State of AI in Software Development

Insights across 400+ organizations

Methodology and Firmographics

- 190,000 developers
- 460+ companies
- Eng org sizes from <50 to 10000+
- HQs in North America, Latin America, Europe, and Asia Pacific

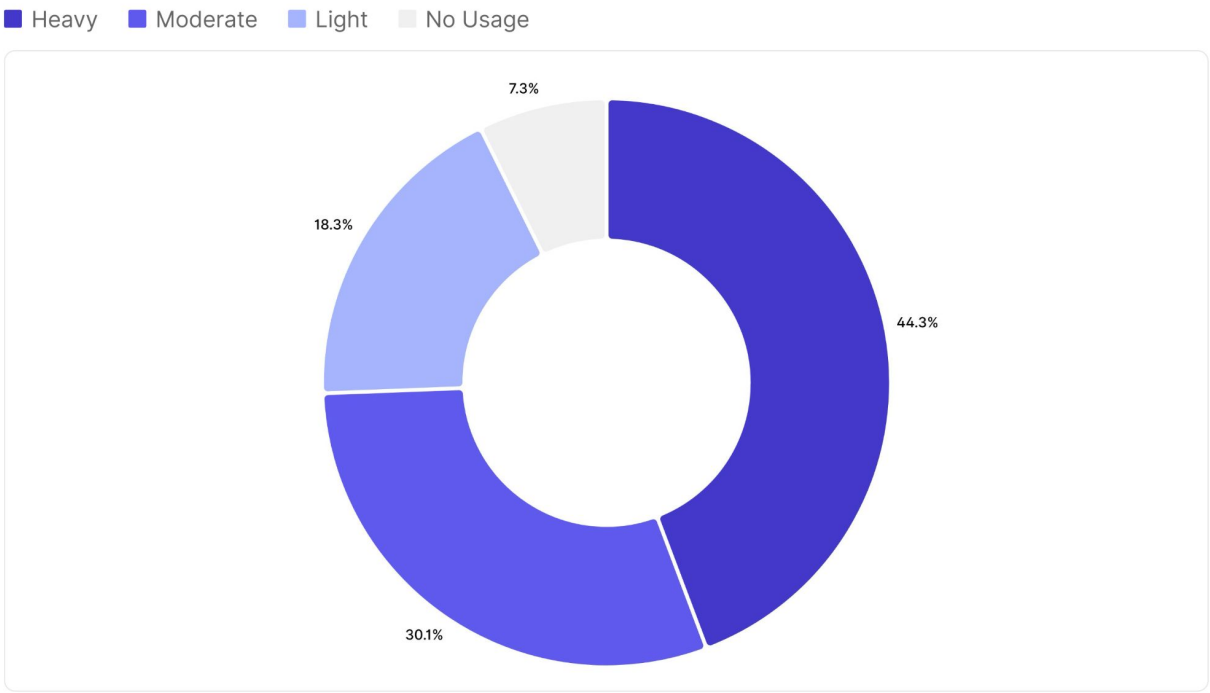
https://getdx.com/uploads/ai-assisted-engineering-q1-impact-report.pdf

Current impact of AI

AI adoption swells to over 93%

AI usage levels among engineers

Sample from 400+ companies



Regular AI users save 4.7 hours/week

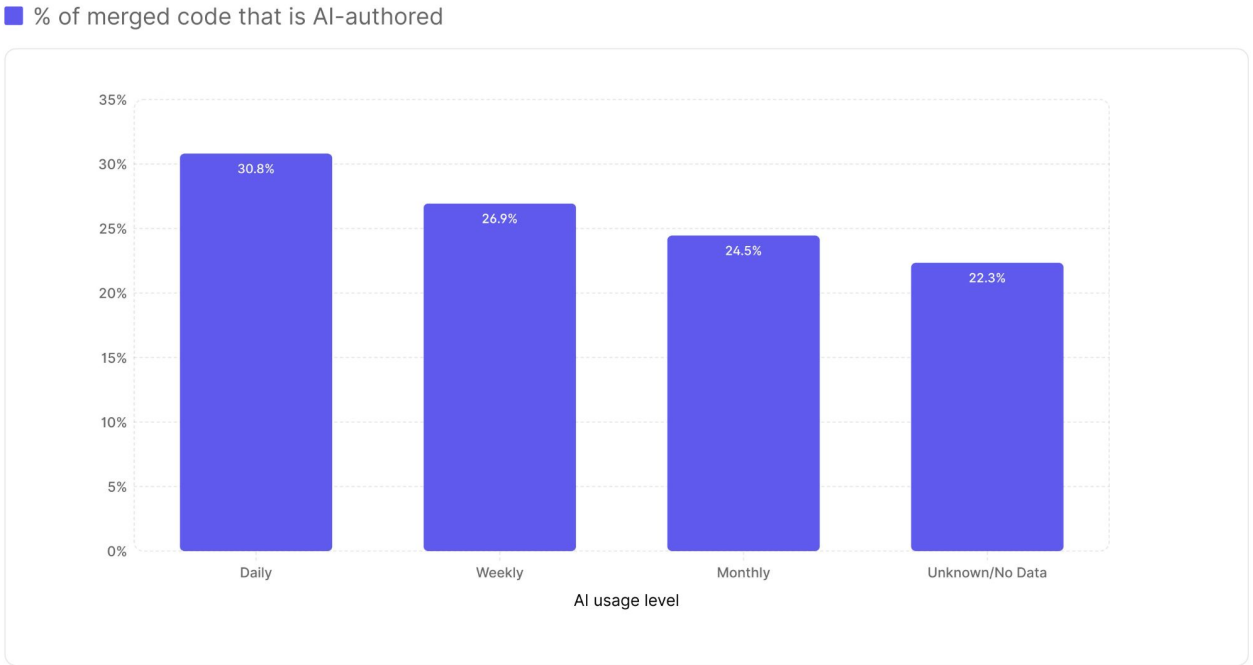
Weekly AI time savings by AI usage level

