

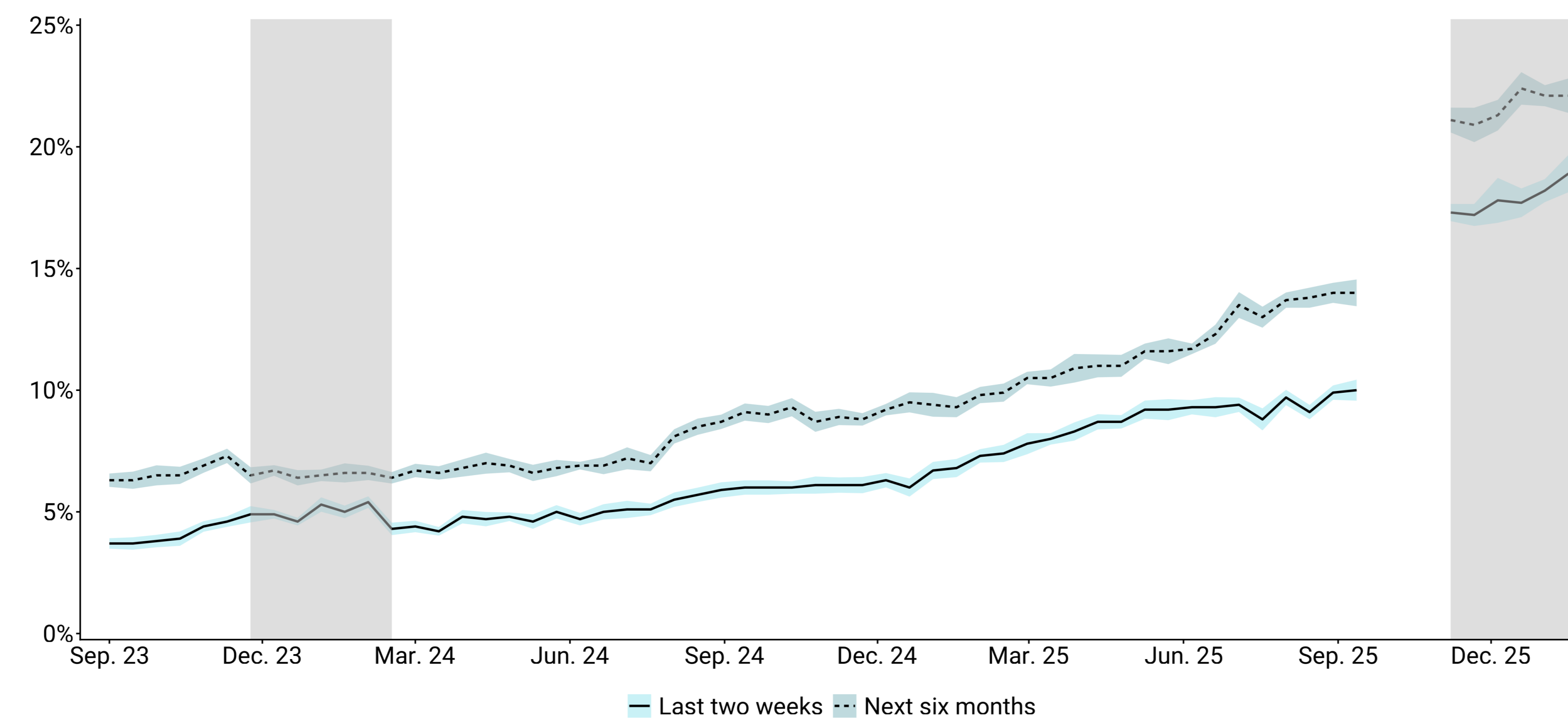
# The Microstructure of AI Diffusion: Evidence from Firms, Business Functions, and Worker Tasks

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## BUSINESS TRENDS AND OUTLOOK SURVEY (BTOS)

