

THE DATA MANAGEMENT IMPERATIVE:

The Critical Differentiator
in the Data Era

OCTOBER 2020

DELLTechnologies





Introduction

Data management matters

For many organizations, data is the single greatest resource already available today, and managing data better is the greatest untapped opportunity to unlock new value and drive new paths to innovation. Indeed, effective data management is a prerequisite to harnessing many emerging technologies. Smart cities, self-driving cars, wearable technology, and beyond are all helping define new models of doing business, driving innovation, and enabling human progress. For organizations that want to be on the forefront of these developments, modern data management is ‘must have’ not a ‘nice-to-have’. The paradigm has shifted, and to be successful as technology and customer experiences continue to converge, organizations must build on a rock-solid data management foundation.

But what does market-leading data management look like, and what does it mean to effectively extract meaningful intelligence from data? It means that organizations must achieve a level of data management maturity where decisions are not made just by individuals, or based solely on past experience, or even the latest market trends, but on a confluence of trusted data collected from all these of sources and combined and analyzed in concert.

To measure how well organizations are positioned to make the most of their data, ESG surveyed 500 IT and business leaders with a strategic focus on their organization’s data management practice. All organizations were enterprise-sized (i.e., employing 1,000+ individuals).

Data management and analytics are ubiquitously cited as business imperatives: 89% of organizations say data management and analytics is one of their top ten business and IT priorities for the next 24 months. This is not surprising as 80% of respondents do not have a great deal of trust in the veracity of their data today. But as we will see in the research data, while data management/analytics importance is nearly ubiquitous, only 8% of organizations have actually implemented top-tier data management capabilities. There is a gap between current and optimized data management capabilities for nearly all organizations today.

89%
of organizations say data management and analytics is one of their top ten business and IT priorities for the next 24 months.



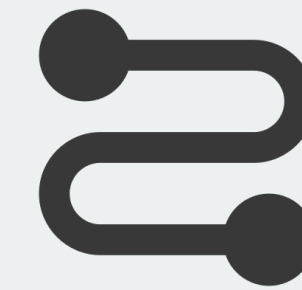
9% said it's the top priority
46% said it's a top-5 priority
34% said it's a top-10 priority

Why? Simply put, organizations are betting their businesses on their data. In the last 12 months:



61%

of organizations have used insights and analytics from their data management practice to develop a new product or service.



65%

of organization have used insights and analytics from their data management practice to make a major strategy adjustment.



58%

of organizations say most business decisions are not approved or acted on until supporting data is provided and vetted.

In fact, at a majority of organizations (58%), most business decisions are not approved or acted on until supporting data is provided and vetted. However, that begs the question of if organizations are able to use all their data (from customer data, to data collection at the edge, to machine data, etc.) in concert and effectively. It is likely most organizations actually underuse their data without even knowing it. What is clear is that without a functional data management practice, many organizations will be strategically paralyzed.

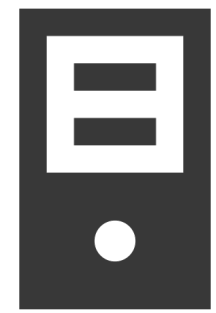
Data management challenges in the data era

While organizations understand the importance of operating a mature data management practice, they also face three key roadblocks that must be overcome:



DATA CHALLENGES:

Data is growing quickly; ESG's research pegs the average organization's data growth rate at 27% annually. The prevalence of remote work scenarios, as well as the pervasiveness of emerging Internet of Things (IoT) and data-generating edge technologies, exasperates existing issues that organizations have with data silos. Siloed data can't be utilized to drive a business outcome and many organizations are finding it hard to locate all their data, consolidate it from different sources, and provide the right people with access to it.



INFRASTRUCTURE CHALLENGES:

Not only do remote work scenarios create silos, they also make organizations' data footprints more distributed. In this survey, only 7% of respondents reported their data footprint was completely integrated or centralized, and even those respondents likely have a lenient definition for what that means. This trend has been established by numerous initiatives like IoT projects and intelligent industrial manufacturing plants. To analyze data at the edge in near real time, organizations must deploy infrastructure at the edge, potentially adding complexity to their environment.



PEOPLE CHALLENGES:

For many organizations, the elevation of data management to mission-critical importance is a recent development, which means that organizations must adapt. To effectively drive change, organizations need data leaders that can effectively drive strategies, evangelize projects, secure funding, and educate the rest of the C-suite why data management matters. Once these leaders are empowered, the people challenge is not solved, as the newly appointed chief data officer must build out a team of skilled but scarce data scientists, which is problematic for many organizations.








Where are organizations on their data management journey?

