



FEDERAL RESERVE BANK  
OF SAN FRANCISCO

# Implications of AI for Hawai'i's Lower-Income Workers and Small Businesses

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*Disclaimer: The views expressed on this presentation are solely my own and do not necessarily reflect the views of the Federal Reserve Bank of San Francisco or the Federal Reserve System.*



*“The greater our understanding of how different people and businesses experience the economy, the better we can meet our congressionally-mandated monetary policy goals of stable prices and maximum employment.”*

**–Mary C. Daly, President and CEO**  
Federal Reserve Bank of San Francisco

# Community Engagement and Analysis

CE&A works to understand the economic experiences of lower-income households and communities to help build a stronger economy for all Americans.

## ENGAGE

Engage our communities to better understand the district

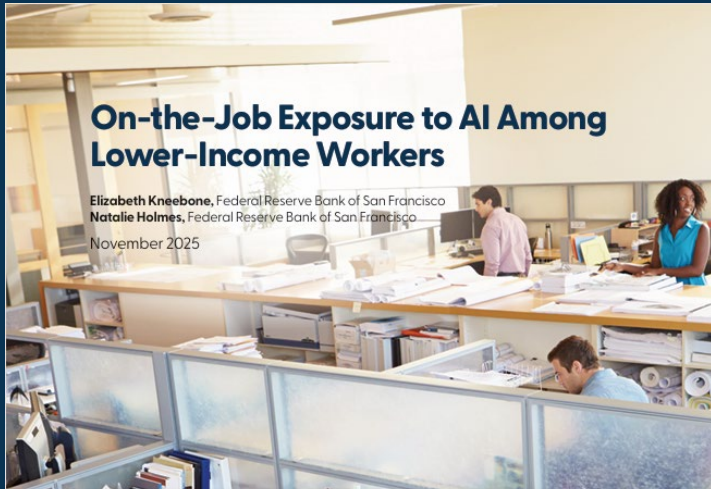
## INFORM

Conduct and share research on challenges and promising practices

## CONNECT

Facilitate dialogue, shared learning, and partnership building across sectors

# Recent research and engagement to understand AI's implications:

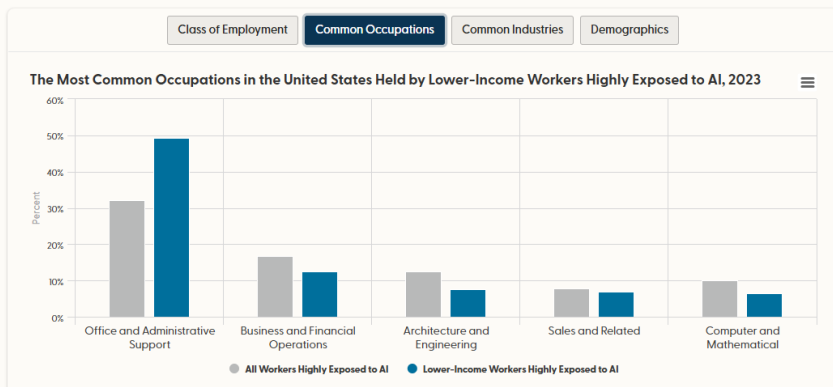


## On-the-Job Exposure to AI Among Lower-Income Workers

Elizabeth Kneebone, Federal Reserve Bank of San Francisco  
Natalie Holmes, Federal Reserve Bank of San Francisco  
November 2025

Select region: United States

In the United States, there are 175,555,600 total workers and 48,925,050 (27.9%) live in low- to moderate-income households. Of these workers, 6,058,299 are in occupations highly exposed to AI adoption.



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## Community Investments

### About Community Investments

**Community Investments** is a publication that brings together real-world insights and research on efforts to expand investment and economic opportunity in lower-income communities.

**This issue examines the implications of artificial intelligence for the community development field, including for small businesses, nonprofits, workers, and workforce systems.**

Understanding the economic experiences of lower-income households and communities contributes to the Federal Reserve Bank of San Francisco's work to support monetary policy, strengthen financial institutions, and enhance payment systems.

### Articles: AI Insights

We examine AI's impact on community development and the economy through research and practitioner perspectives.

## Findings from the 2025 Small Business Credit Survey

## Use of AI

Level of use, importance, and challenges

[Understanding the Evolving AI Landscape and Its Implications for Community Development >](#)

Elizabeth Kneebone and Bina Shrimali

[Insights from Community Development Stakeholders on Early Organizational and Employment Impacts of AI Adoption >](#)

Natalie Holmes and Elizabeth Kneebone

[How Workforce and Training Organizations Are Navigating the Adoption of AI >](#)

Natalie Holmes and Elizabeth Kneebone

[Reflections on Building AI Policies and Guardrails for Community-Based Organizations >](#)

[Early Findings on Small Business Use of AI >](#)

Natalie Holmes, Rocio Sanchez-Moyano, and Sarah Simms

[State Data on Lower-Income Workers and Exposure to AI >](#)

Elizabeth Kneebone, Natalie Holmes, and Jason Vargo

[The Role Technical Assistance Can Play in AI Adoption >](#)

Natalie Holmes and Sarah Simms

# AI Exposure on the Job

# Key Terms

## WORKERS

- + In the civilian labor force
- + 16 years and older
- + With earned income in the past year

## LOWER-INCOME

- + In a household with income below 80% of the Area Median Income

## AI EXPOSURE

- + Whether jobs tasks are likely to be **aided** or **replaced** by generative AI tools

# AI Exposure\*

## Determined based on two questions:

- † What is the likelihood job tasks may be aided or replaced by AI (high, medium, low)?
- † How important are those tasks to the job?

