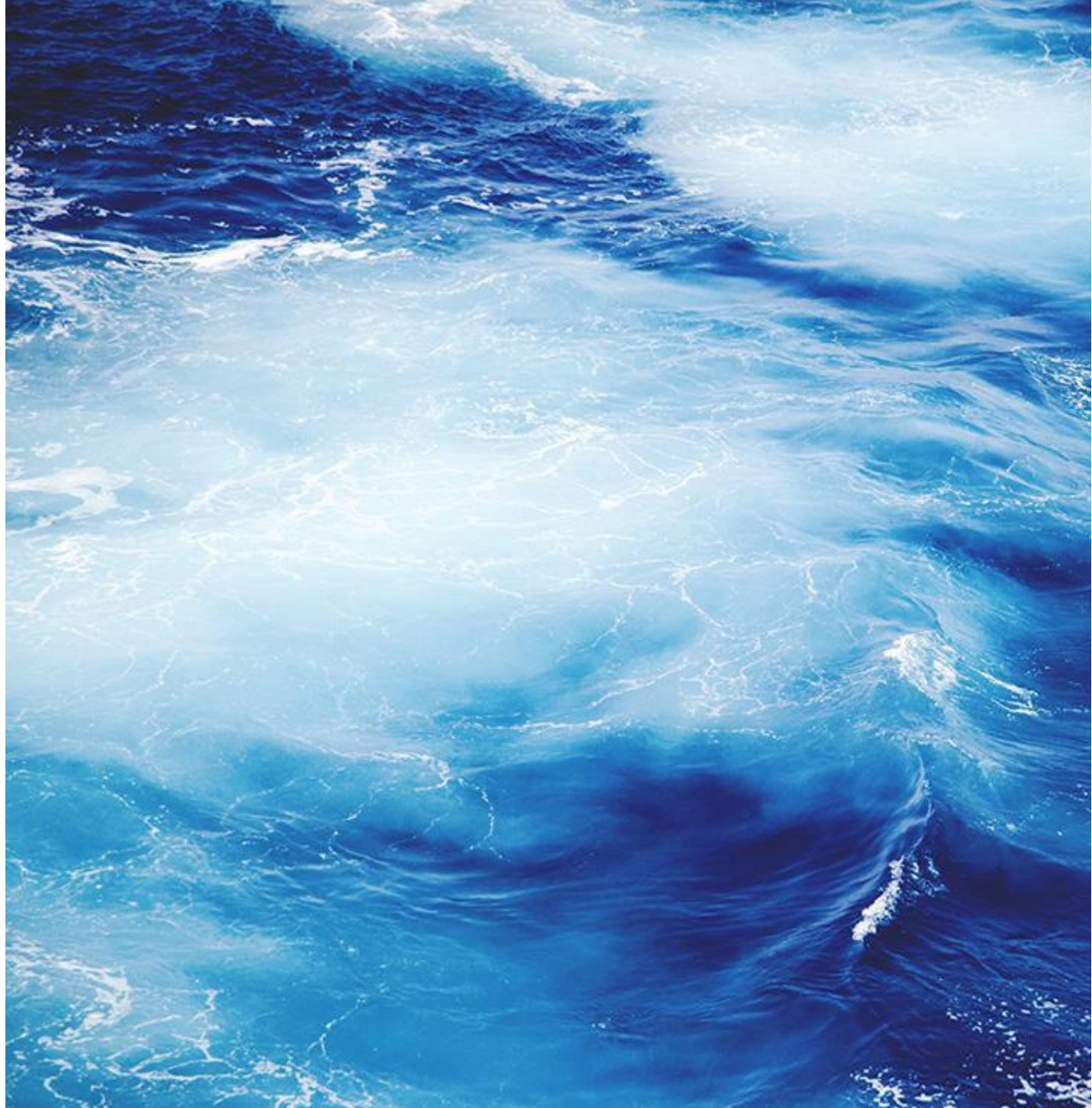




September 2022

State of Cloud Software Spending



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Demographics and Macro Trends

Cloud Software Spending is Not Immune, But It is Resilient

1 Cloud software spending strategies will continue to be impacted by economic uncertainty

2 Most CXOs are still interested in increasing overall spend, focusing on the right tools

3 Those that are decreasing budget are looking to do so via consolidation as a first move

4 Hiring for technical talent remains underserved, especially in infrastructure roles

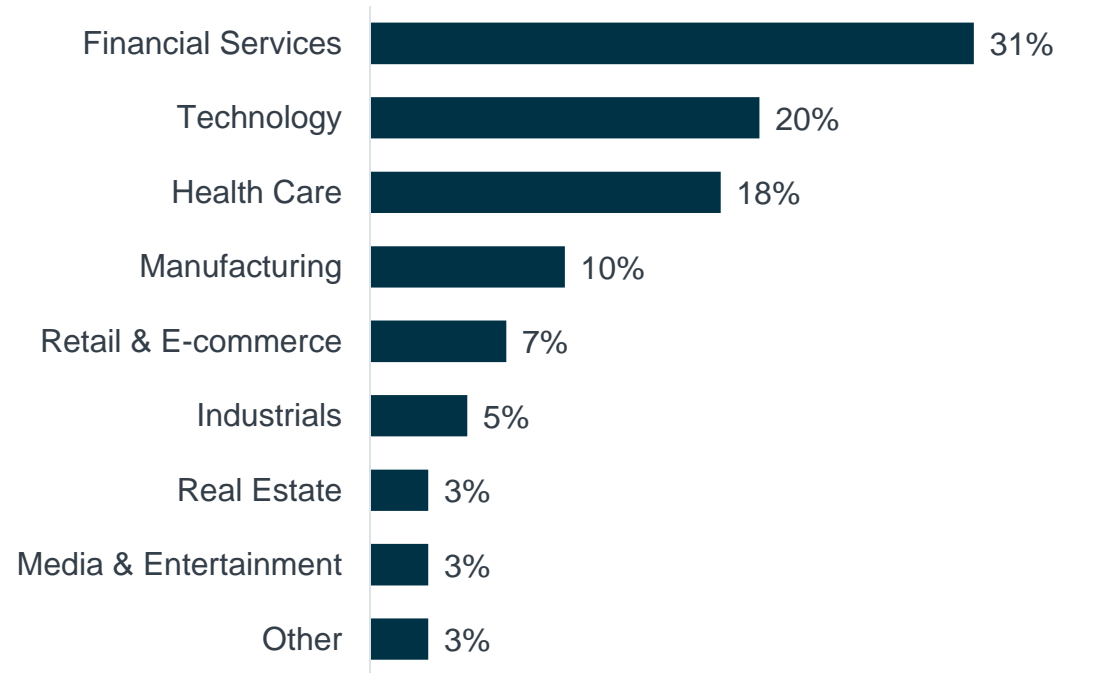
5 Security and Data are the top of the priority list for many CXOs over the next 12 months

6 Finance and tech enterprises have a higher propensity to invest across entire tech stack

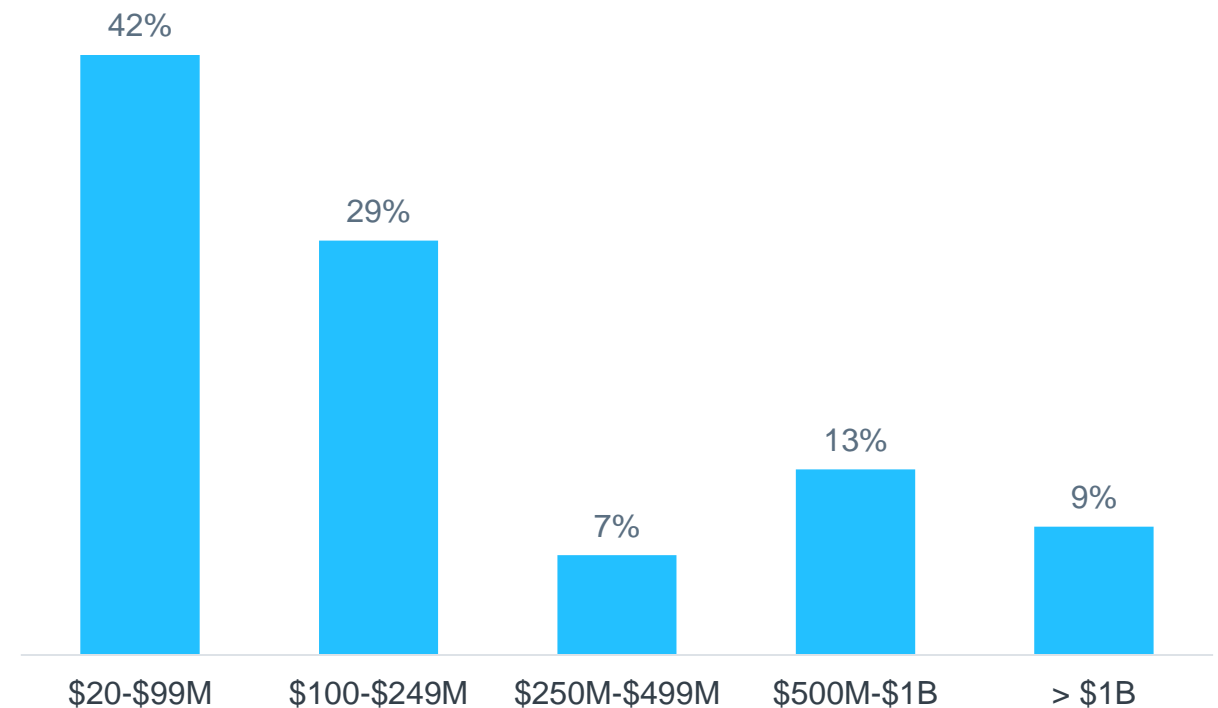
Cloud Software Spending Survey Composition

- Battery's Cloud Software Spending Survey saw participation from **100 CXOs** representing **~\$29B** in annual technology spend.
- **58%** of respondents **spend \$100M+** on cloud infrastructure, application software, data platforms, and ML tooling.
- 79% of respondents were from **companies with 100-1,000 FTEs** across finserv, tech, health care, and manufacturing.

Industry Representation



Budget Distribution: Total Technology Spend Per Company

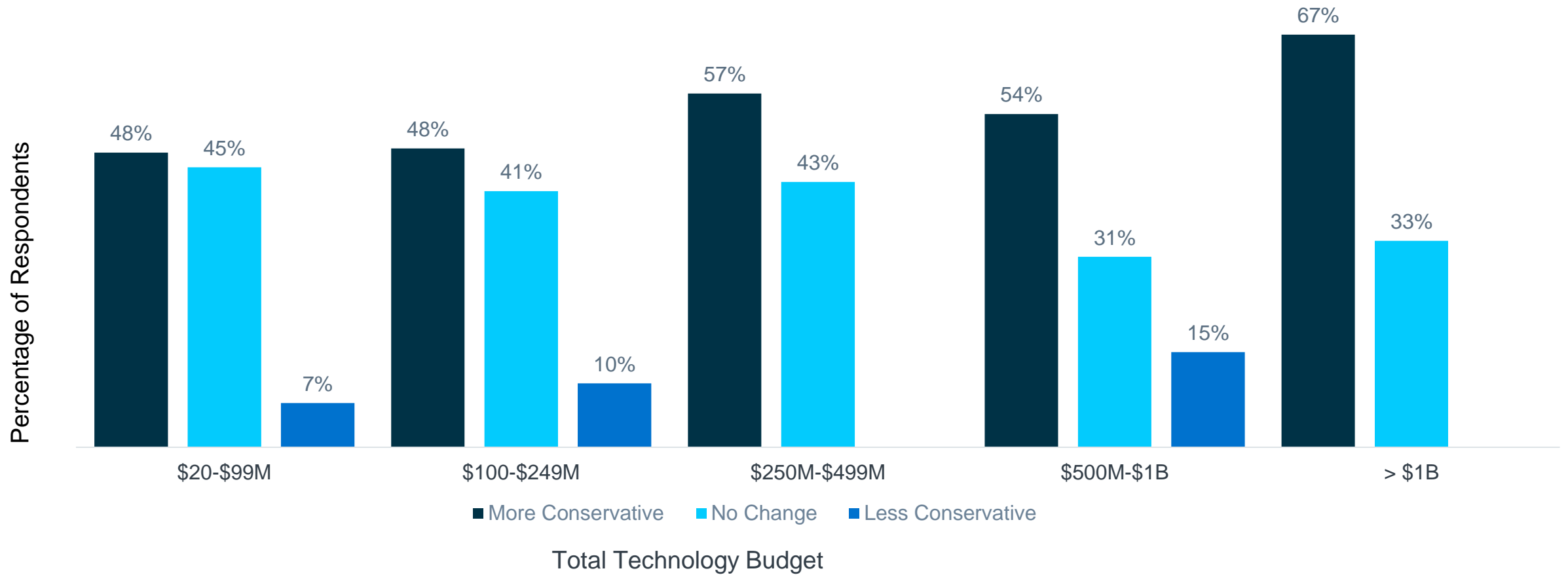


Source: Battery 2022 Cloud Software Spending Survey

Note 1: Industrial segments include construction, utilities, transportation, and warehousing.

