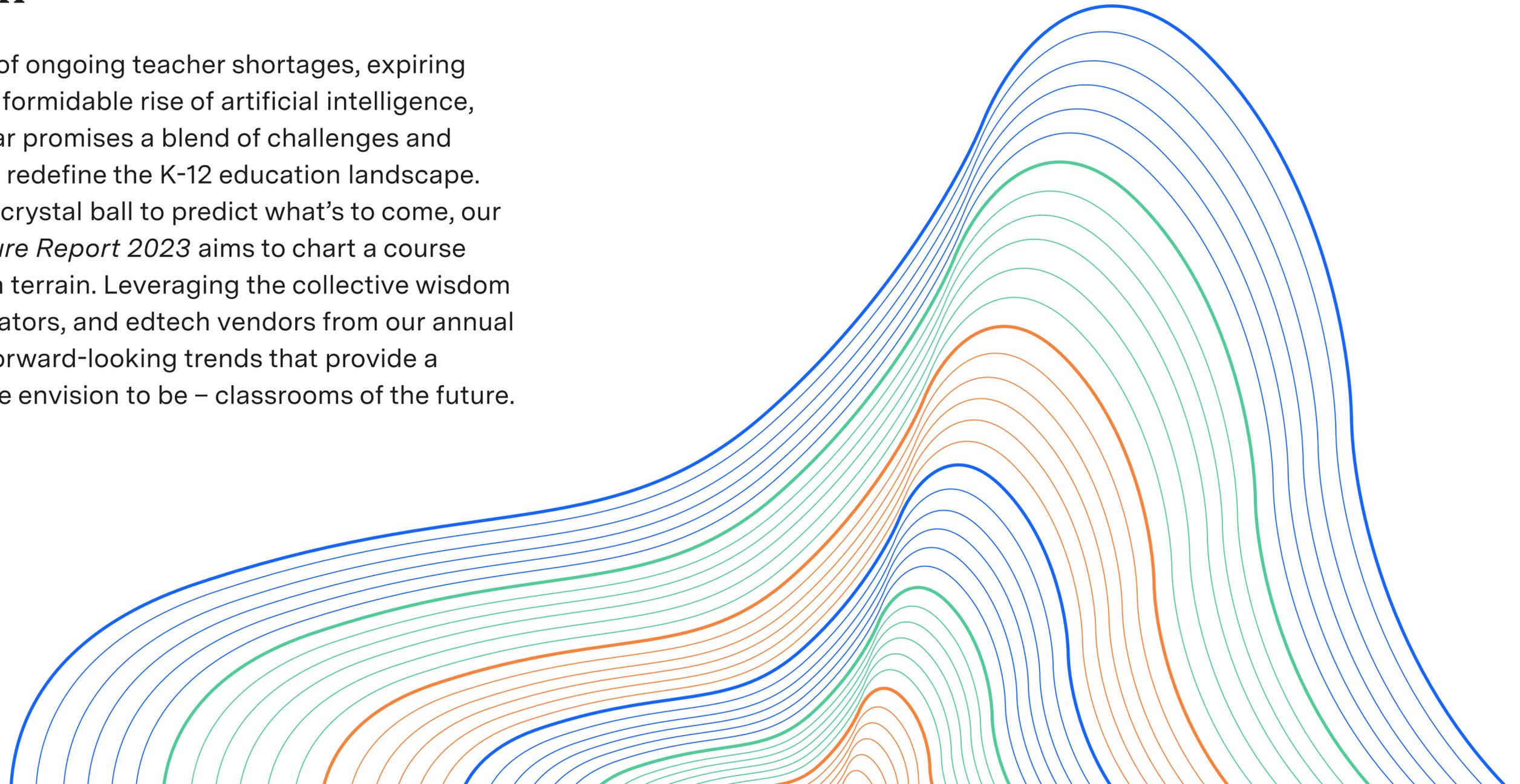# Classroom of the Future Report 2023

Key trends in edtech that will shape teaching and learning this school year – and beyond.
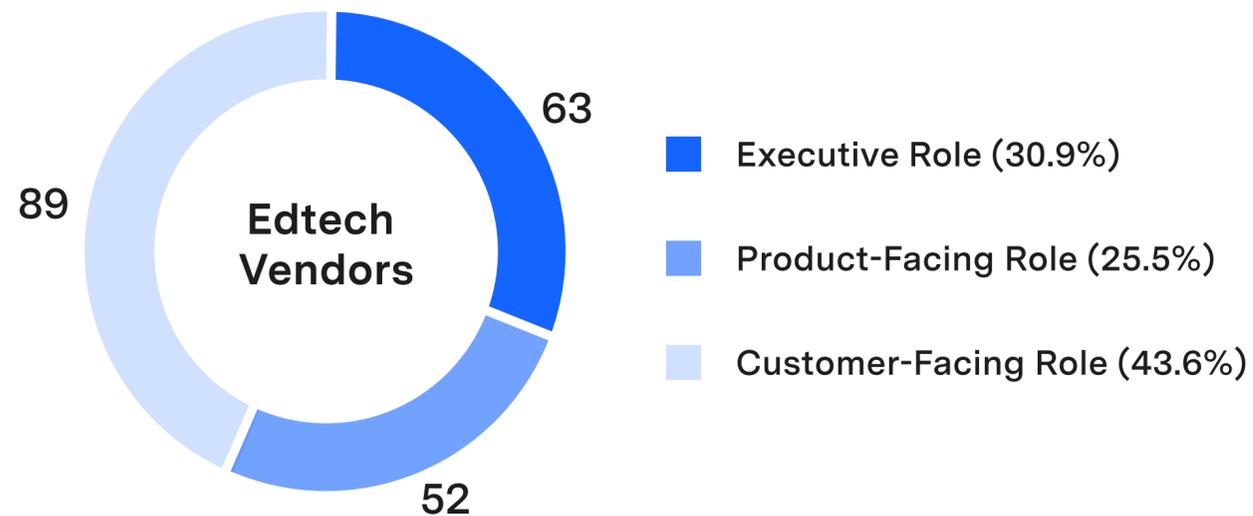
Clever