\*Definition and methods developed by Kochhar (2023) and Schendstock and Schreiner Wertz (2024)



# Example of work activities with high exposure to AI

Getting information

Monitoring processes, materials, or surroundings

Processing information

Evaluating information to determine compliance with standards

Analyzing data or information

Scheduling work and activities

Controlling machines and processes

Working with computers

Documenting/recording information

Performing administrative activities

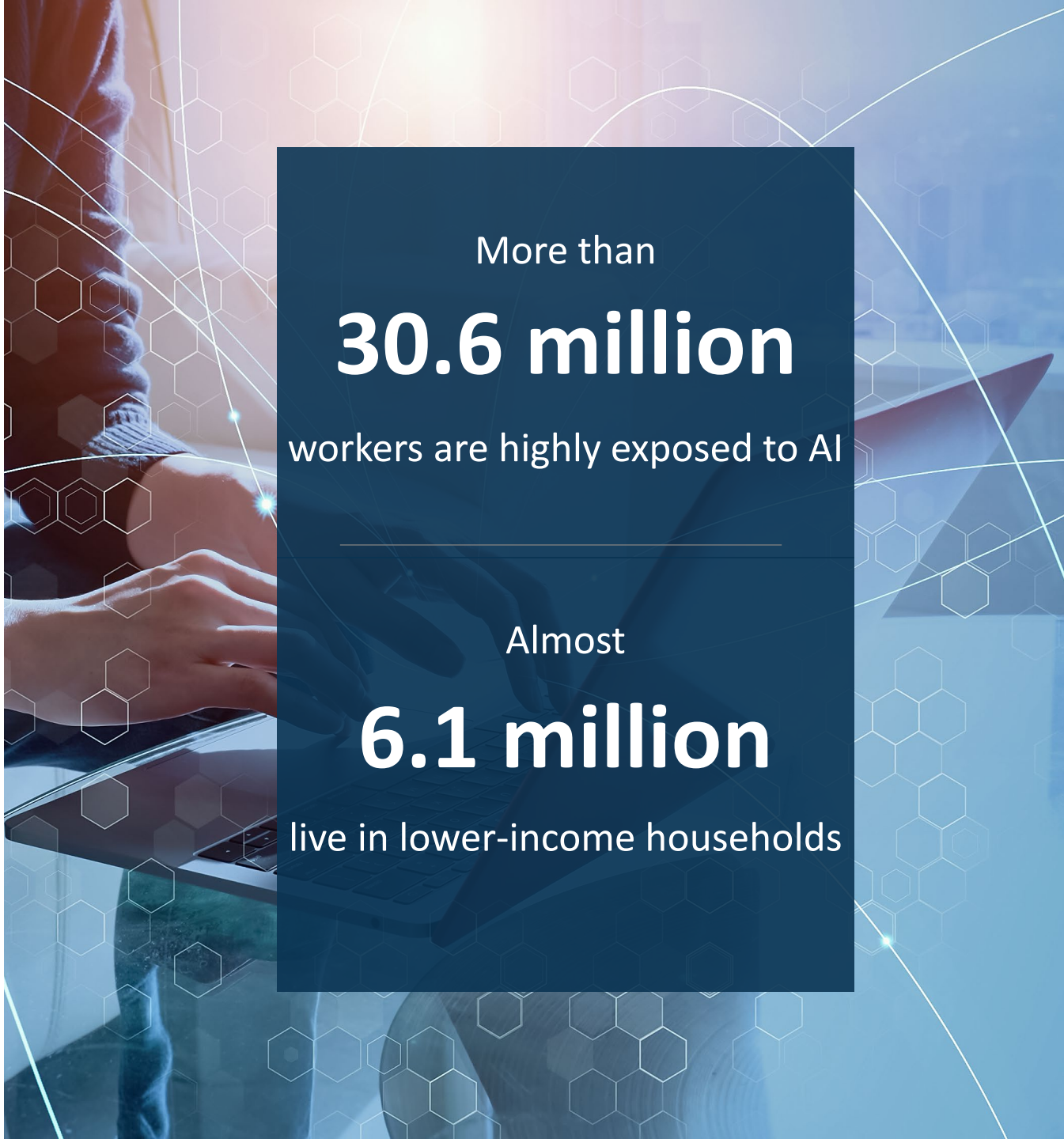
# AI Exposure\*

## Determined based on two questions:

- † What is the likelihood job tasks may be aided or replaced by AI (high, medium, low)?
- † How important are those tasks to the job?