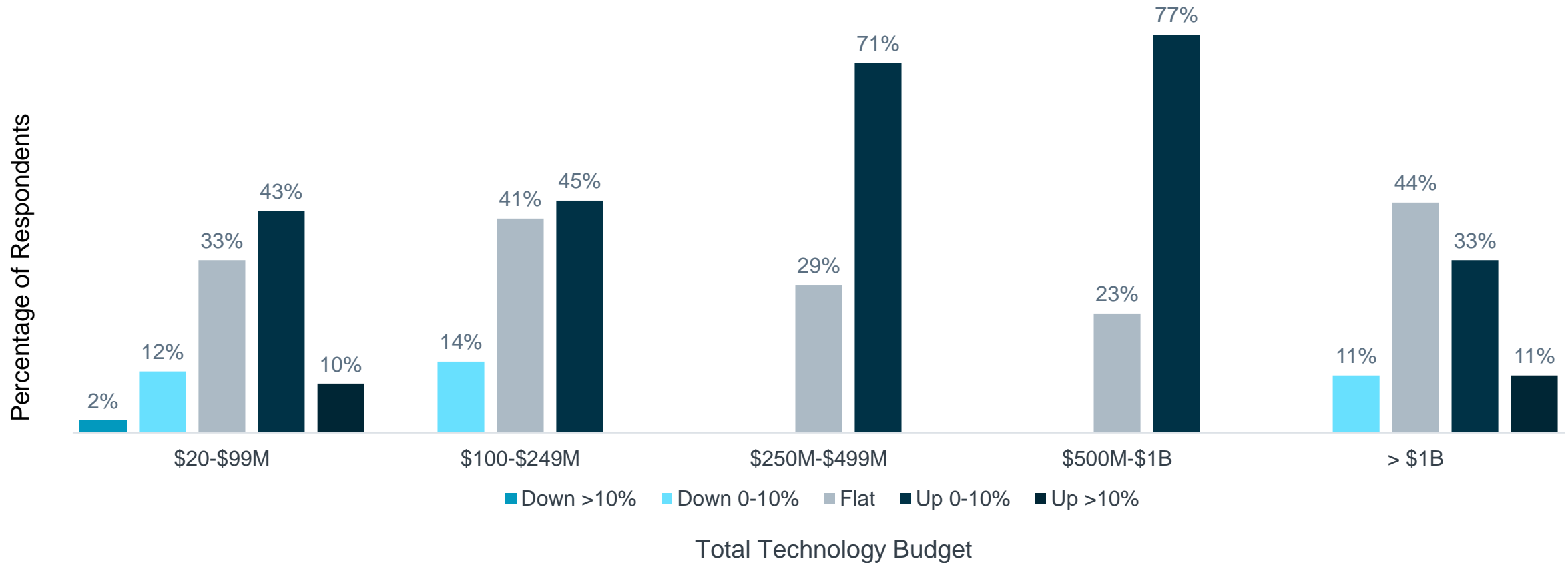
Note 2: Annual technology spend calculated based on mid-point of total technology budget.

Impact of Economic Conditions on Technology Spending Strategy



CXOs are more conservative with their approach to technology spending and allocation of budget in times of economic uncertainty.

Technology Budget and Spending Trends

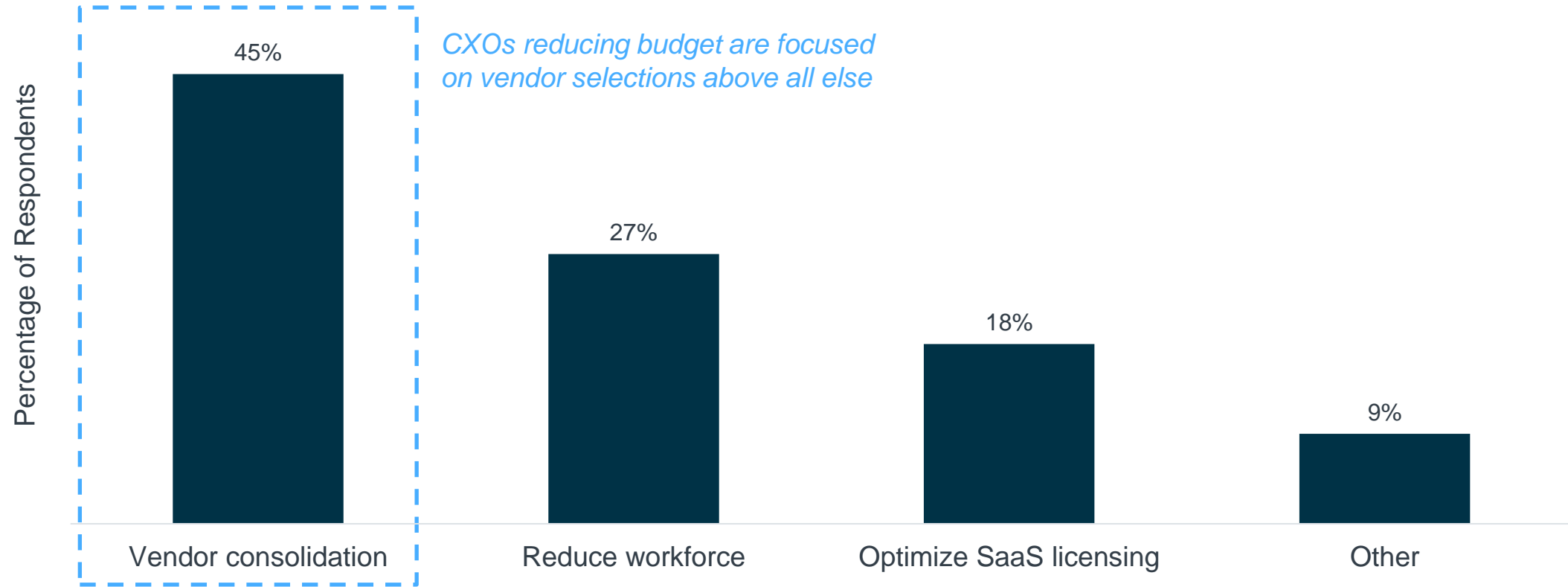


Budgets are less elastic than perceived: 54% of CXO respondents expect to increase their total technology budget for 2022 despite more conservative spending strategies.

Top Priorities for CXOs Planning to Reduce Budget



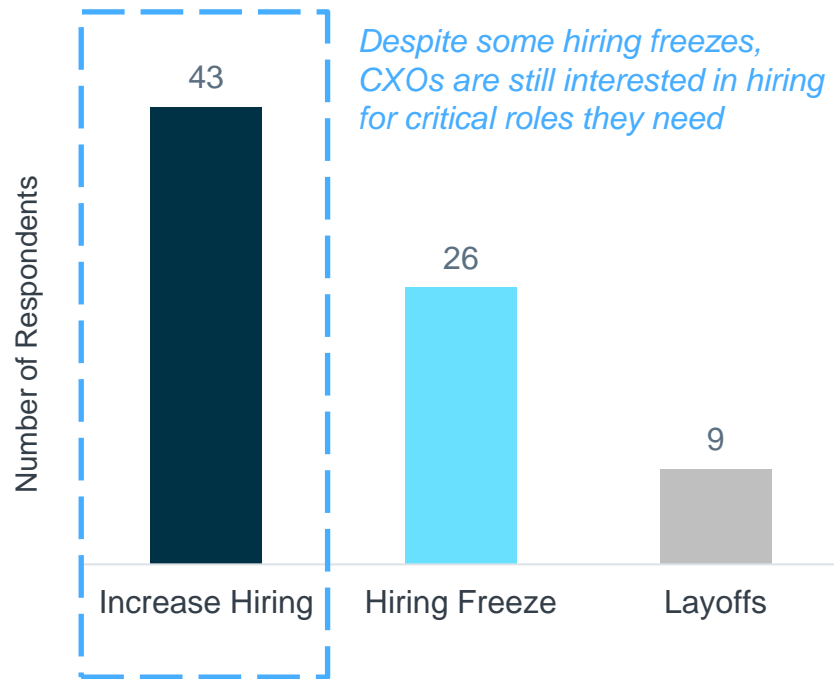
Responses from CXOs Planning to Reduce Technology Budget (N=11)



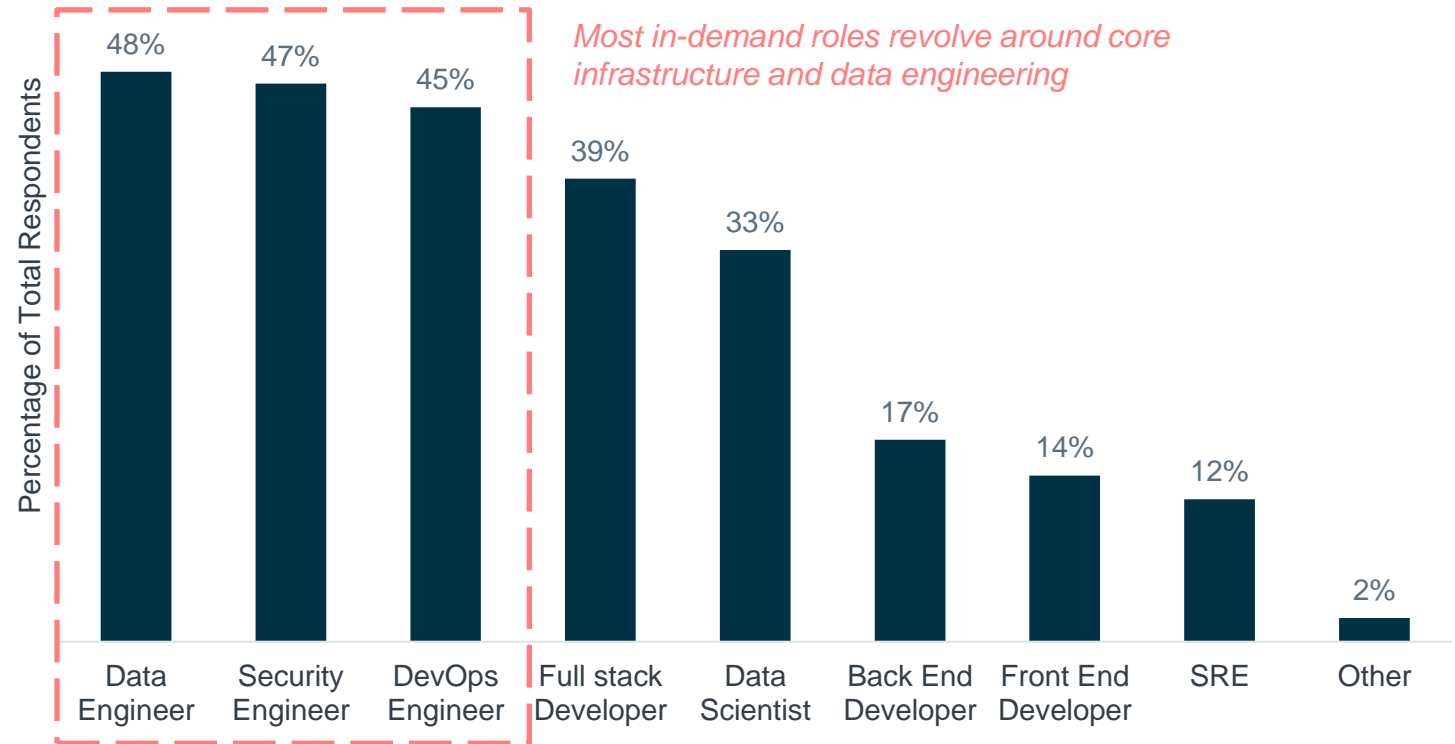
CXO respondents are more focused on streamlining their vendor usage than headcount changes or license optimization.

Headcount Plan and Hiring Focus for CXOs

Plans for Headcount



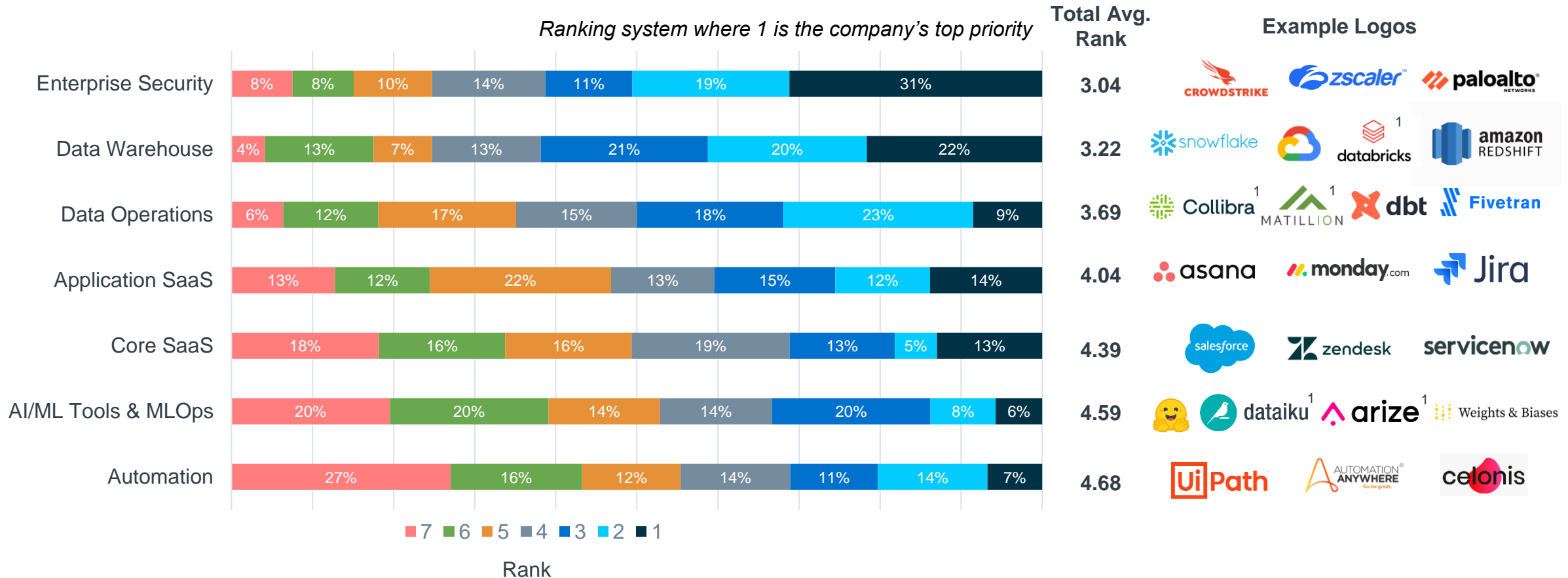
CXO Priorities for Hiring



Hiring growth in data and security maps to CXOs tech-spending priorities. Engineers focused on building pipelines and infrastructure are in higher demand than those building applications and analyses.