Segmenting the market by data management maturity

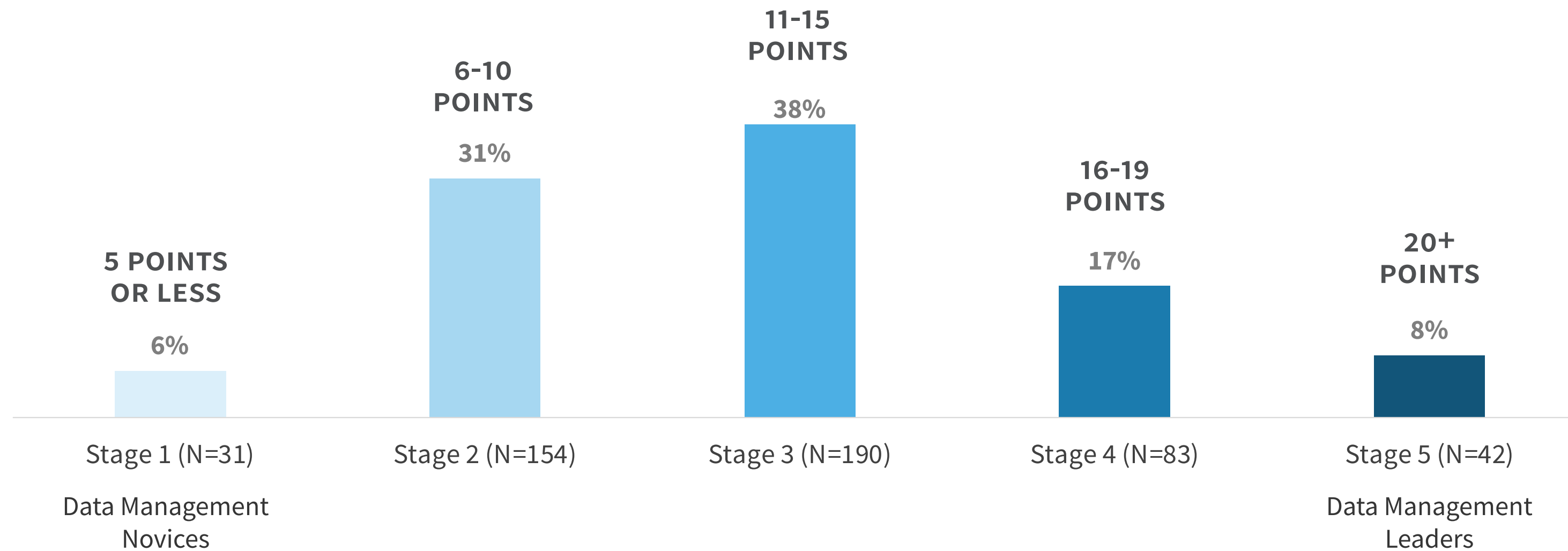
To determine Data Management Maturity, ESG asked respondents five key questions related to these challenges and used responses to make an assessment of how well the respondent’s organization is positioned to overcome them. Respondents could earn their organization up to 5 maturity points in each question, for a maximum of 25 maturity points.

CHALLENGE AREA	SURVEY QUESTIONS ALIGNED TO CHALLENGE AREAS
<p>DATA CHALLENGES</p> 	<ol style="list-style-type: none"> 1. How much trust do you have in the data and analytics capabilities of your organization? Very little trust ← → Data is our “single source of truth” 2. Is your organization using AI/ML to analyze its data today? No and no plans ← → we use AI/ML today
<p>INFRASTRUCTURE CHALLENGES</p> 	<ol style="list-style-type: none"> 3. Think about your organization’s data and analytics footprint, how would you describe it today? Highly siloed ← → Completely integrated
<p>PEOPLE CHALLENGES</p> 	<ol style="list-style-type: none"> 4. How would you describe your organization’s data science skills? Few/no data scientists ← → We don’t lack data scientists 5. Does your company employ a chief data officer who is a peer to other C-suite executives and formally in charge of all data analytics initiatives? No, and we have no plans for CDO ← → We have a CDO

ESG segmented respondents and the organizations they represent as follows:

- Stage 1 (or least mature, “Data Management Novices”) – earned 5 points or less
- Stage 2 – earned 6-10 points
- Stage 3 – earned 11-15 points
- Stage 4 – earned 16-19 points
- Stage 5 (or most mature, “Data Management Leaders”) – earned 20+ points

Data Management Maturity Distribution



Nearly 70%
of the organizations surveyed are in either Stage 2 or Stage 3 today.

As evidenced by the maturity curve, the current state of data management maturity is relatively nascent, with just 8% of organizations surveyed earning the most mature designation, what we refer to as “Data Management Leaders, and nearly 70% of the market falling in either Stage 2 or Stage 3 today.

Data management maturity drives success

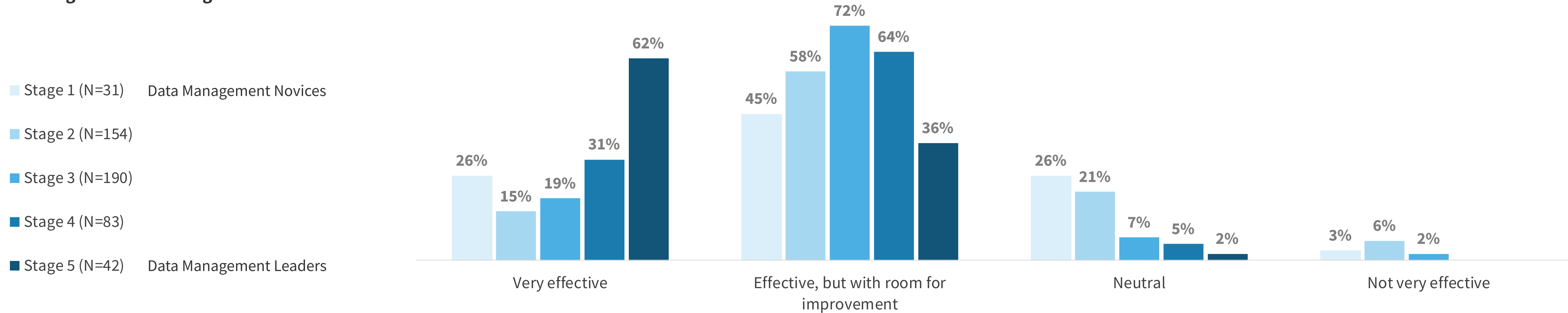
The research strongly validated that the maturity of an organization’s data management practice is directly related to the value the practice delivers to the organizations: 98% of Data Management Leaders say their data management and analytics practices are effective at driving value for their organizations. Moreover, 62% are “very effective,” 2.4x the rate of Data Management Novices.