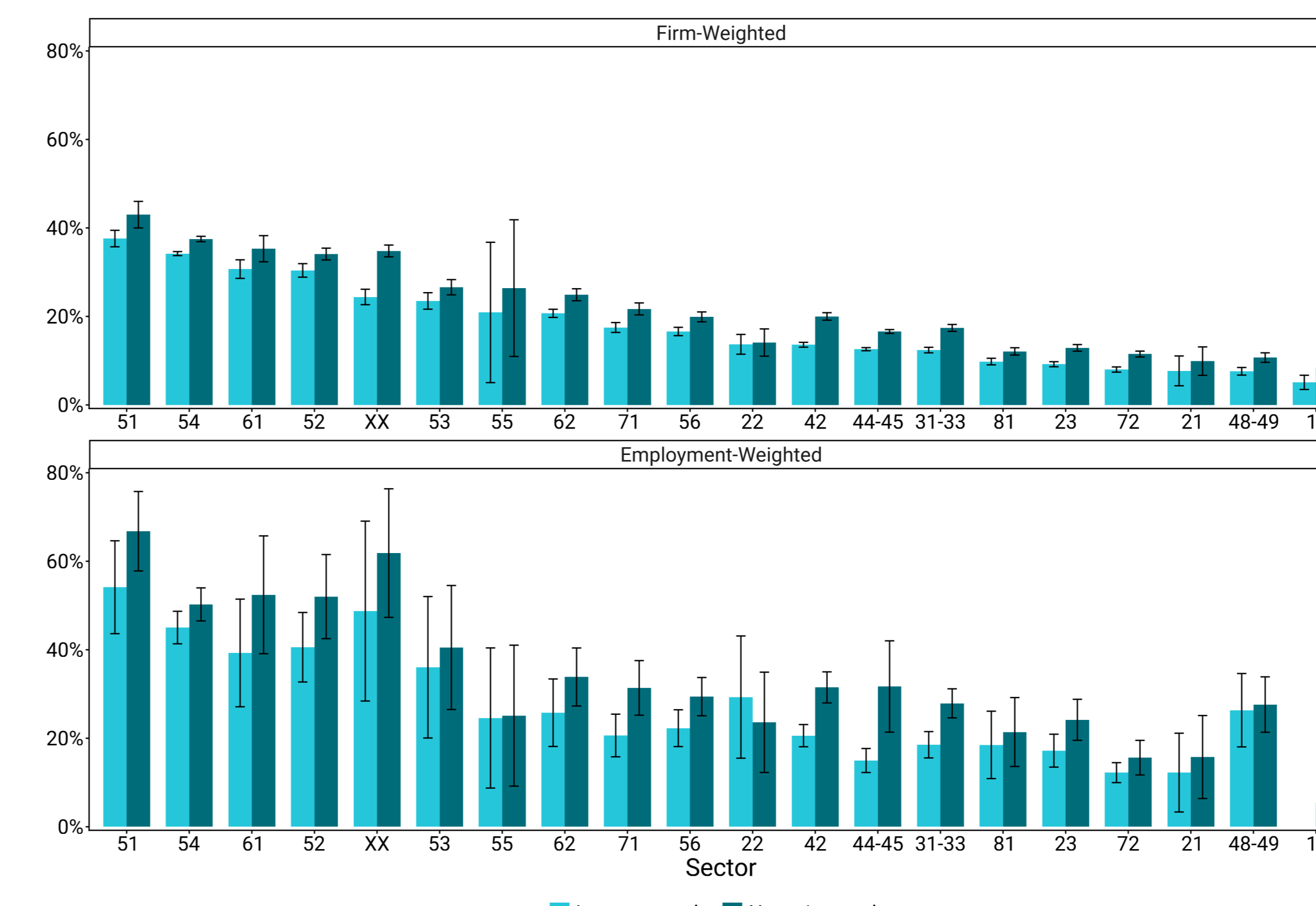
- Provides insight into the state of the economy by providing timely data for key economic measures and business expectations about future conditions.
- Has ongoing 2-week data collection periods and publications every two weeks.
- Data include all employer businesses (single location and multi-location) in the U.S. economy, excluding farms.
- Is an experimental data product with standing core and changing supplemental content.
- Collects a wide range of business conditions, such as current performance, changes in revenue and employment, hours worked, location operating status, demand, and prices. For most concepts, businesses are asked about the previous 2 weeks and for a 6-month projection.
- Core artificial intelligence (AI) use questions were added to the BTOS in October 2023, and revised wording was adopted in November 2025.
- Supplemental content was added for a second time to the BTOS from November 2025 to February 2026 to provide more detailed information about businesses' use of artificial intelligence.