Cloud Software Spending Priorities

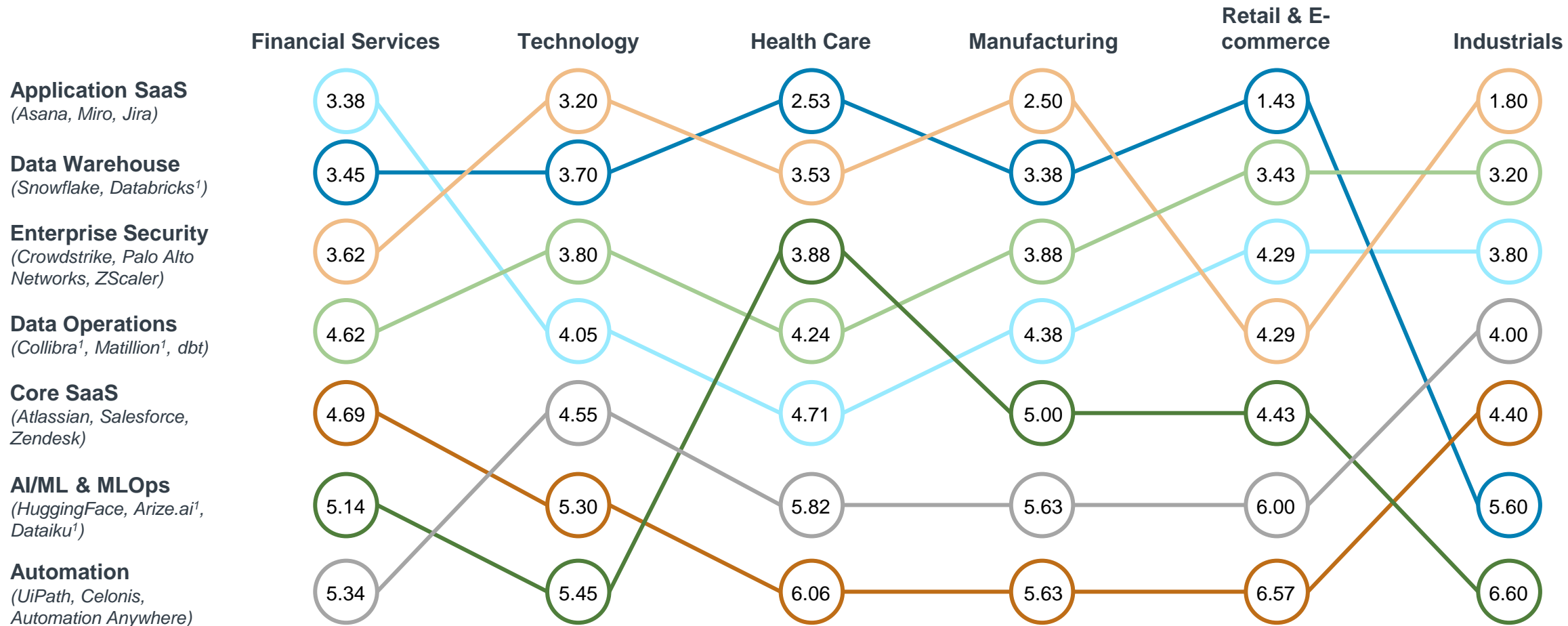
Ranking of Cloud Software Areas that CXOs are Prioritizing Over Next 12 Months



Data and security remain top spending priorities for enterprises. SaaS vendors that improve workflows and increase automation are gaining adoption.

Cloud Software Spending Priorities by Industry

Ranking system where 1 is the company's top priority



Finance and Tech are investing broadly across the stack, whereas other industries have stronger conviction on certain categories and modernization efforts.

Source: Battery 2022 Cloud Software Spending Survey

Note 1: Industrial segments include construction, utilities, transportation, and warehousing.

Note 2: Company logos include all current Battery investments that are relevant and are denoted with a 1. A full list of all Battery investments [here](#).



Software Adoption and Procurement Trends

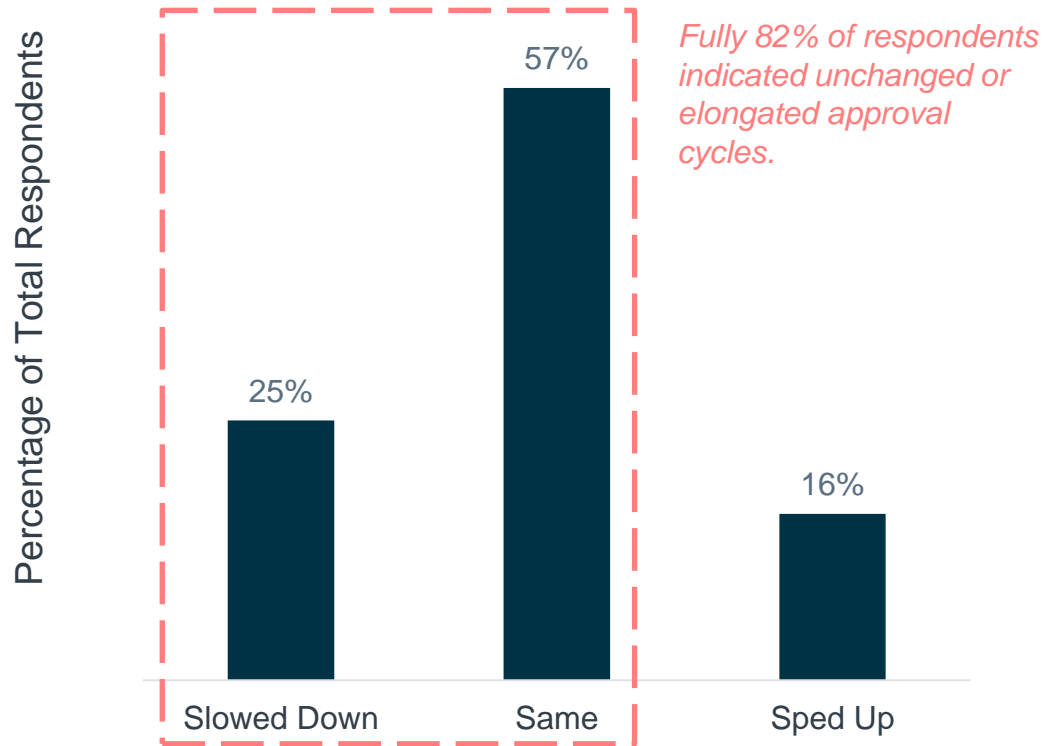
Budgets and Buying Patterns Remain Unchanged for High-Priority Software

- 1 Despite slight slowdowns, vendor approval times remain intact for critical tools
- 2 Bottoms up motion playing a larger role at earlier phases of software adoption
- 3 Founders should continue to push for production deployments over dev/test environments
- 4 Security and ease of integration are top priorities for vendor approval, i.e., SSO, SOC2

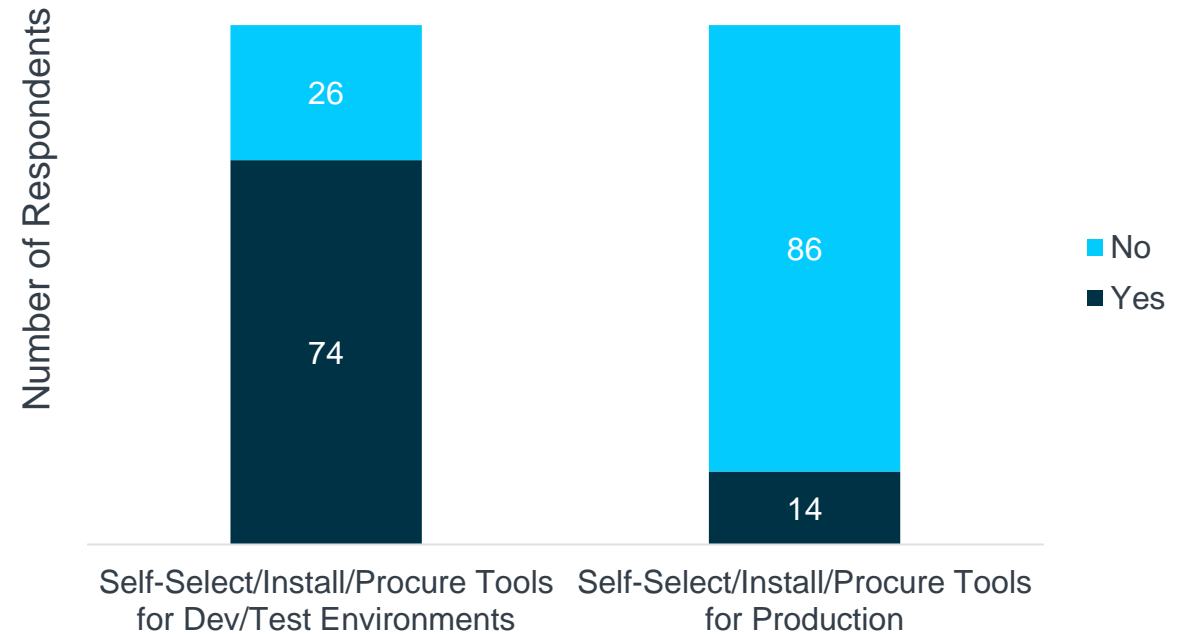
Enterprise and Bottoms Up Software Adoption



Approval Times for Enterprise Contracts



Engineers Allowed to Self-Select Tools

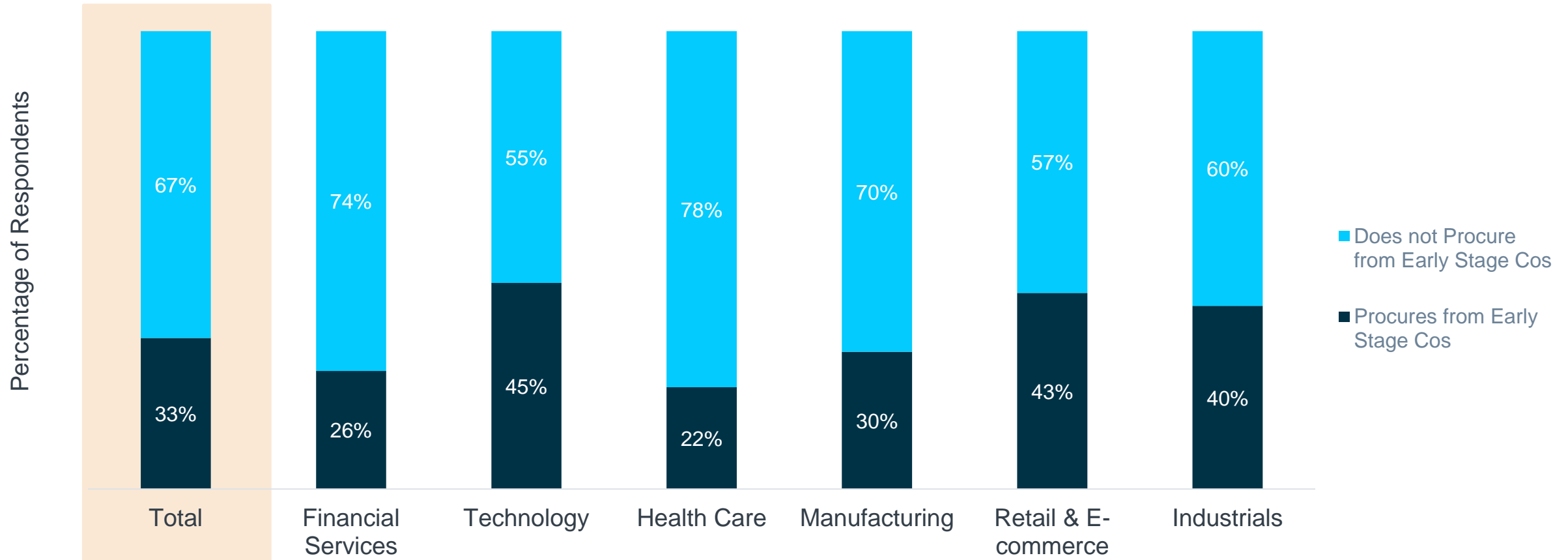


Most respondents note that enterprise contract timing have not changed, and bottoms-up adoption is playing a larger role at earlier phases i.e., dev/test environments.

