

GOVERNMENT ANALYTICS SURVEY

Results and analysis



Delivering
Mission
Impact



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Johns Hopkins, REI Systems, and ACT-IAC

- **The John Hopkins Data Analytics and Policy Program** prepares students to tackle meaningful policy challenges using analytics. Students graduate with the expertise to be data-driven decisionmakers and policy leaders in both the public and private sector. Visit advanced.jhu.edu/dataanalyticsandpolicy
- **REI Systems** provides analytics solutions, including data management, visualization, and reporting; analytic model development and operation; evaluation of analytic results, and advice. We digitize government to produce healthier citizens, safer communities, and better lives. Visit REIsystems.com
- **ACT-IAC** is a trusted and collaborative forum for technology industry leaders and government executives working together to create a more effective and innovative government. Visit actiac.org

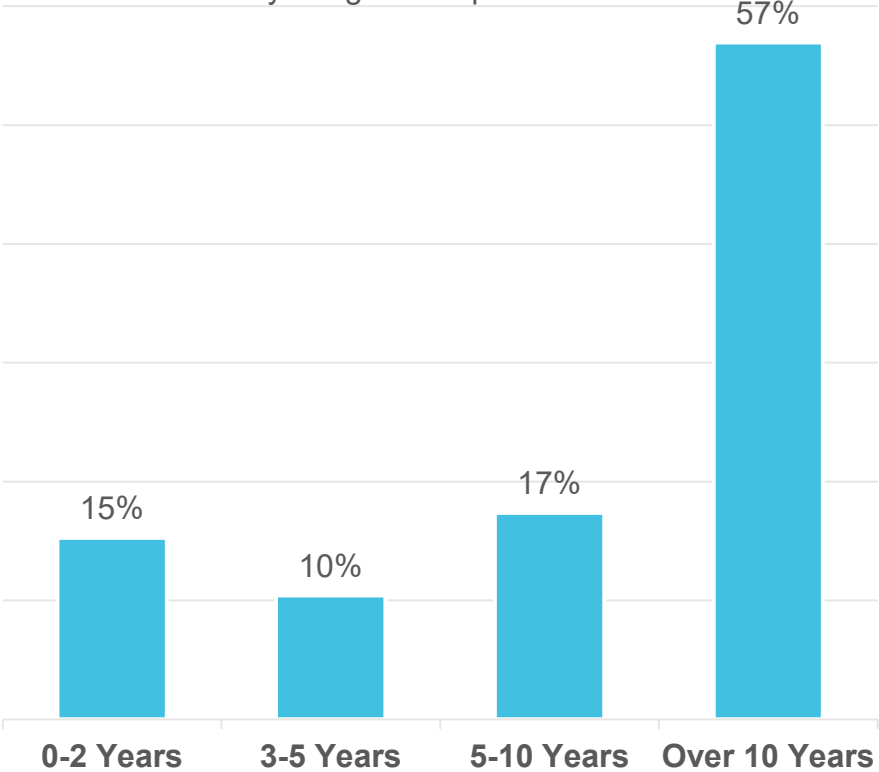
Introduction and methodology

- **PURPOSE:** The purpose of this Analytics Survey and analysis is to inform the government analytics community of cross-cutting issues and trends so as to help improve the value of analytics to decision making, and to improve the effectiveness and efficiency of government
- **SURVEY DESIGN:** JHU, REI, and ACT-IAC developed a survey of analytics practitioners to help identify key practices, resources used and needed, and major challenges, and related topics that could help inform the government analytics community.
- **SURVEY ADMINISTRATION:**
 - During August 2021, we invited professionals in government analytics fields from federal, state, local and the private/non-profit sectors to take the survey. Anyone with the link could respond.
 - Those invited to respond included attendees of Government Analytics Breakfast Forum events, and other professionals that REI and JHU have been able to identify. Additionally, ACT-IAC extended the invitation to its membership. Those receiving the survey were encouraged to forward it to colleagues
 - Responses were anonymous (though respondents could share contact info to receive results)

Most respondents have 10+ years of experience (and that share of experienced respondents grew)

144 Responses

■ Percent of Respondents, by Length of Experience

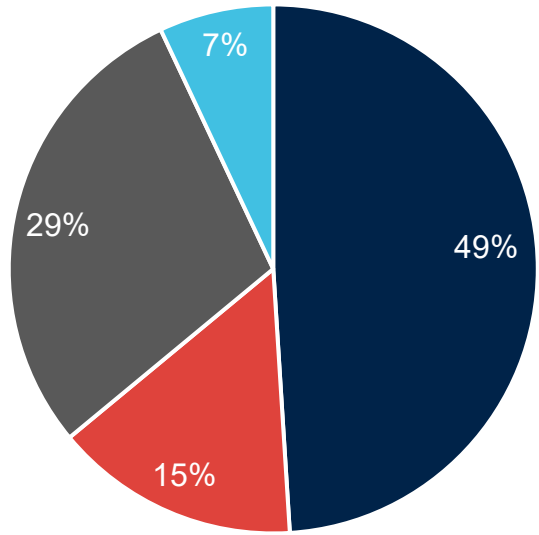


4. For which do you work?

(Survey questions are shown as above.)

Sector of Employment

- Federal
- State/Local
- Consultant
- Acad./Non-Profit/Other



Key Findings

Key findings, at a glance

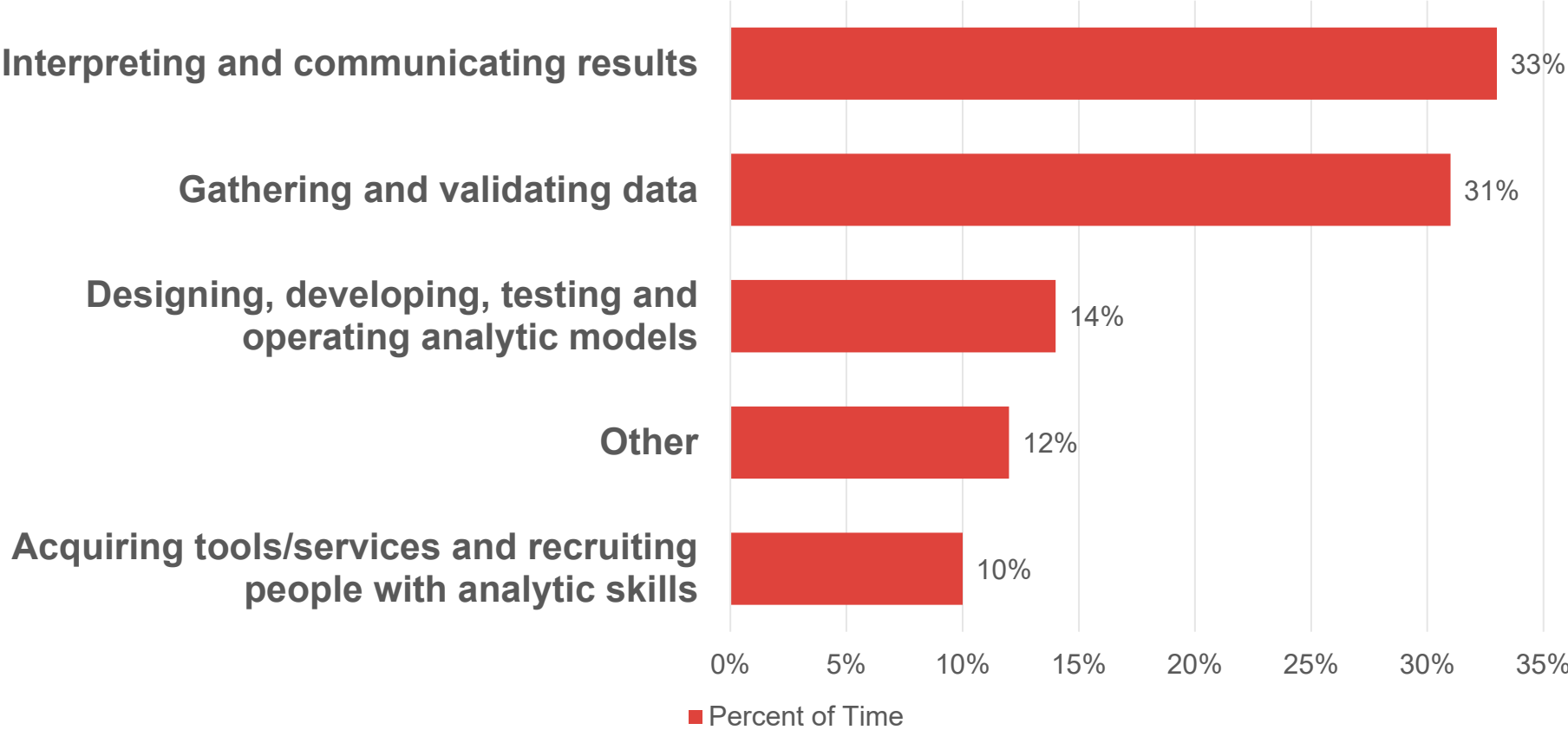
- **Agencies now spend more time interpreting and communicating results than gathering data or designing analytic models**
 - This may have implications for hiring, roles, and training
- **Data quality is higher – a data strategy might let agencies focus on data that brings value when it is used**
 - Is it time to validate less, or stop gathering data that doesn't get used?
- **Analytics are creating value**
 - Most agencies' mission achievement improved over 5%, from analytics
- **“Self-Service” analytics could increase value from analytics even further**
 - Pairing an analyst with an executive could engage the leader, and help the analyst better focus on valuable uses for data and analytics