62%

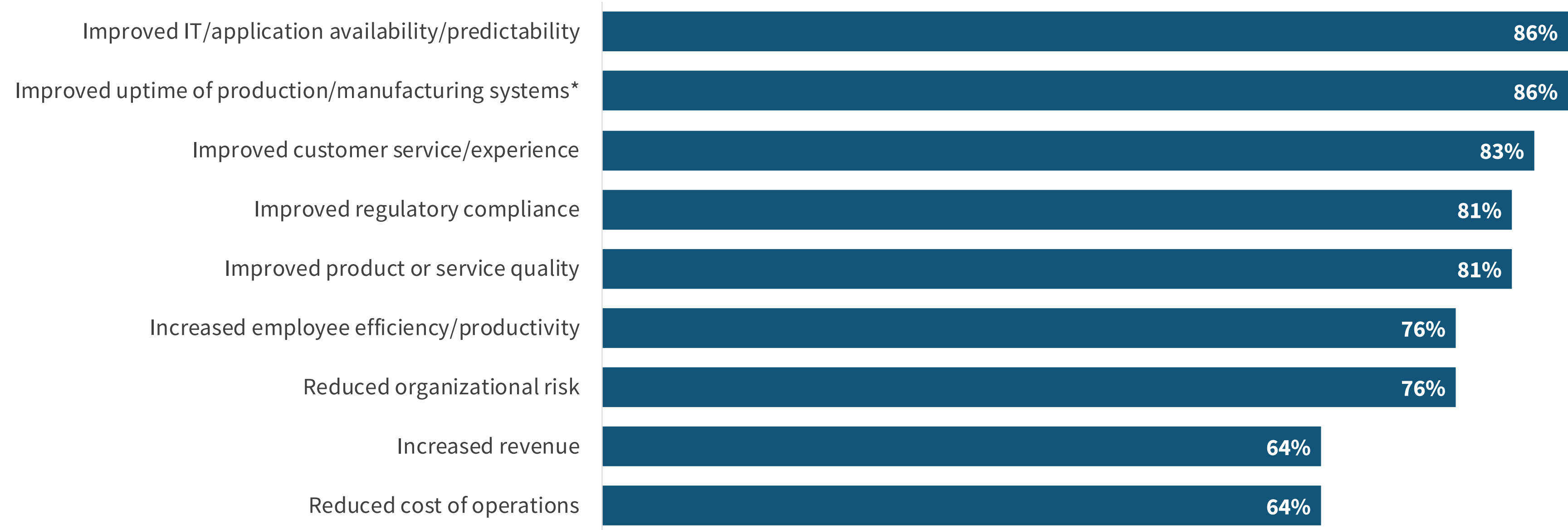
of Data Management Leaders say their data management and analytics practices are very effective at driving value for their organizations.

Generally speaking, how effective would you say your organization’s data management and analytics practice is at driving value for the organization?



What makes Data Management Leaders so effective at creating value? These organizations attribute tangible business benefits to their data management and analytics practices at incredibly high rates. When asked about the business benefits they achieved in the last 12 months:

Has your organization achieved any of the following benefits in the last 12 months as a direct result of its data management and analytics practice? (Data Management Leaders, N=42)