Enterprise Procurement Strategies



Organizations that Procure Cloud Software from Early Stage (Seed, Series A) Companies

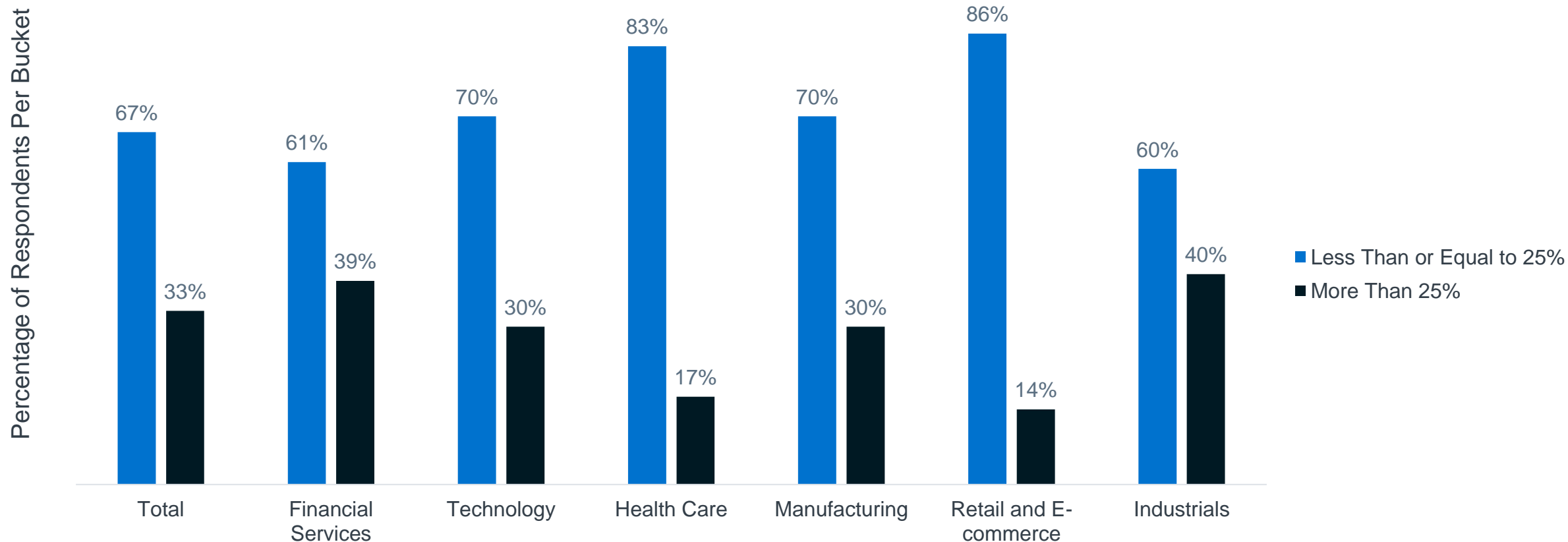


About 1/3 of companies procure software from early-stage companies. Regulated industries, like finserv and health care, remain more conservative in their purchasing patterns.

Bottoms Up Adoption Buying Patterns

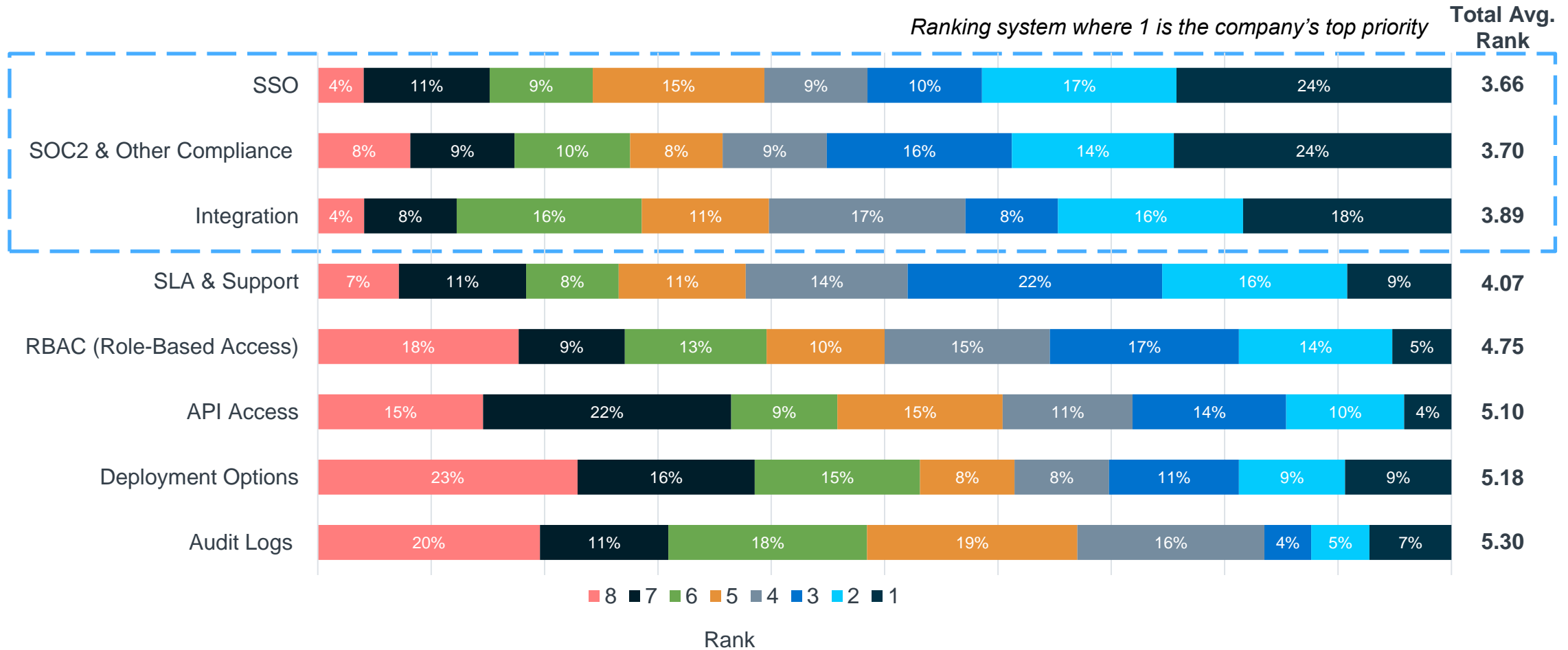


Percentage of Companies Consuming Software Through a Bottoms Up Motion



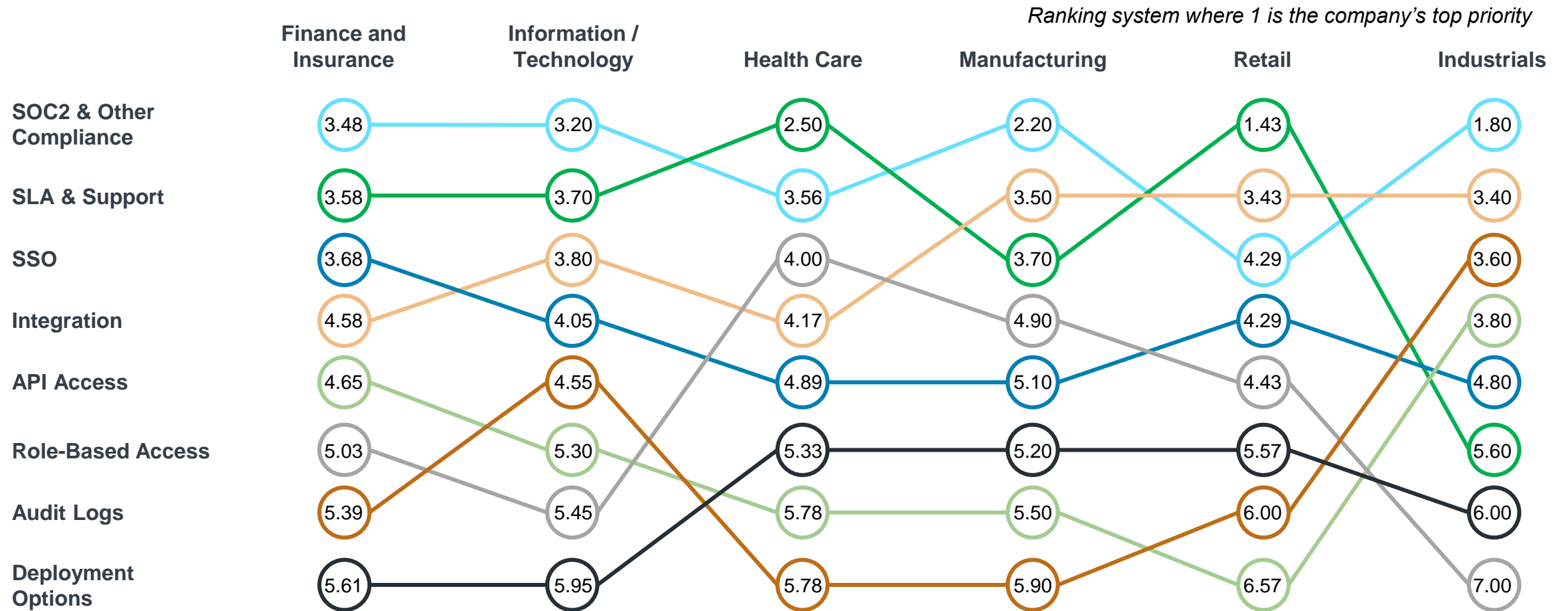
Over 30% of all respondents note that their company consumes more than 25% of their software through a bottoms up motion.

Priority Requirements for New Vendors to be Procured



SSO, SOC2, and integration look to be top priorities, revolving around security and ease of integration with existing workflows.

Priority Requirements For New Vendors to be Procured for Select Industries



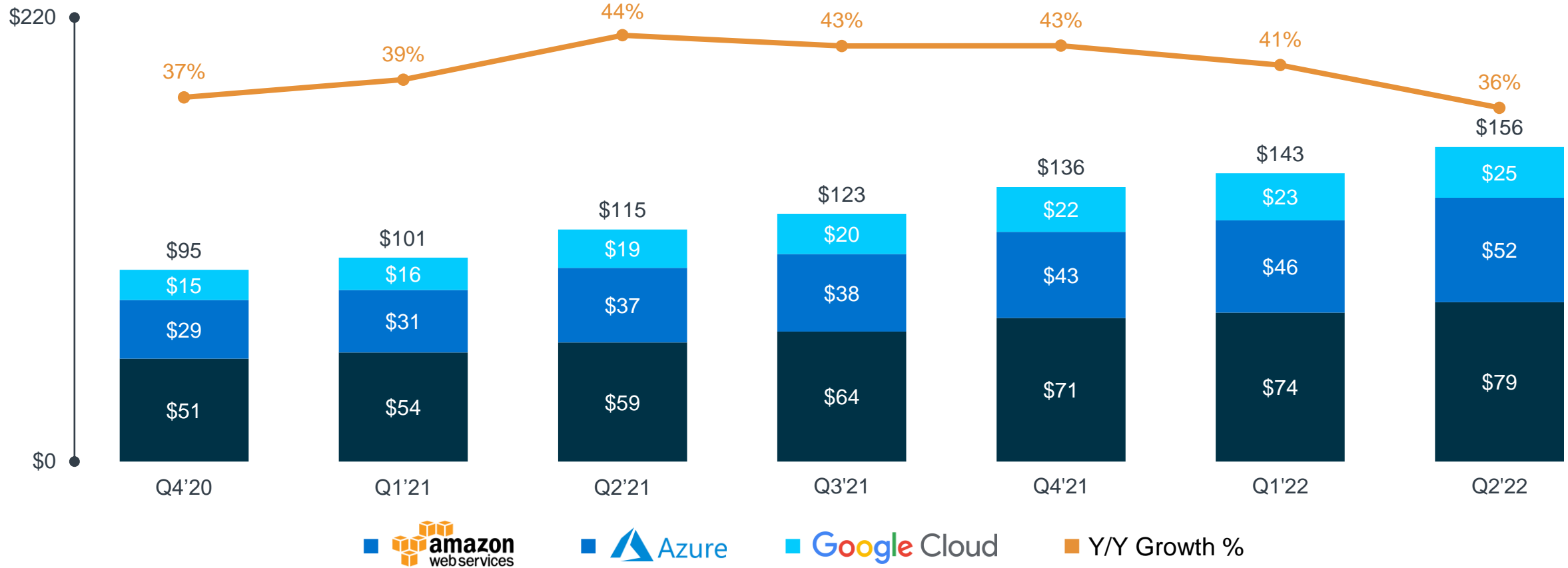
Respondents across industries have different priorities for new vendors, e.g., health care prioritizes SLA and support while finance prioritizes compliance.