## FIRM AI USE RATES OVER TIME



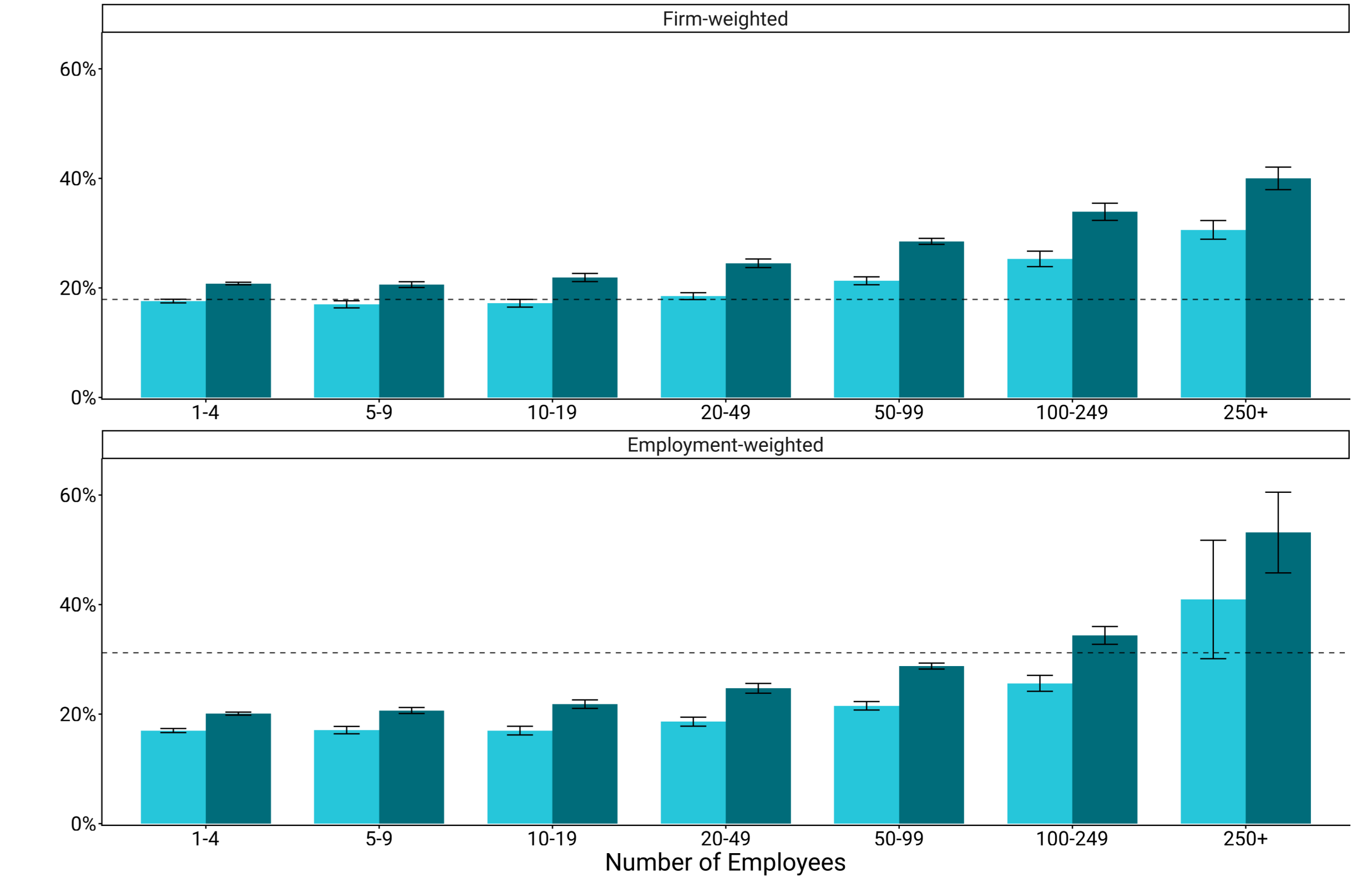
Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Shaded areas indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Grey shaded areas represent AI supplement collection periods.

