

2020 enterprise trends in the new normal

Examining the economic impact that the global pandemic is having on AI/ML initiatives

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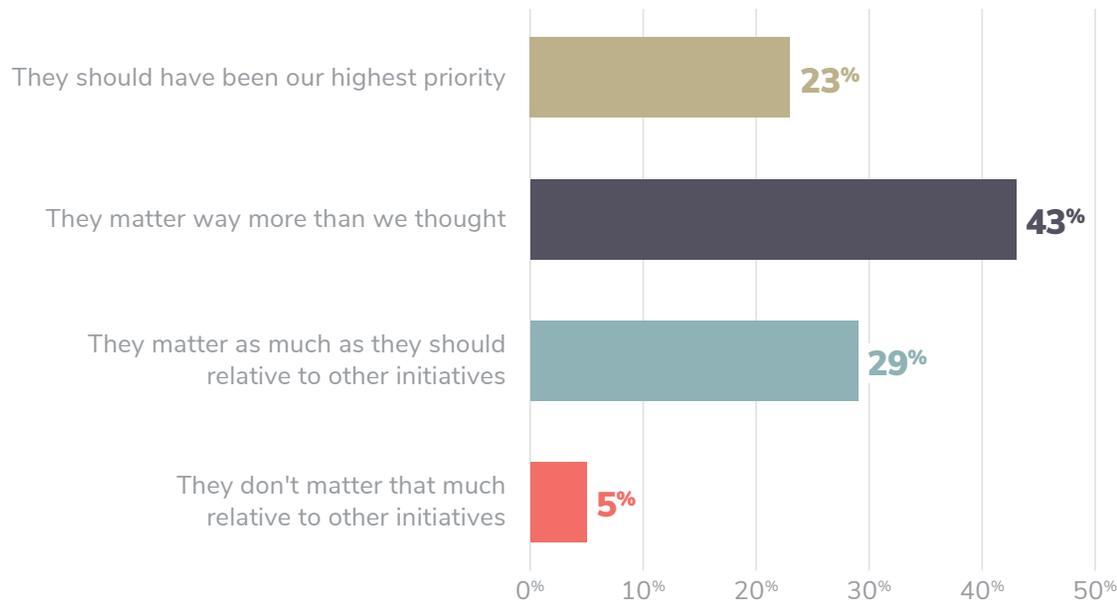
Introduction

The IT industry historically responds to economic disruption with both short-term cost cutting and long-term technology adoption shifts. At Algorithmia, we believe that the current disruption is no different and we expect that AI/ML will grow in importance compared to where it was in early 2020. Pre-pandemic, many industries were already moving toward long-term technology shifts, with many organizations focusing on digital transformation initiatives that depend on AI/ML.

We wanted to know how organizations are reacting to the pandemic and what specific effect it is having on AI/ML initiatives. We surveyed AI/ML business leaders at large enterprises on how they are changing their ML initiatives in reaction to this period of volatility, uncertainty, complexity, and ambiguity. Specifically, we posed questions to find out how the pandemic is impacting funding, AI/ML personnel, and project priorities.

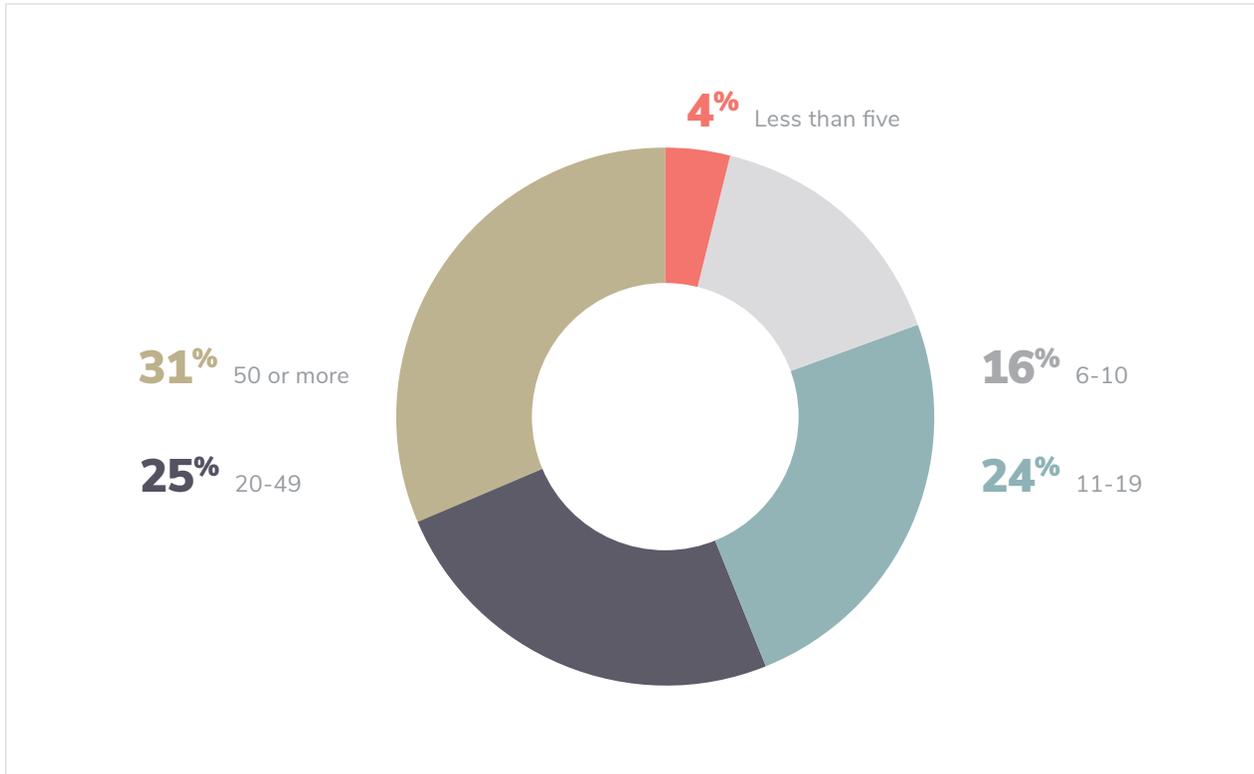
We believe that in today's "new normal" investments in machine learning are even more critical to success because the shift to 'digital' has accelerated rapidly in response to the pandemic. The results of our survey show that there is an increase in AI/ML priority, staff, and budget within most organizations.