Sample from 400+ companies

27.4% of merged code is AI-authored

Share of AI-authored code by AI usage level

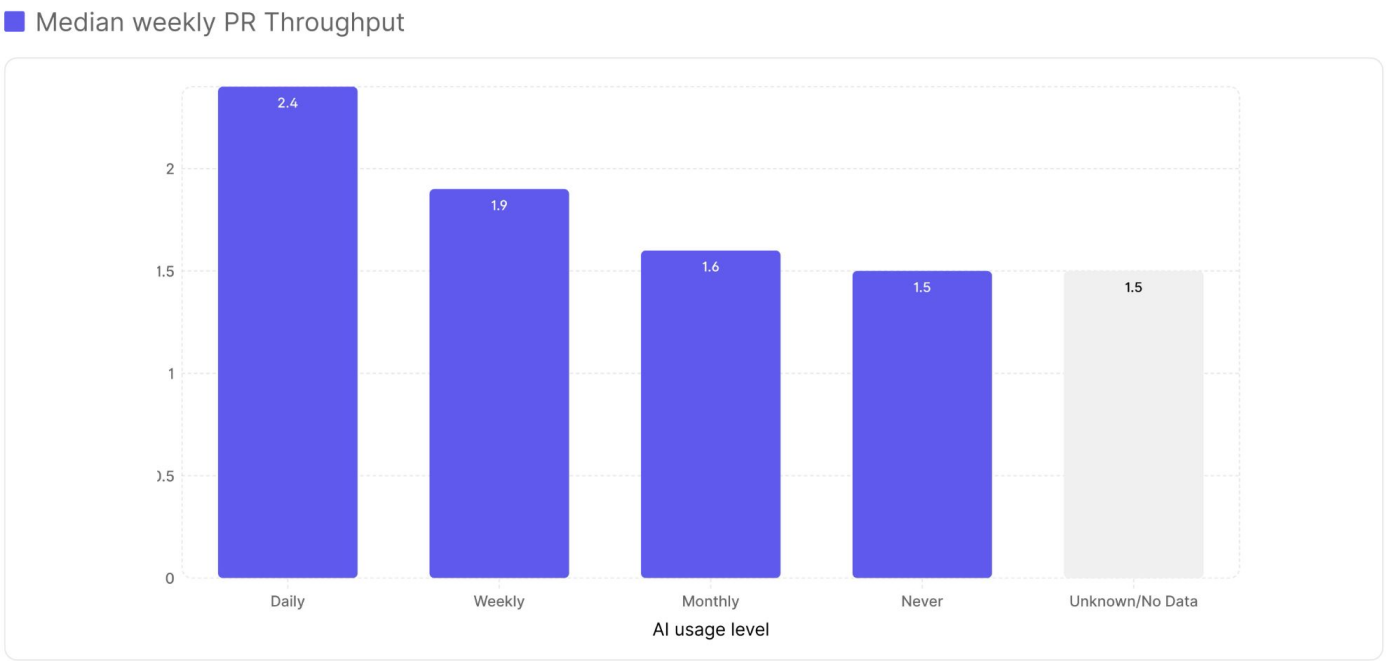
Sample from 400+ companies



Daily AI users ship 60% more PRs

Weekly PR throughput by AI usage level

Sample from 400+ companies

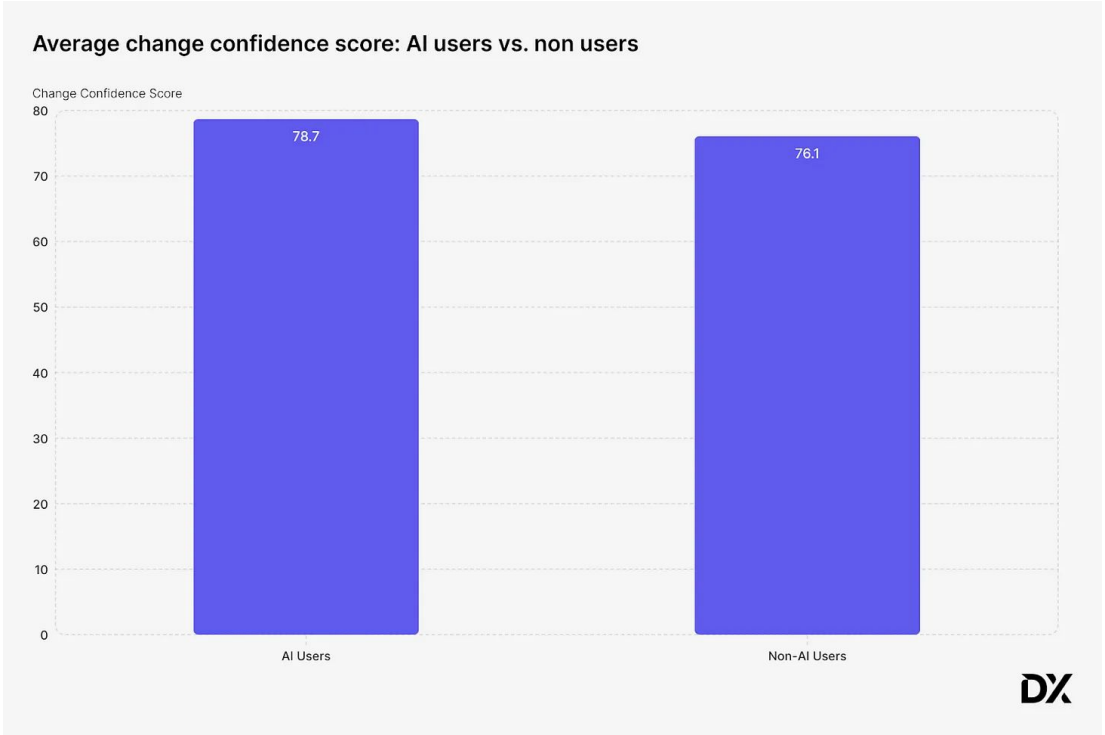


AI seems to deliver modest gains in quality metrics

Average Change Confidence DXI driver for AI Users vs. Non-AI Users

Data from 19,251 developers

DXI Score



18 pt max gain

2.6 Point Average Gain from using AI

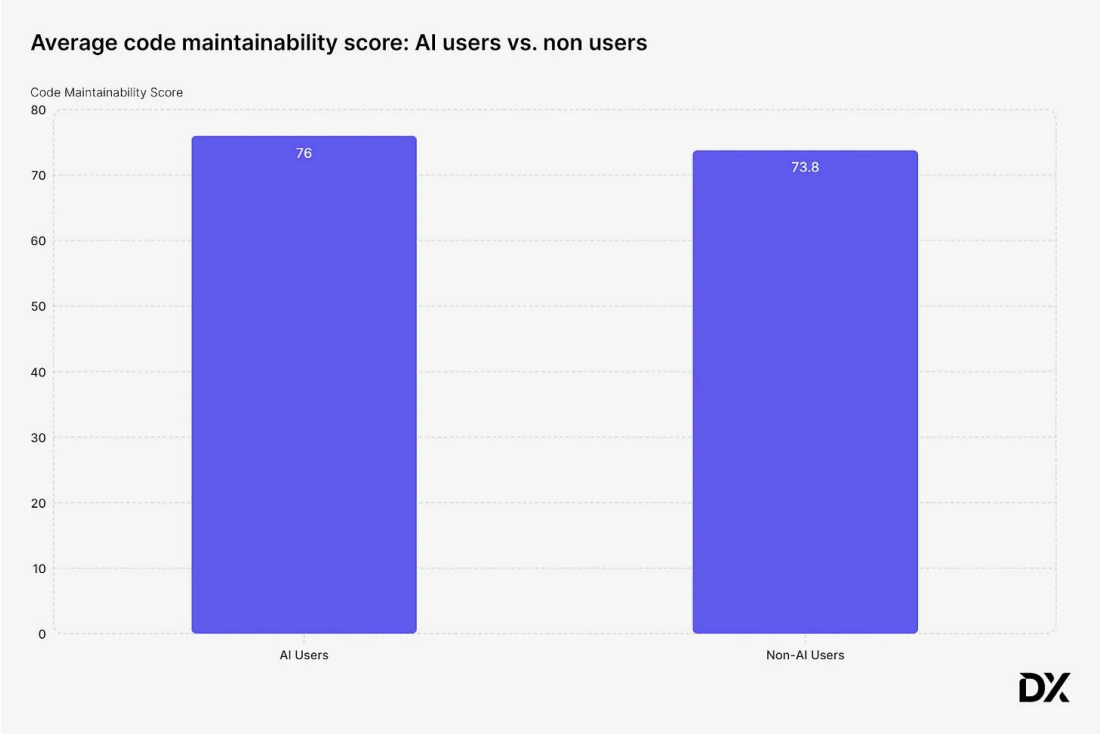
15 pt max loss

AI seems to deliver modest gains in quality metrics

Average Code Maintainability DXI driver for AI Users vs. Non-AI Users

Data from 20,012 developers

DXI Score



15 pt max gain

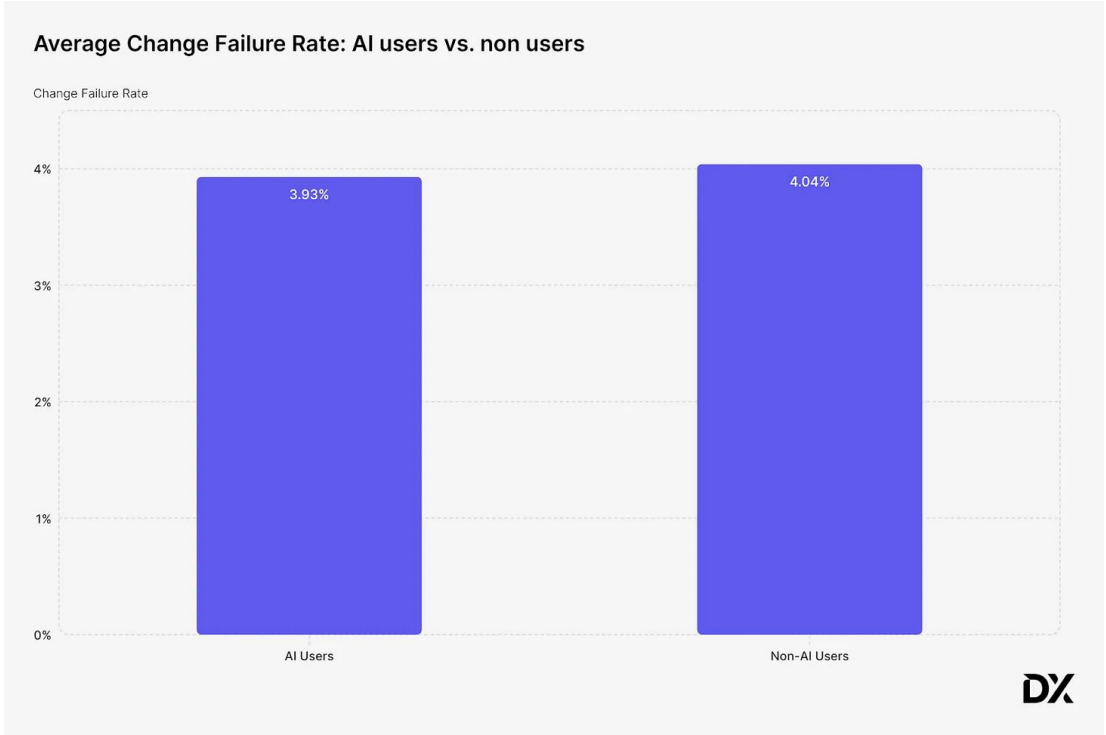
2.2 Point Average Gain from using AI

13 pt max loss