*N=28

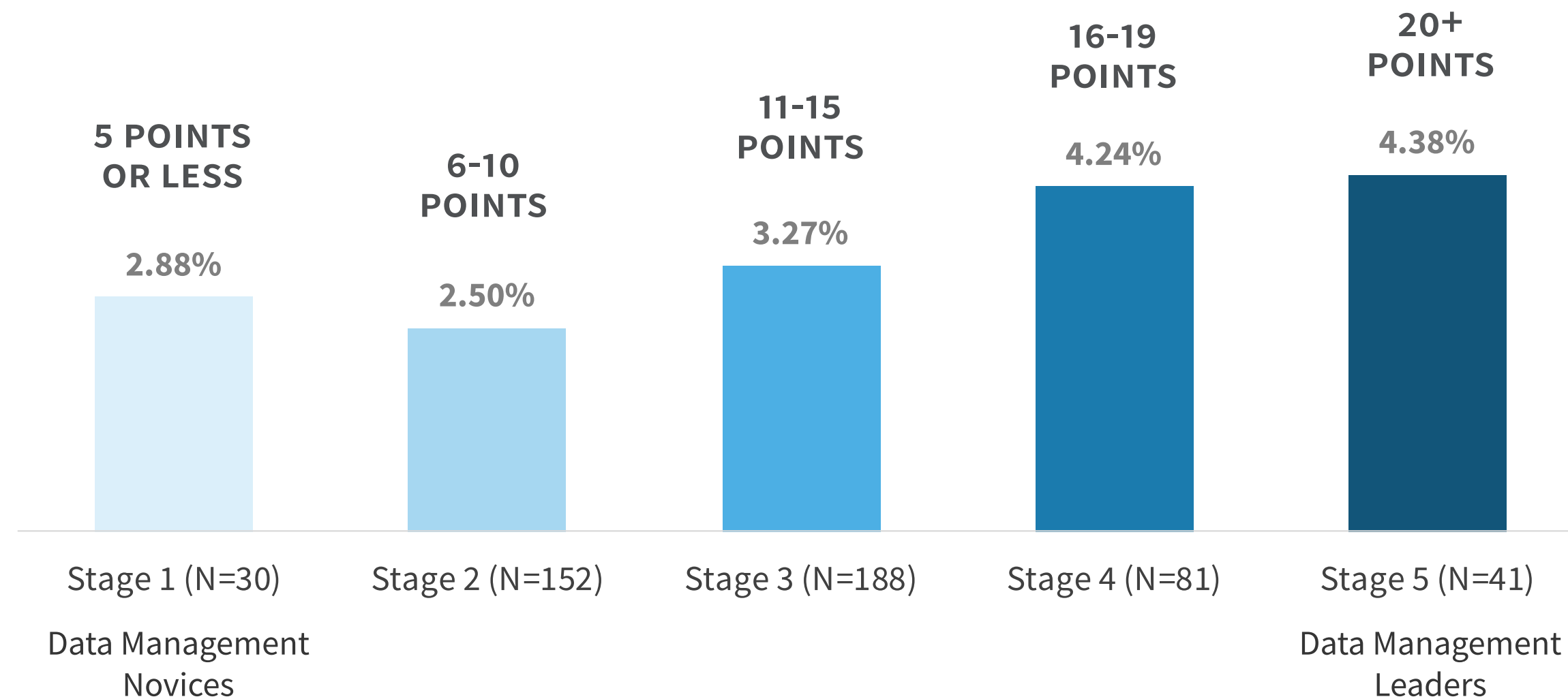


The economics of market-leading data management

On average, Data Management Leaders estimate that revenue has increased by 4.38% in the last 12 months as a result of their data management and analytics practice. By comparison, this is 52% more revenue than Data Management Novices add to the business with their data management practice.

Extrapolating this impact forward, a Data Management Leader with a run rate of \$5B per year can expect to grow their revenue by \$219M over the next 12 months as a direct result of their data management capabilities.

By approximately what percentage do you think revenue has increased in the last 12 months as a result of your organization's data management and analytics practice?



REVENUE:

DATA MANAGEMENT LEADERS ESTIMATE:



52%

more revenue than Data Management Novices add to the business with their data management practice.

DATA MANAGEMENT LEADERS WITH A RUN RATE OF \$5B PER YEAR:



Expect to grow revenue by

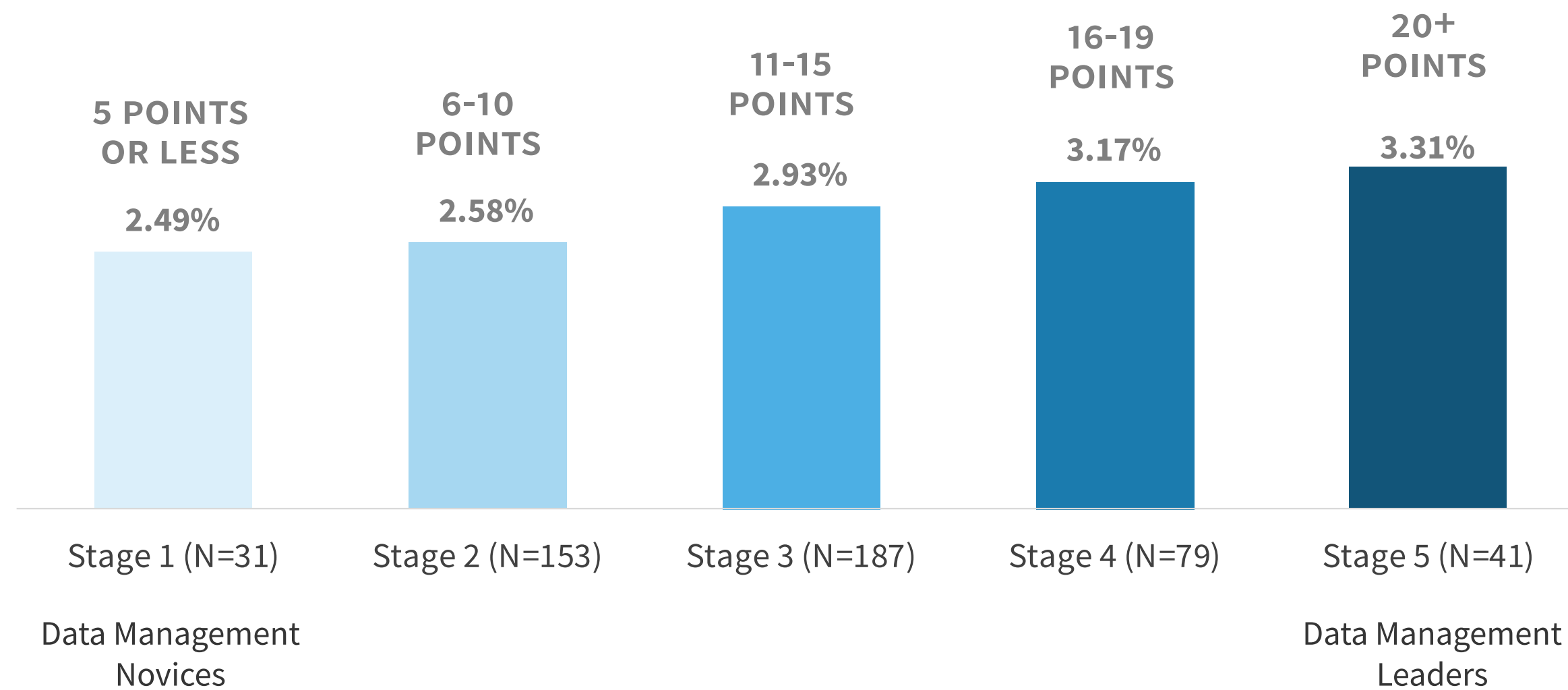
\$219M

over the next 12 months as a direct result of their data management capabilities.

On average, Data Management Leaders estimate their cost of operations have decreased by 3.31% in the last 12 months as a result of their data management and analytics practice. By comparison, this is a 33% larger reduction in cost than Data Management Novices achieve with their data management practice.

Extrapolating this impact forward, a Data Management Leader with a run rate of \$5B per year and 40% gross margins can expect to shrink operational costs by \$99.3M over the next 12 months as a direct result of their data management capabilities.

By approximately what percentage have costs decreased in the last 12 months as a result of your organization's data management and analytics practice?