How the pandemic has increased the importance of AI/ML initiatives



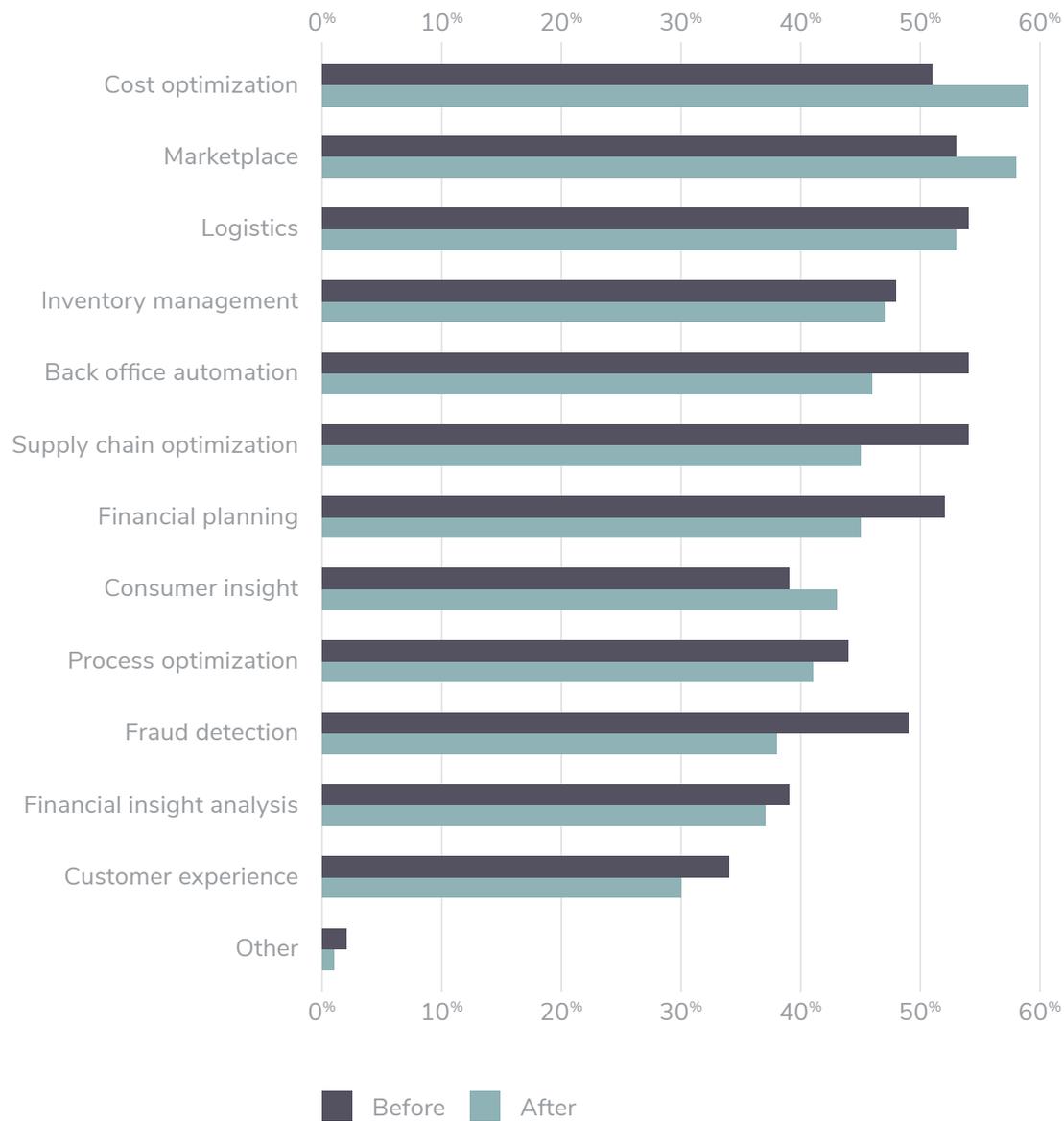
The response to the pandemic by many organizations has highlighted the importance of AI/ML projects. Two thirds (66%) of organizations realized that AI/ML projects matter more than they thought before the pandemic, with nearly a quarter (23%) believing it should have been their highest priority before and during the pandemic.