What is government analytics?

Interpreting & Communicating has eclipsed data gathering and designing models as a top analytics focus



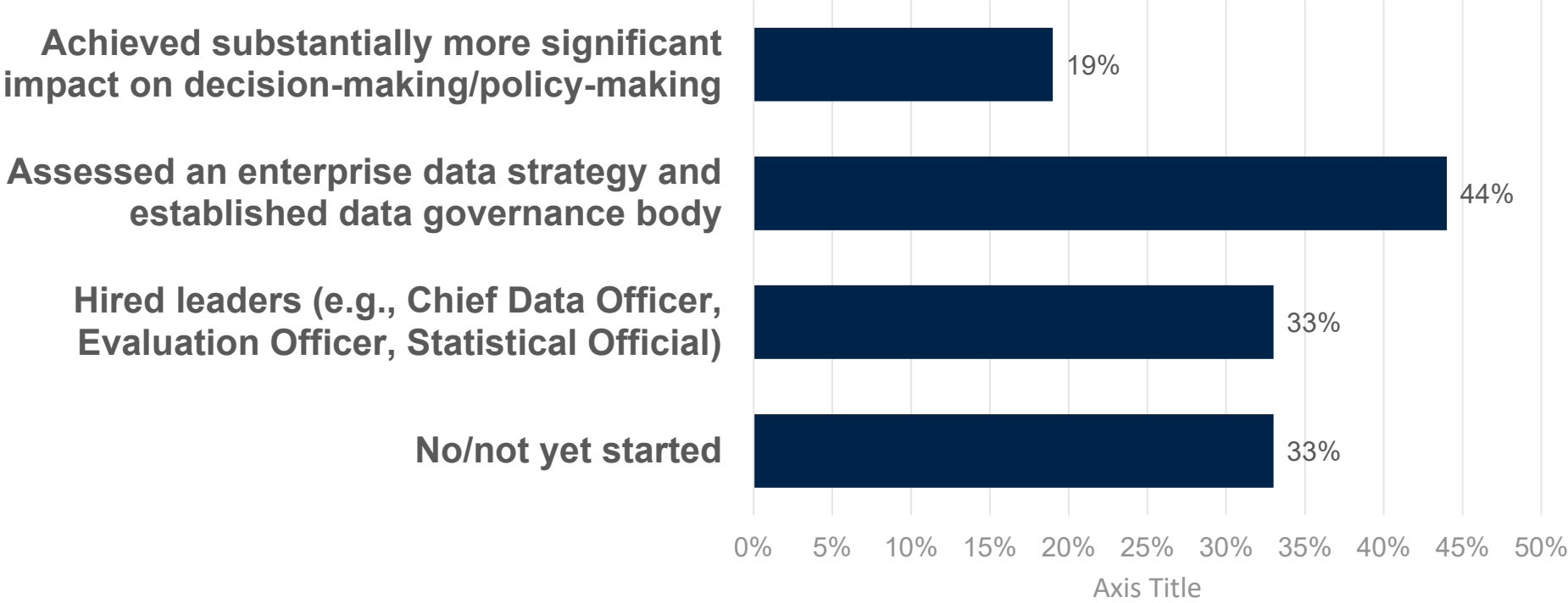
6. How much of the time you spend on analytics goes to the following activities?



Data & analytics in government are still in a nascent stage of development



7. How has your organization implemented the “Foundations for Evidence-Based Policymaking Act of 2018” (the Evidence Act), the Federal Data Strategy and related OMB guidance?



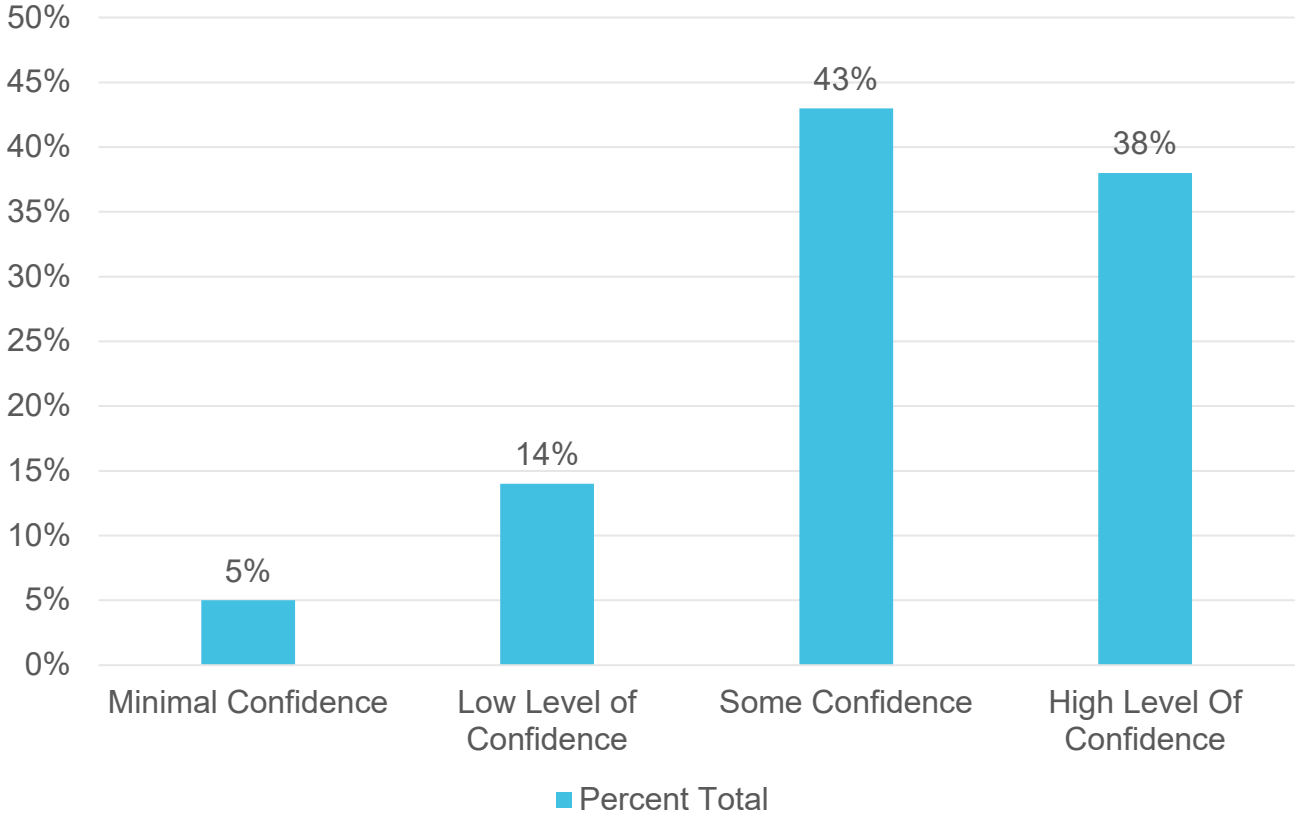
■ Percent of Time

Data quality is higher. Is it time to reconsider efforts to gather every bit of data possible, and make it all perfect?