OPERATIONAL COSTS:

DATA MANAGEMENT LEADERS ESTIMATE:



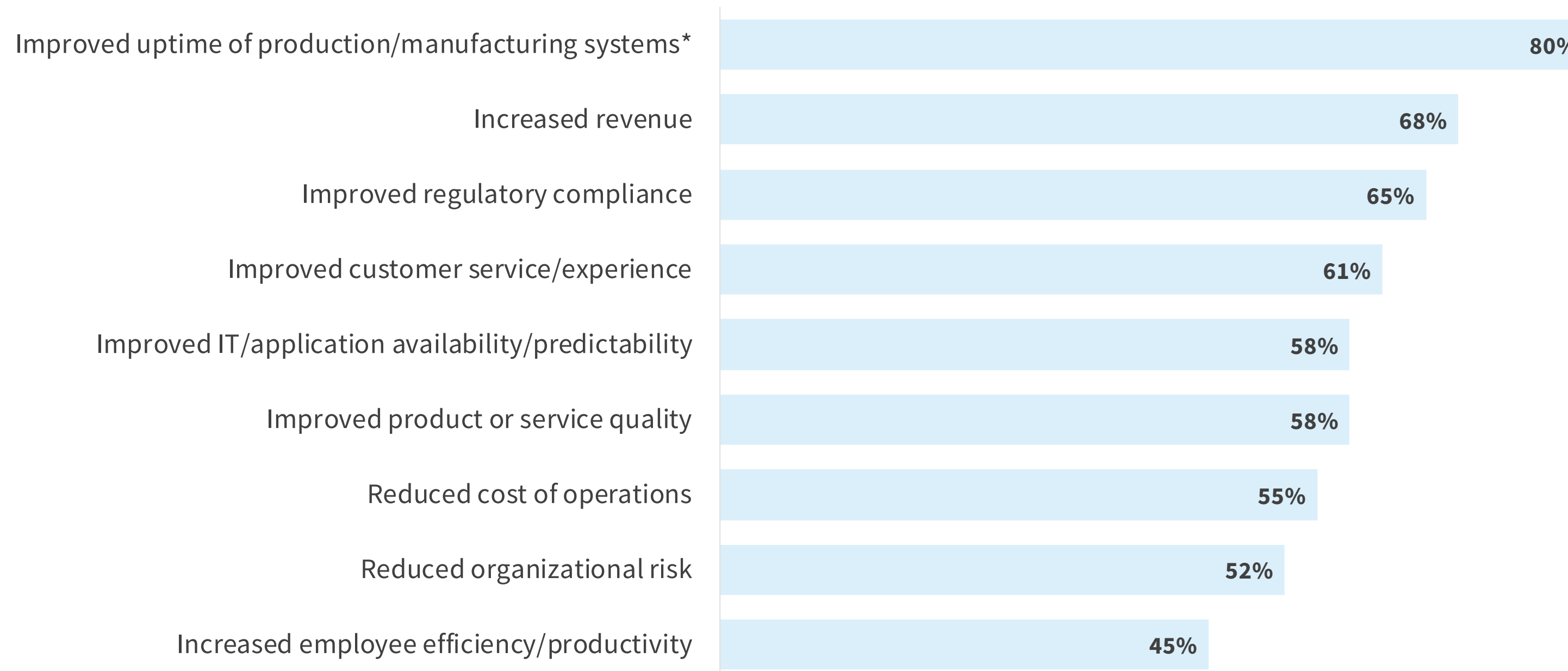
DATA MANAGEMENT LEADERS WITH A RUN RATE OF \$5B PER YEAR AND 40% GROSS MARGINS:



Cause for optimism in the data era

While the research clearly shows that organizations leading the pack in terms of data management capabilities outperform their less mature counterparts, even Data Management Novices are affecting dramatic change with data management:

Has your organization achieved any of the following benefits in the last 12 months as a direct result of its data management and analytics practice? (Data Management Novices, N=31)



Even for Data Management Novices, the average impact is estimated in the millions of dollars per year.

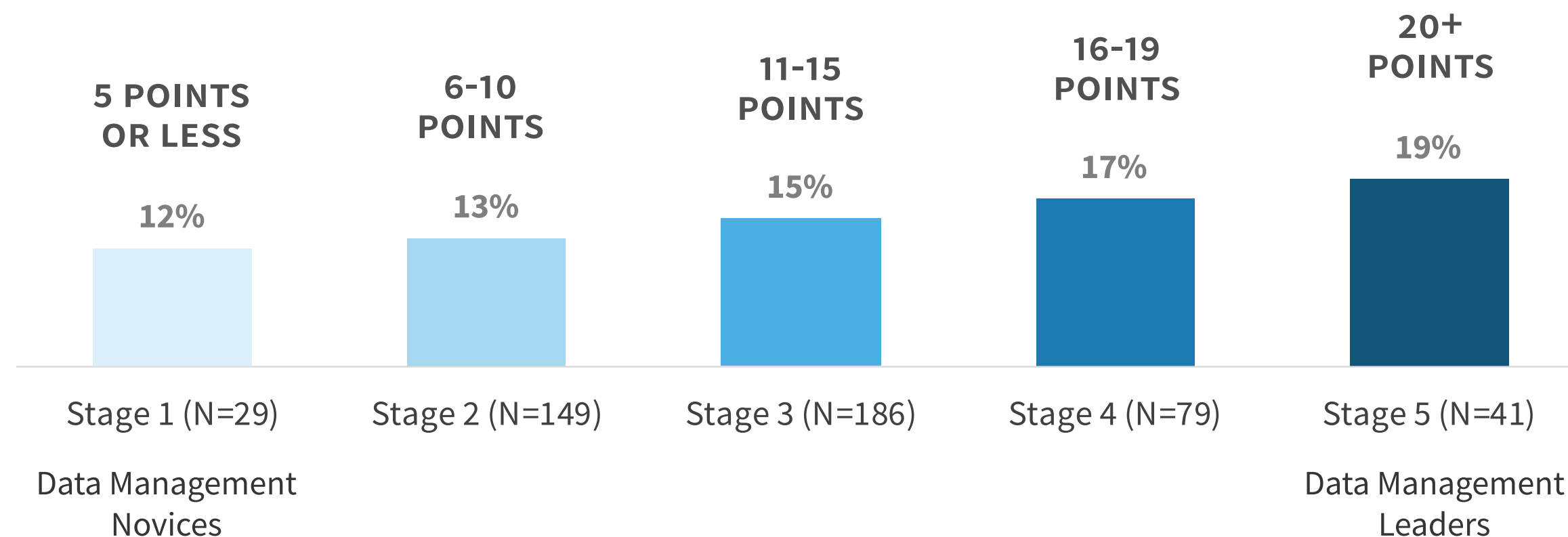
What else can we learn from Data Management Leaders?