## AI USE RATES BY SECTOR



Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Error bars indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Employment-weighted, last two weeks estimate suppressed for Sector 11 due to data quality concerns. Charts sorted by firm-weighted, current use.

## AI USE RATES BY FIRM SIZE



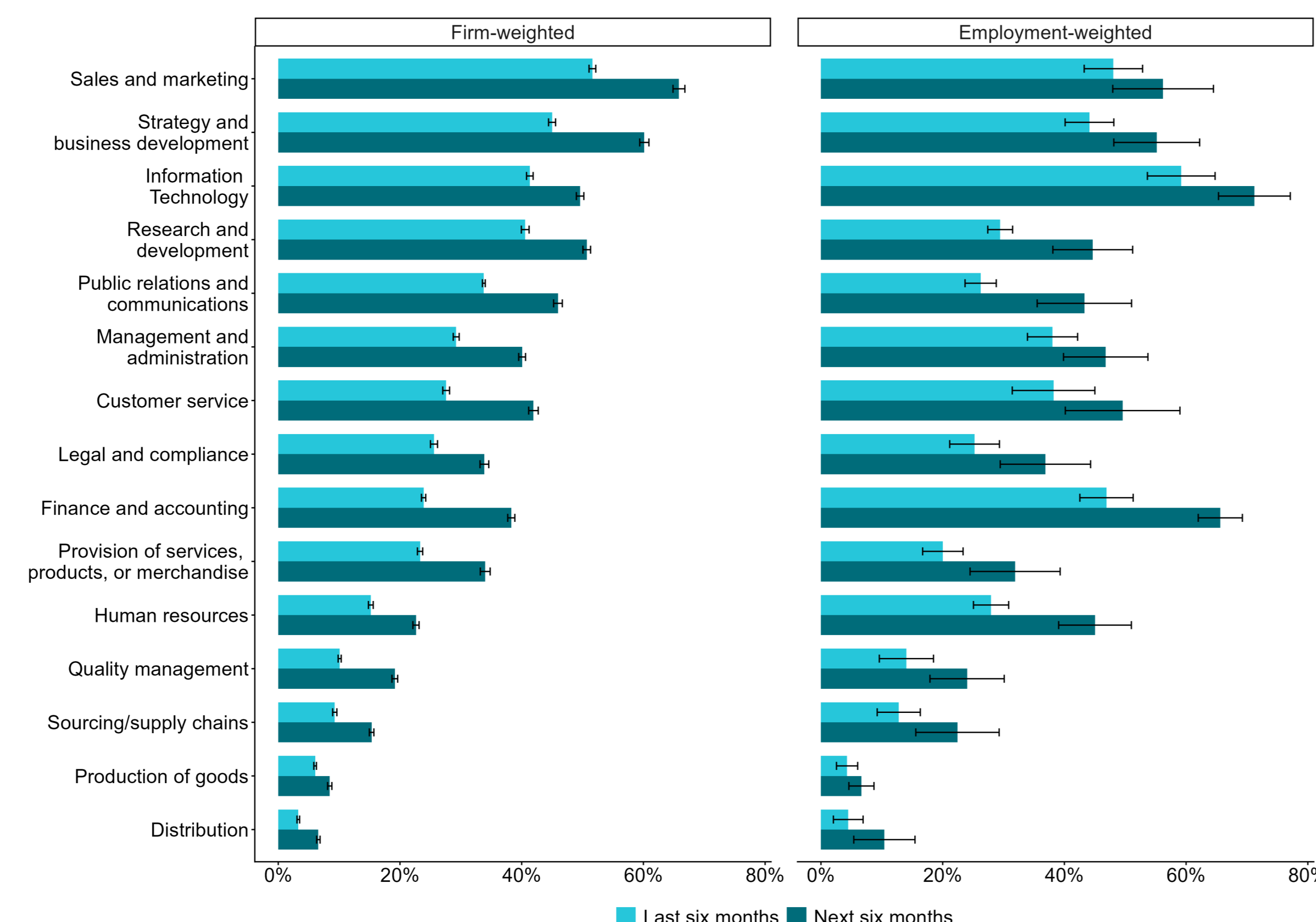
Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Error bars indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Dashed line represents nationwide AI use rate (last two weeks).