AI seems to deliver modest gains in quality metrics

Average Change Failure Rate% for AI Users vs. Non-AI Users

Data from 61 Companies



1.77% max gain

0.11% Reduction from using AI

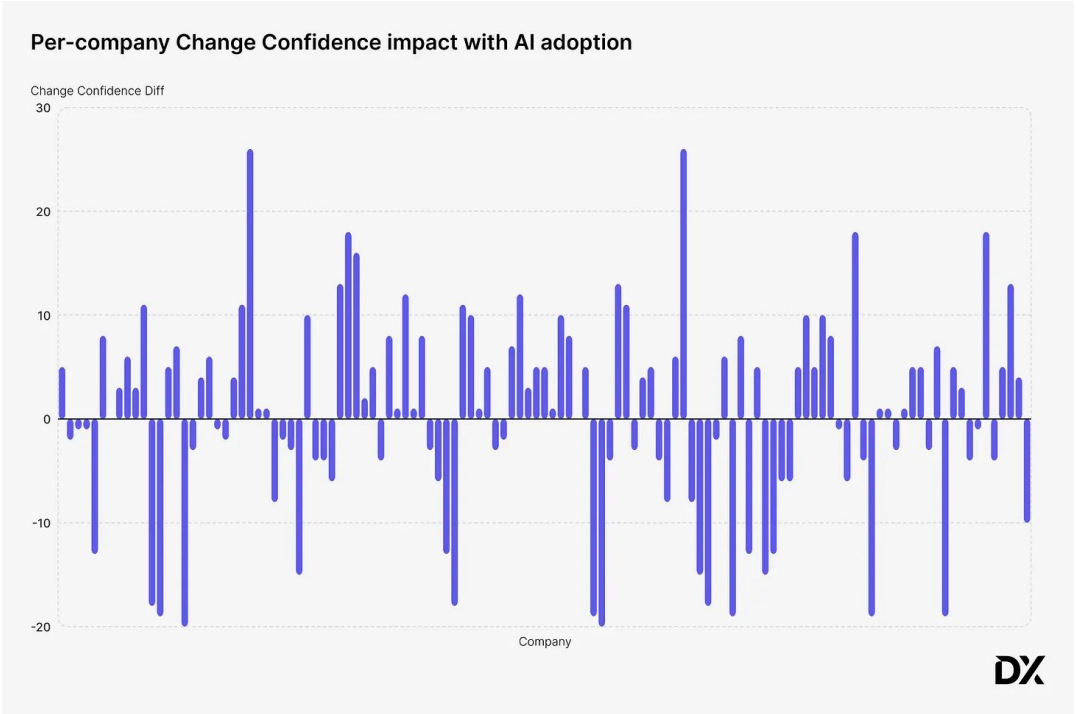
1.07% max loss

Industry averages hide the big picture of quality impact

Per-company Change Confidence DXI impact for AI Users vs. Non-AI Users

Data from 19,251 developers

DXI Impact



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Per-company Code Maintainability DXI impact for AI Users vs. Non-AI Users

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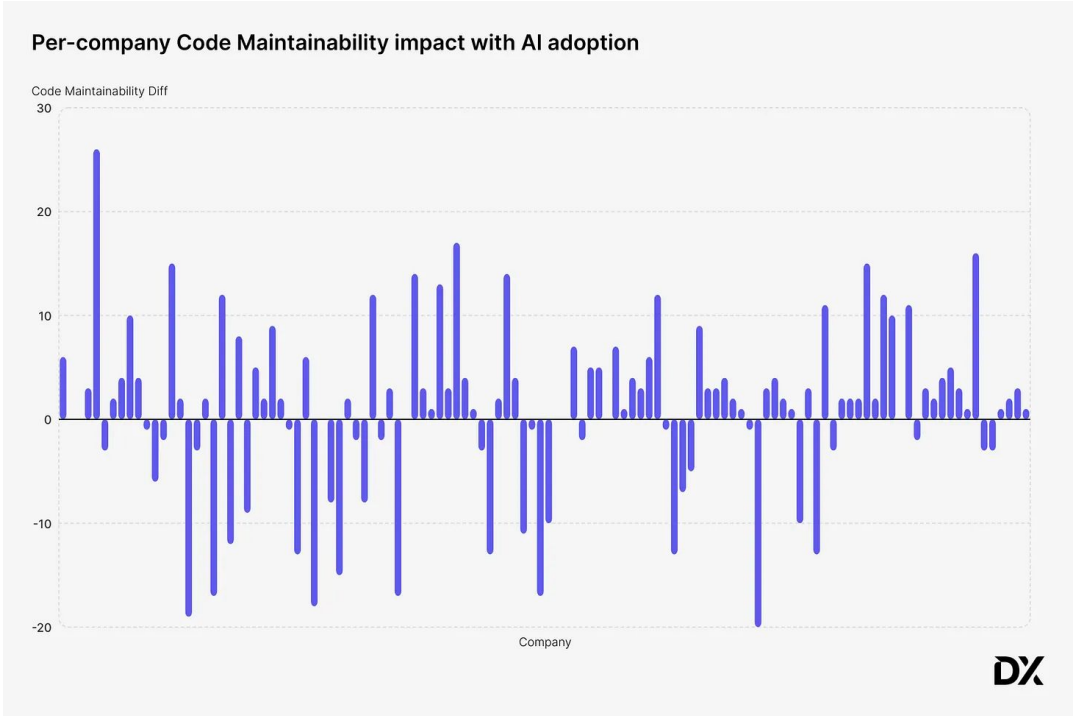

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Per-company Change Failure Rate% impact for AI Users vs. Non-AI Users

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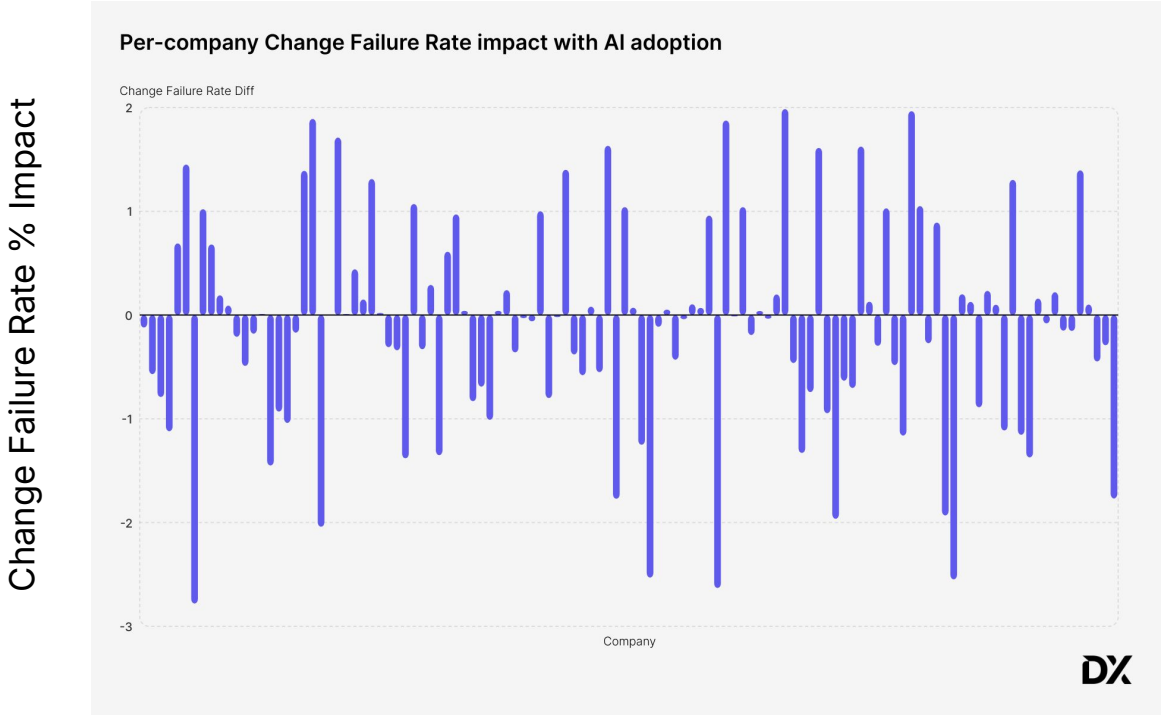
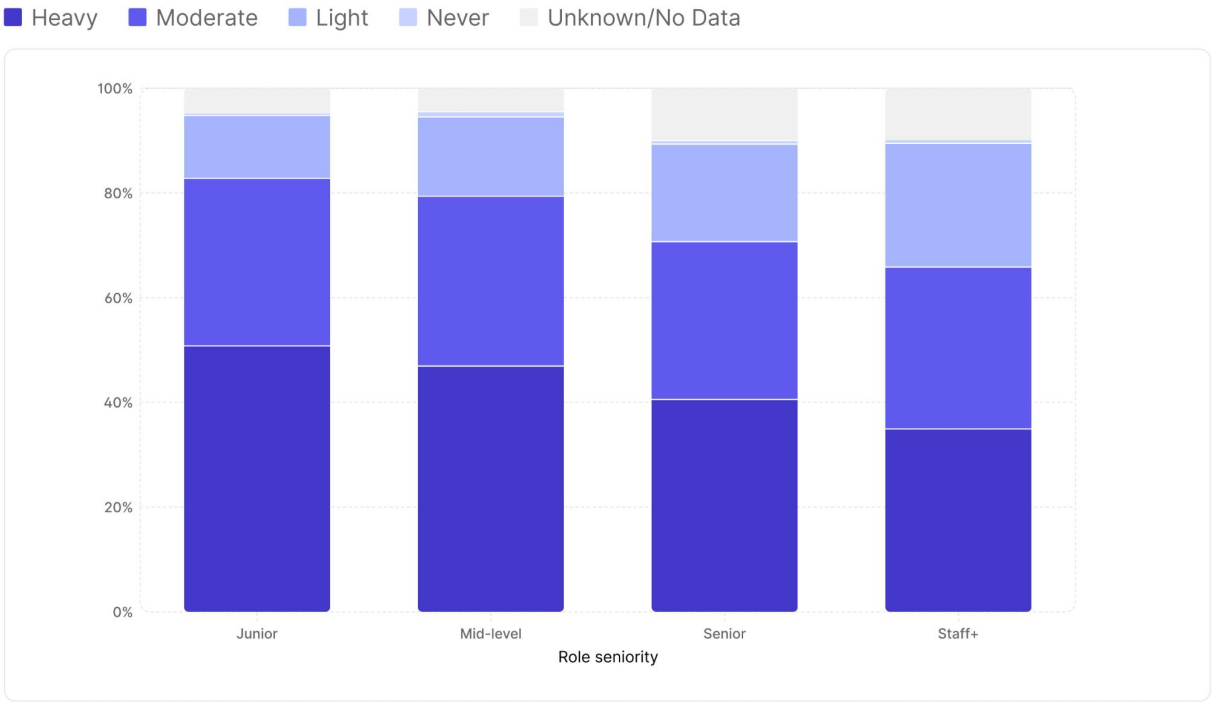