They rely on hybrid cloud infrastructure: 59% of leaders say their primary infrastructure model for data is an even mix of on-premises and public cloud infrastructure.

They spend more on data-driven initiatives and are growing spend faster: On average, Data Management Leaders spend 58% more on data-driven initiatives than those in the Data Management Novices cohort, and they are 2.2x more likely to anticipate increasing spend substantially over the next 12 to 24 months.

They prioritize security, performance, and scalability: Compared to Data Management Novices, Data Management Leaders are much more likely to say security (64% versus 45%), performance (55% versus 29%), and scalability (40% versus 29%) are among their top solution considerations.

As a percentage of your organization’s total IT budget, approximately how much is your organization currently allocating towards supporting data-driven initiatives (e.g., data management, analytics, and its supporting infrastructure)?



INFRASTRUCTURE:

DATA MANAGEMENT LEADERS:



59%

say their primary infrastructure model for data is an even mix of on-premises and public cloud infrastructure.

DATA-DRIVEN INITIATIVES/SPENDING:

DATA MANAGEMENT LEADERS:



58%

more spending on data-driven initiatives than those in the Data Management Novices cohort.

Conclusions

Today's reality is that technology is no longer boxed in; it's happening all around us—enabled by emerging technologies but founded upon effective data management. What does this mean for organizations and their technology leaders today?

CIOs are faced with no shortage of competing projects and priorities. And with many projects being put on hold due to economic uncertainty, picking the right areas to advance is critical. The data shows why technology leaders would be well served to preserve and even accelerate their data management initiatives, since more mature organizations are able to:

- Drive innovation and transformation with data-driven product development.
- Deliver a superb customer experience by better understanding and acting on customer data.
- Ensure uptime and reduce risk with proactive and predictive maintenance.

All of these combine to help organizations with mature data management practices achieve improved economic results.

To achieve these results, your organization should look to solve for key challenges by:

- Focusing on data quality and investing in data storage and management solutions that allow your organization to mine and integrate data properly. Focus on solutions that will give your organization a comprehensive view of its data regardless of where it was created and where it resides.
- Democratizing it. With that high-quality data in hand, give your people the access and tools they need to put your data to work.
- Skilling up your staff by promoting and rewarding data-centric training and certifications. Create a culture that promotes inquisitiveness and creativity when it comes to applying data to business problems.

What does Dell Technologies see as the benefits of a modern data management approach?

At Dell Technologies, we don't believe traditional data management approaches can meet the needs of the data era. Data is being generated faster than organizations can keep up with it, in more places and forms than ever before, and with accelerated processing needs, all while stringent regulatory and compliance requirements mandate formidable security and governance processes.

Leaders in the data era will be those who modernize their data management approach to leverage emerging technologies to create new value—value that fuels stellar customer experiences, offerings, and outcomes with powerful data insights. We envision a future where you can drastically improve the volume, type, and quality of the data you ingest, prepare, and analyze, consistently across core, cloud, and edge environments.

No matter how basic or advanced your current data management practice, we're here to help you leverage the full potential of your organization's data. With Dell Technologies [Consulting Services](#), [Professional Services](#), and our extensive [partner network](#), we work with companies at all stages of data maturity to plan, implement, and optimize the people, process, and technology changes needed to unlock your data capital and support advanced technologies, like artificial intelligence and machine learning.

Learn about the emerging technologies that good data management enables.