Does more effort than needed go into gathering/validating data? Could a data strategy focus on frequently used data?



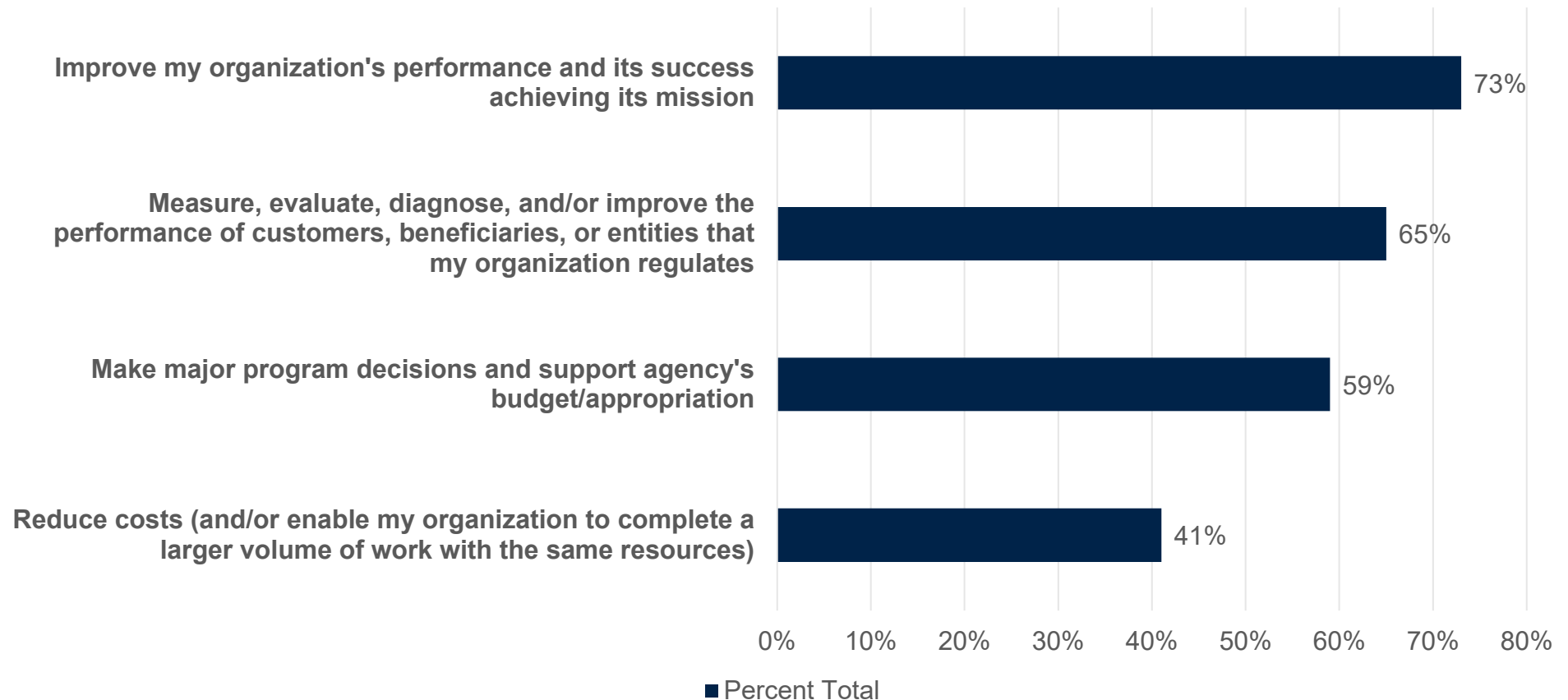
8. What is your level of confidence in the quality of data promulgated by your agency (or the agency you work with)?



Why agencies use analytics and what value they obtain

Performance improvement is the top focus

This may heighten the need for communication inside the agency, and for “self-service” among the agency’s managers

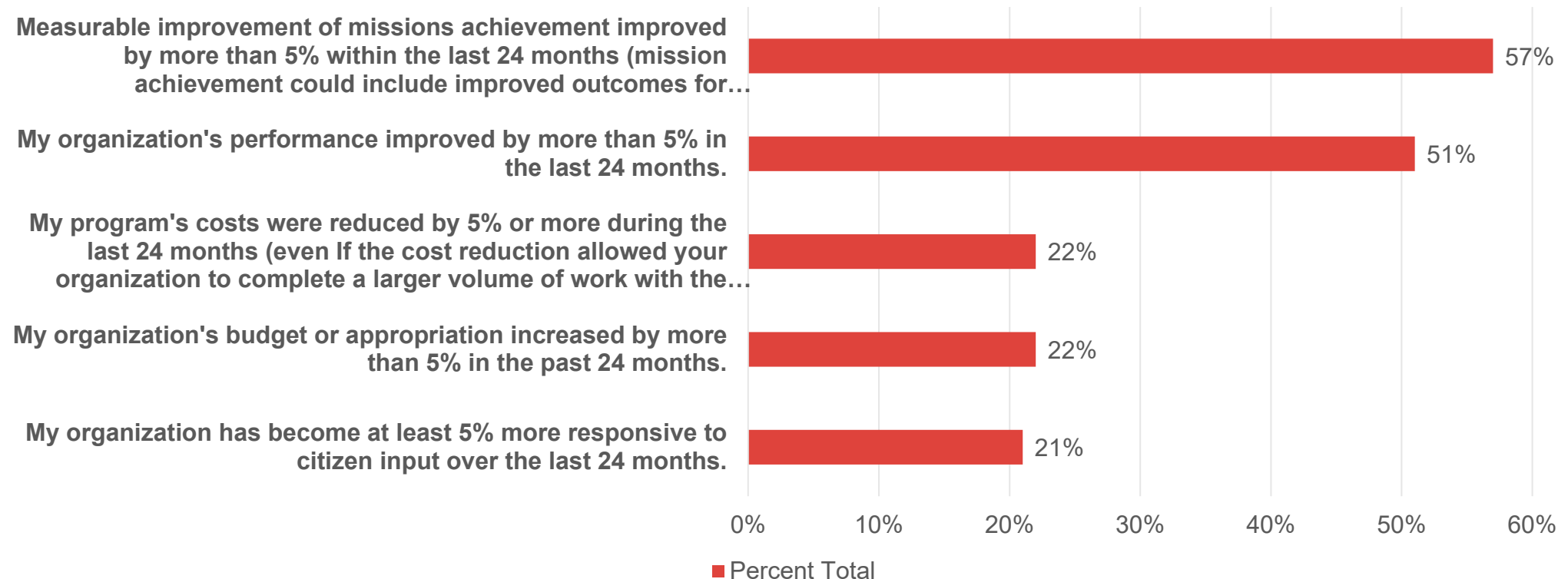


Analytics are creating value

Most respondents report measurably improved mission achievement from use of analytics