Number of AI/ML projects organizations had going into the pandemic



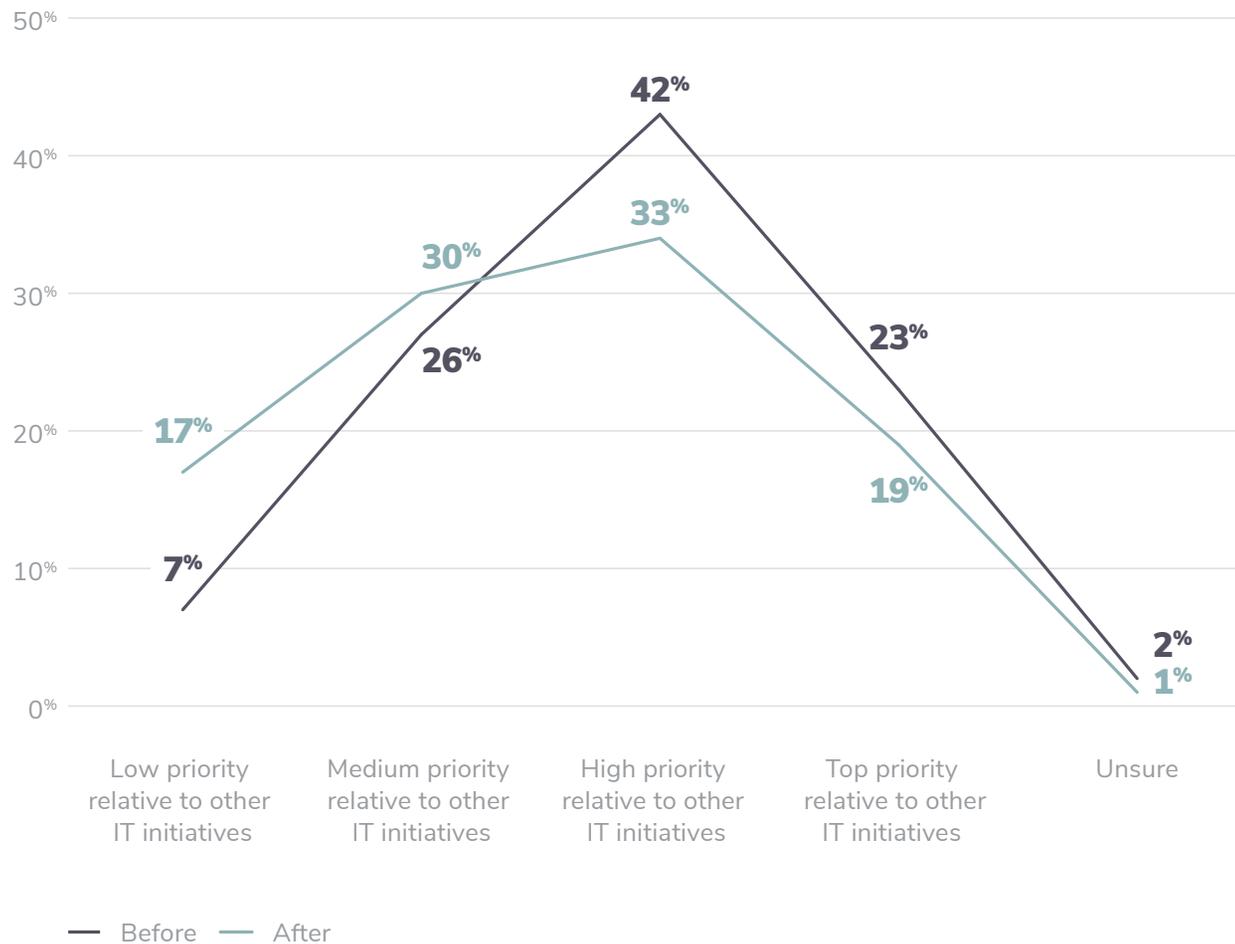
Over 50% of large enterprises are engaged in a significant number of AI/ML projects (more than 20), with the largest segment (31%) engaged with 50 or more projects.

How the pandemic has changed the focus of AI/ML projects



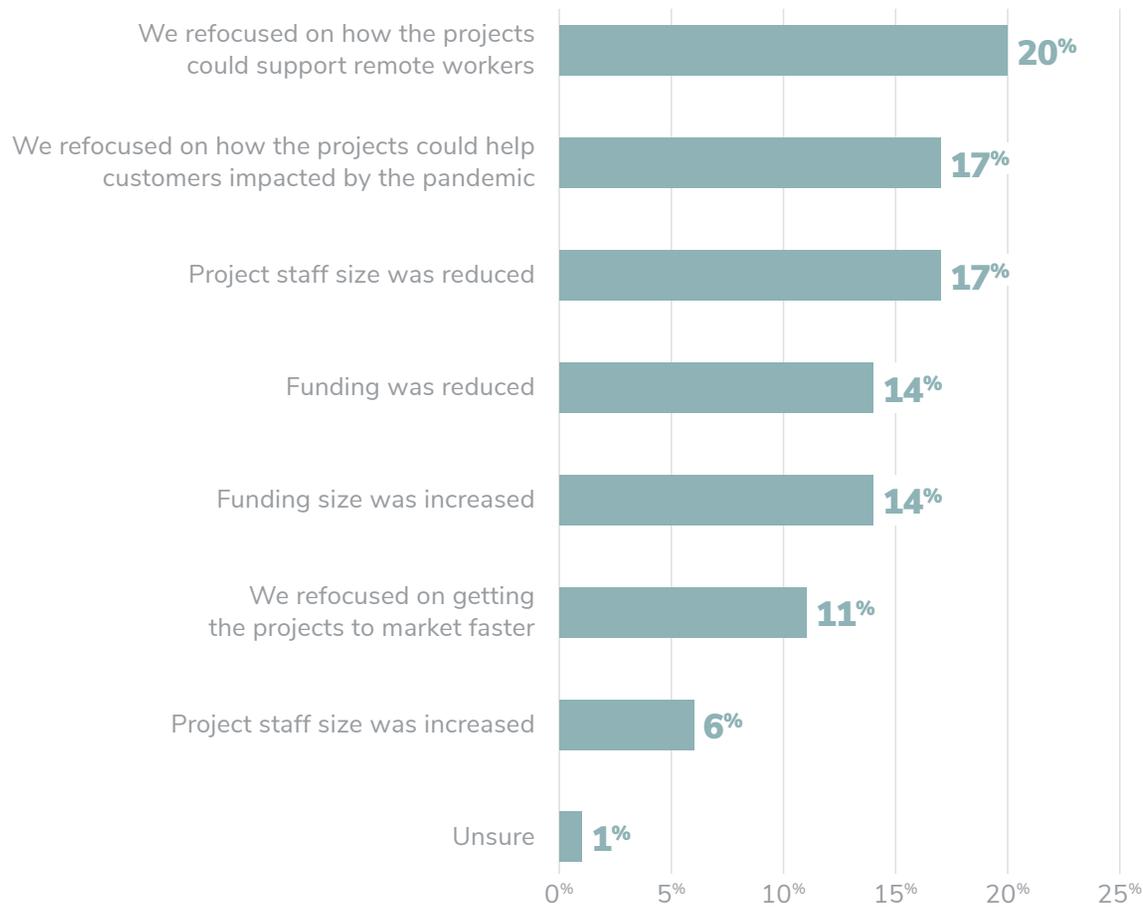
Priorities for AI/ML projects are changing. Projects that produce short-term cost savings or provide top-line insights about customer behavior are top priority. Long-term process automation and back-office projects have decreased in priority.