**The top 25% of occupations ranked by the relative importance of high AI-exposure tasks are considered “high exposure” occupations**

\*Definition and methods developed by Kochhar (2023) and Schendstock and Schreiner Wertz (2024)



More than  
**30.6 million**  
workers are highly exposed to AI

Almost  
**6.1 million**  
live in lower-income households

Roughly **117,000** workers in **Hawai'i**  
are relatively “highly exposed” to AI

Almost **24,000** (21%) live in lower-income households

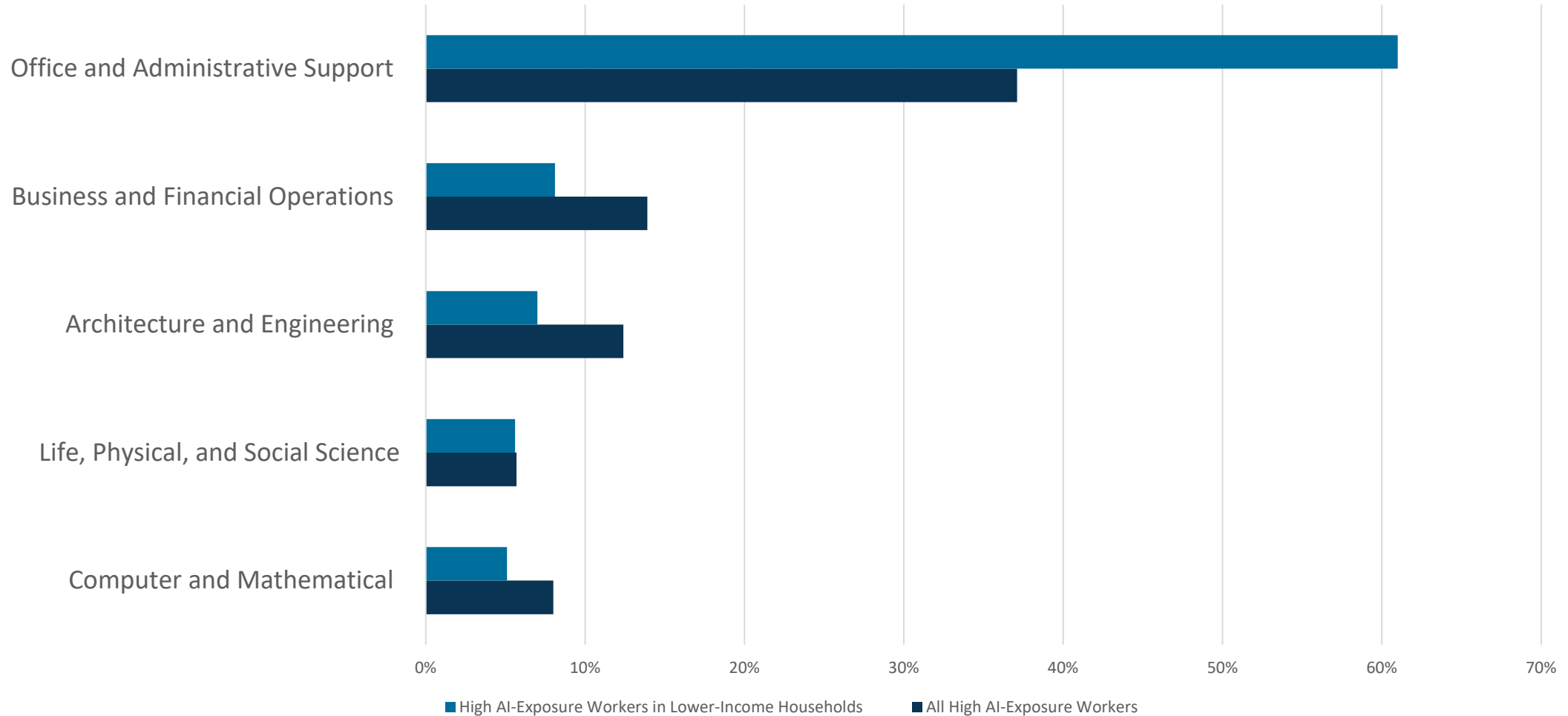
# Workers in lower-income households with high AI exposure are slightly more likely to work in the nonprofit sector

Distribution of Hawai'i's Workers in LMI Households by Class of Worker

Workers Highly Exposed to AI	Private Employment	Government	Self Employed	Nonprofit
All	53.5%	26.3%	10.3%	9.7%
Workers in LMI Households	52.0%	26.5%	7.8%	<b>12.9%</b>