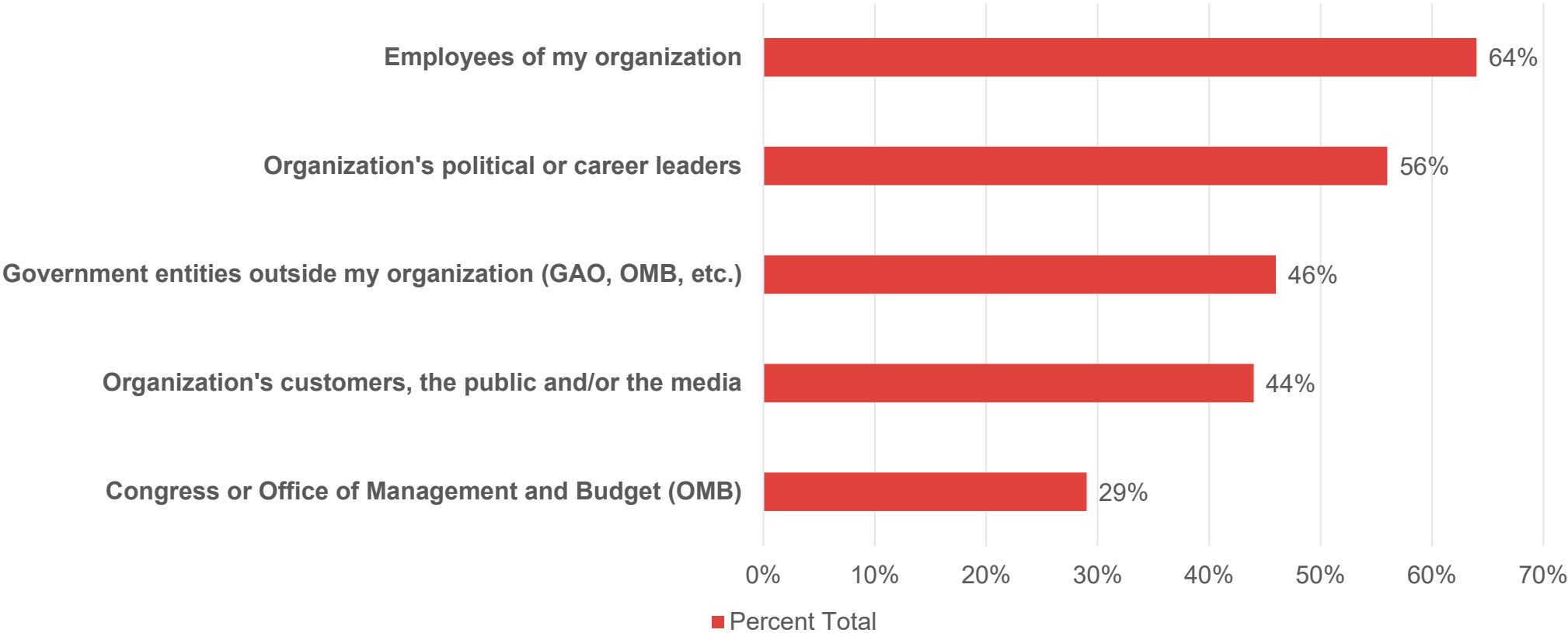


12. Has your organization's use of analytics produced any of the following results? (Select all that apply.)



The top target audience is an agency's own employee – perhaps self-service should become a trend

Leaders were the top audience in 2019

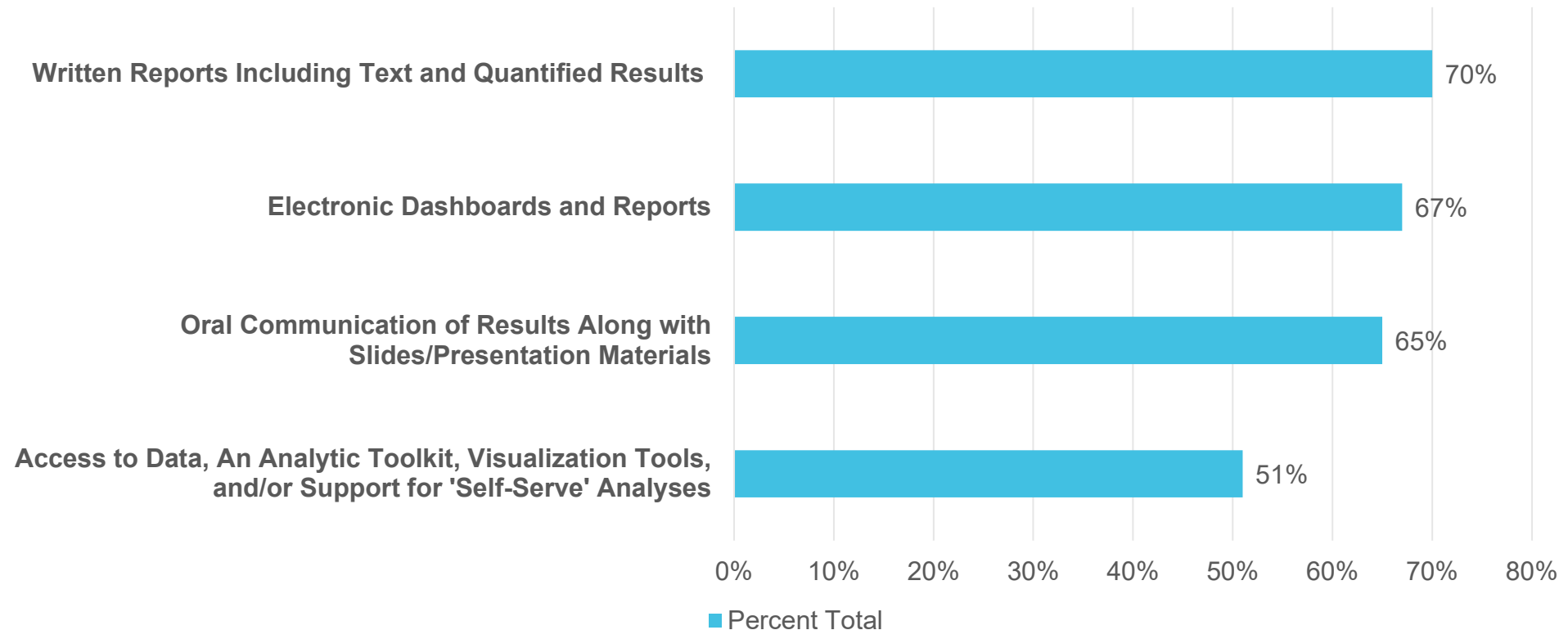


Analytics are most often delivered in ways that leave analysts in control; at the moment, self-service lags well behind

This may give leaders and managers less control, and less interest in data, analytics and evidence



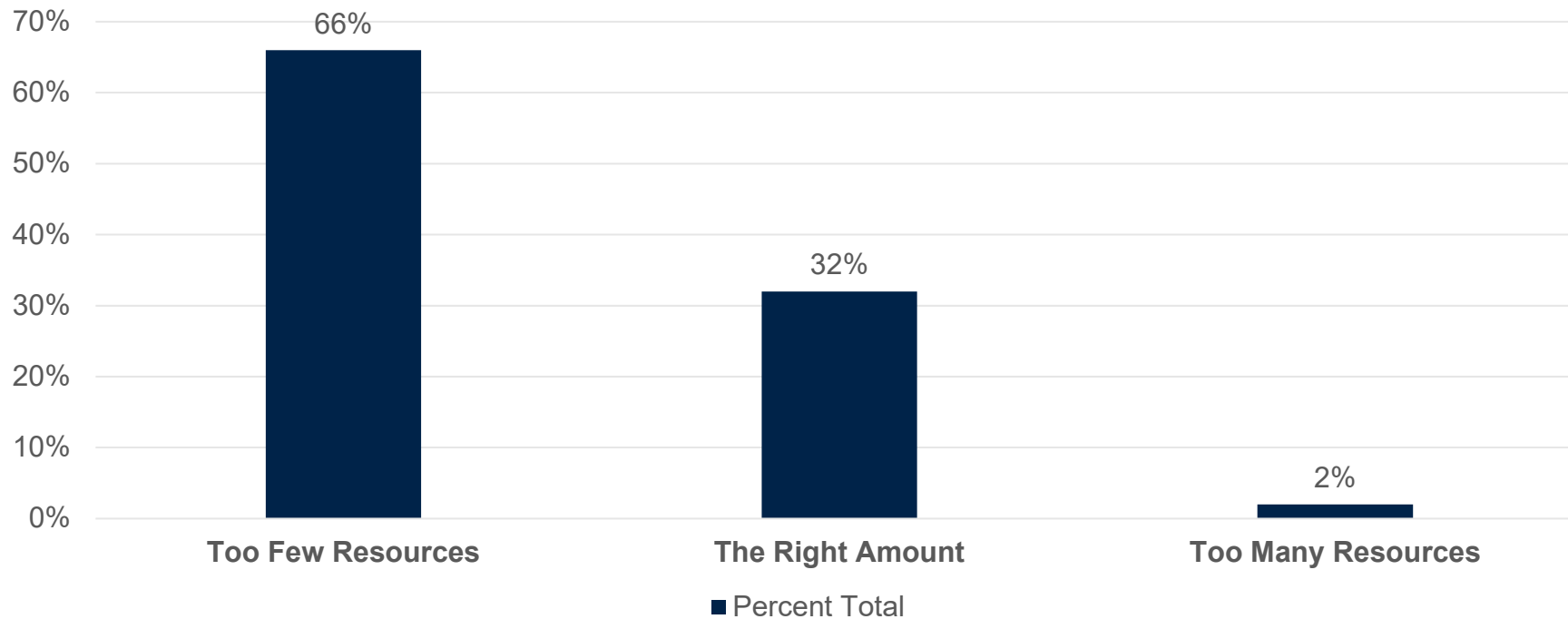
11. In what format does your organization typically deliver analytic products?



