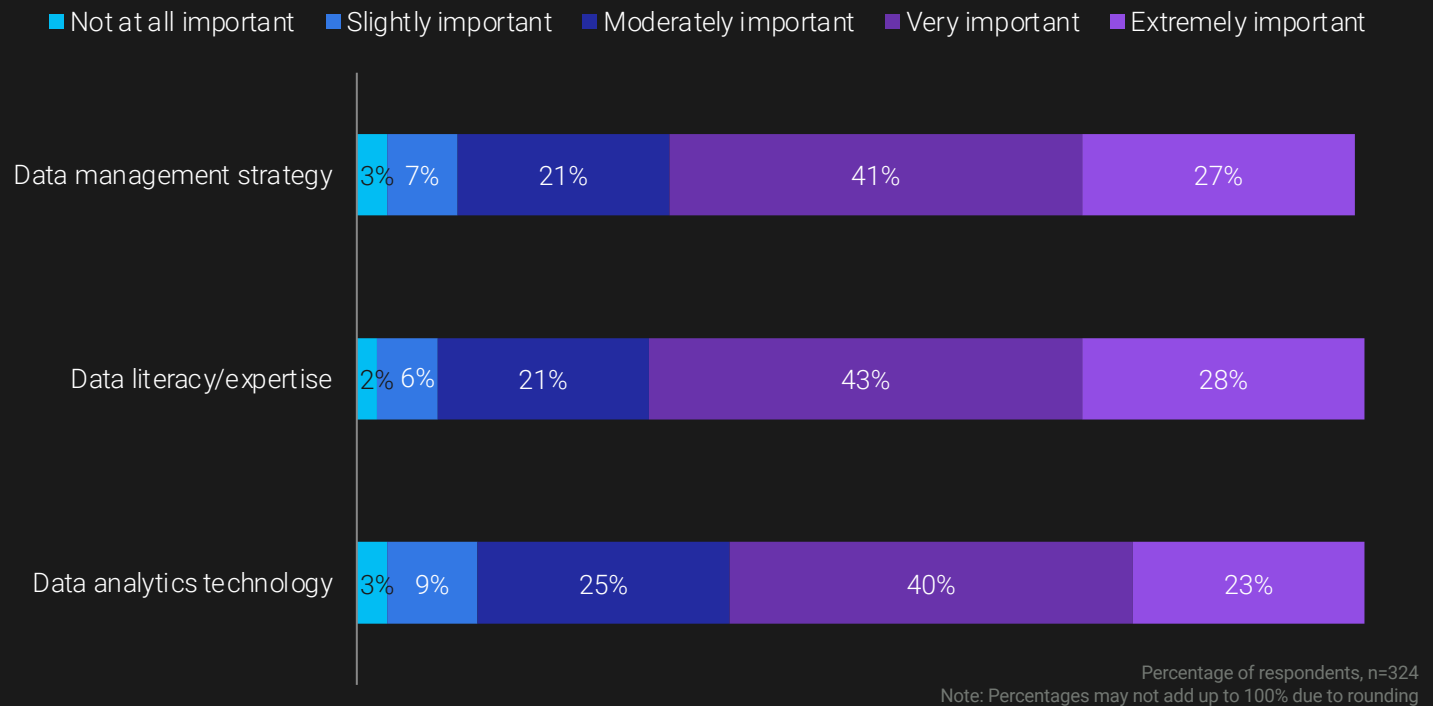
Percentage of respondents, n=335  
Note: Percentages may not add up to 100% due to rounding



# TAKEAWAY

Respondents rate data literacy as one of the most important factors to improving business outcomes

How important are each of the following to improving business outcomes?



74%

of respondents who rated their agency's resilience as very good or excellent reported having a data management strategy as very to extremely important to business outcomes. These respondents were more likely to rate a data management strategy as important than those respondents who rated their agency resilience as just poor or fair.