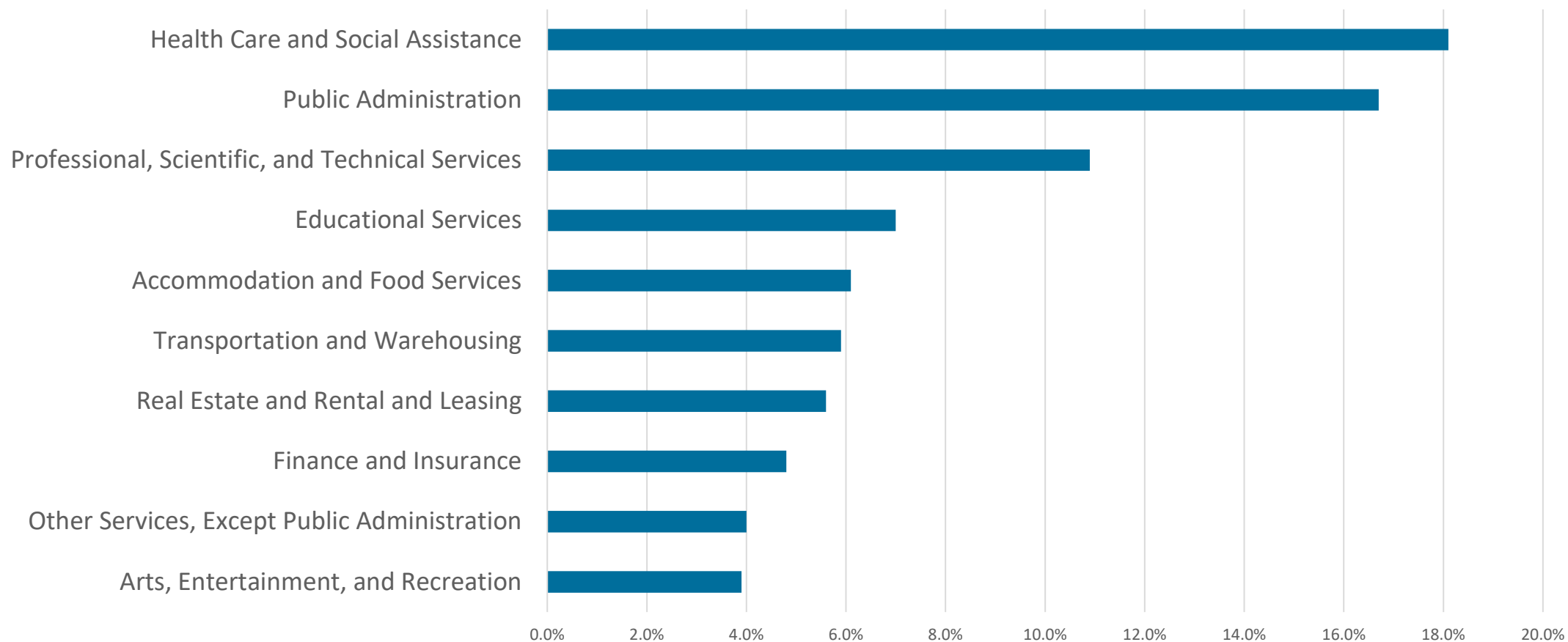
# More than 60% of lower-income workers with high AI exposure jobs work in Office and Administrative Support occupations

Five Most Common Occupations for Hawai'i's Workers Highly Exposed to AI



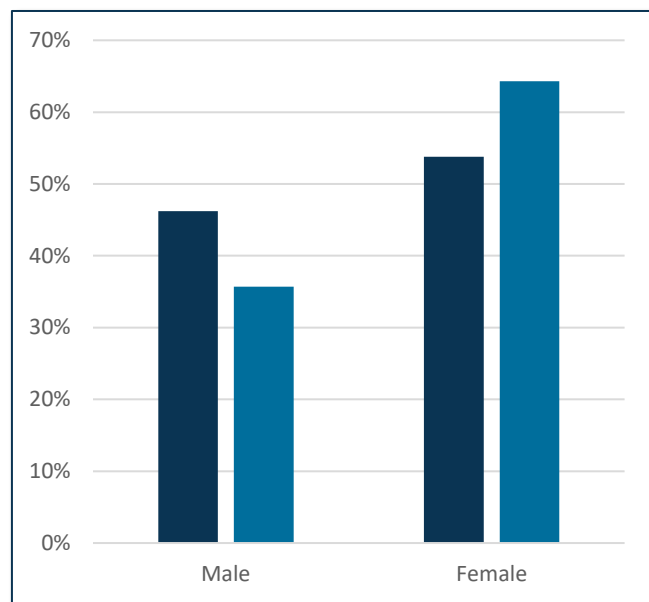
# Lower-income workers with high AI exposure are most likely to work in the Health Care & Social Assistance industry