Future of Cloud Software Spending

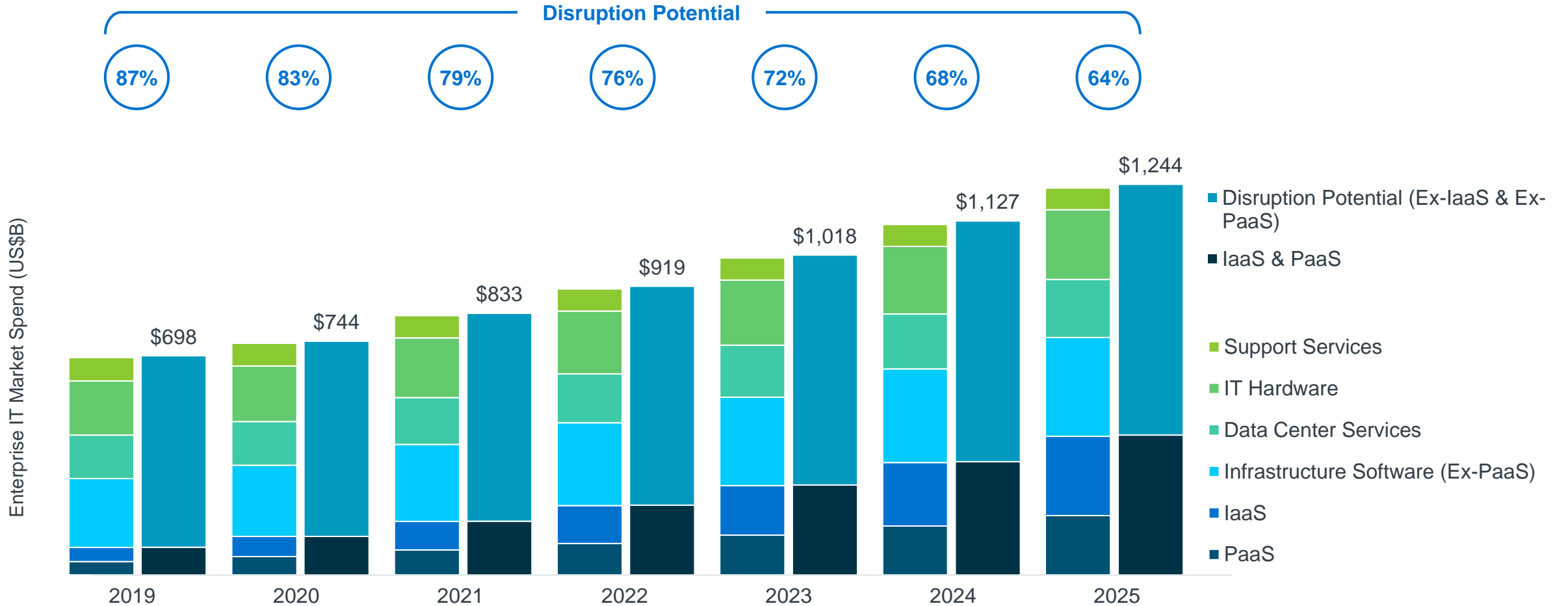
Public Cloud Vendors are Showing Growth Durability at Massive Scale

Public Cloud Vendor Annualized Run-Rate Revenue (US\$B)



Cloud giants have continued their strong growth trajectory over the last two or more years, reaching a total revenue of \$150B+.

We Are in the Early Innings of Cloud Adoption

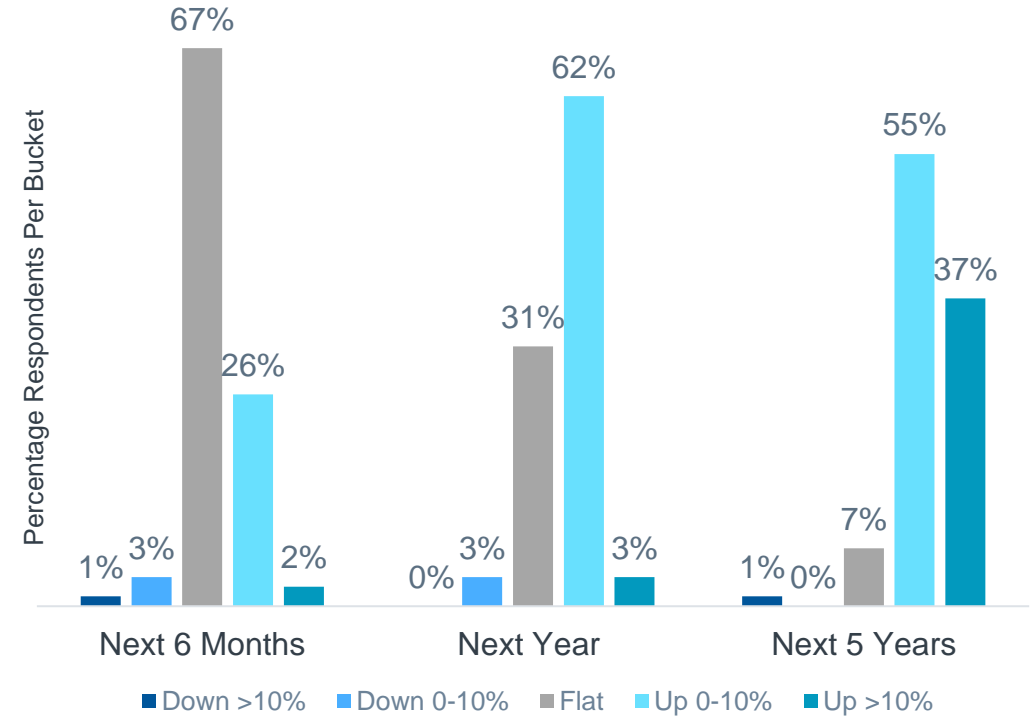
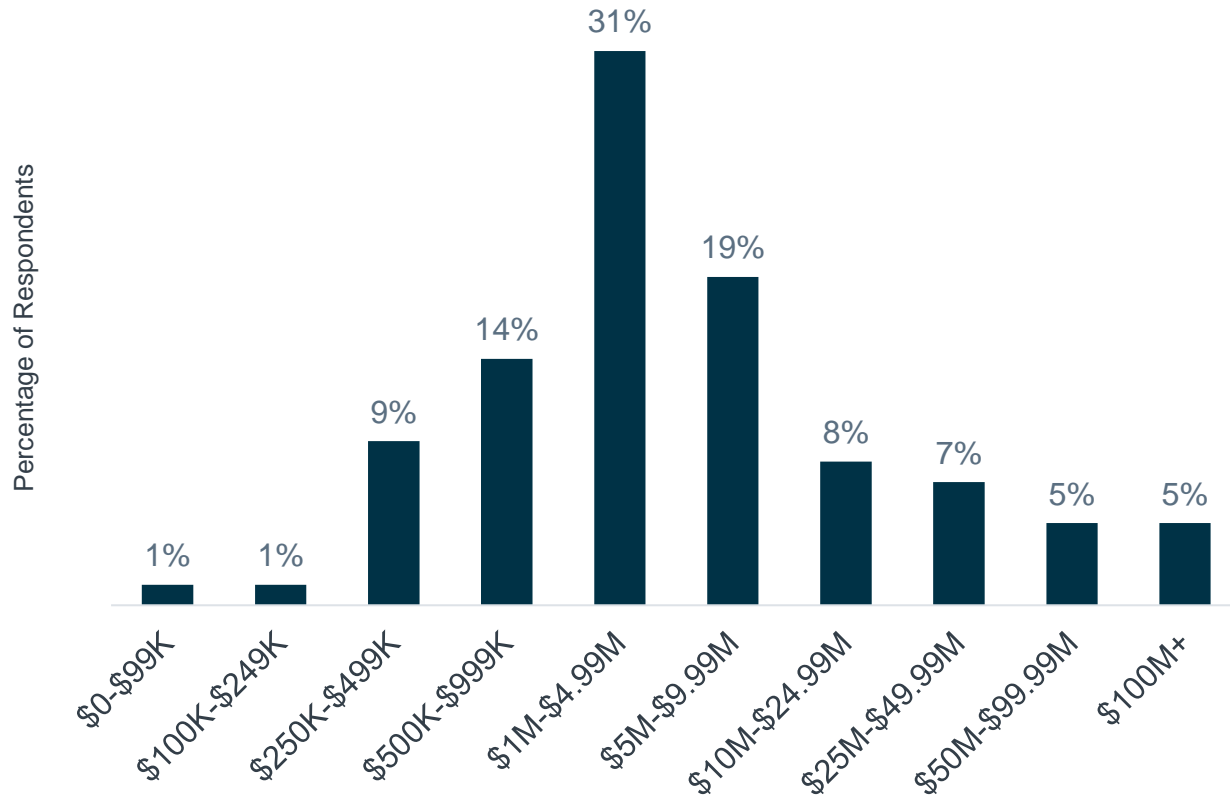


Cloud penetration is rapidly expanding with ample room to grow. In 2022, cloud spend is expected to represent ~25% of the \$919B overall infrastructure spend.



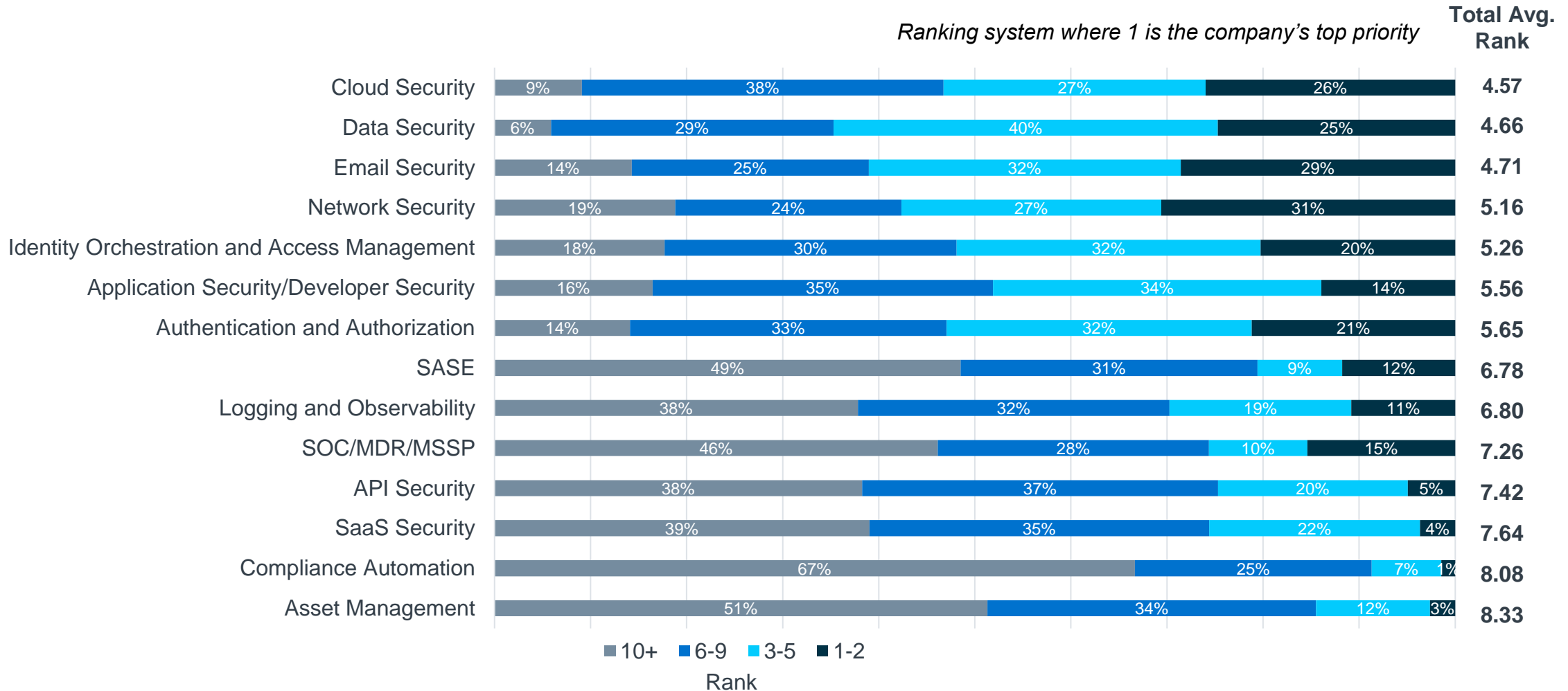
Appendix: Security Budget

Total Budget Size and Expected Spending Change for Security Vendors



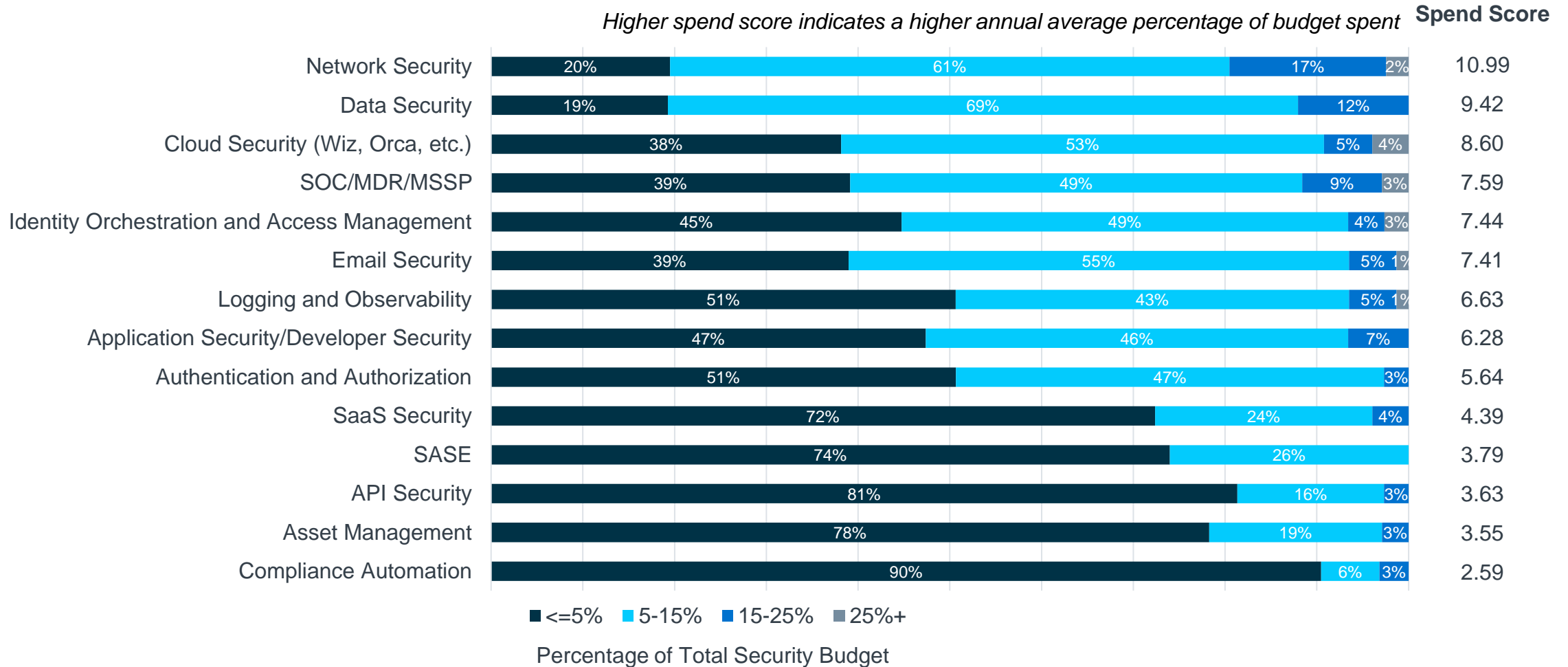
Majority of security budgets fall in the \$1-5M range; 37% of respondents are expecting to increase spending by 10%+ over the next five years.