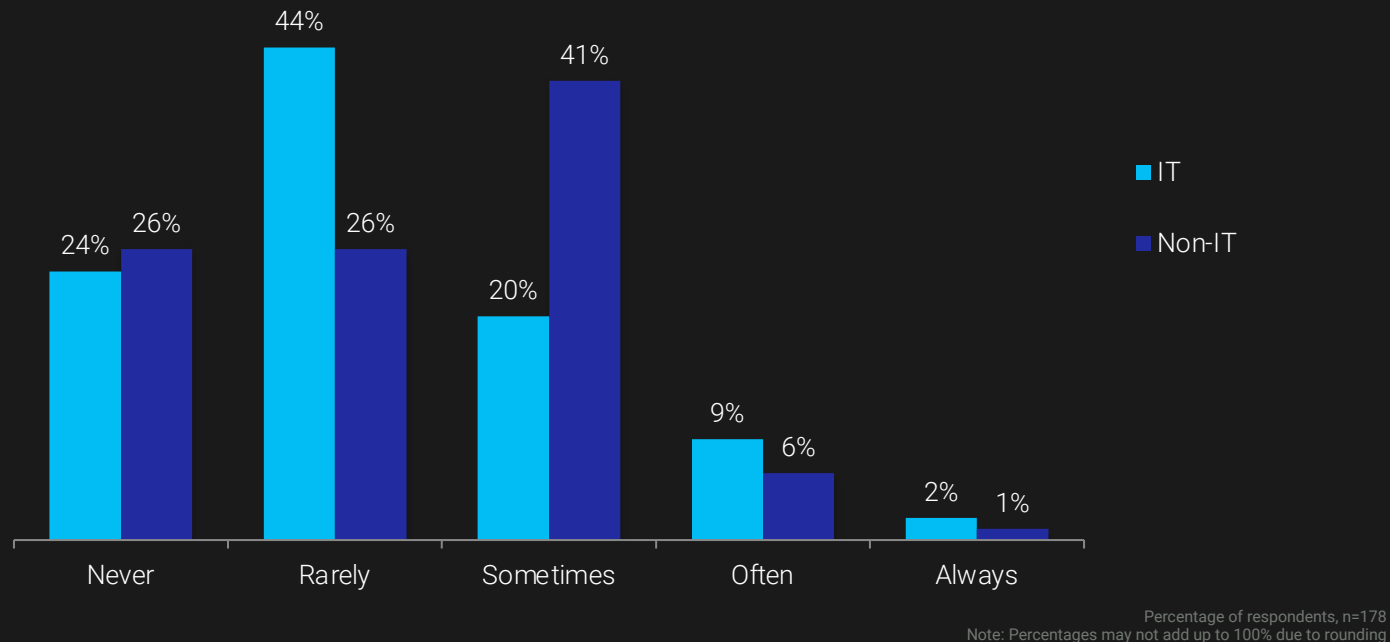
**Numbers mean nothing unless compared to other numbers over a period of time. Daily reports mean nothing. My agency fails to understand data and statistics as it relates to risk.**

- Survey Respondent

# TAKEAWAY

Sixty eight percent of IT professionals feel that their views on effective data management rarely or never align with organizational policy

To what extent do your own views on effective data management align with your organization's policies/customs governing data use?



**44%**

of respondents involved in their agency IT say that their own views on effective data management rarely align with their organization's policies compared to just 26% of non-IT respondents.



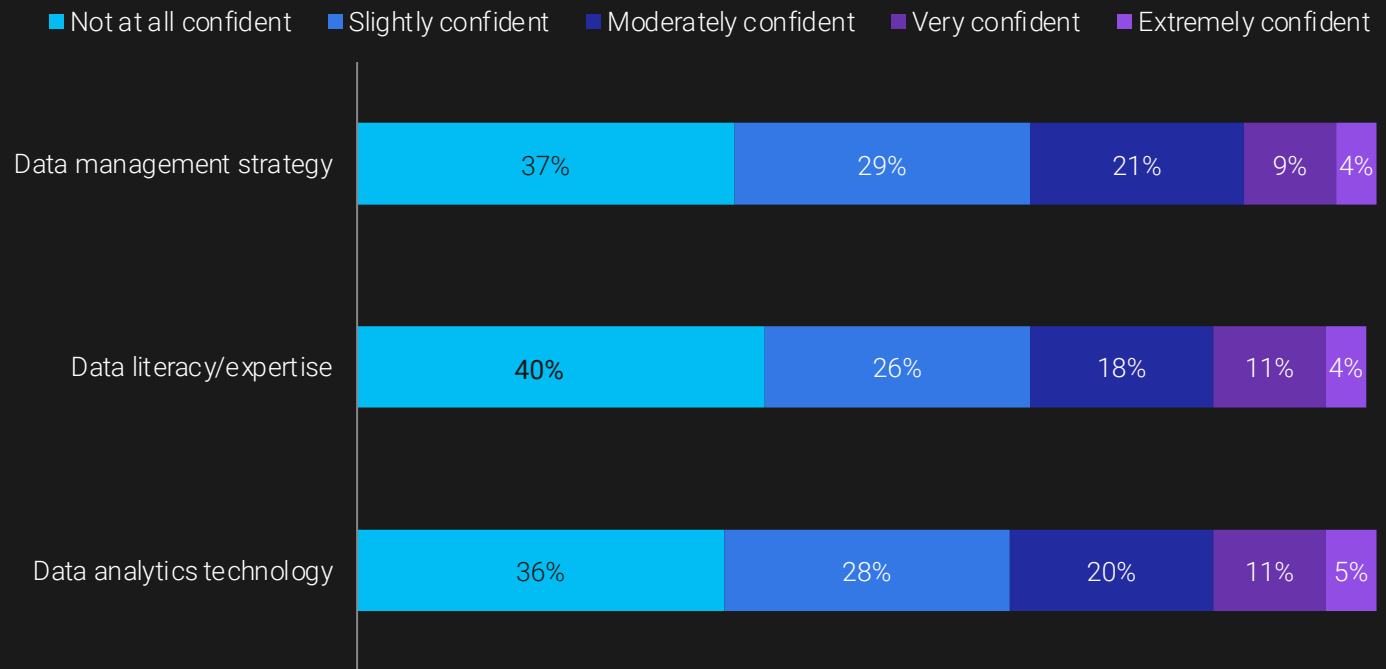
**They have a ton of needs around data management and governance, but refuse to address that issue and focus only on the technology. The technology is easy! The governance is the critical part.**