## DATA AND METHODOLOGY

- Sample consists of approximately 1.2 million businesses split into six panels.
- Target population is nonfarm employer businesses with receipts of \$1,000 or more that are in the United States, District of Columbia, and Puerto Rico.
- Asks businesses to respond to the survey once every 12 weeks for a year.
- Data available at national, state, sector, subsector, employment size class, sector by employment size class, and top 25 metropolitan statistical area levels.
- Response rate for the pooled supplemental period was around 10 percent, with approximately 117,000 businesses responding during this time.
- Asks a series of qualitative questions about business conditions in the last two weeks and expectations about future business conditions. These qualitative questions result in response share estimates: the percentage of businesses which have selected each possible answer. For most questions, an index is produced to create one estimate per question for easier comparison over time.

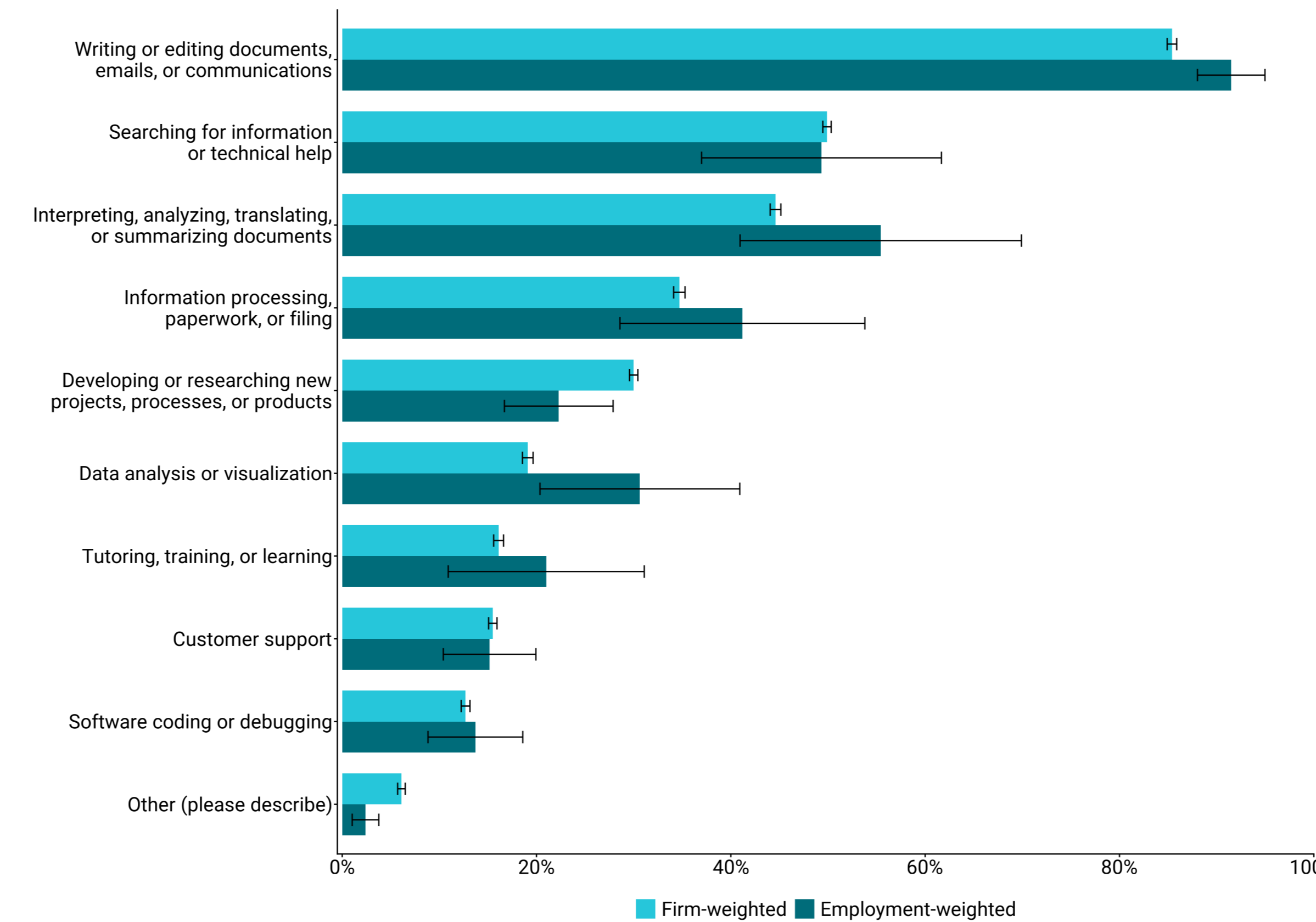
Note: The AI use question is fielded as a core BTOS question and is included in all collection periods. "Current AI Use" refers to a business responding "yes" to using AI in producing goods or services during the 2-week period ending with the date indicated on the graph. "Expected AI Use" refers to a business responding "yes" to thinking it will be using AI during the 6 months following the date indicated on the graph.