Company Priorities Within Security



The transition to the cloud is causing enterprises to reevaluate and invest in security solutions that meet modern cloud architectures and data types.

Security Budget Allocation Across Categories

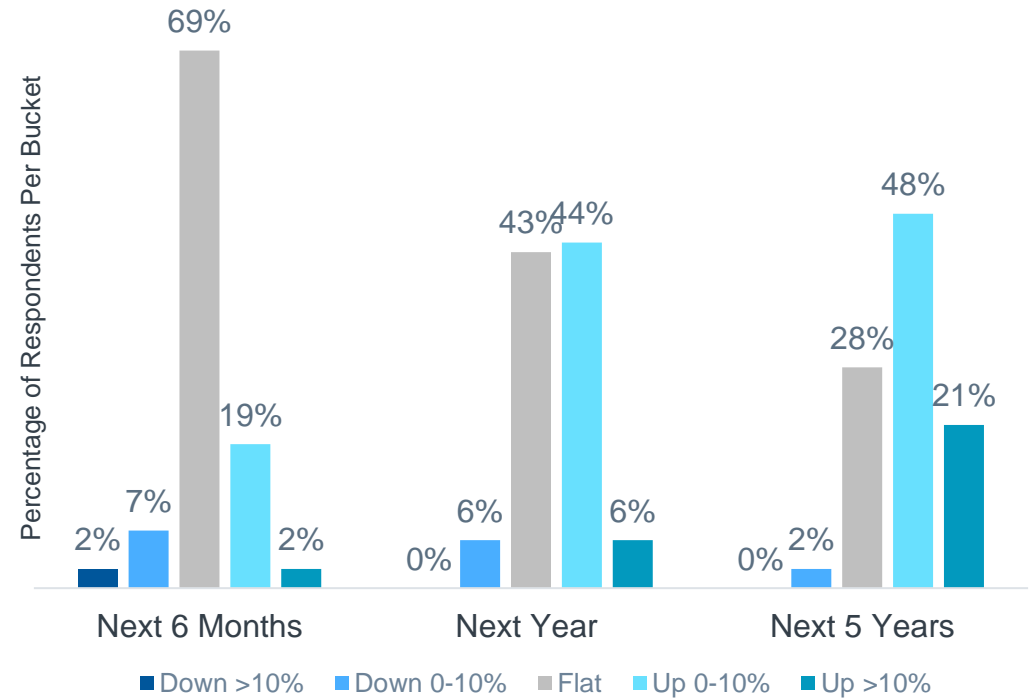
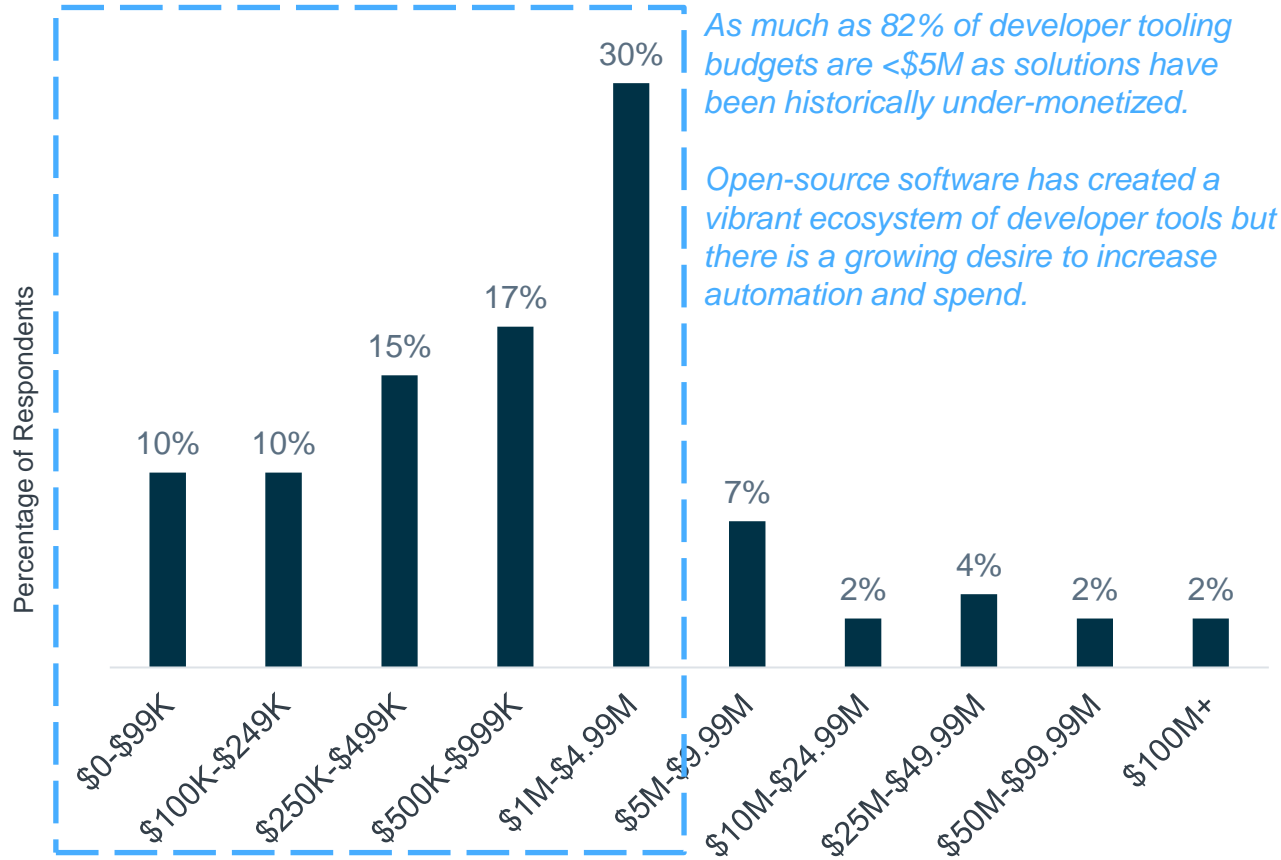


Security replacement cycles are long as network security remains a top spending category among security teams. Logging and observability budget comes from security, not developer tools.



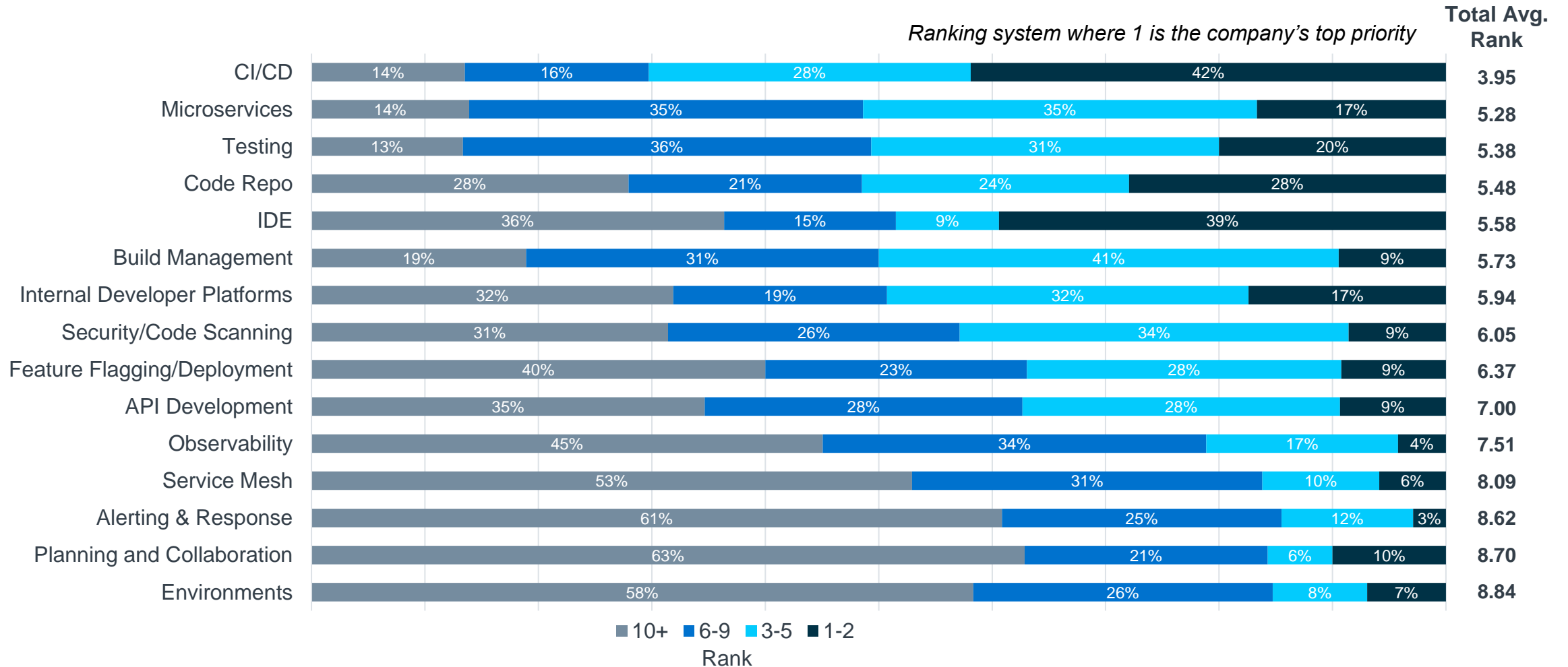
Appendix: Developer Tools Budget

Total Budget Size and Expected Spending Change for Developer Tool Vendors



Developer tools have historically been under-monetized. Majority of developer tool budgets fall in the \$1-5M range and 50% of respondents are expecting to increase budgets within the next year.

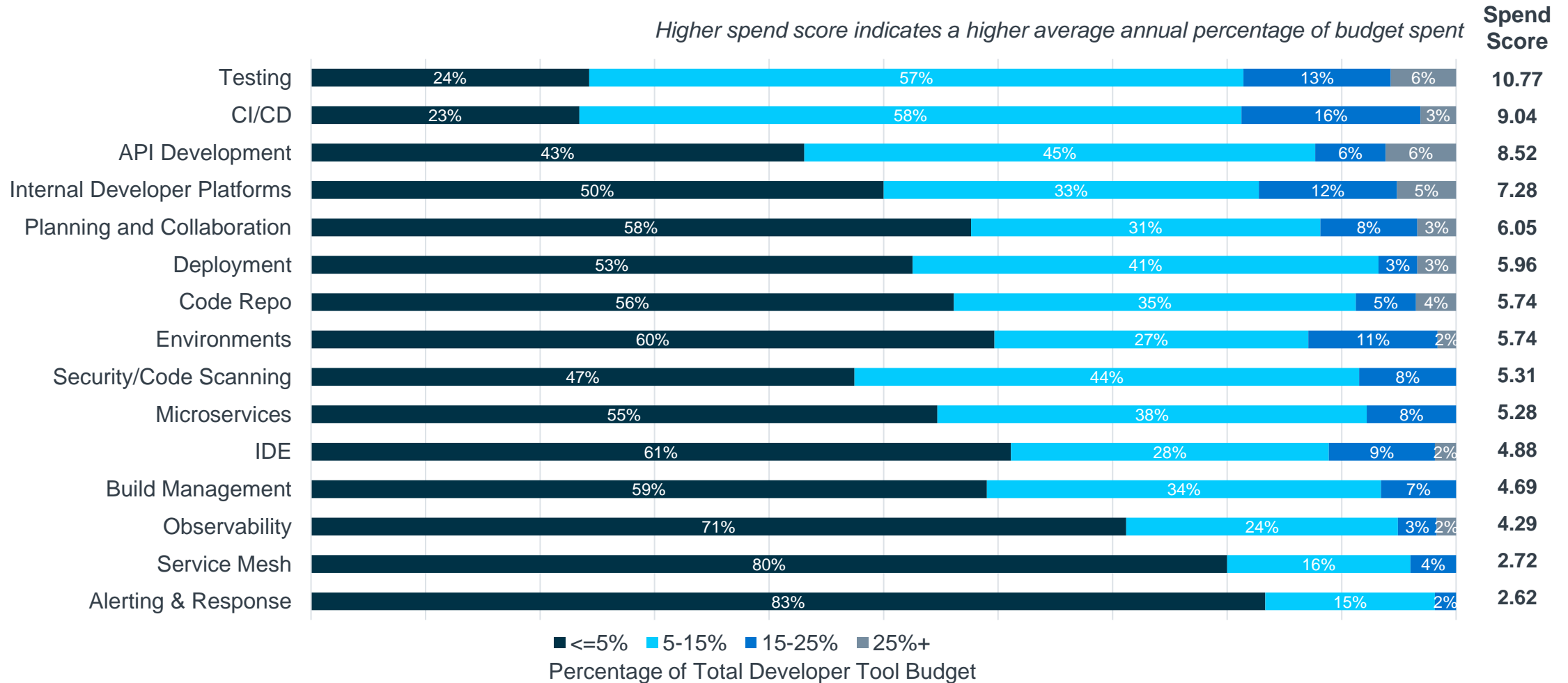
Company Priorities within Developer Tools



Speed, safety, and resiliency are the top developer tool priorities as enterprises continue to focus on getting code into production reliably. AppSec and observability are shared responsibilities by development and security teams.