Pandemic impact on AI/ML priority



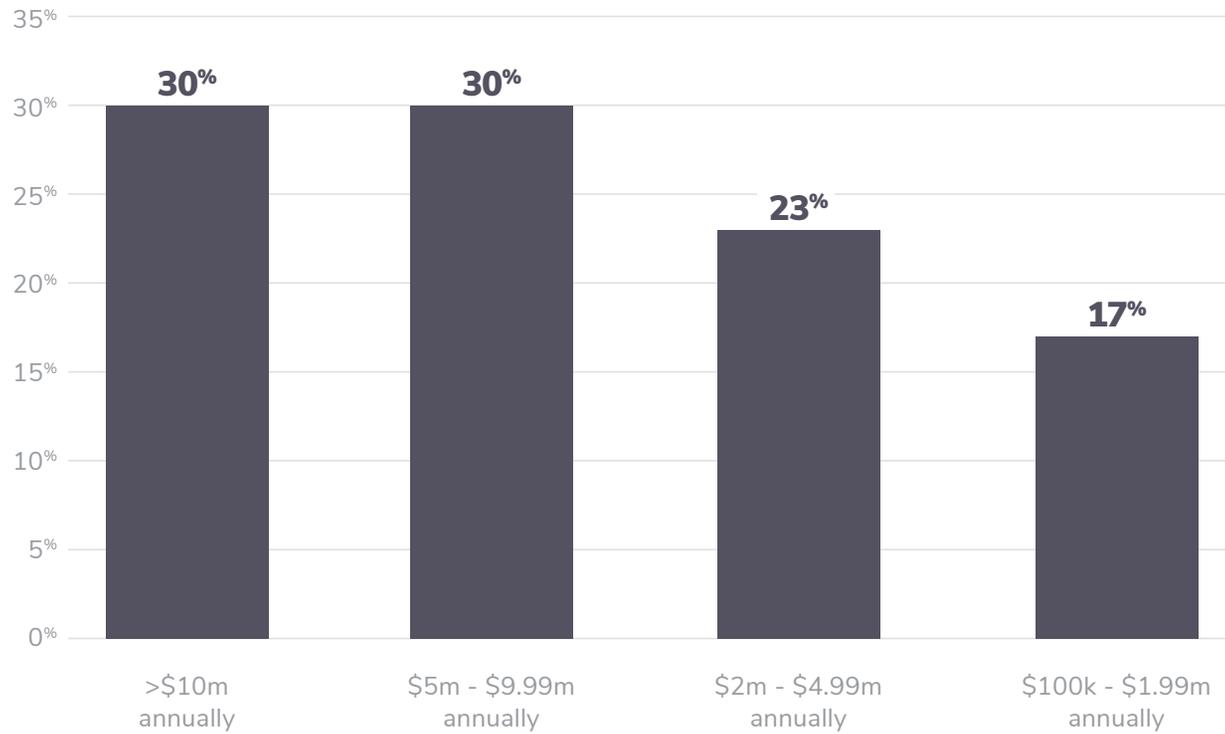
Overall priority of AI/ML initiatives has slightly softened; however, these initiatives remain relatively high on the complete list of IT initiatives. Optimizing costs and impacting remote customers and workers are some of the top priority projects (see next chart).