- Survey Respondent

# TAKEAWAY

More than a third of respondents are not at all confident that their agency will provide key components for leveraging agency data

How confident are you that your agency will provide \_\_\_\_ to employees in the next year?



Percentage of respondents, n=320  
Note: Percentages may not add up to 100% due to rounding

## The Effect of COVID-19

COVID-19 has demanded that agencies digitize to allow for telework and satisfy constituent service demand. The Center for Disease Control and Prevention (CDC), for example, experienced a 100-fold increase in pandemic-related calls, requiring that the agency adopt cloud computing for agile scaling.<sup>2</sup> While some claim that COVID-19 has and will continue to accelerate technological transformation, respondents surveyed are less confident in agency leadership providing data-related technology and resources.



# What Respondents Say...

What are your organization's top information/data needs or, alternatively, concerns heading into 2021?

"1- **Moving data** from legacy systems to cloud providers in a coherent way. 2- **Securing the data.**"

"**Access and ability to share and transmit large files within different departments.** We have very limited ability to quickly and easily upload and share important and often mission critical items to other departments that play a significant role in our overall success."

"Analysis of our responses and impact on our recipients during the COVID pandemic; **impact of new technology to support remote services.**"

"**Analytical tools** that determine the meaningful data and eliminating the plethora of unnecessary data."

"**Being able to share the correct data when needed.** Having the staff/ability to mine the treasure trove of data provided to actually know what is important."

"**Being able to access timely** data - data that is not outdated by the time we get it."

"**Completing data consolidation,** systems integration, training and automated reporting rollouts"

"**Elimination of disparate systems** - solutions for integrating numerous platforms, automating manual processes."

"**Functioning software programs and consolidated databases** that support and enable employees to complete their mission."

"**Getting good data** on resources and where they are located."

"Improving **technology literacy** among employees."

# Final Considerations

## **Consider enhancing intra-agency and inter-agency data sharing**

Sixty percent of respondents report that improving data efficiency could help agencies strategize better for the future, suggesting data's value in government resiliency. As a key variable of data efficiency, data sharing should be improved within and across agencies, particularly given that 84% of respondents have experienced a difficulty getting the right data to make informed decisions. A majority of decision makers say that mission success depends on accessing information from other parts of an organization. Additionally, 66% of respondents say that inter-agency data sharing will offer much to a great deal of value to their agency. Agencies may benefit from designating CIO roles and encouraging collaboration between CIOs across partnering organizations to incentivize the growth of an inter- and intra-agency data sharing strategy.

## **Alleviate organizational barriers**

Respondents suggest that agencies are taking appropriate measures adopting technologies to leverage data in the decision-making process. Fifty six percent of respondents report that their agency uses cloud to store data, for example, suggesting that some agencies are aware of the vital role technology plays in data usage and management. When it comes to organization policy, however, respondents are more critical, with 61% percent believing organizational policy is a leading barrier to data efficiency. From a security standpoint, agencies experiencing organizational barriers to data might benefit from reassessing data sensitivity and permissions to allow for a greater scope of data access for employees. Agencies may also benefit from policies that encourage data usage, such as a universal data tagging system so employees can search for and understand the data that they need.