Most respondents believe their organizations spend too little on analytics



14. Does your organization spend too few resources, too many resources, or about the right amount of resources on analytics? (Resources include time, money, IT, etc.)

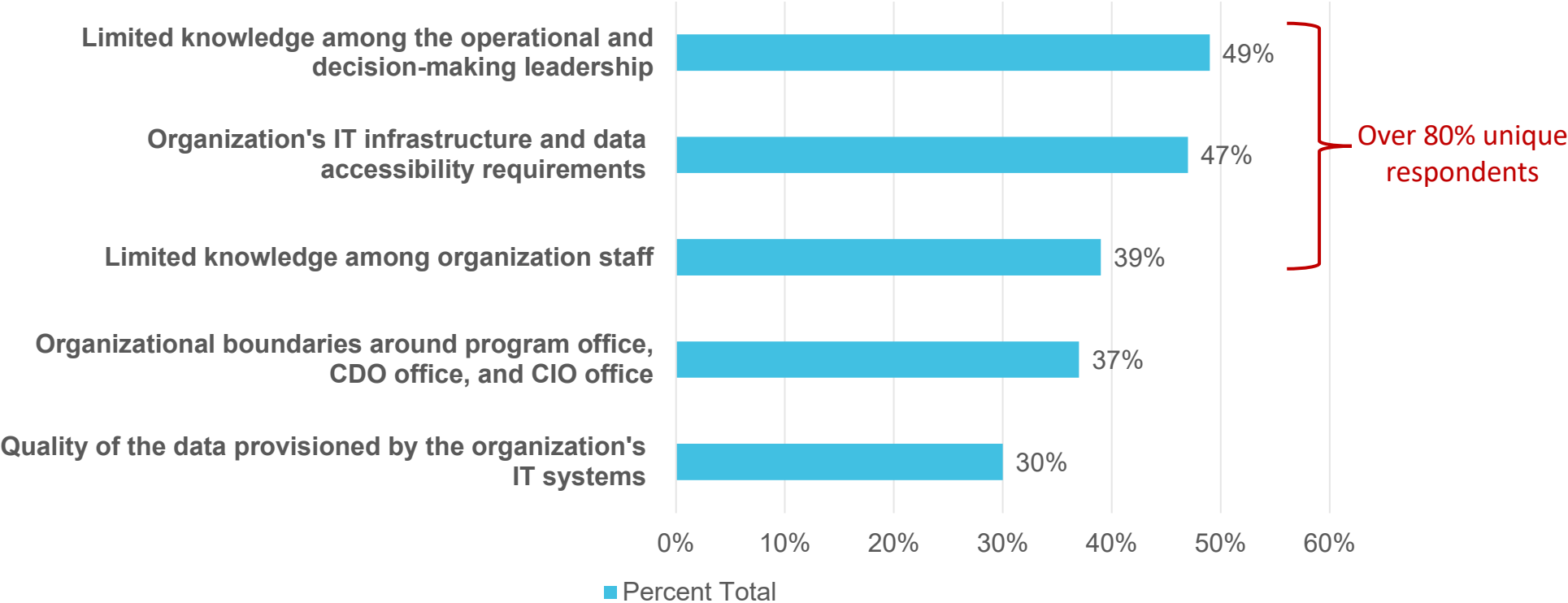


Emerging technologies

Several factors inhibit analytic technology, but awareness is key

Data and analytics literacy is critical for federal staff at all levels and agencies need to adopt more robust, flexible, scalable, and well-managed infrastructure