How AI/ML projects changed as a result of the pandemic



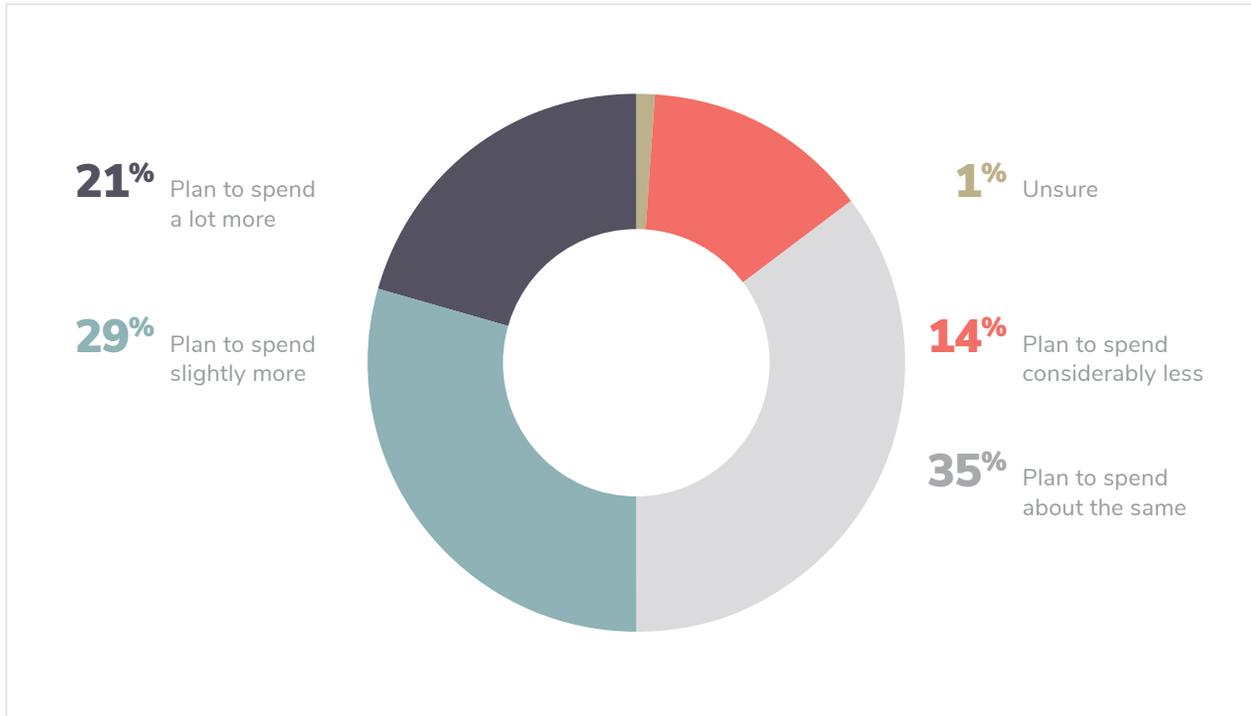
Organizations refocused AI/ML efforts to projects that support remote workers and impact customer experience.

Size of AI/ML budget prior to the pandemic



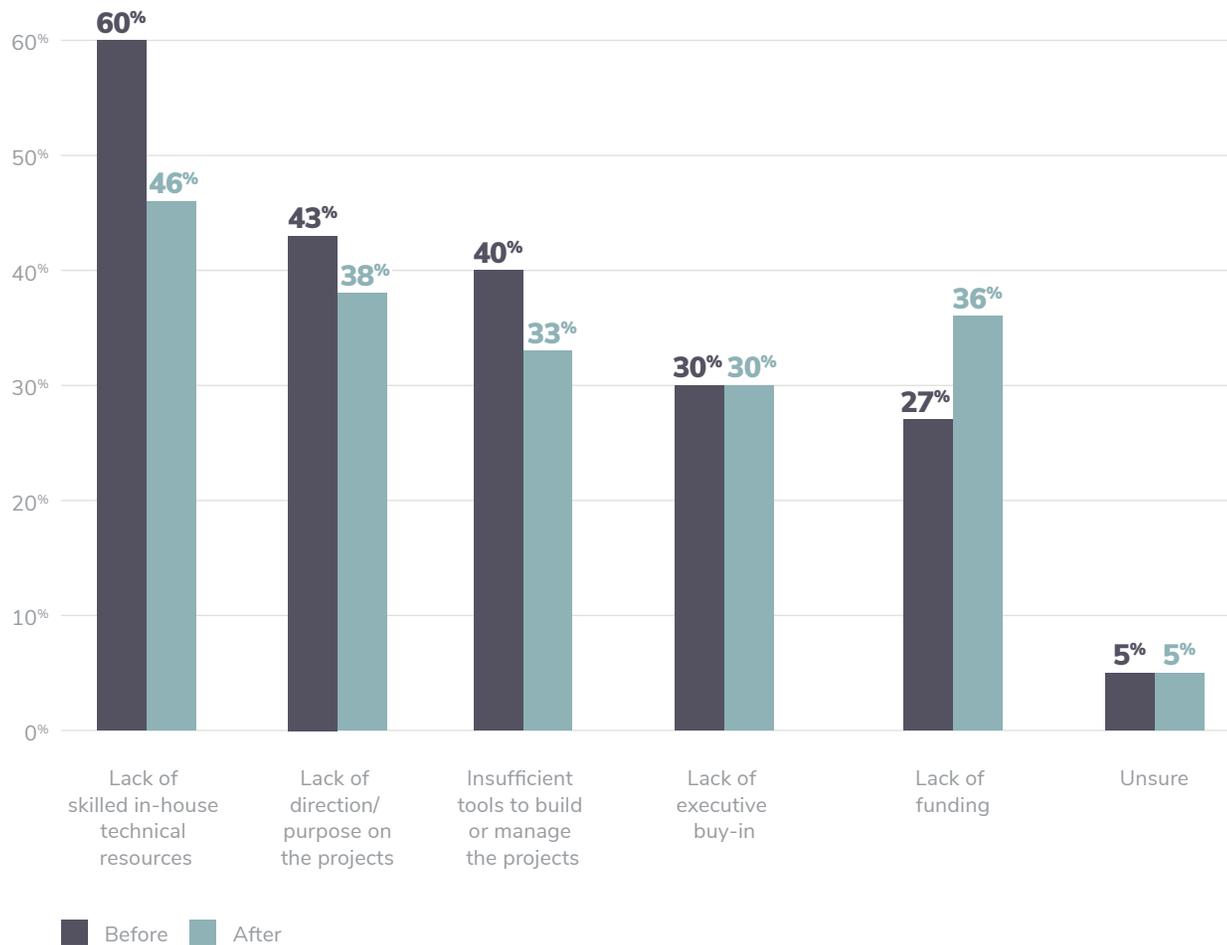
Enterprise organizations had large budgets going into the pandemic and most are expecting to increase their AI/ML budgets in response to changing priorities (see next chart).