# Industry Insights from Microsoft

## Microsoft Industry Perspective

Brian Keith, Microsoft Federal Azure Data & AI Leader

At Microsoft, we're focused on partnering with the Federal Government to accelerate the mission of the Federal Data Strategy, helping our customers achieve the vision of leveraging the full value of data for mission, service, and the public good. While every agency is at a different point in the journey, and legacy challenges exist in every arena, our federal customers are leaning into the work of improving the use of data to inform decision making.

To begin, one of the key tasks is to build a unified data strategy for the mission, no matter where that data is located and no matter where those insights are needed. This can be data OCONUS, in disconnected or intermittent scenarios, or from multiple interdisciplinary data sources. This includes creating a unified experience for ingesting, preparing, managing, and serving data to the people who need it.

For data gathered at the edge, this often includes processing data closer to the location of collection to enable faster, better decisions, and selecting secure and efficient ways to transfer insights to headquarters and back as the mission requires. Azure uniquely enables this continuum of compute, delivering advanced compute and analytics capabilities from cloud to edge to help you gain insights, move faster, and do more for the mission.

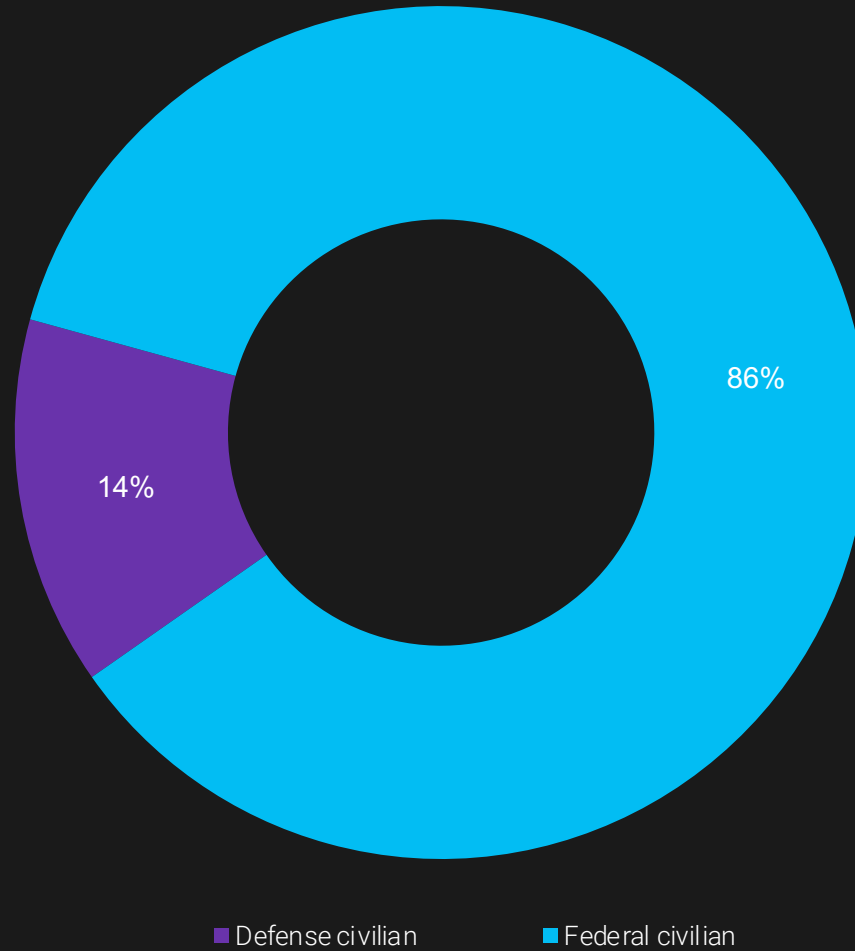
To help more people work with data to improve decision making, we're focused on empowering teams to do more with data using integrated tools that work across a broad range of skill sets. For example, Azure AI empowers anyone to build innovative applications and machine learning models for their organization, and the Power Platform (Power BI, PowerApps, and Microsoft Flow) enables users to uncover insights, develop AI applications, and automate workflows through low-code, point-and-click experiences. Microsoft is committed to providing a consistent experience across governance, security, identity, and application and data services, to help the Federal Government use data to deliver on mission, serve the public, and steward resources responsibly.