Developer Tool Budget Allocation Across Categories

Higher spend score indicates a higher average annual percentage of budget spent

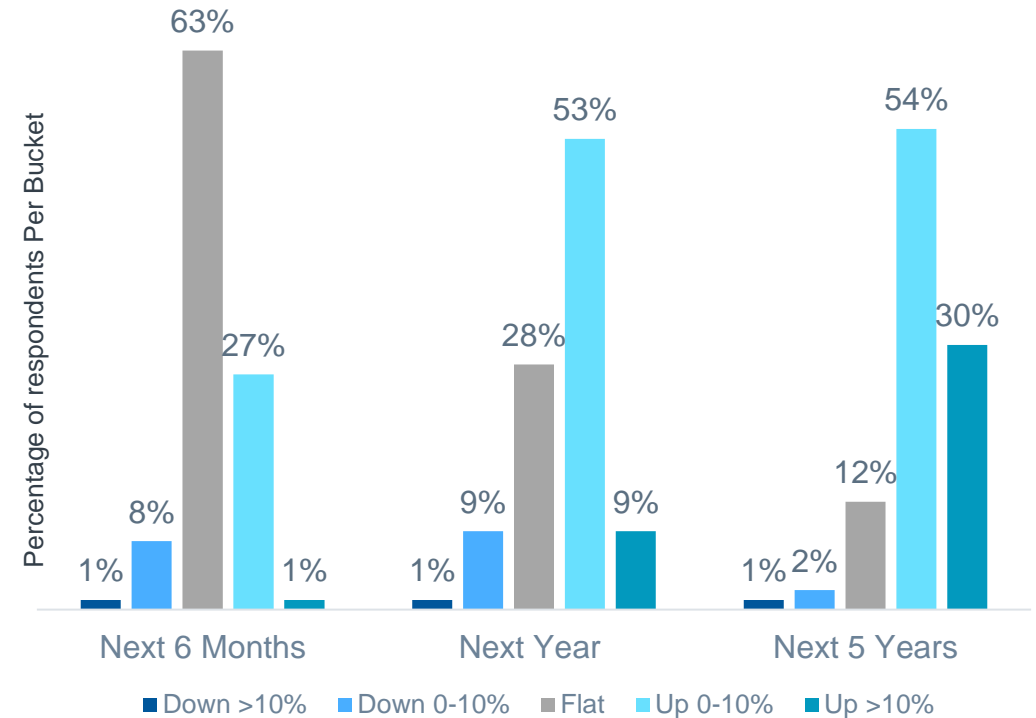
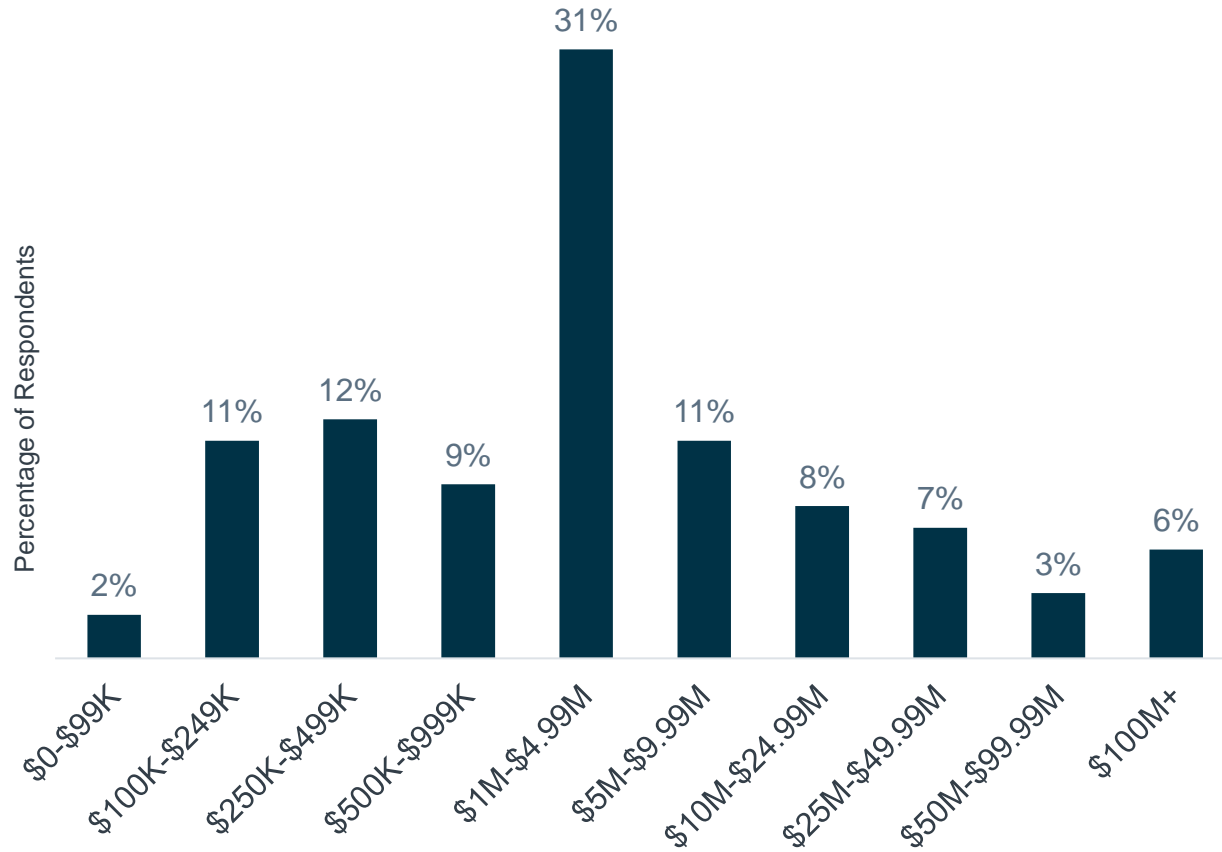


Iterative development workflows (testing, CI/CD, and development platforms) have the highest spend score as software development velocity continues to increase despite the current macro environment.



Appendix: Data Budget

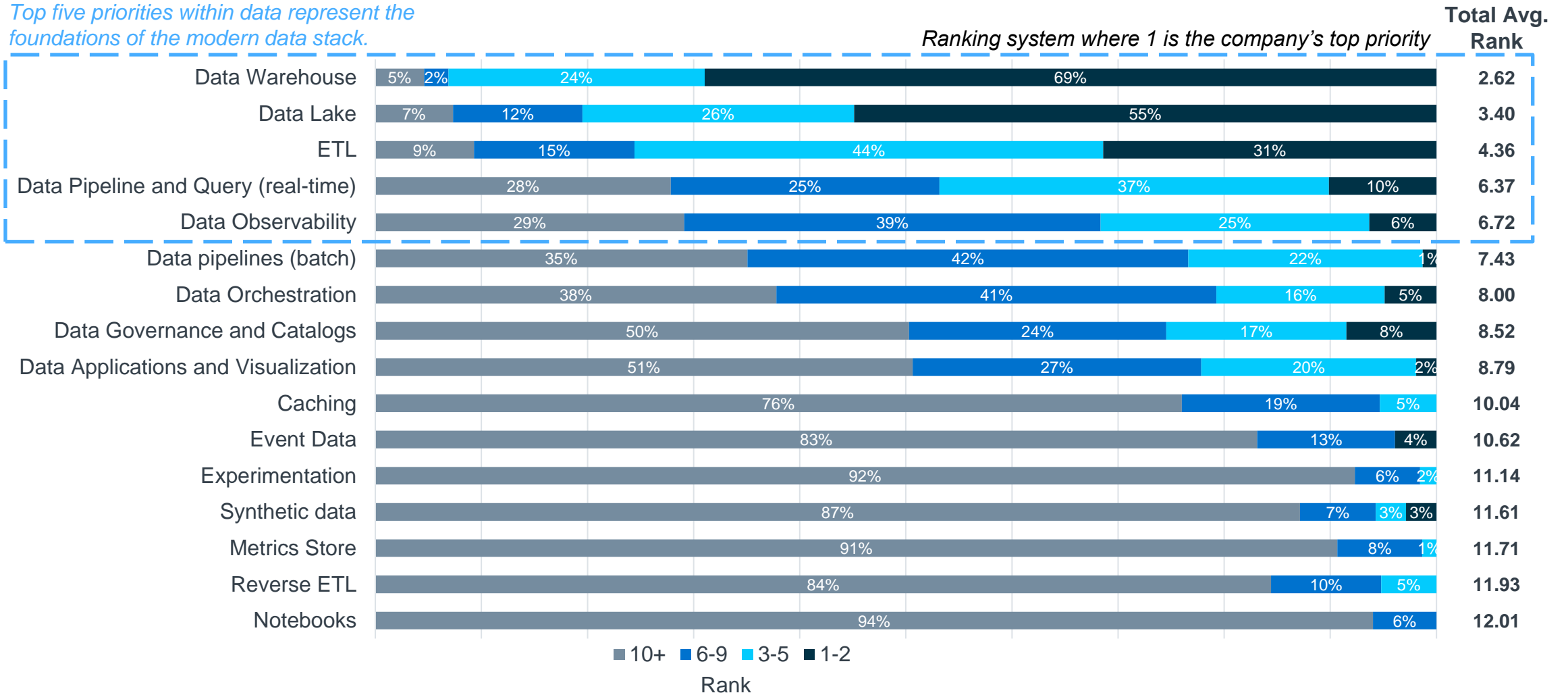
Total Budget Size and Expected Spending Change for Data Vendors



Majority of data budgets fall in the \$1-5M range; 30% of respondents are expecting to increase their spending by 10%+ over the next five years.

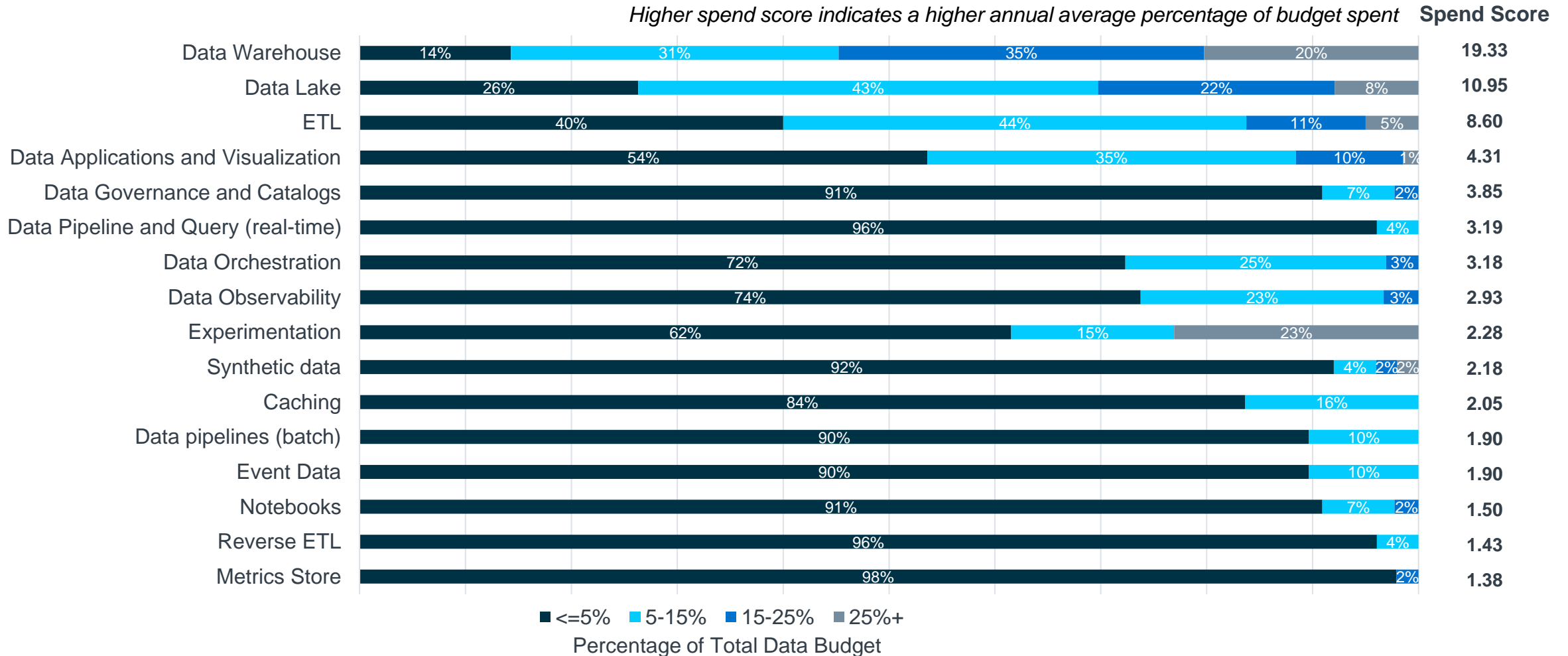
Company Priorities Within Data

Top five priorities within data represent the foundations of the modern data stack.



Companies are building a modern data stack with core components being cloud data warehouse/lake, ETL/pipelines, and data observability.

Data Budget Allocation Across Categories



Data warehouse has the highest spend score by far, serving as the center of the modern data stack.