How organizations' AI/ML budgets have changed as a result of the pandemic



Most organizations surveyed are expecting to maintain investment focus on AI/ML in response to the pandemic. With 50% of organizations choosing to increase their AI/ML budgets to fund acceleration of projects.

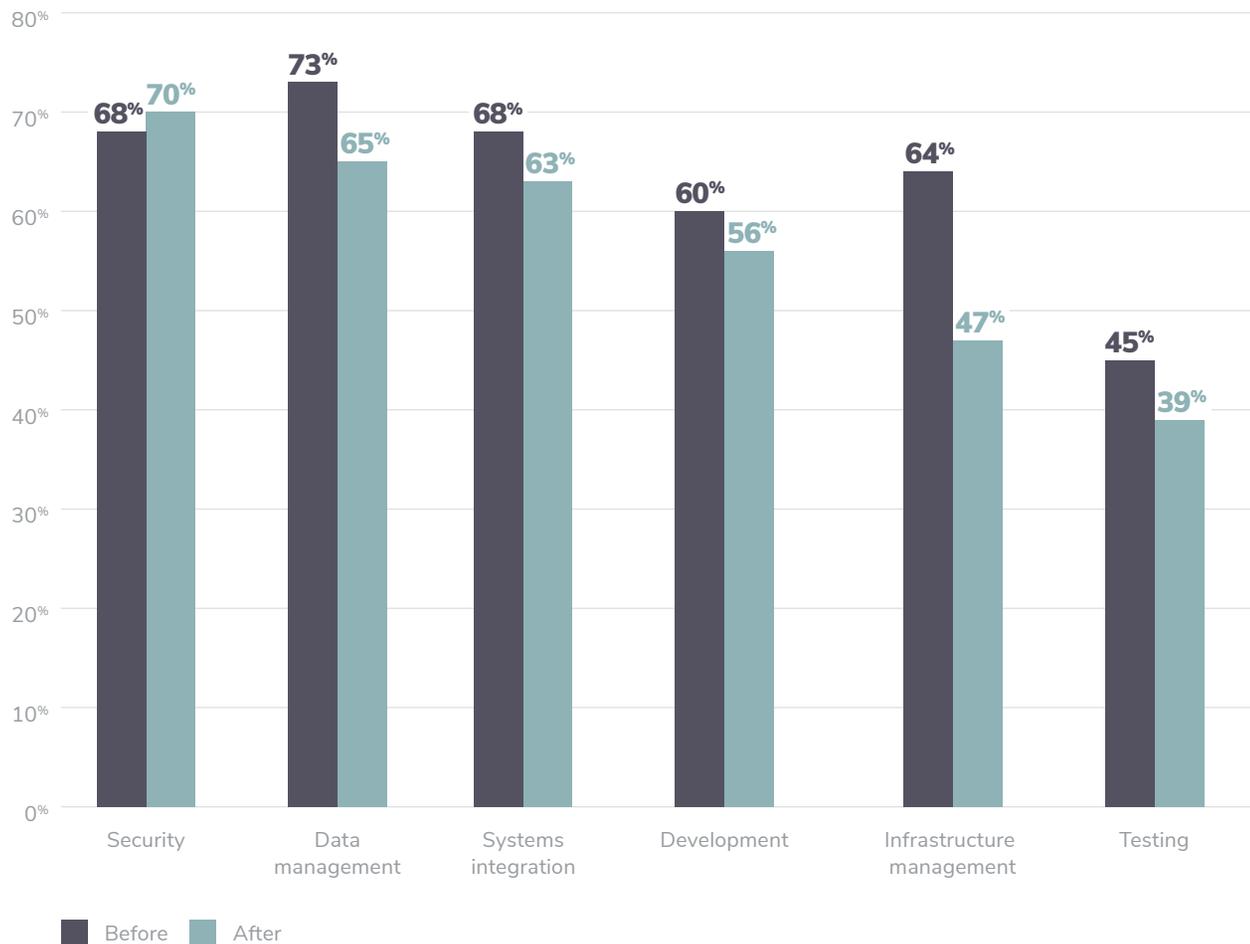
How AI/ML challenges have changed during the pandemic



Organizations are now more worried about lack of funding and executive buy-in during the pandemic. There is an urgent need to show results from AI/ML projects in a time of economic uncertainty.

A third of companies are still challenged by insufficient tools to manage AI/ML operations and projects.