**Most Common Industries for Hawai'i's Lower-Income Workers Highly Exposed to AI**

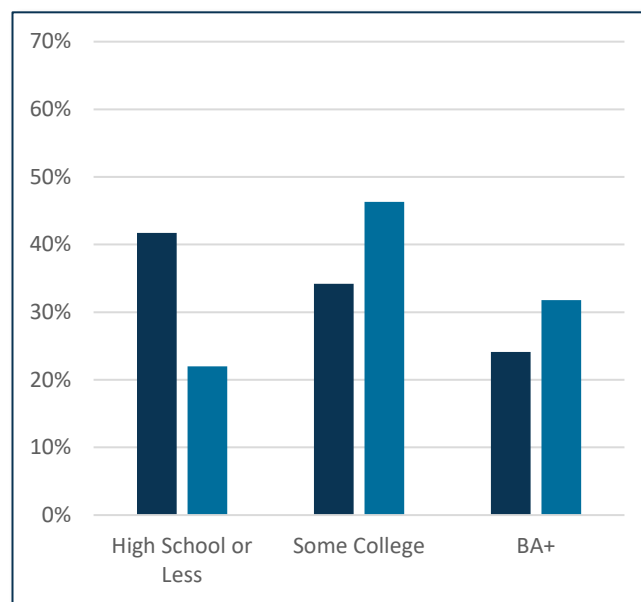


# Hawai'i's lower-income workers exposed to AI look somewhat different than the lower-income workforce as a whole

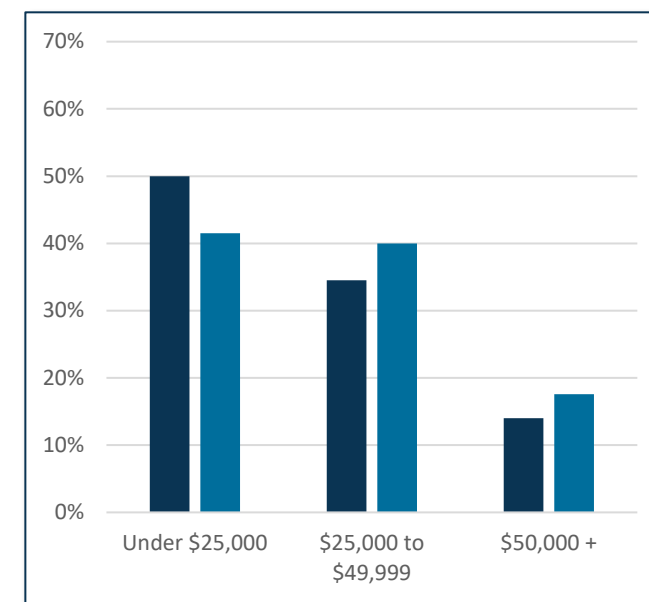
## Sex



## Educational Attainment




## Annual Earned Income



Workers in LMI Households
  High AI-Exposure Workers in LMI Households

# Early Impacts and Workforce Implications



“If you work with a computer, you’ll need to know how to work with AI.”

# Qualitative insights reveal...

## Uneven Adoption

- + Among individuals
- + At the organizational level
- + In service delivery

## Early Employment Impacts

- + Shifting tasks
- + Foregoing new job creation
- + Eliminating existing positions

## Opportunities

- + To integrate into training and education
- + To enhance job matching and performance
- + But many questions and challenges remain...

# Qualitative insights reveal...

- + Workforce and training listening session participants had yet to see significant shifts in job descriptions/employer demand, but saw the value in building AI skills:

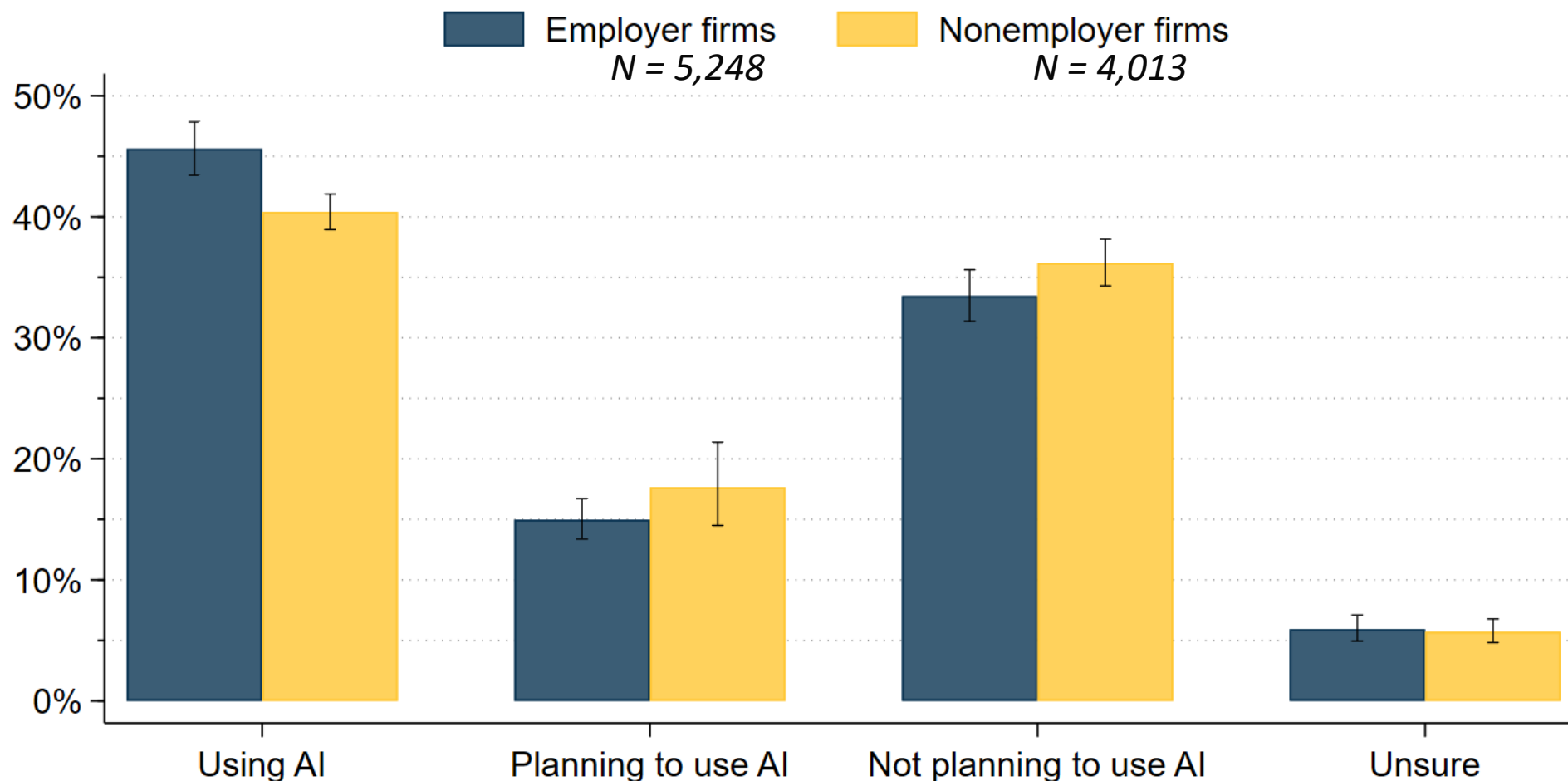
*“People not exposed [to AI] now are going to fall further and further behind...We have low-income people not using it who will fall further behind because they don’t know how.”*