START HERE

DELLTechnologies

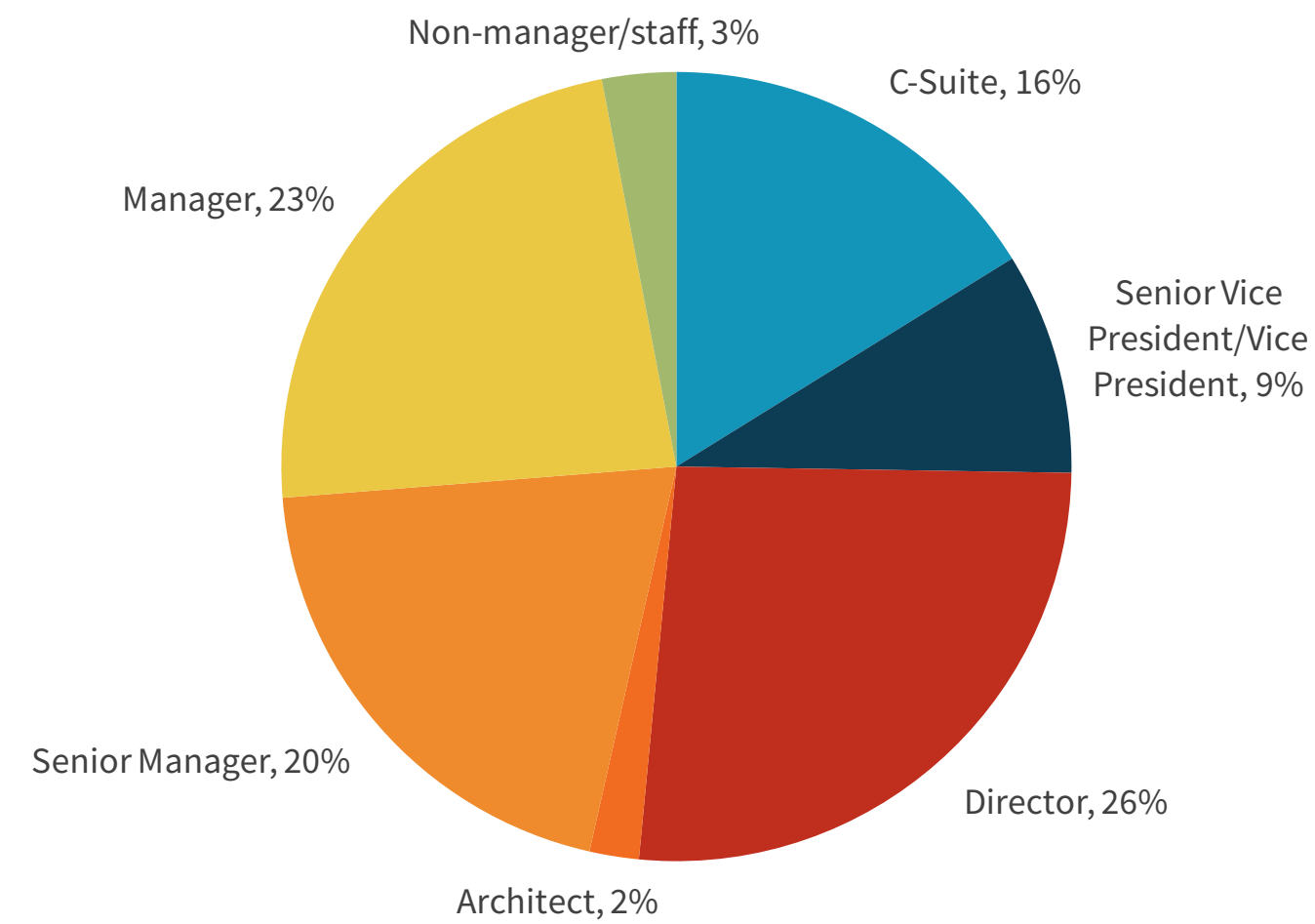


Methodology and Demographics

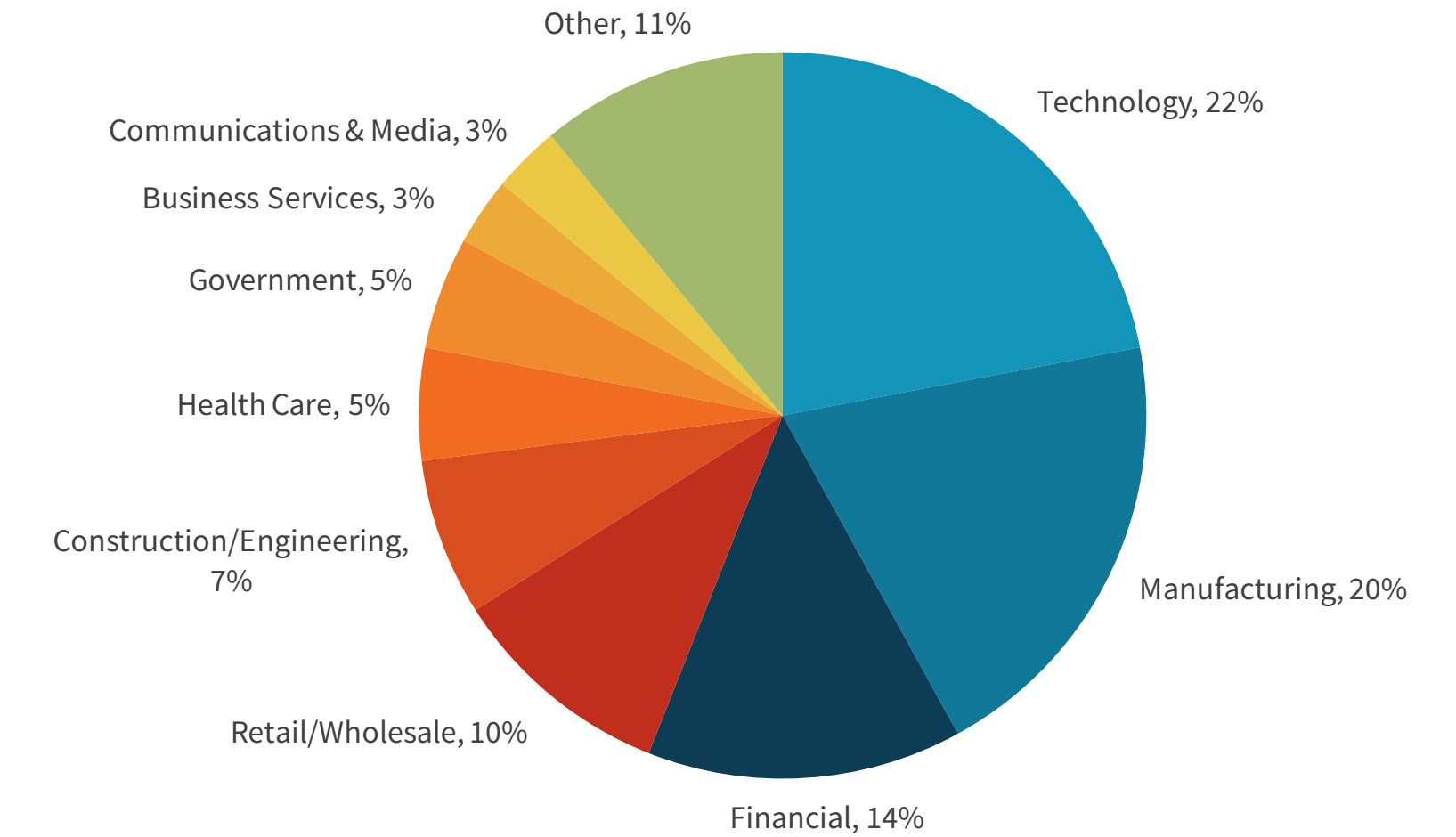
To gather data for this report, ESG conducted a comprehensive online survey of technology decision makers responsible for their organizations' data management, analytics, and/or AI/ML investments. The survey was conducted between May 26, 2020 and June 12, 2020. All respondents were based in North America (51%) or Western Europe (49%) and employed at organizations with 1,000 or more employees. Both public and private sector organizations were represented. All respondents were provided an incentive to complete the survey in the form of cash awards and/or cash equivalents.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on a number of criteria) for data integrity, we were left with a final total sample of 500 professionals.