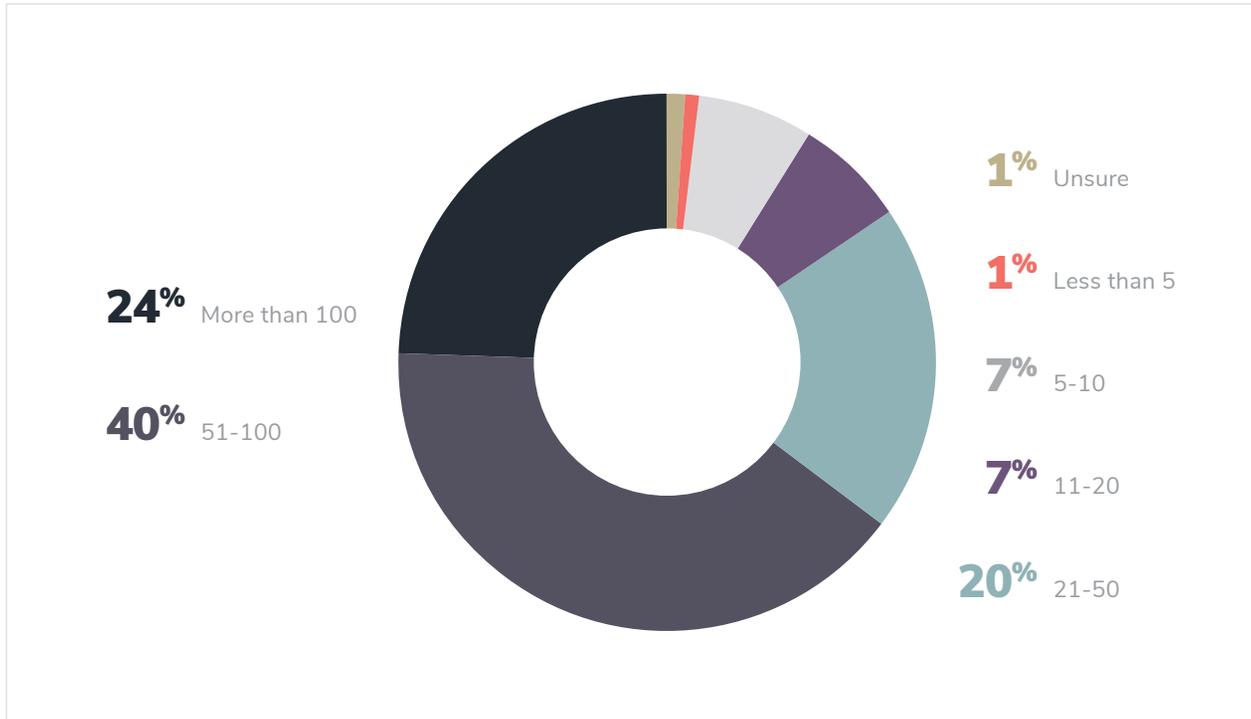
How the pandemic has re-prioritized the importance of AI/ML job skills



AI/ML skill sets are still highly sought after; underscoring the competitive search for talent to support complex projects. The top three skills remain the same, although their positions have changed in reaction to the pandemic: security, data management, and systems integration.

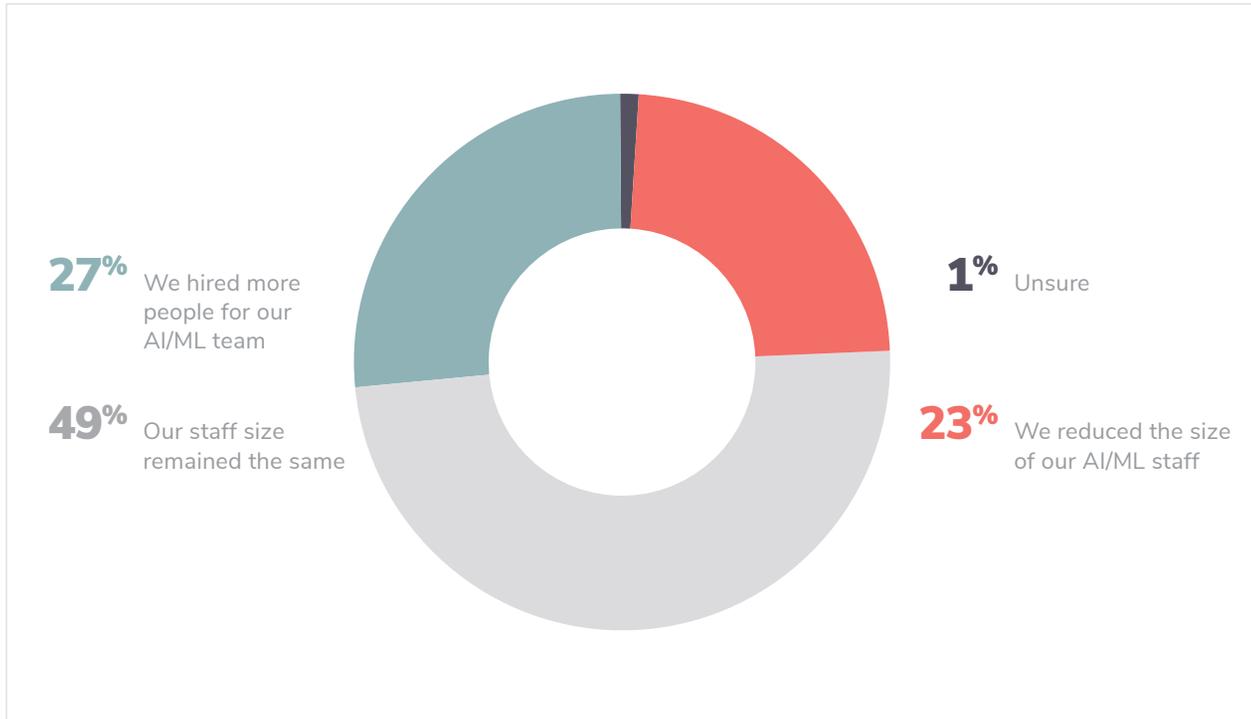
In times of uncertainty, the risk of fraud increases, which highlights the importance of security in all ML and IT projects.

Size of AI/ML-specific staff prior to the pandemic



Large enterprises predominately have AI/ML teams of over 50 people (64%). Nearly a quarter of enterprises have teams with more than 100 people.

Impact the pandemic has had on AI/ML-specific staff size



AI/ML teams across the board are holding steady, with more organizations slightly increasing their staff over those who are decreasing.

Methodology

The purpose of Algorithmia's 2020 enterprise trends in the new normal report is to examine the economic impact that the global pandemic is having on ML across the business landscape. This report is based on data Algorithmia collected in the summer of 2020 in a survey effort that returned 102 respondents.

The survey comprised a set of 17 questions pertaining to machine learning efforts, capabilities, and company demographics. An independent third-party company conducted the survey on Algorithmia's behalf to ensure survey attribution anonymity and remove bias for or against Algorithmia on the part of the respondents. The third party sourced a random sample panel of IT business leaders using data science for machine learning at organizations with more than \$1B in sales and 5,000+ employees.