- + Respondents expressed concerns about how to best target their trainings. Should they avoid jobs that could be negatively impacted by AI? Will today’s “AI safe” jobs remain that way? How do you teach the skills without necessarily teaching to the tool?
- + They also noted concerns about barriers to access or acquiring AI skills, including the digital divide
- + Respondents identified critical thinking skills as an essential foundation for navigating this technological transition

# AI Use Among U.S. Small Businesses

# Roughly 60% of U.S. small businesses surveyed reported using or planning to use AI

Is your business, or are any of its employees, currently using AI for work?

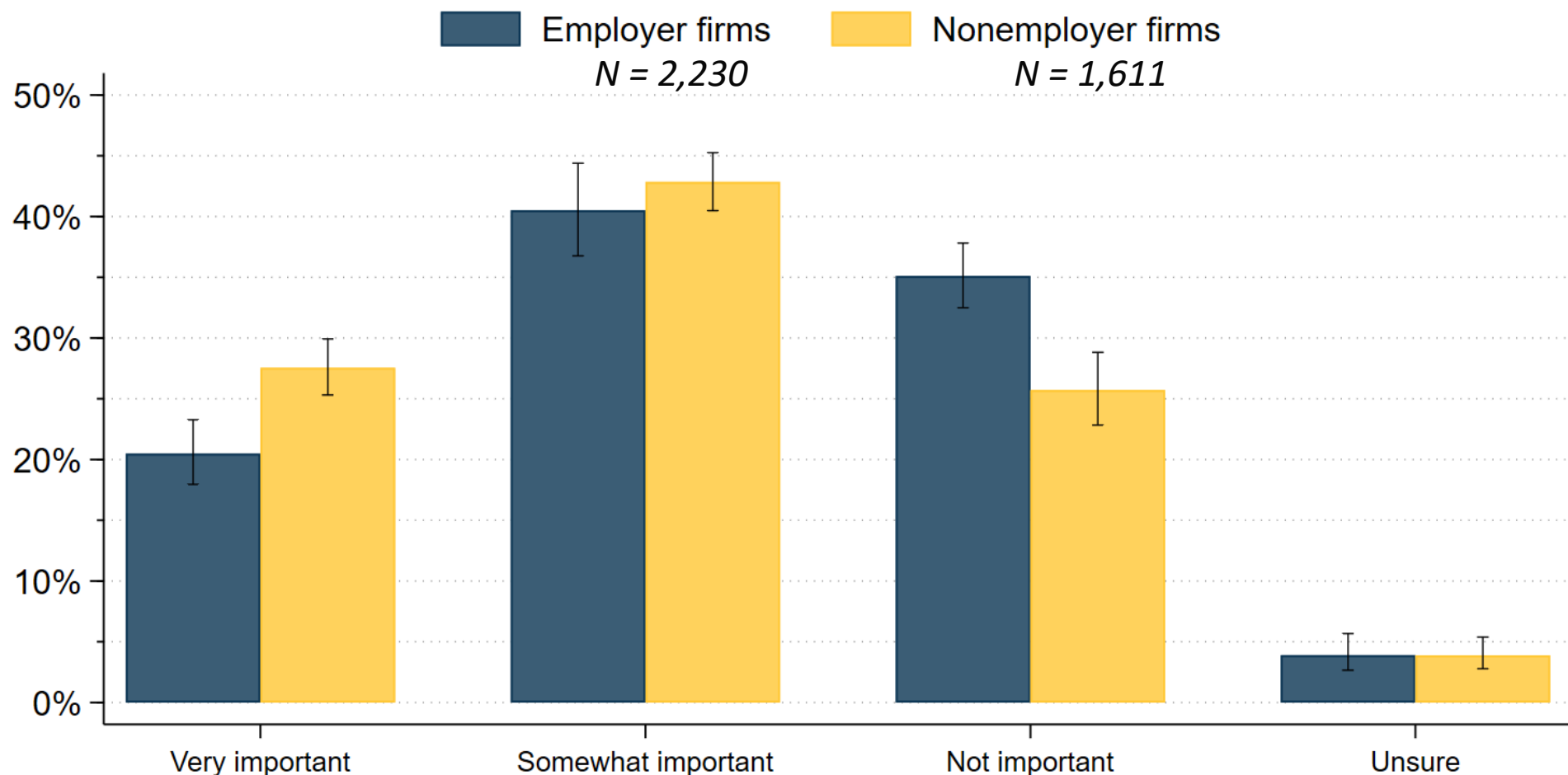


Note: Error bars represent 95% confidence intervals.

Source: Federal Reserve Bank of San Francisco analysis of 2025 Small Business Credit Survey data.