To learn more, please visit [aka.ms/Azure.com/Gov](https://aka.ms/Azure.com/Gov)



# Respondent Profile

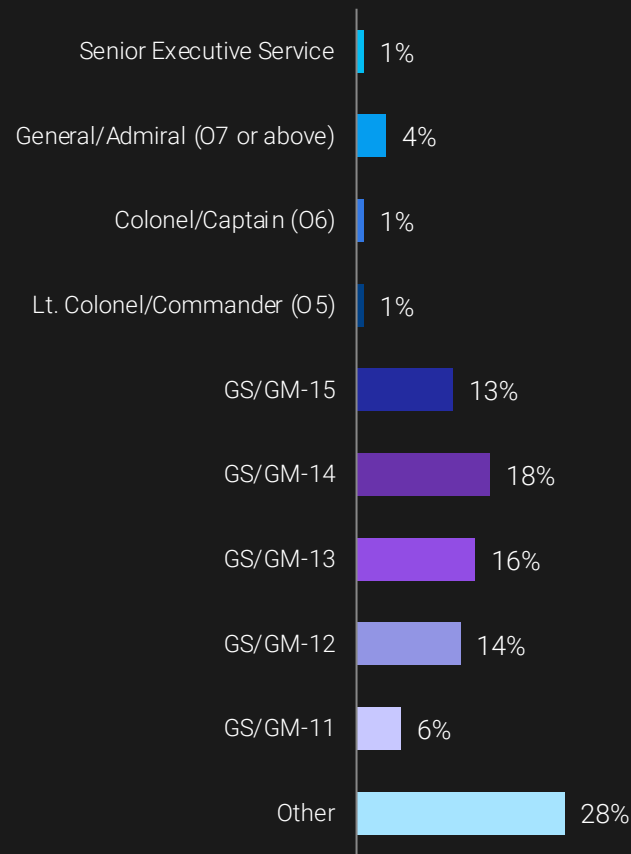
Which of the following best describes your employment status?



Percentage of respondents, n=434  
Note: Less than 1% of active duty military respondents

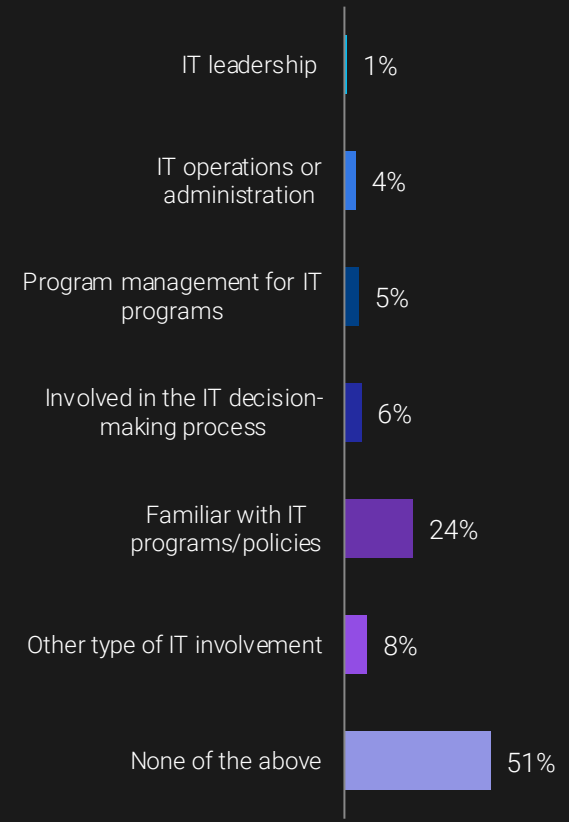
# Respondent Profile

## Job Grade/Rank



Percentage of respondents, n=426  
 Note: Percentages may not add up to 100% due to rounding