Interesting trends

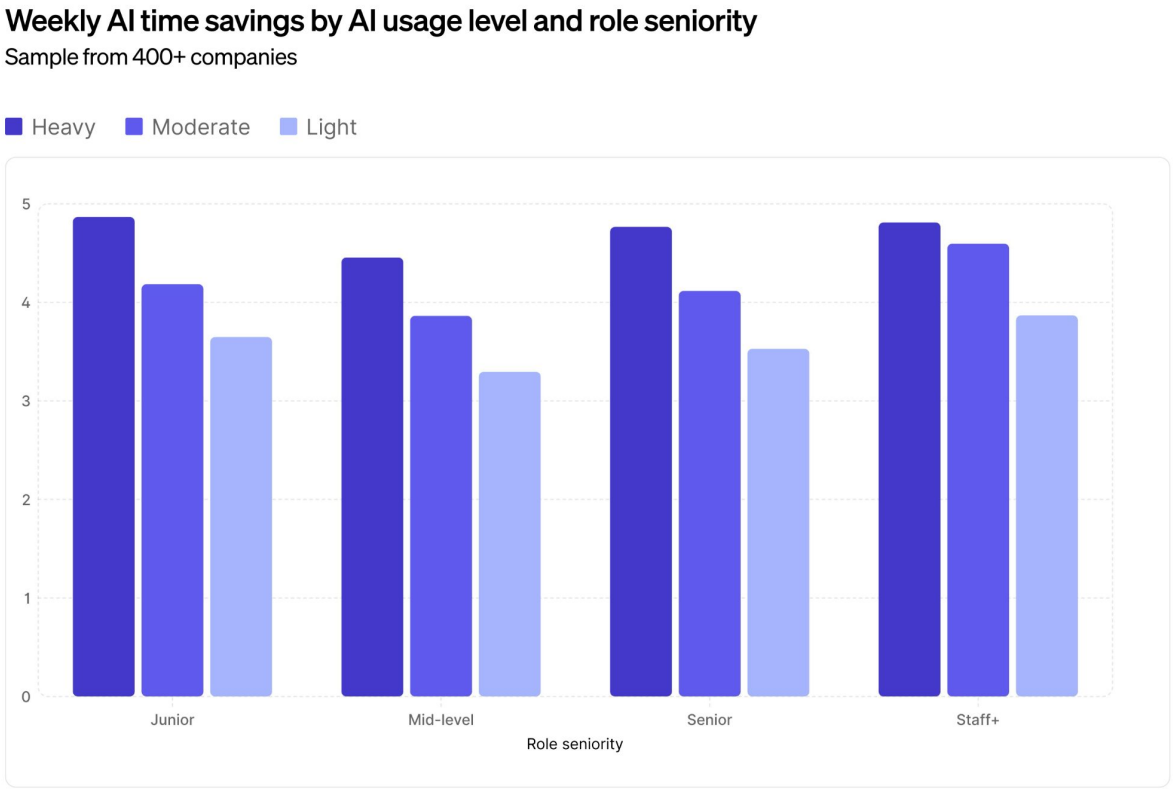
Junior engineers use AI the most

AI adoption by usage level and role seniority

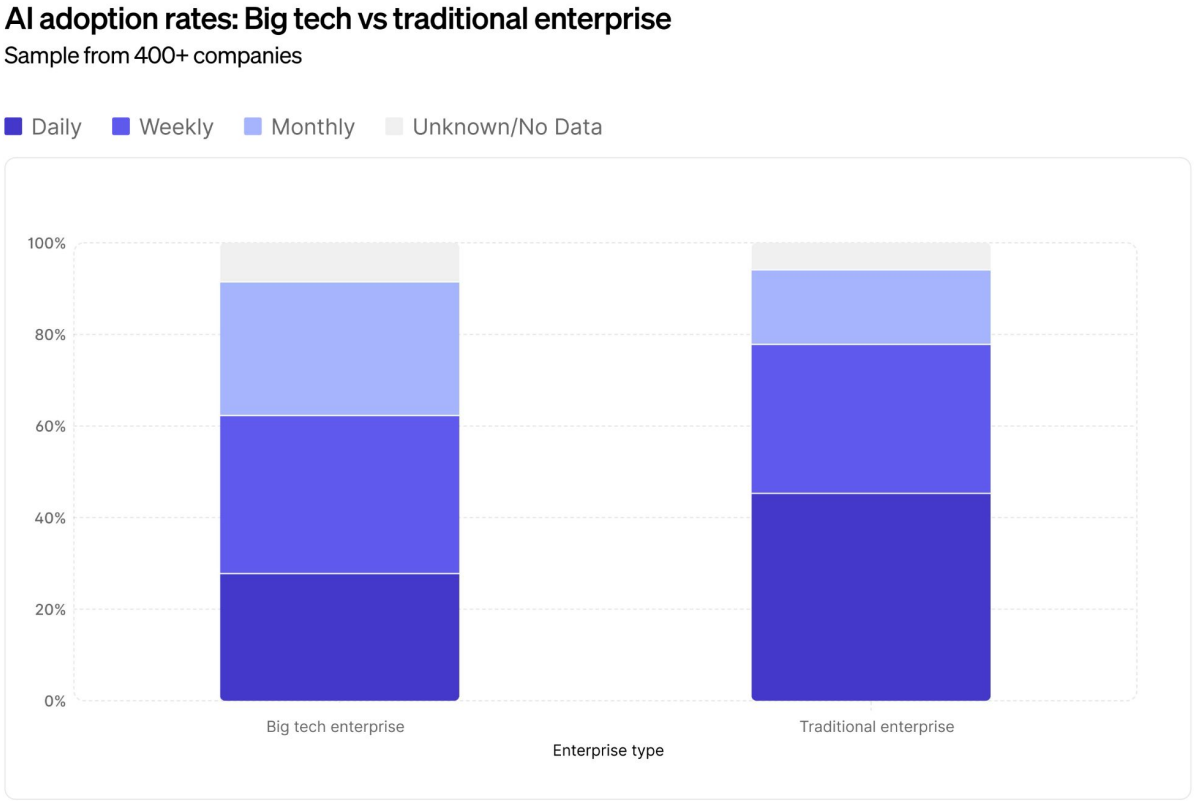
Sample from 400+ companies



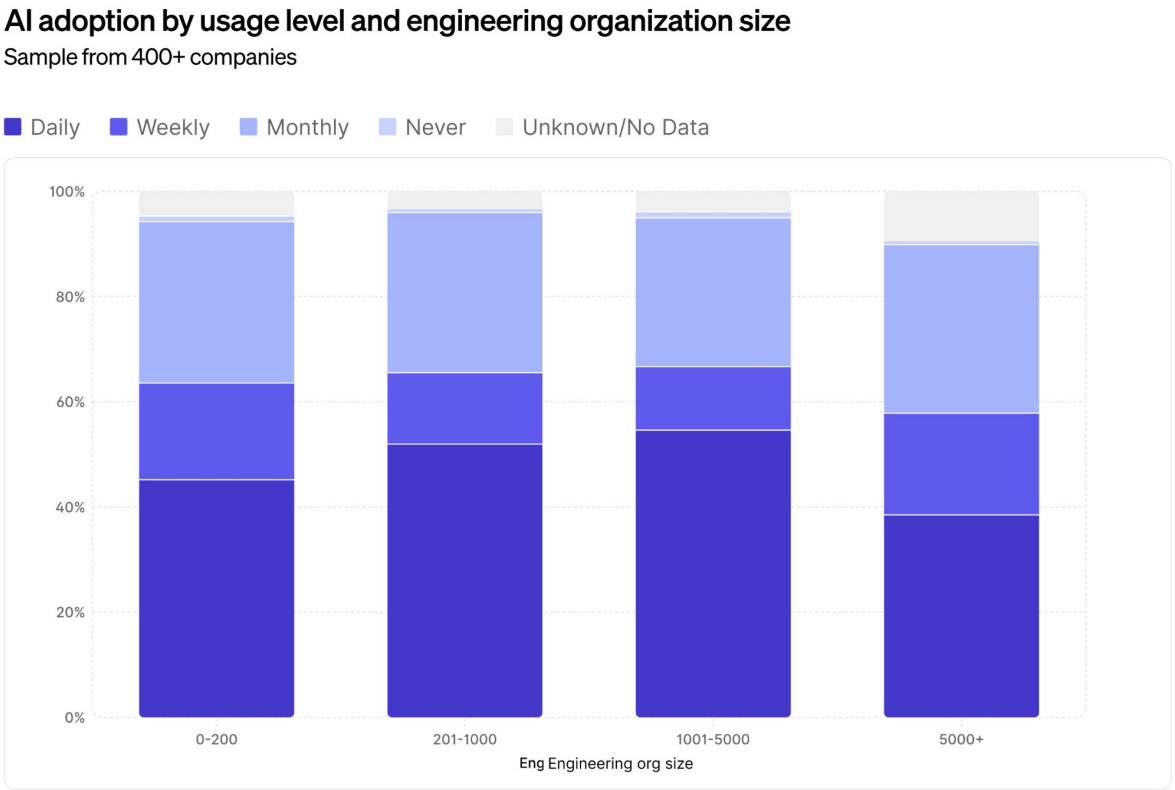
Staff+ and junior engineers save the most time