# Non-employer firms—solo entrepreneurs—are especially likely to say AI is very important to their core work

How important is AI to producing your business's core goods and/or services?

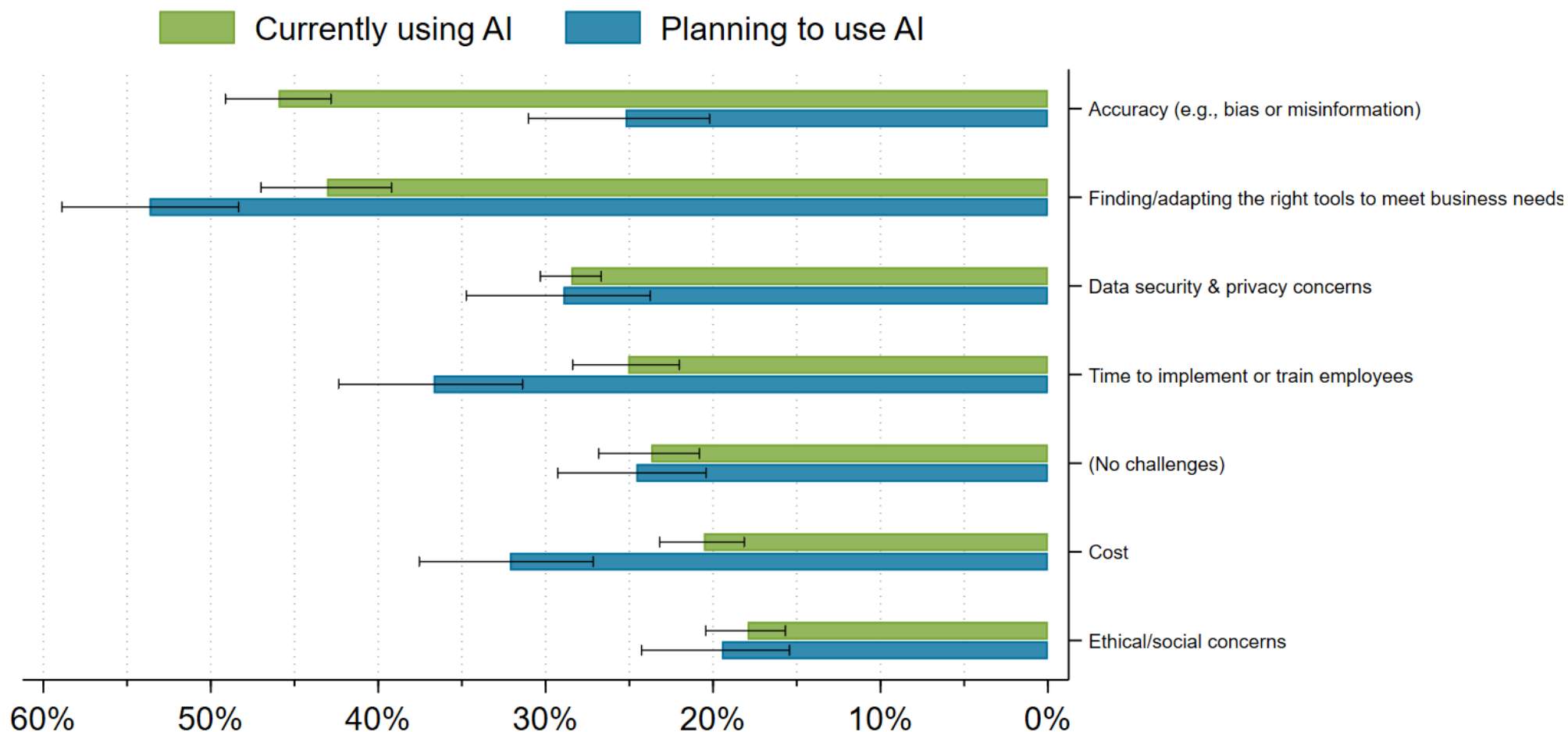


Note: Error bars represent 95% confidence intervals.

Source: Federal Reserve Bank of San Francisco analysis of 2025 Small Business Credit Survey data.