16. What are the most important inhibiting factors to adopt emerging technologies?

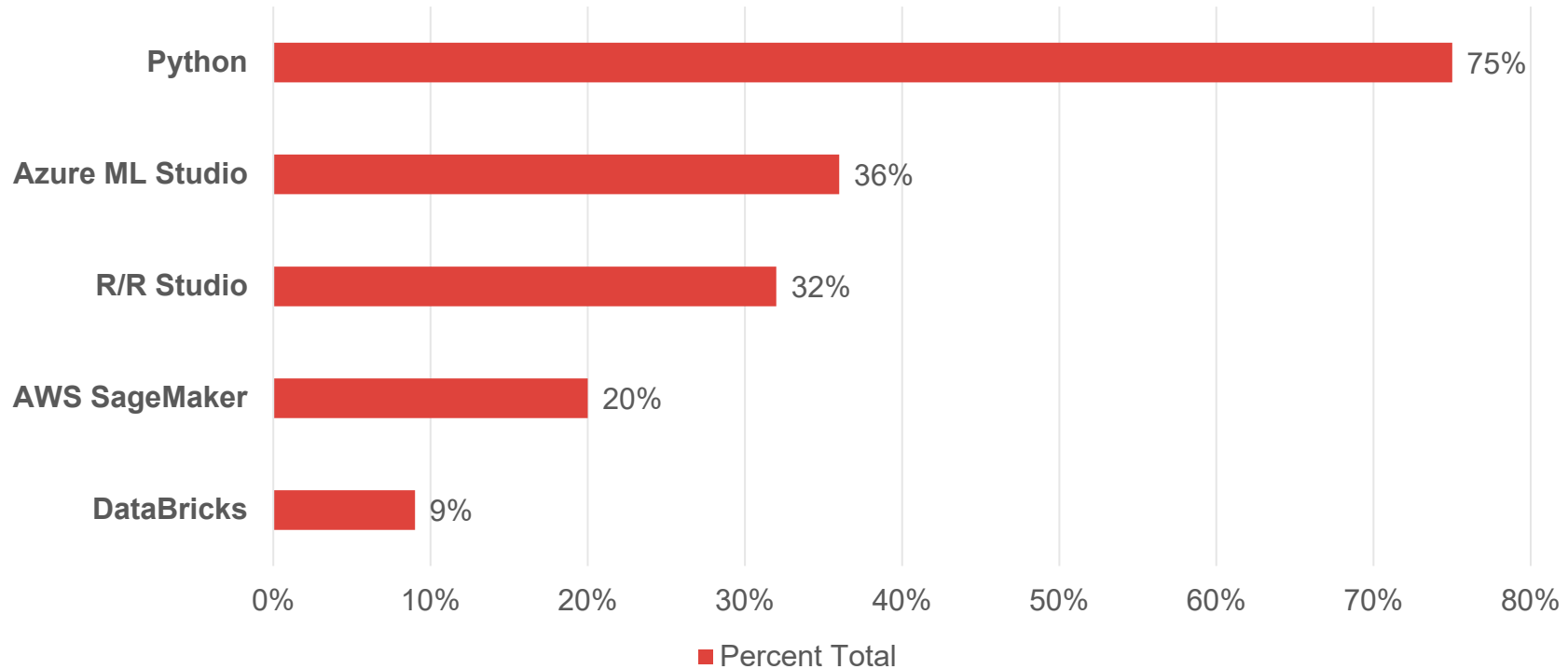


Open source *Python* is the most common analytic tool

Native cloud services with automated and drag and drop features are preferred



17. Have you used any of the following AI or machine learning tools to develop models for your organization?

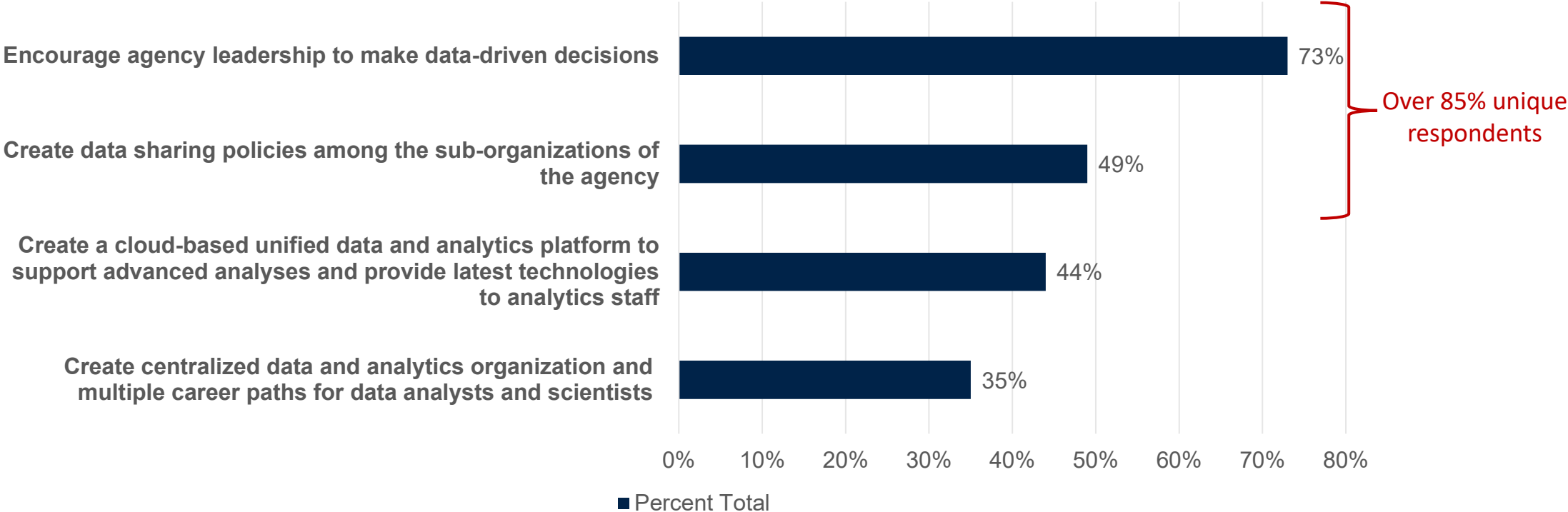


Success, challenges, and next steps

Retaining staff is a challenge: They like jobs where their work is valued and appreciated



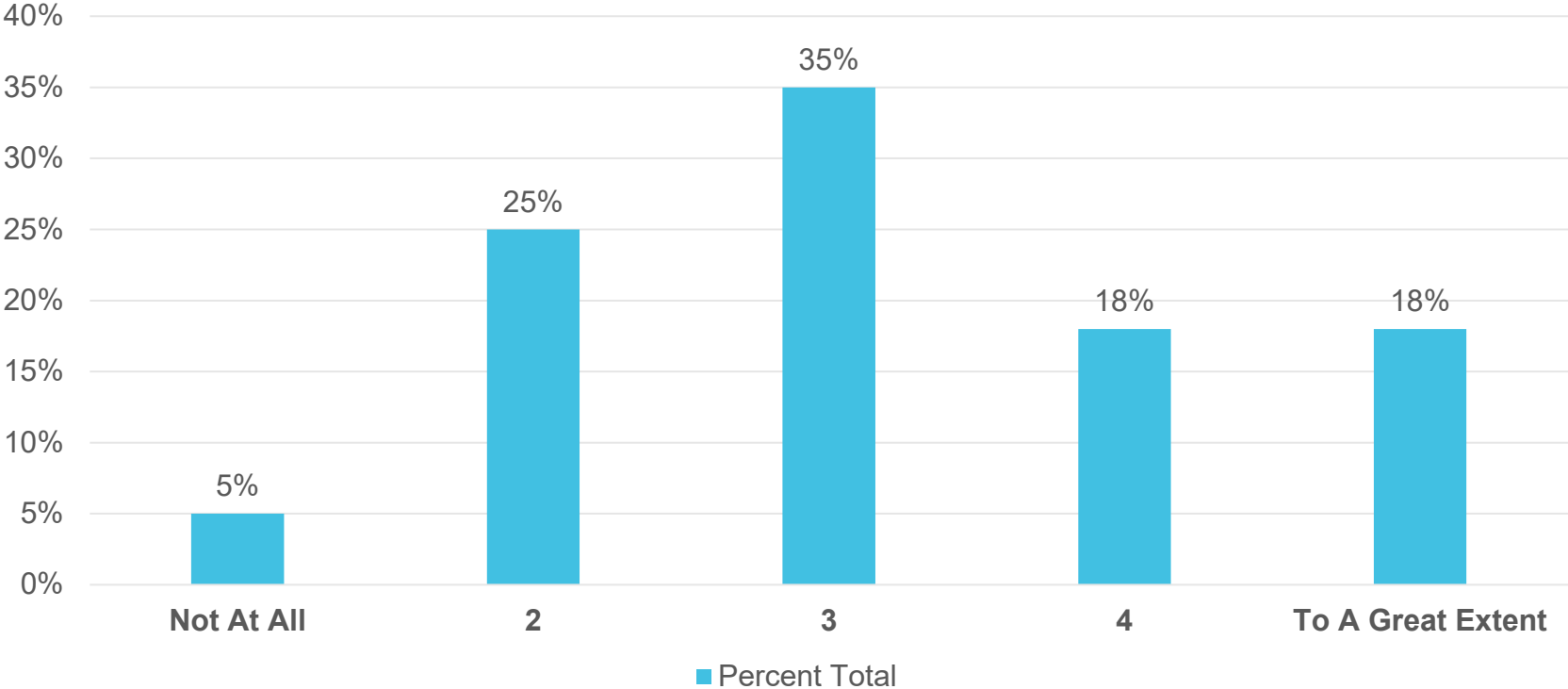
18. What approaches are you planning to implement to attract and retain talent with advanced analytical capabilities?