Traditional enterprises have higher daily AI usage



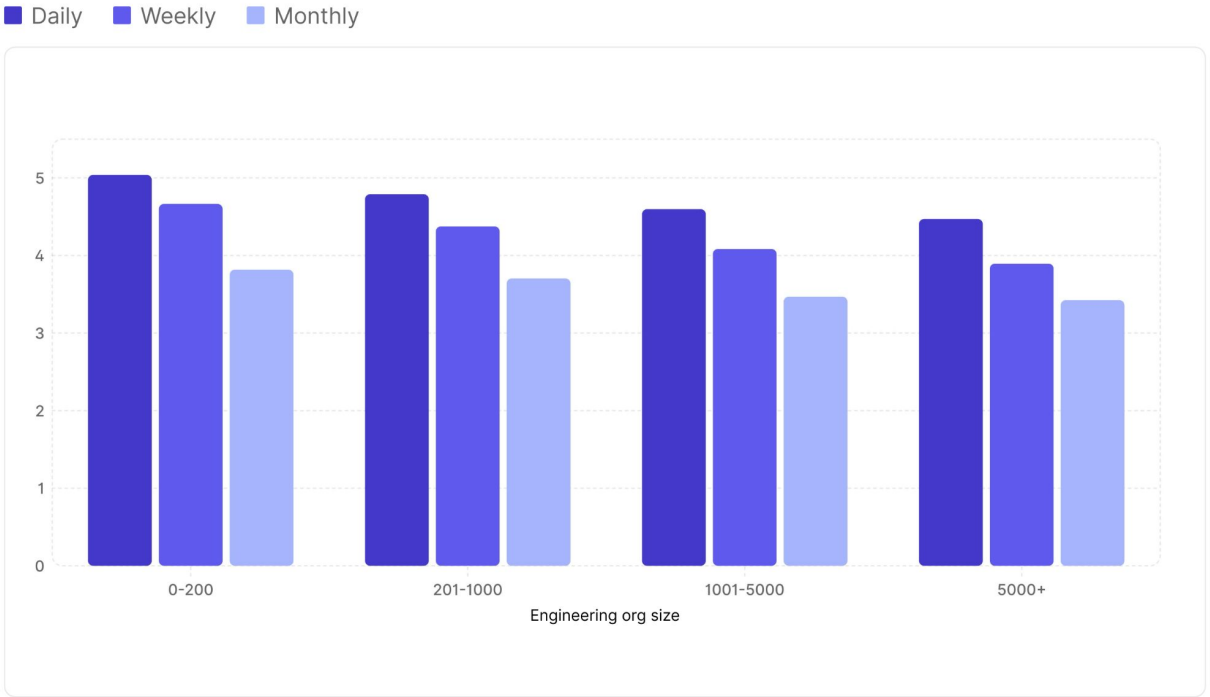
Larger companies use AI more frequently



Smaller companies lead in AI time savings

Weekly AI time savings (median) by AI usage level and engineering org size

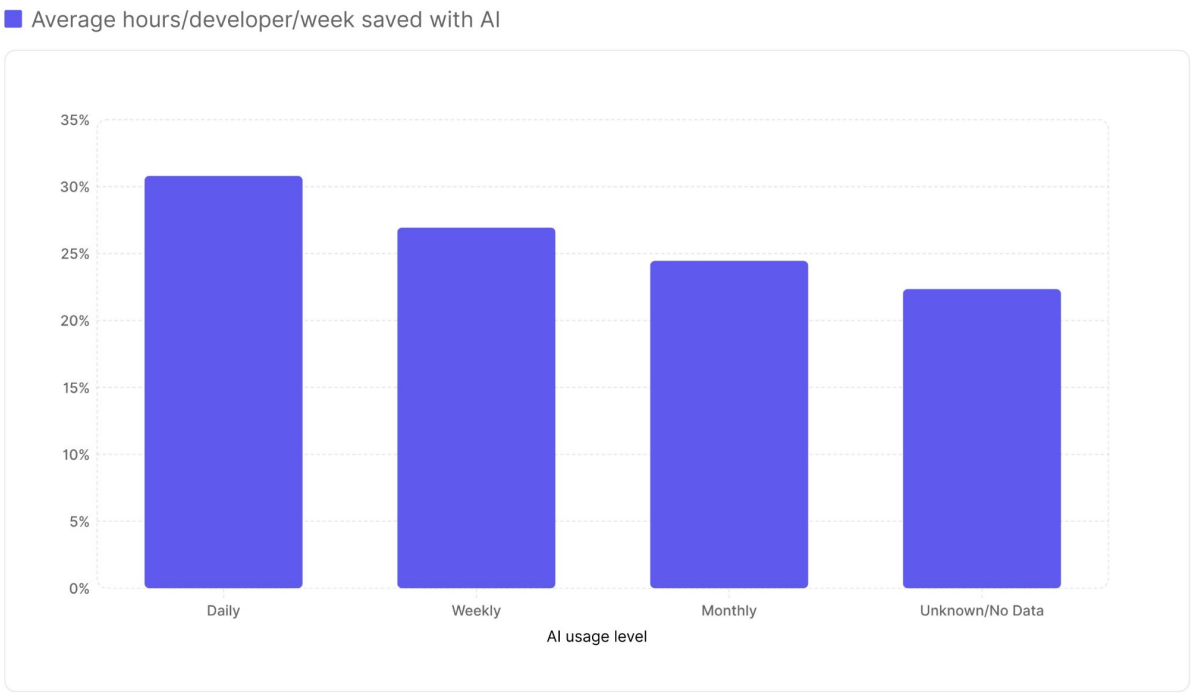
Sample from 400+ companies



Shadow AI can’t be ignored

Percentage of merged code that is authored by AI, by AI usage level

Sample from 400+ companies

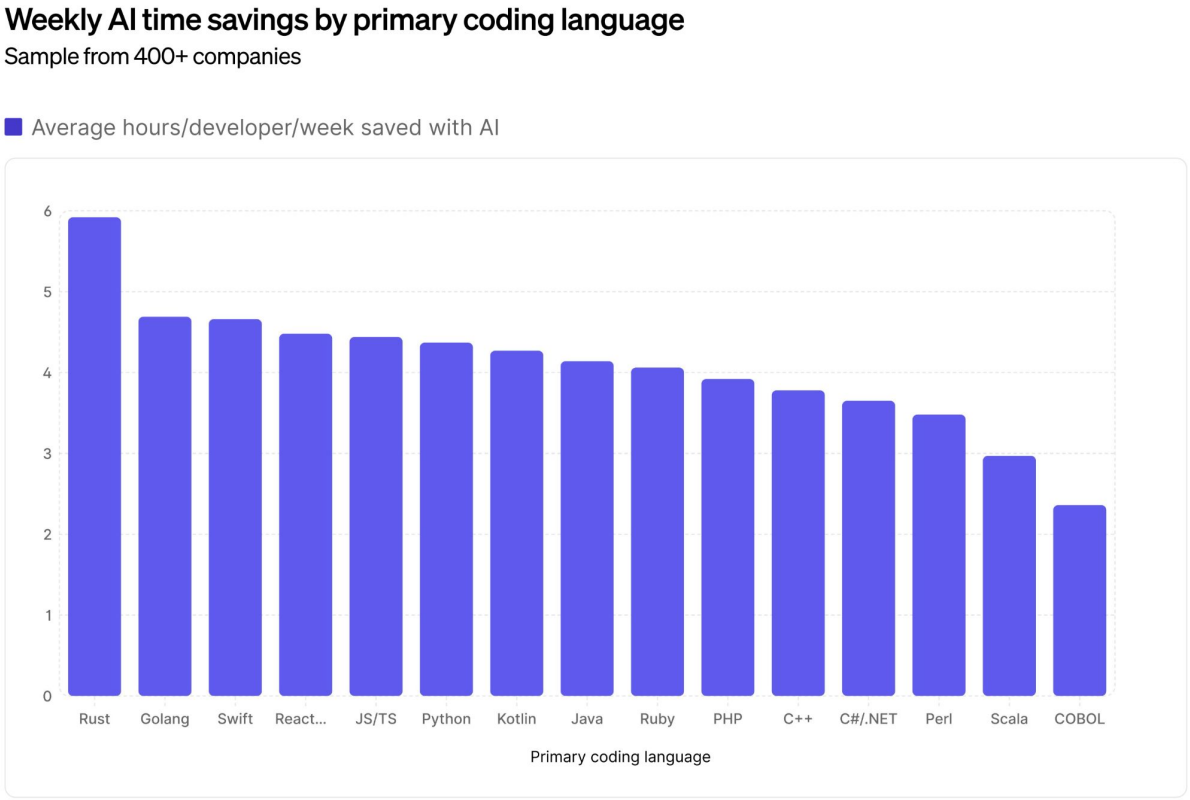