# Firms using or planning to use AI are navigating some challenges to adoption

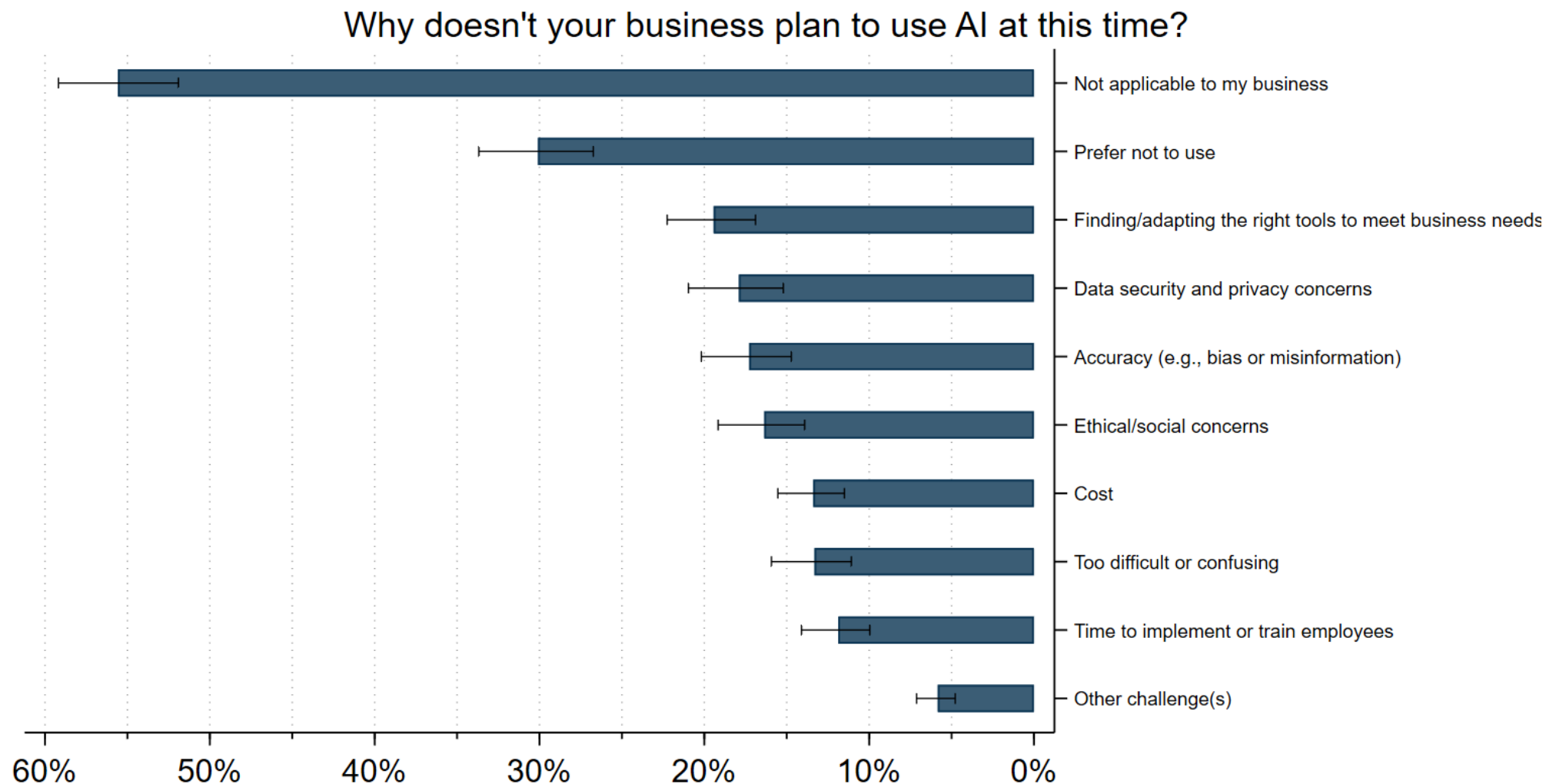
Which of the following AI-related challenges, if any, has your business experienced?



Notes: Employer firms only. Error bars represent 95% confidence intervals.

Source: Federal Reserve Bank of San Francisco analysis of 2025 Small Business Credit Survey data.

# Most firms not using AI report that they don't see how it is applicable to their business



Notes: Employer firms only. Error bars represent 95% confidence intervals.

Source: Federal Reserve Bank of San Francisco analysis of 2025 Small Business Credit Survey data.

# Additional Resources

Visit the SF Fed's  
**EmergingTech Economic  
Research Network (EERN)**  
To find relevant research and tune into the  
events and speaker series



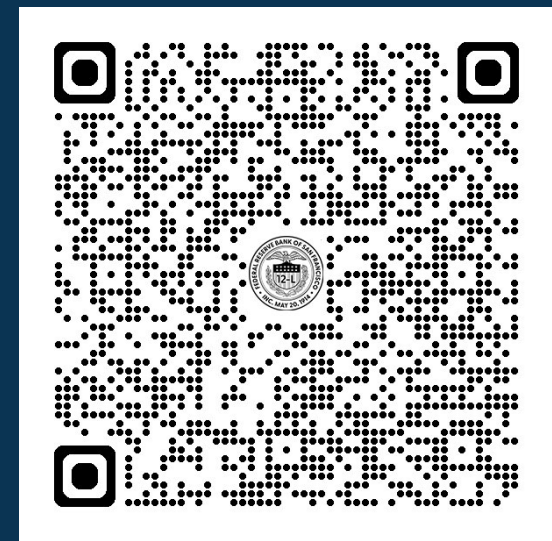
A vertical stack of three event cards from the EERN series. Each card features a speaker photo, the EERN logo, the event title, and the date.

- Lawrence D.W. Schmidt | AI's Impact on Labor and Wages**  
July 1, 2026
- The Economic Value of AI at Work and at Home**  
June 24, 2026
- Small Business and AI: Understanding Adoption and Building Support Systems**  
May 19, 2026

Explore the SF Fed's  
**Community Investments**  
series on the implications of AI for the  
community development field

+

Find links to our research and interactive  
data tool on  
AI exposure among lower-income workers



The background features a large, faded circular seal of the Federal Reserve Bank of San Francisco. The seal contains an eagle with wings spread, a shield with stars and stripes, and the text 'FEDERAL RESERVE BANK OF SAN FRANCISCO' and 'INC. MAY 20, 1914'.

**Thank You**

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