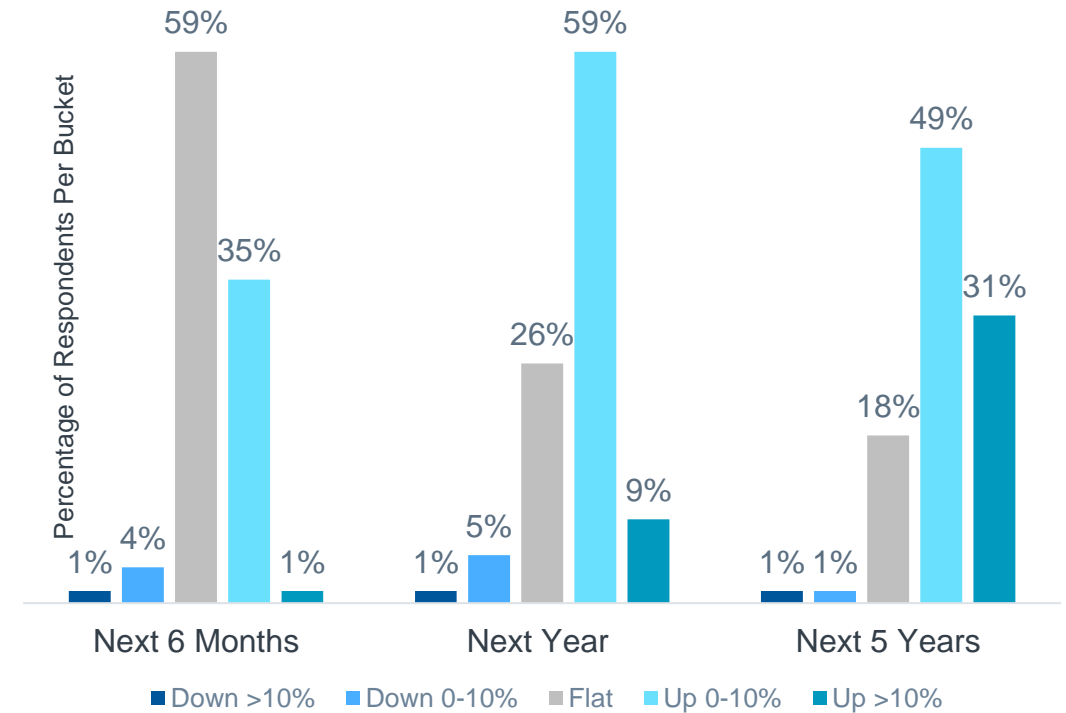
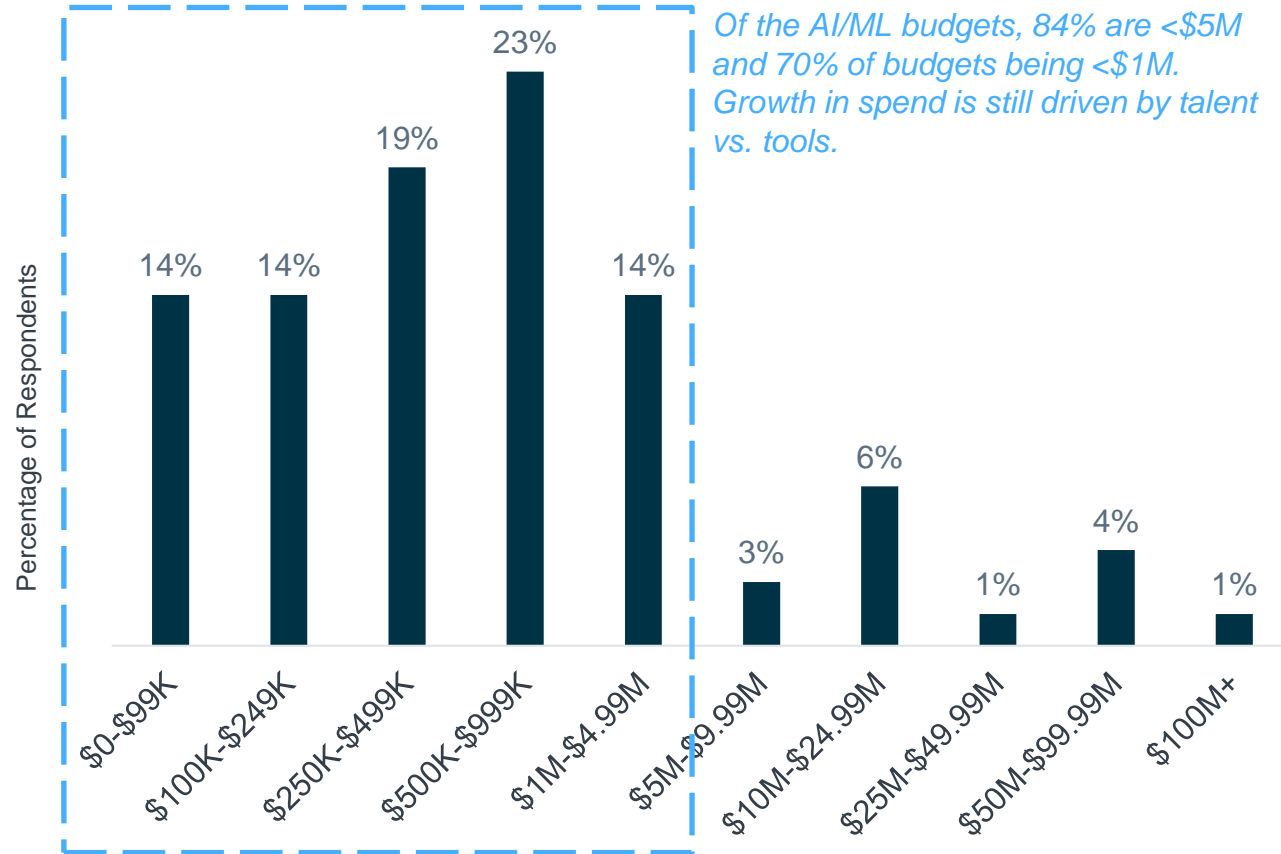
Source: Battery 2022 Cloud Software Spending Survey

Note: Spend score is calculated as the weighted average of the provided range midpoint e.g., 5% for the 1-10% spend category; respondents that did not input a number are not reflected as 0% in the graph.



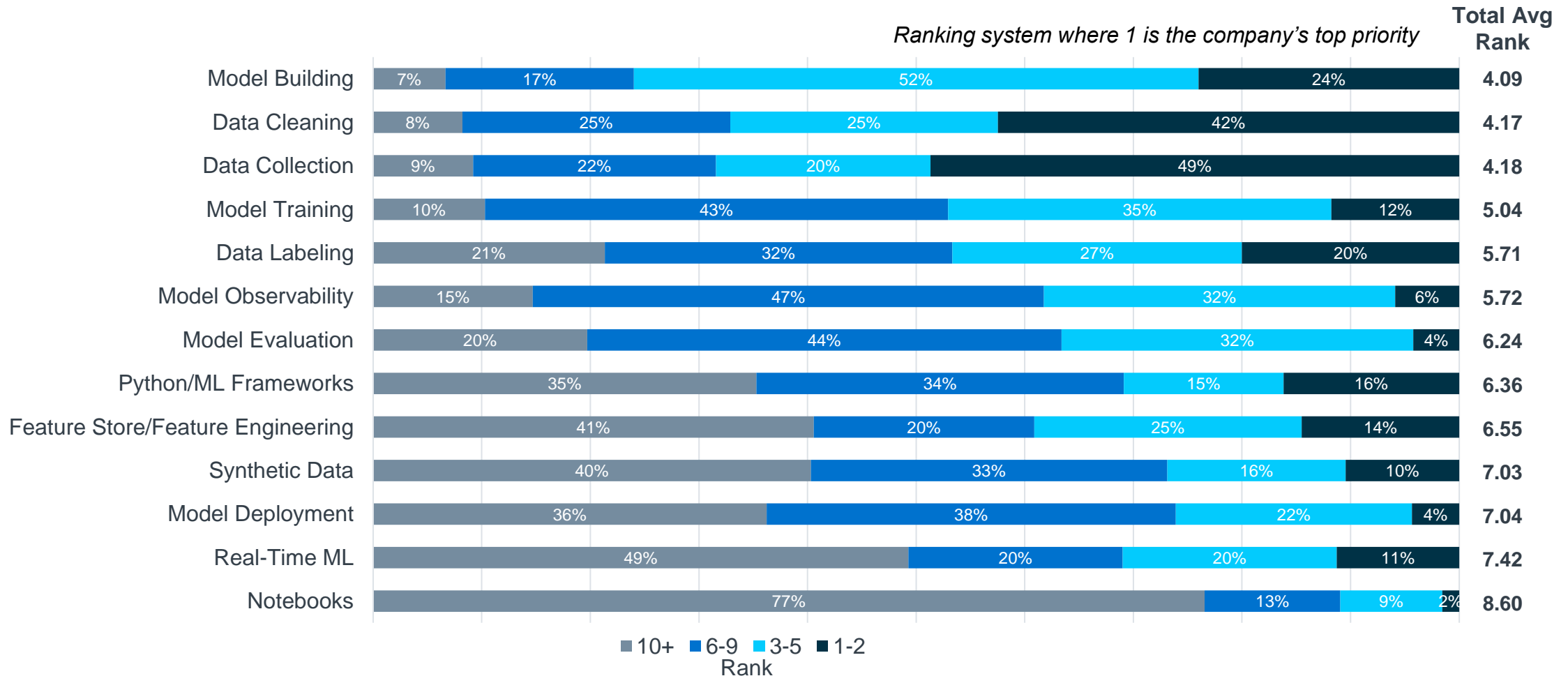
Appendix: AI and ML Budget

Total Budget Size and Expected Spending Change for AI and ML Vendors



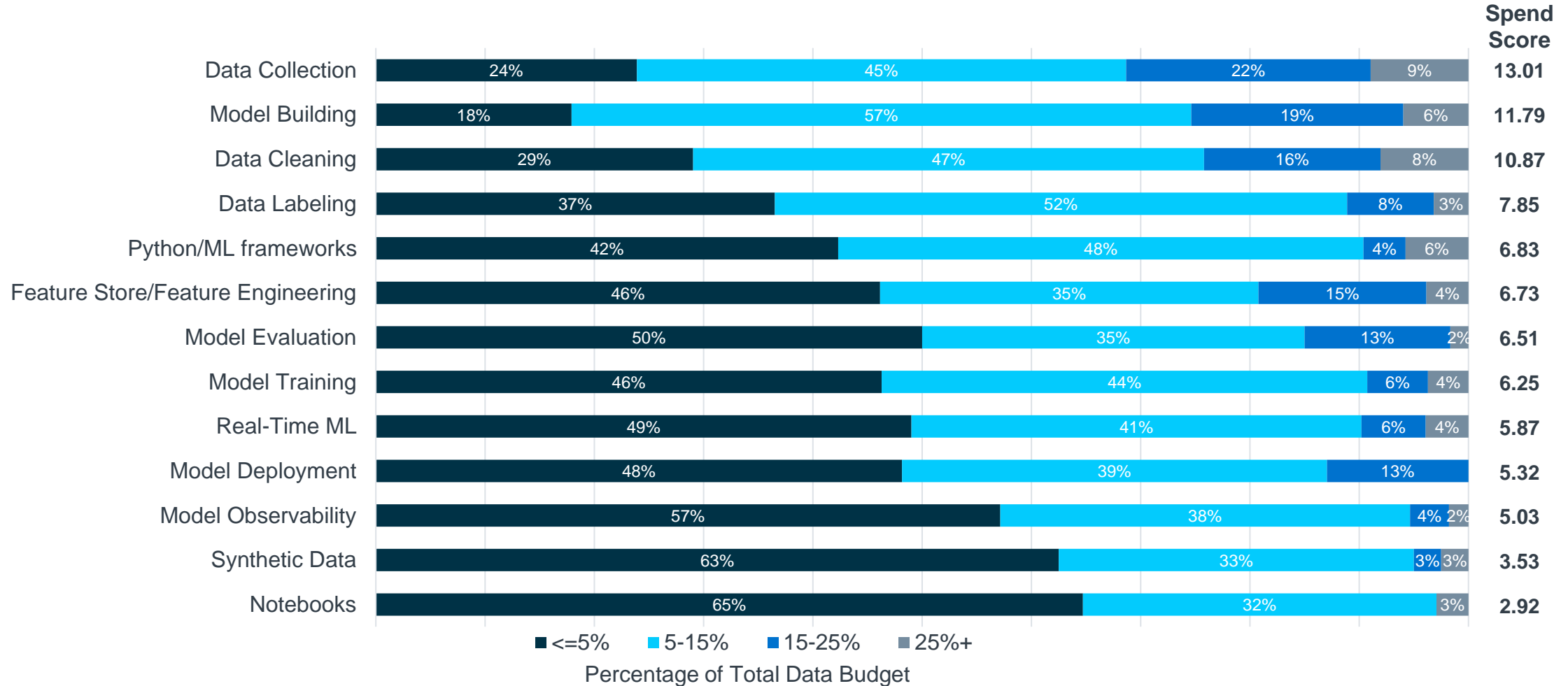
Market is still early but number of budget approaching \$1M+ show growing interest and 68% of respondents are expecting to increase spending within the next year.

Company Priorities Within AI and ML Tools



AI and ML core infrastructure is currently a top priority as many companies continue to begin their journey with model building, data cleaning, and data collection.

AI and ML Tool Budget Allocation Across Categories



The highest spend score is found in core ML infrastructure that helps companies start their machine learning journey, e.g., data collection, cleaning and labeling.