Newer tools deliver more velocity gains

Weekly PR throughput by AI adoption level and AI tool

Sample from 400+ companies

AI delivers bigger gains in modern languages

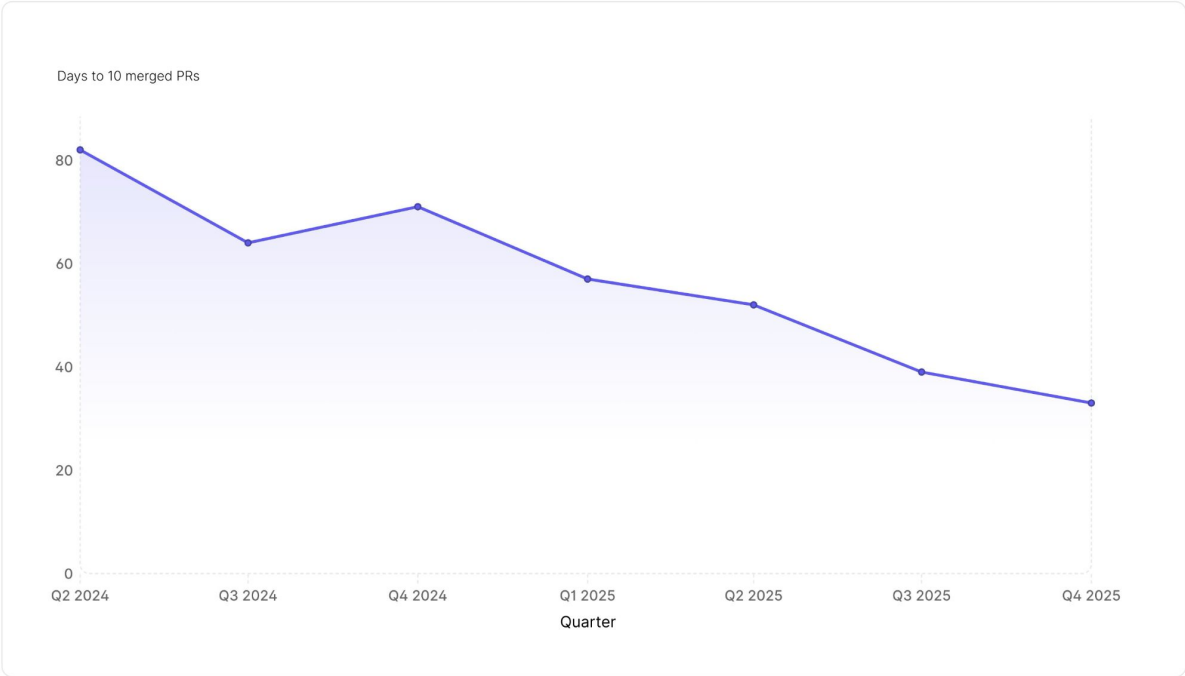


Significant impact on dev ramp-up

Average time to 10th merged PR for daily AI users

Sample from 400+ companies

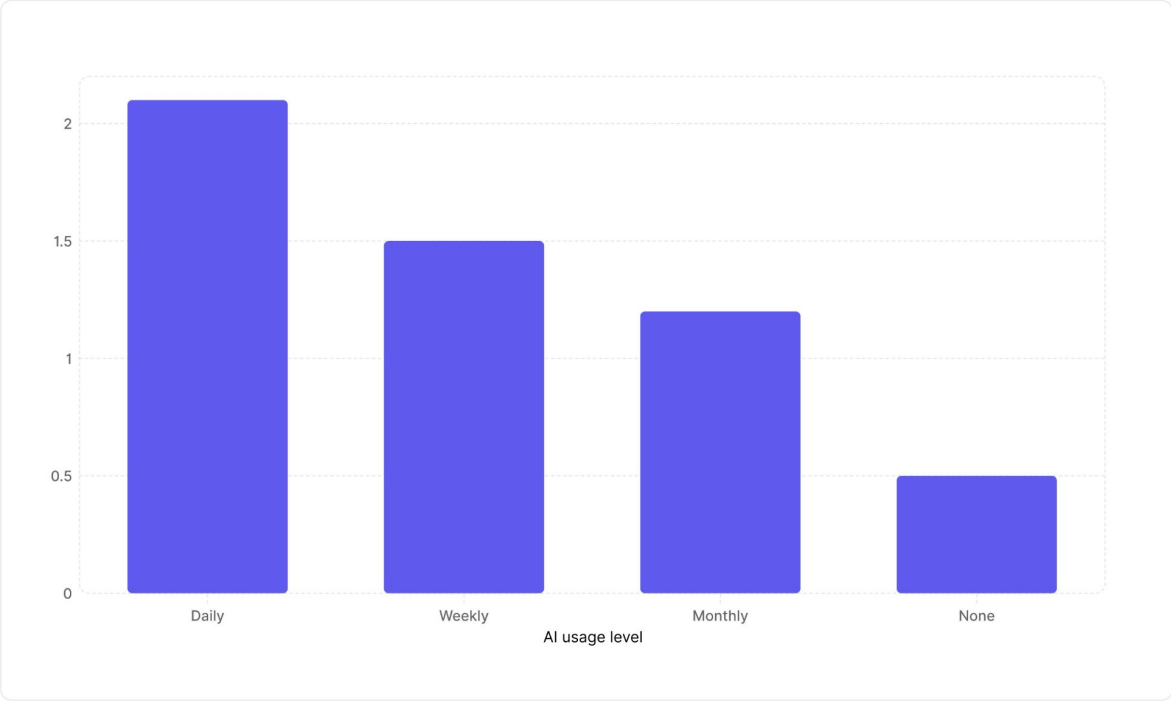
Note: these numbers will change as developers continue to hit their 10th PR milestone