Executives and managers don't use analytics to the extent that their teams desire (see above re: retention challenges)



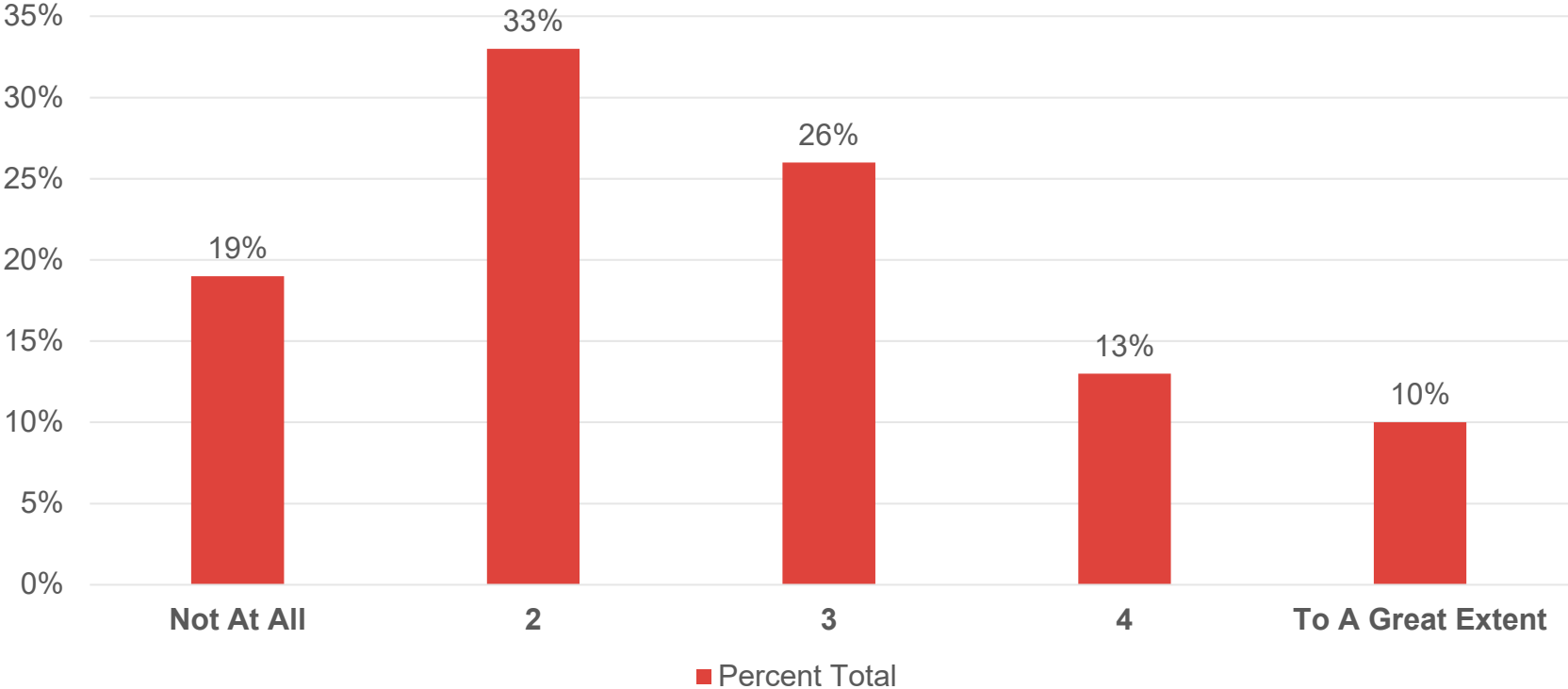
19. To what extent does your organization's executive leaders and managers use analytics?



Most respondents believe their agency doesn't have the analytic resources to meet its needs



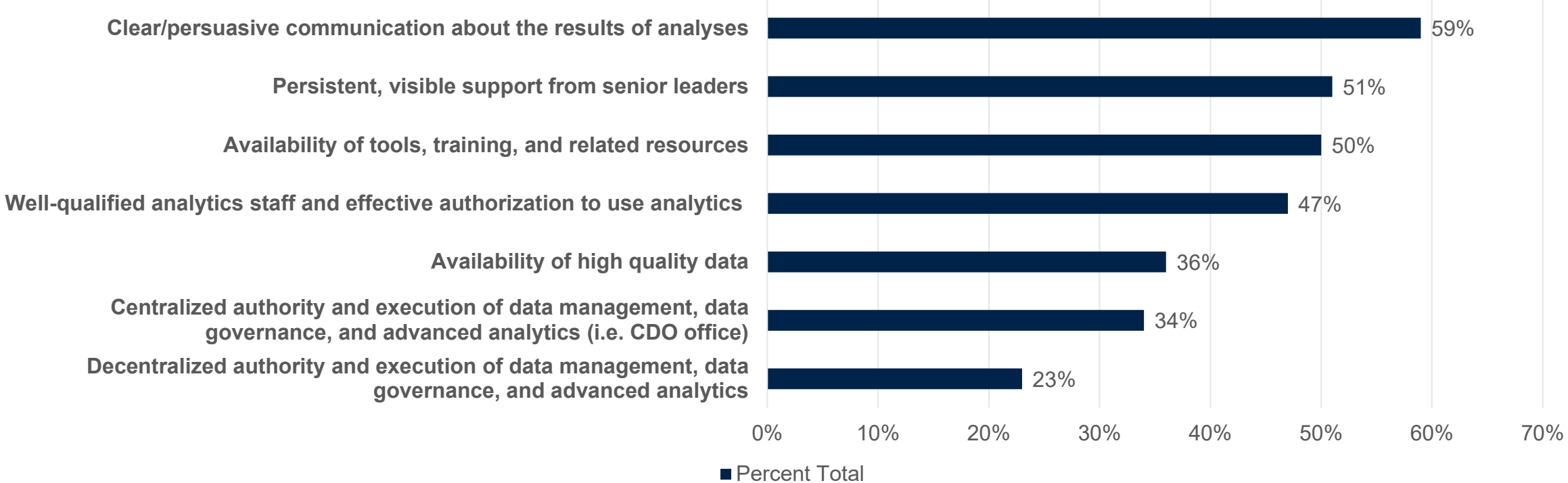
20. In your opinion, are your organization's analytics resources and capabilities sufficient to meet its needs?



Communication, the engaged leaders, and qualified staff are the key success factors



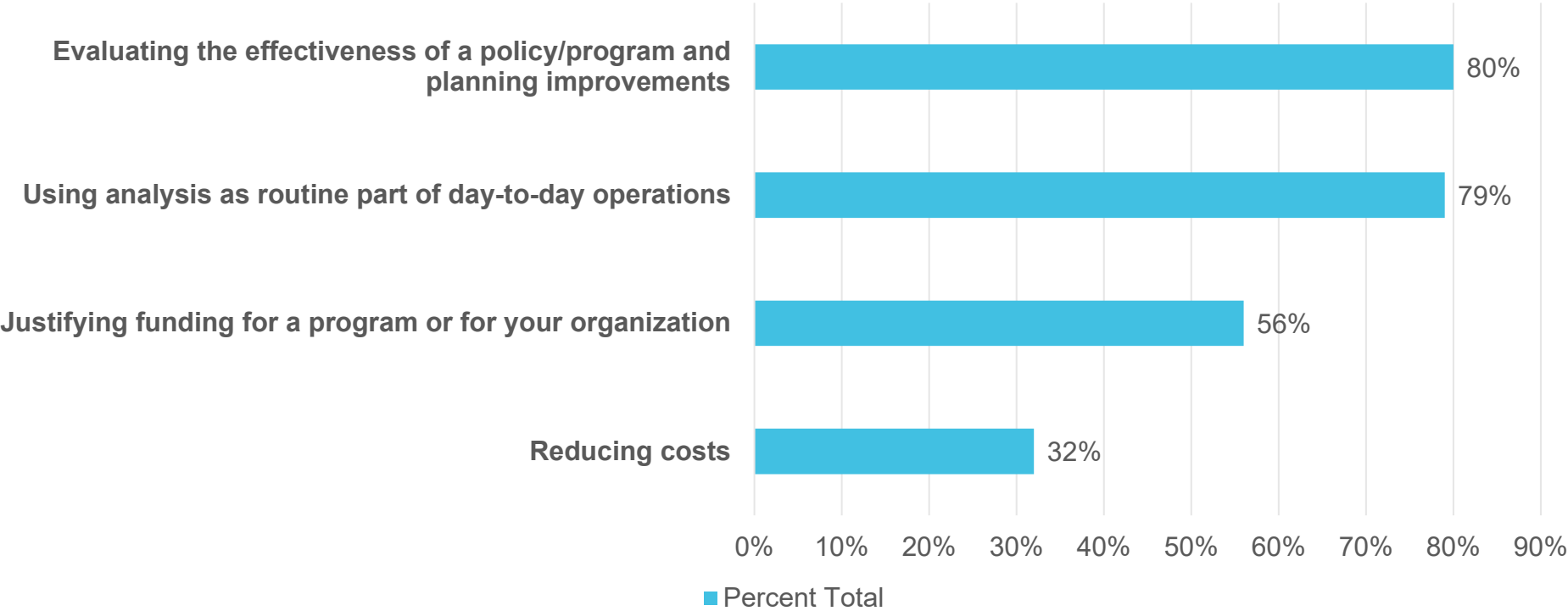
22. What have been the most significant factors that have allowed your office to be successful in government analytics?