Respondents voluntarily participated in the survey in exchange for access to content or a service, such as free Wi-Fi. Respondents received no monetary payment for their participation.

The third party screened respondents using the following questions:

- Are you involved in AI/ML projects in your company?
- Which role best describes your title/role within your organization? (Only responses with roles of CIO, VP of IT, and IT director were included)
- What is your company size? (Only responses of \$1B or more in sales and 5,000+ employees were included)

If respondents gave specific "I do not know", "I am unsure", or null answers, they were removed from the respondent pool. In this way, Algorithmia amassed a group of 102 individuals with a level of insight into the machine learning efforts of their companies across a random sampling of industries and machine learning maturity levels. All percentages were rounded to the nearest whole number.

The Algorithmia 2020 new normal questionnaire was developed by Algorithmia.

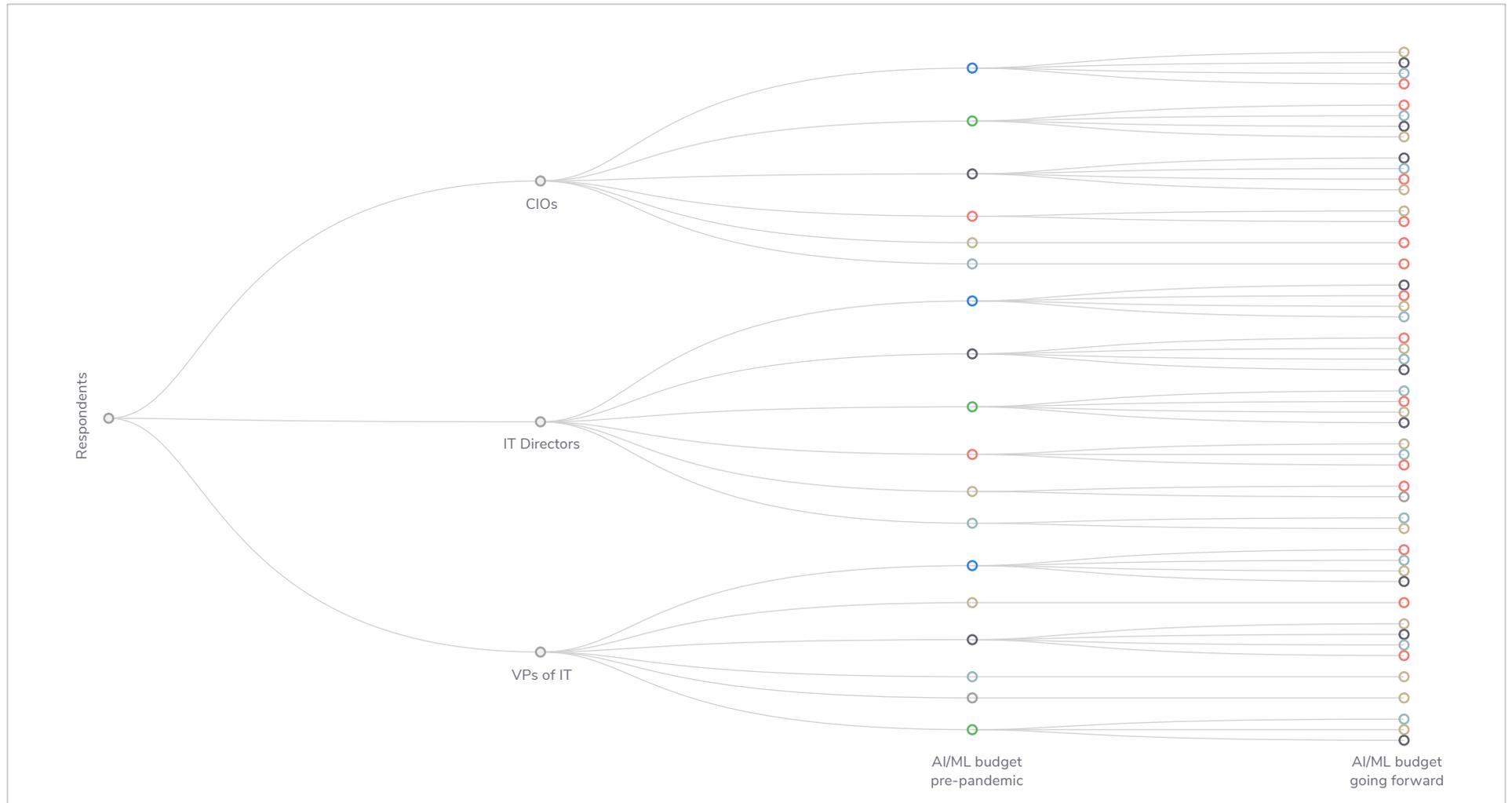
31%
CIOs

26%
VPs of IT

43%
IT Directors

About the cover

The cover illustration is a cluster dendrogram, a tree-like diagram used to represent the distribution of a hierarchical clustering. The different depth levels—represented by each column of nodes—from left to right are: all respondents, the respondents' roles, the organizations' AI/ML budgets prior to the pandemic, and the change to the organizations' AI/ML budgets as a result of the pandemic.



AI/ML budget pre-pandemic:

- \$101k - \$250k annually
- \$251k - \$500k annually
- \$501k - \$999k annually
- \$1m - \$1.99m annually
- \$2m - \$4.99m annually
- \$5m - \$9.99m annually
- More than \$10 million annually

AI/ML budget going forward:

- Unsure
- Spend considerably less
- Spend about the same
- Spend slightly more
- Spend a lot more