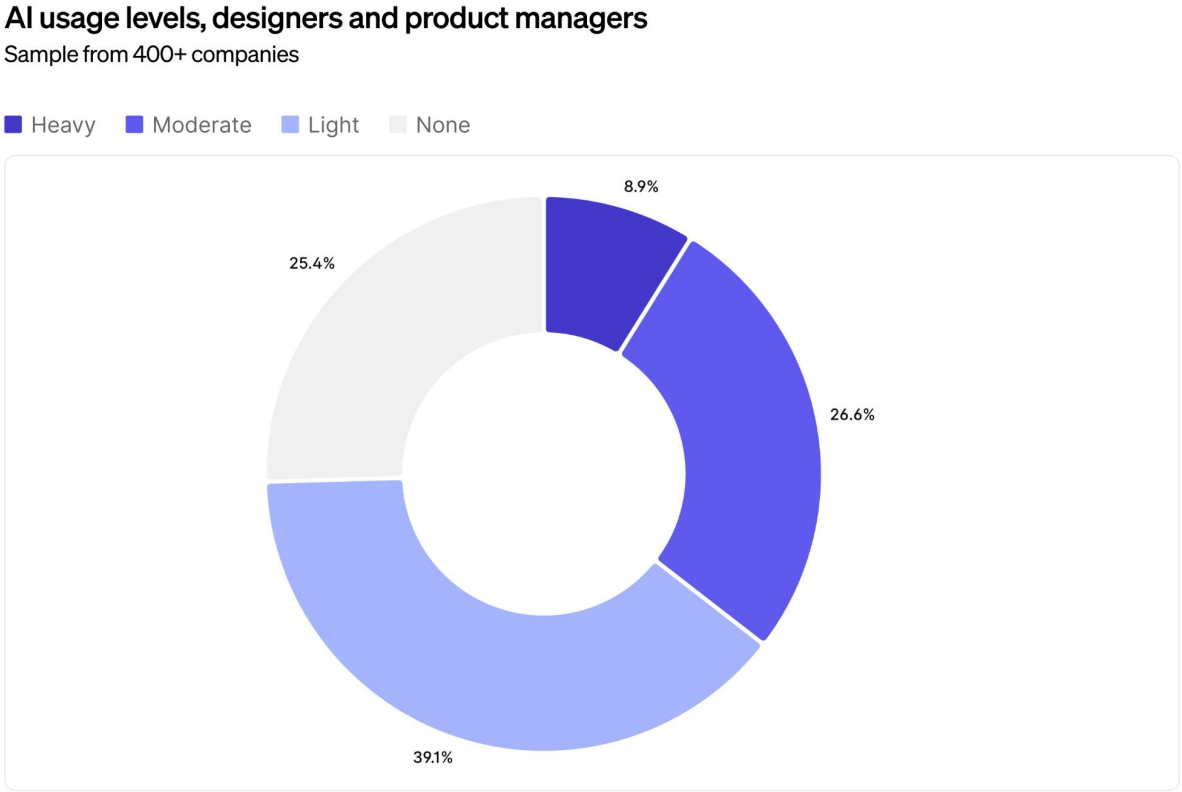
Engineering managers are shipping 4x more code

Weekly merge frequency by AI usage level

Sample from 400+ companies



75% of designers and PMs also use AI code assistants



Productivity gains more modest than expected

- Random sample from 400+ companies
- No PR throughput incentivization
- No known recent M&As, IPOs, or regulatory changes
- Longitudinal study from November 2024 to February 2026

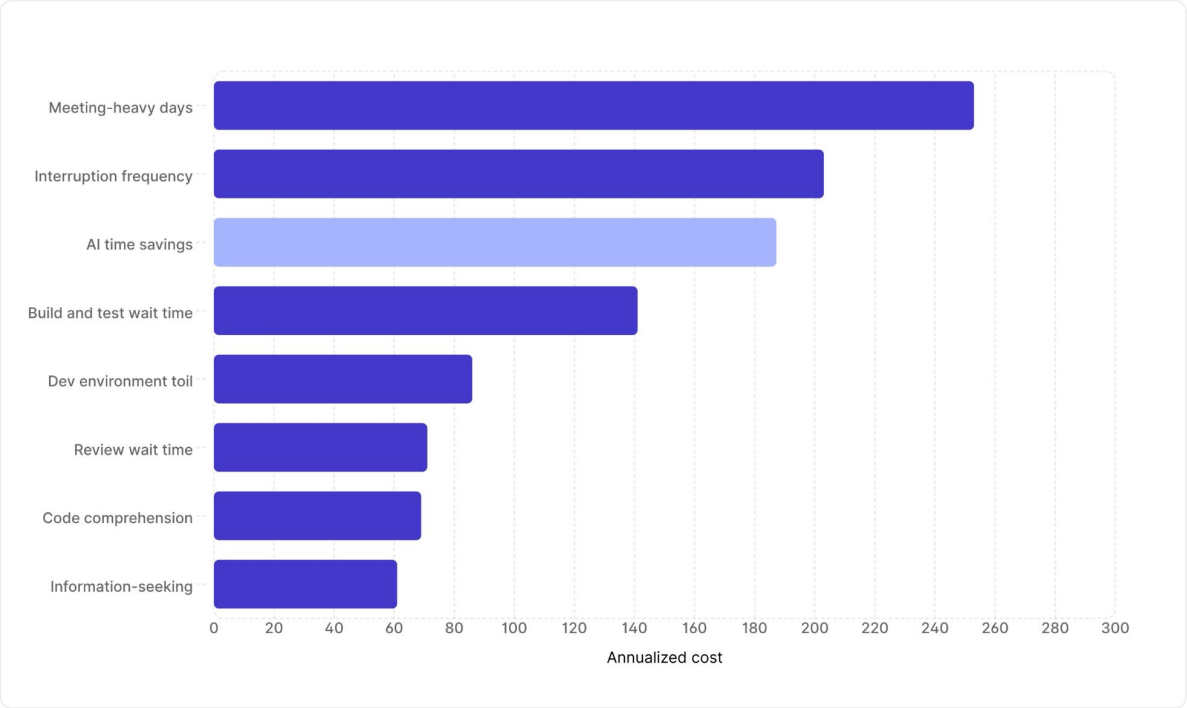
Weighted PR throughput increase

Median	Average
7.76%	13.1%

Non-AI factors still outweigh AI benefits

Annualized distribution of developer time by workflow phase

Sample from 400+ companies

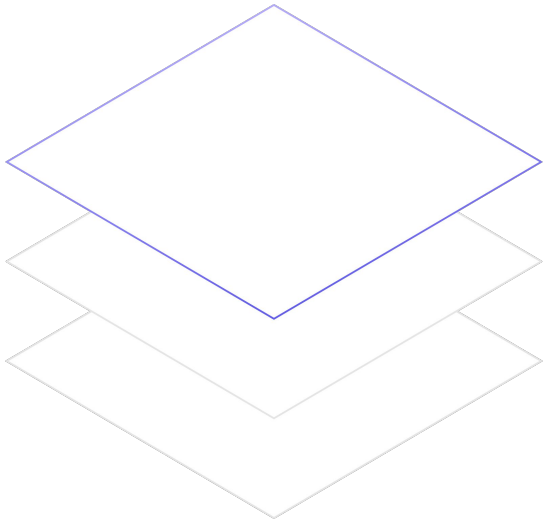


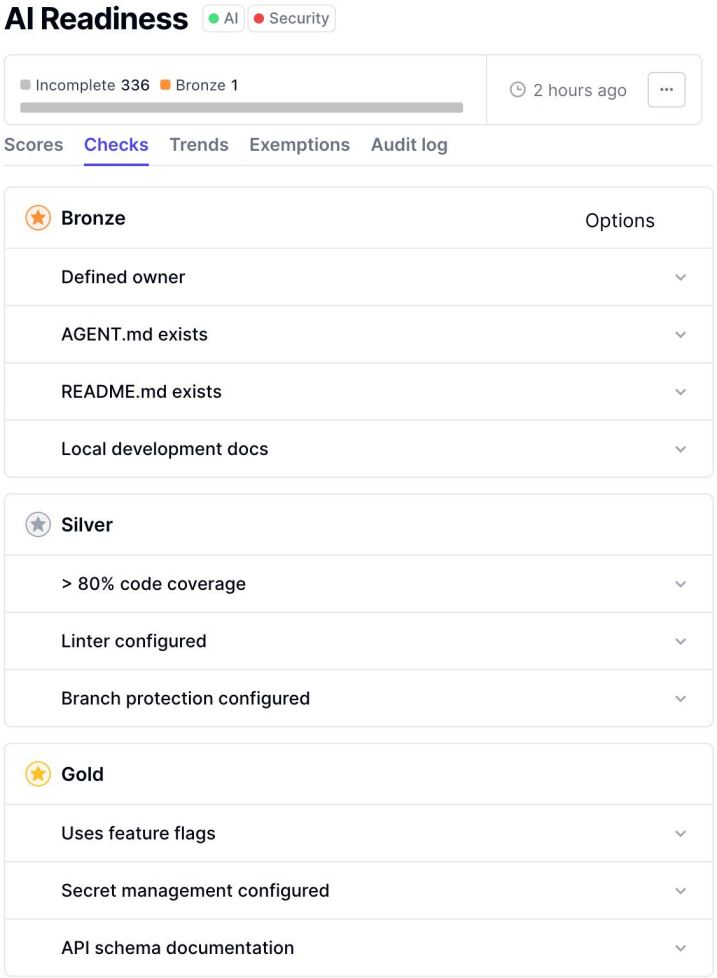
SDLC Agent use cases

“An hour saved on something that isn’t the bottleneck is worthless” - Eli Goldratt