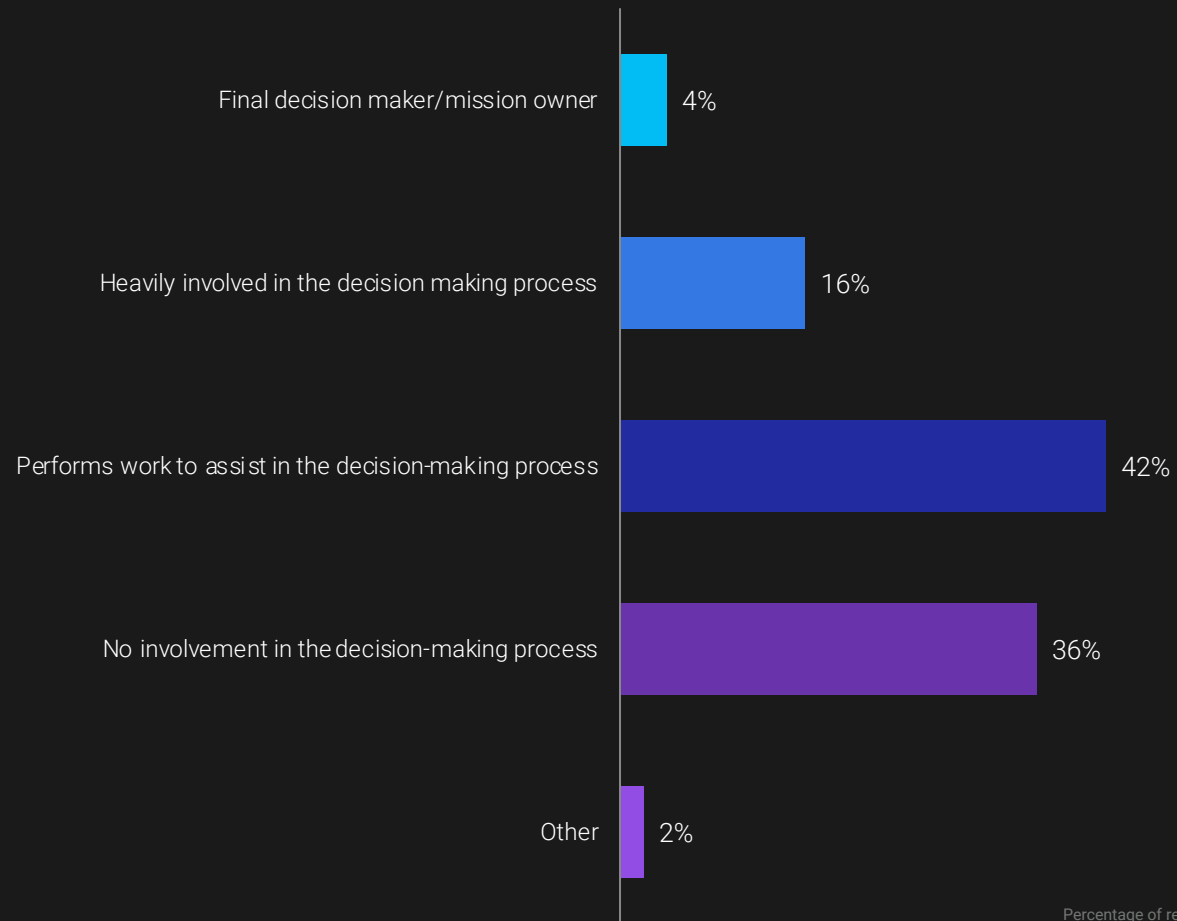
## Which of the following best describes your involvement with your organization's IT, including its information security efforts?



Percentage of respondents, n=204  
 Note: Percentages may not add up to 100% due to rounding

# Respondent Profile

How involved are you when it comes to making decisions that affect organizational program/mission outcomes?



Percentage of respondents, n=408  
Note: Percentages may not add up to 100% due to rounding

# Endnotes

1. <https://www.govexec.com/workforce/2020/09/survey-most-teleworking-federal-employees-expect-remain-home-least-six-more-months/168576/>
2. <https://www.nextgov.com/it-modernization/2020/07/covid-19-could-change-government-contact-centers-forever/166795/>

# About

## Government Business Council

### About Government Business Council

As Government Executive Media Group's research division, Government Business Council (GBC) is dedicated to advancing the business of government through analysis, insight, and analytical independence. An extension of *Government Executive's* 50 years of exemplary editorial standards and commitment to the highest ethical values, GBC studies influential decision makers from across government to produce intelligence-based research and analysis.

**Learn more at:** [www.govexec.com/insights](http://www.govexec.com/insights)  
@GovExecInsights

#### Contact

Frank Salatto | VP & GM, Marketing and Communications  
Email: [fsalatto@govexec.com](mailto:fsalatto@govexec.com)



### About Microsoft

Microsoft (Nasdaq "MSFT" @microsoft) is the leading platform and productivity company for the mobile-first, cloud-first world, and its mission is to empower every person and every organization on the planet to achieve more.

#### Contact

Brian Keith | Microsoft Federal Azure Data & AI Lead  
Email: [brian.keith@microsoft.com](mailto:brian.keith@microsoft.com)