## AI USE RATE BY BUSINESS FUNCTION



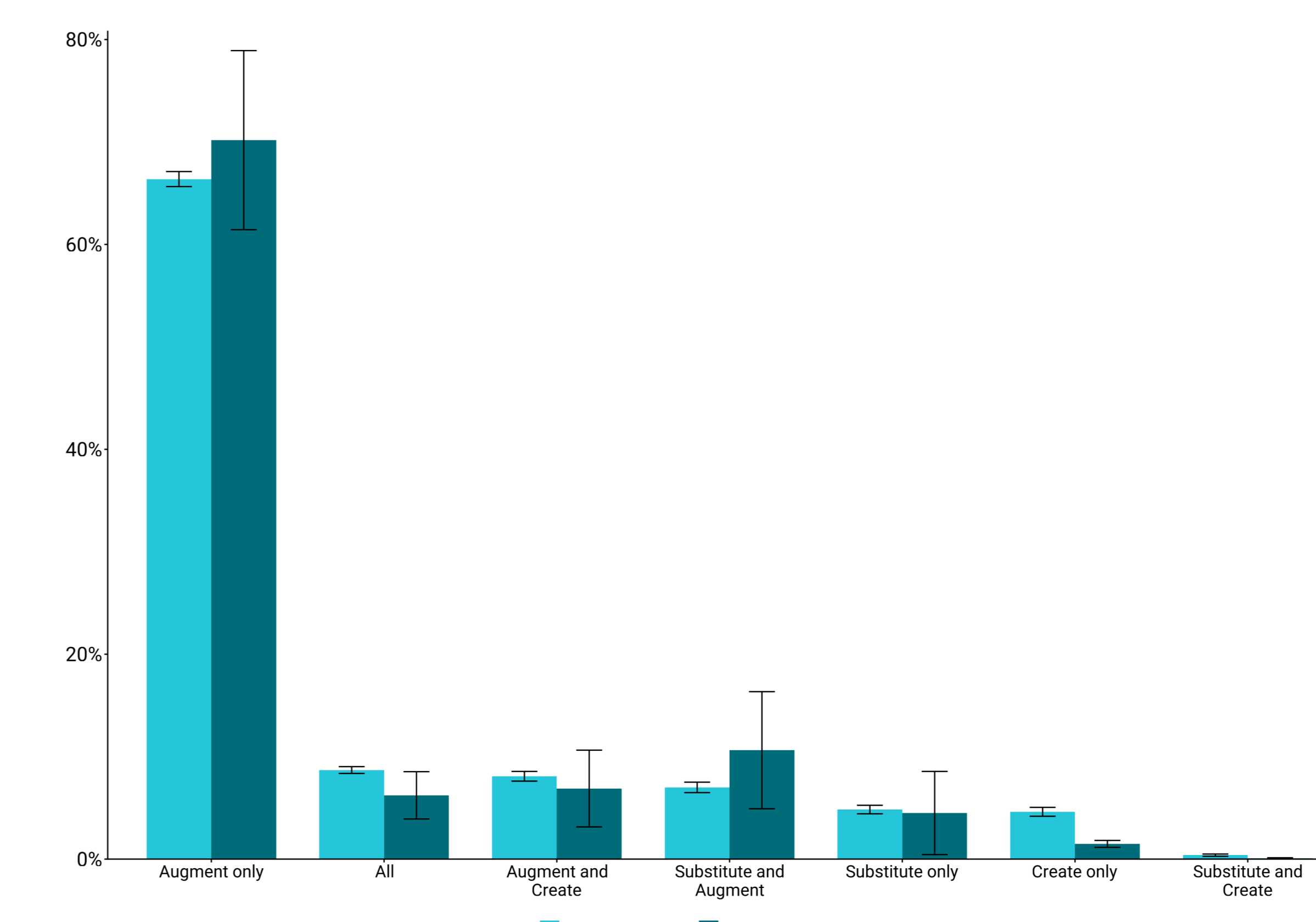
Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Error bars indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Response rates are conditional on answering "Yes" to AI use for at least one business function.

## WORKER GEN AI USE RATES BY TASK



Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Error bars indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Q25 is conditional on responding "Yes" to Q31: Generative AI use by employees.

## AI-DRIVEN TASK EFFECTS



Source: U.S. Census Bureau, Business Trends and Outlook Survey, Data collected 11/17/25-2/8/26.  
Note: Error bars indicate 95% confidence intervals around BTOS estimates given BTOS response standard errors. Q25 is conditional on AI use in at least one business function (Q24).

## SUMMARY

- The BTOS AI supplement provides a real-time snapshot of AI use patterns amongst US businesses. We find that as of April 2026, AI adoption stands at approximately 18% and is expected to rise to about 22% by Fall 2026.
- AI usage varies across both sectors and firm sizes: the highest rates of adoption are found in knowledge- and human-capital intensive sectors: Information (51), Professional, Technical, and Scientific Services (54), and Finance (52), in contrast with lagging adoption physical output and trade sectors, such as Manufacturing, Retail, and Wholesale.
- Firm size adoption shows a J-shaped pattern, with larger firms (250+) more likely to report adopting or planning to adopt AI compared to smaller firms.
- AI-adopting businesses are most likely to report using the technology for sales and marketing (52%), strategy and business development (45%), and IT (41%). Business functions such as distribution, production, and sourcing are the least likely to have AI integrations. Functional AI use is typically limited: most (57%) firms use AI in 1-3 functions.
- Across worker tasks, we find that GenAI is most likely to be used for writing or editing (85%), searching for information or technical help (50%), or document analysis (47%). Worker tasks are also typically limited - 65% of use cases only utilize AI for 1-3 tasks.
- Task augmentation dominates AI usage patterns: 66% of firms report using AI to solely augment tasks, and 91% use it to augment tasks in addition to substituting and/or creating new tasks. Firms that are using AI to replace tasks tend to do it at a limited level: 71% of firms who have replaced tasks using AI only do it for a small number of tasks.