The new mandate for Platform Engineering teams

- Drive “AI readiness” initiatives
- Data-driven AI rollout and optimization
- Measure for impact, not for activity or speed
- Paved paths and guardrails for AI engineering
- AI infra cost optimization

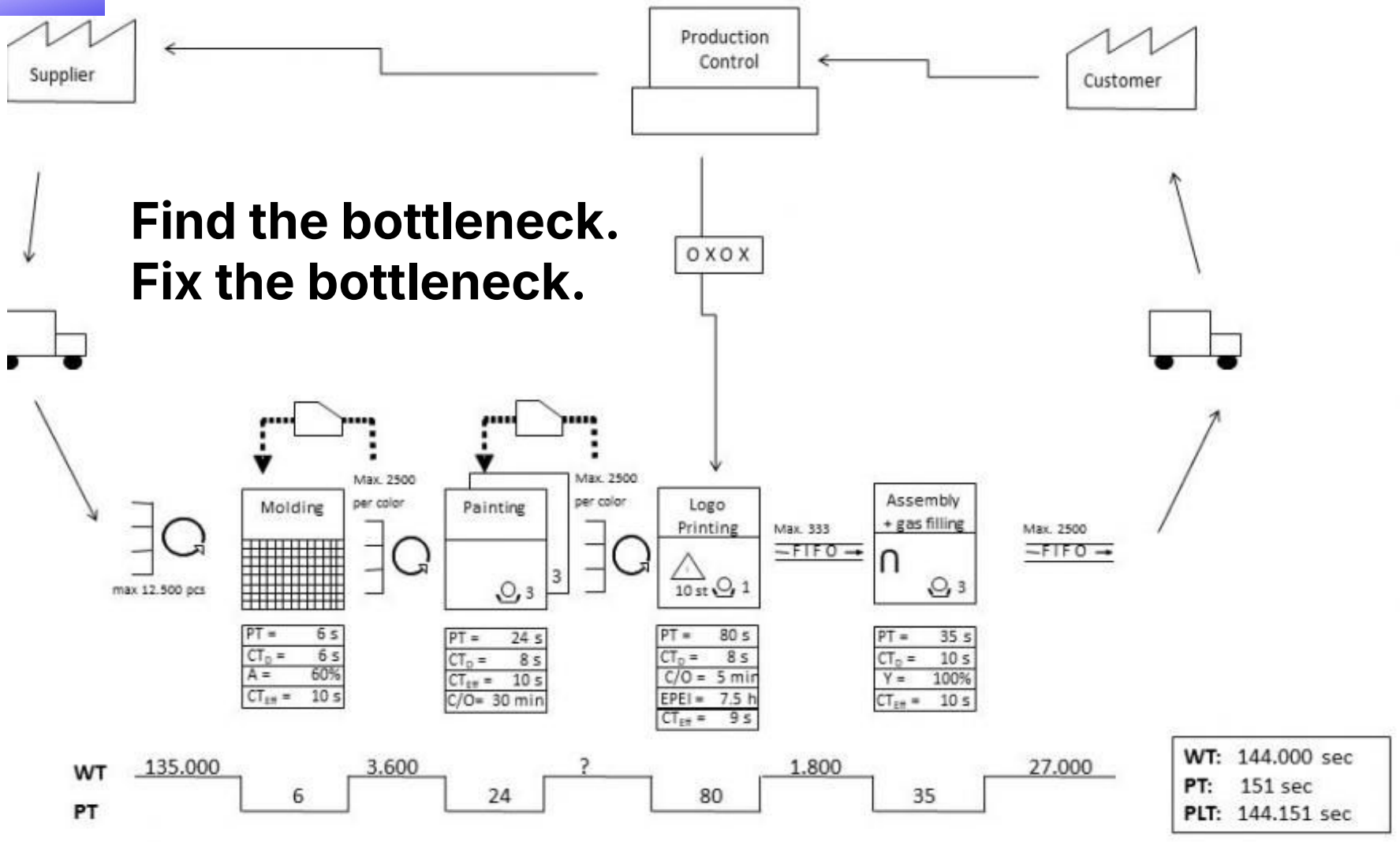




Increasingly referred to as AI Readiness...

- Clear, accurate, well structured documentation
- Data structures with straightforward relations
- Readable, manageable, modular code
- Fast, reliable local and CI feedback loops
- Stable (read: non-flaky) robust test suites

This should sound familiar, we used to call it “good DevEx”...


Supplier
Production Control
Customer
Find the bottleneck.
Fix the bottleneck.
OXOX
max 12.500 pcs
Molding
Max. 2500 per color
Painting
Max. 2500 per color
Logo Printing
Max. 333
FIFO
Assembly + gas filling
Max. 2500
FIFO
PT = 6 s
CT = 6 s
A = 60%
CT = 10 s
PT = 24 s
CT = 8 s
CT = 10 s
C/O= 30 min
PT = 80 s
CT = 8 s
C/O = 5 min
EPEI = 7.5 h
CT = 9 s
PT = 35 s
CT = 10 s
Y = 100%
CT = 10 s
WT
PT
135.000
6
3.600
24
?
80
1.800
35
27.000
WT: 144.000 sec
PT: 151 sec
PLT: 144.151 sec

Morgan Stanley - Legacy Code Refactoring

The Bottleneck
Morgan Stanley manages a vast library of legacy code. Modernizing this code requires developers to spend enormous amounts of time reverse - engineering old systems to create specifications for the new ones.

The AI Solution
They built "DevGen.AI," an internal solution where AI agents read the legacy code, gather additional context, and automatically generate detailed developer specs.

The Impact
This automation saves the company over 280,000 developer hours annually by eliminating reverse engineering.

Zapier - Administrative Automation

The Bottleneck
Engineers and teams at Zapier were losing valuable focus time to repetitive administrative work such as daily stand-ups, onboarding tasks, internal reporting, and routine Slack communications

The AI solution
Zapier's AI Agents team built an internal automation ecosystem where agents now run async stand-ups, summarize team updates, automate onboarding steps like email signature creation, and integrate seamlessly with Slack for approvals, notifications, and summaries.

The impact
The initiative has led to fewer synchronous meetings, faster onboarding (new engineers become productive within ~2 weeks), and an automation-focused culture. Zapier has actually ramped hiring as a result.

Canva - PRD Generation

The Bottleneck
The process of translating a product idea into a developer-friendly PRD can be slow and prone to miscommunication between product managers and engineers.

The AI solution
Canva built an internal PRD generator that allows PMs to use prompts to develop epics, user stories, and even initial design mockups. The system connects to their internal documentation, Jira, and Figma via MCP to create developer-friendly specs.

The Impact
The tool significantly streamlines the PRD process, improving the speed and quality of communication between product and engineering.

Faire - Automated Code Review

The Bottleneck
As an engineering organization scales and PRs increase, especially with AI, code review can become a significant though necessary bottleneck.

The AI Solution
Faire developed an AI agent named "Fairey" that triggers automatically on every GitHub pull request. The agent pulls context from surrounding code and documentation to provide always - on, instantaneous PR comments and suggestions.

The Impact
Fairey completes roughly 3000 code reviews per week, freeing up senior engineers from routine checks to focus on more complex architectural issues and mentoring.

Spotify - Incident Management

The Bottleneck
When a production incident occurs, SREs often spend critical minutes and hours correlating alerts, digging through logs, and identifying the correct runbook steps.

The AI Solution
Spotify created an internal incident management agent platform that monitors logs and correlates alerts in real-time. When an incident is detected, the agent automatically suggests remediation steps from relevant runbooks directly into the SREs' communication channels.

The Impact
The platform is currently handling 90% of all incidents at Spotify, dramatically reducing mean time to resolution (MTTR) and freeing up SREs to focus on proactive reliability work.

Q&A