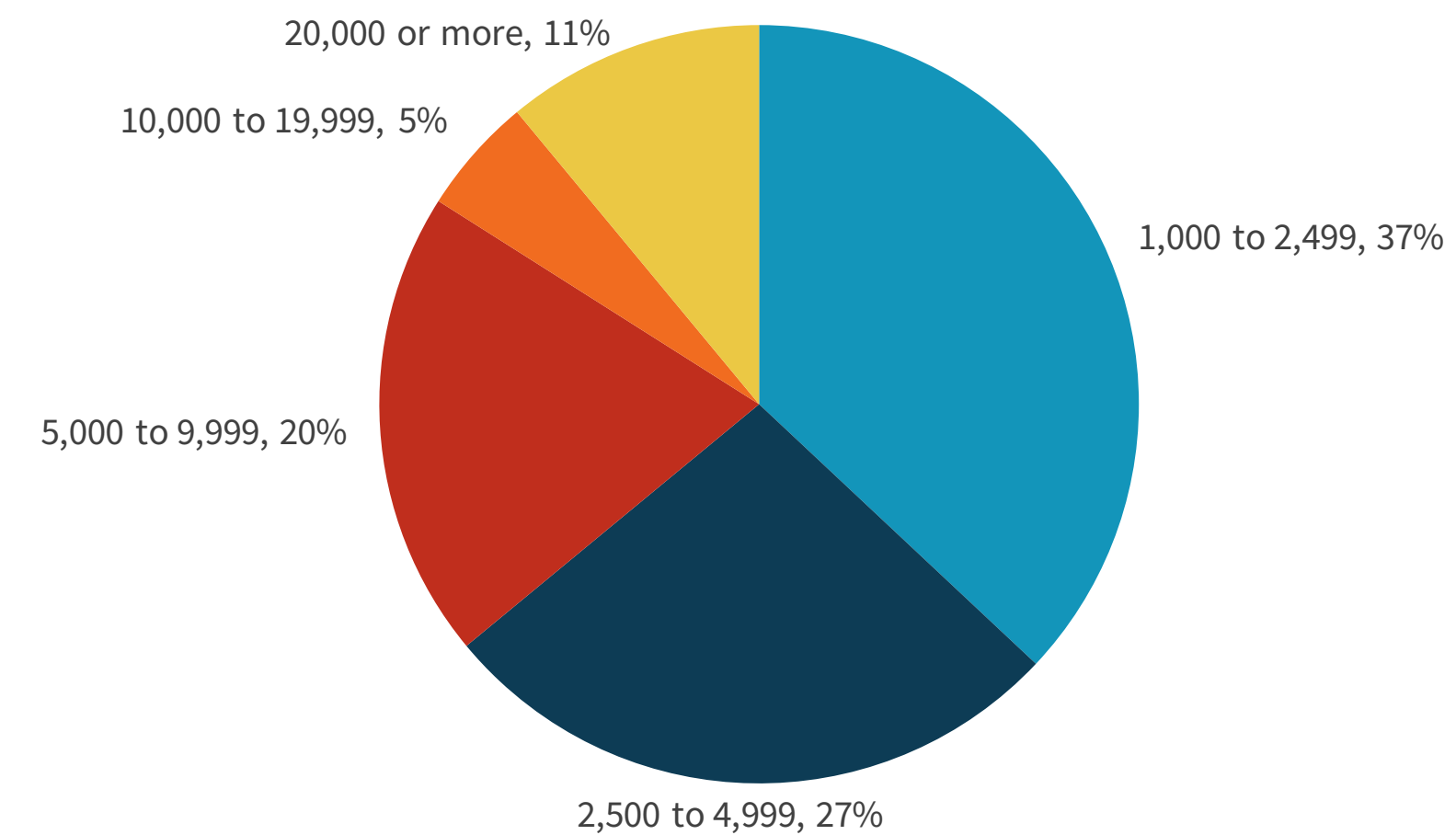
Respondents by Job Title/Level



Respondents by Industry



Respondents by Company Size (Number of employees)



All trademark names are property of their respective companies. Information contained in this publication has been obtained by sources The Enterprise Strategy Group (ESG) considers to be reliable but is not warranted by ESG. This publication may contain opinions of ESG, which are subject to change from time to time. This publication is copyrighted by The Enterprise Strategy Group, Inc. Any reproduction or redistribution of this publication, in whole or in part, whether in hard-copy format, electronically, or otherwise to persons not authorized to receive it, without the express consent of The Enterprise Strategy Group, Inc., is in violation of U.S. copyright law and will be subject to action for civil damages and, if applicable, criminal prosecution. Should you have any questions, please contact ESG Client Relations at 508.482.0188.



Enterprise Strategy Group is an IT analyst, research, validation, and strategy firm that provides actionable insight and intelligence to the global IT community.
© 2020 by The Enterprise Strategy Group, Inc. All Rights Reserved.