Agencies' biggest successes have been using analytics to evaluate effectiveness and make day-to-day operating decisions



23. What have been the most important types of success that your office has achieved by using government analytics?

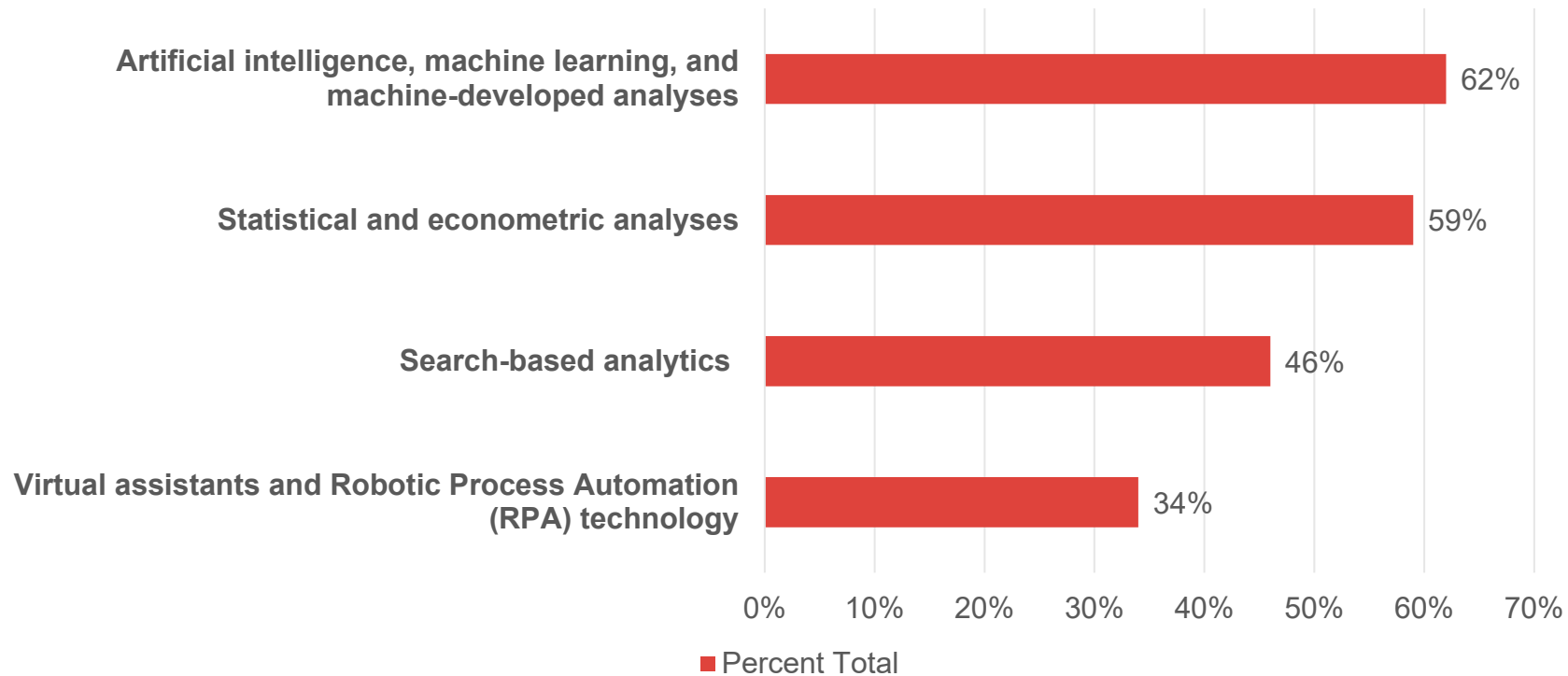


Optimism abounds for the promise of AI/ML...

Since our last survey, AI/ML has surpassed statistical analysis for most promising area



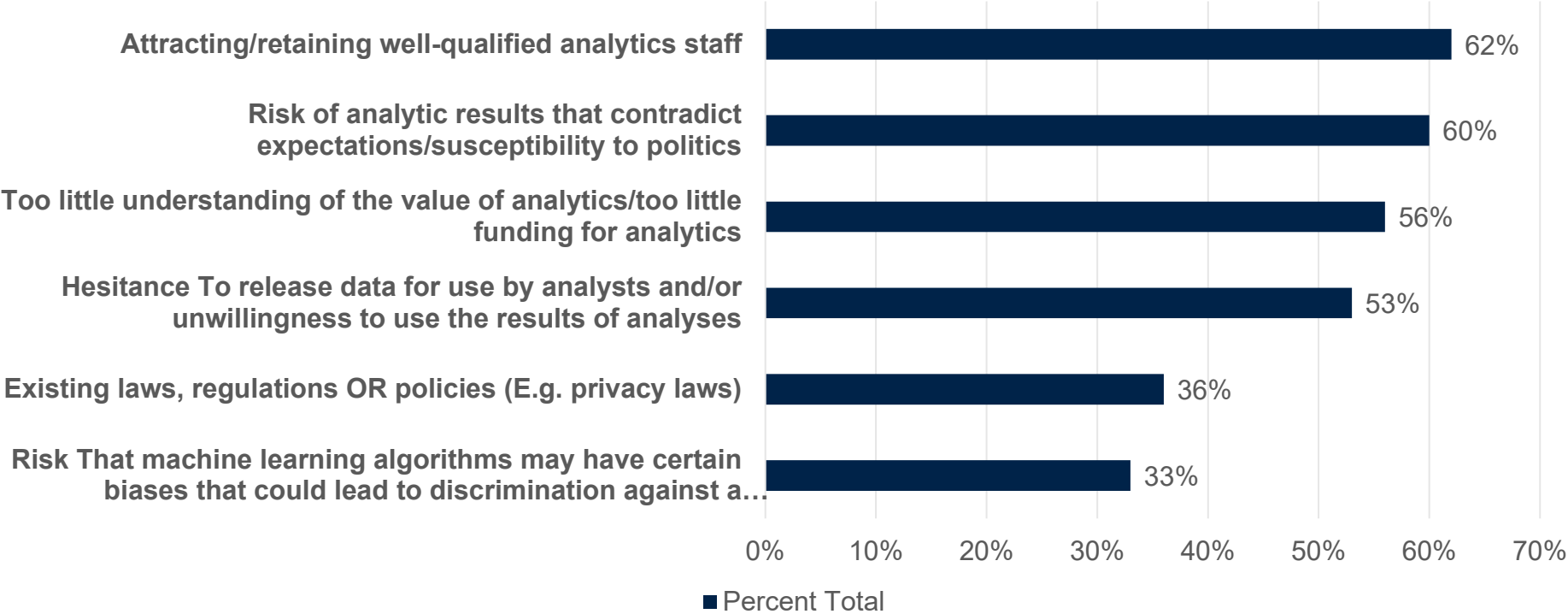
24. What do you think holds the most promise for dramatic improvement to government analytics?



Staff retention and risk of embarrassing results remain the top government analytics challenges



26. What do you think are the most significant challenges facing government analytics?



Potential Next Steps

- Add communications to the skillset / toolbox for data analytics teams
 - Identify/hire, develop and reward “data storytellers”
- Set an Analytics Strategy for your agency to identify valuable uses/audiences for analytics
 - Save resources when you stop gathering/validating data except for those valued uses (be user-centric)
- Explore self-service analytics, so leaders and staff can find and use the data that they need for their jobs
 - Match senior executives with an analyst to help meet executive needs, and help analysts understand real use cases
- Plan pilot tests for Machine Learning and AI to find the best value; increase awareness
 - A pilot test will determine if results could be valuable, ensure the right tools are available, and increase awareness