Introduction

Amidst the backdrop of ongoing teacher shortages, expiring ESSER funds, and the formidable rise of artificial intelligence, the coming school year promises a blend of challenges and opportunities that will redefine the K-12 education landscape. While we can't offer a crystal ball to predict what's to come, our *Classroom of the Future Report 2023* aims to chart a course through this uncertain terrain. Leveraging the collective wisdom of teachers, administrators, and edtech vendors from our annual survey, we offer five forward-looking trends that provide a glimpse into – what we envision to be – classrooms of the future.
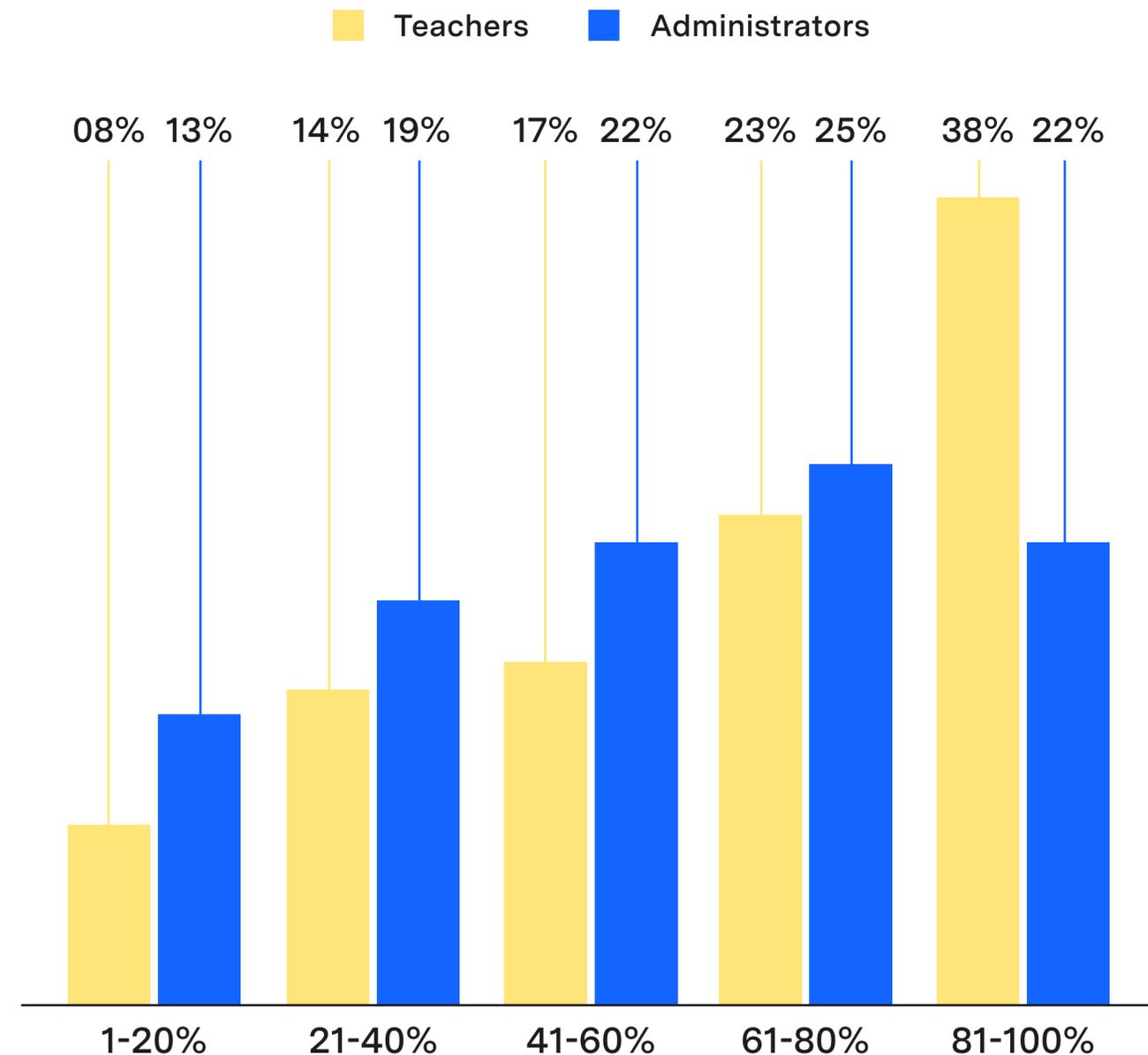
Methodology

In Q2 2023, we interviewed district leaders and conducted a survey of 1,500 teachers and administrations from Clever's user base. The survey included about 1,000 teachers and 500 administrators, representing mostly public schools (86% for teachers and 78% for administrators). Teachers surveyed skewed toward lower grades (nearly half were elementary educators), which is reflective of Clever's teacher user base. For the first time, the survey also included perspectives from leading edtech vendors across the United States.

Which of the following best describes your role?

Edtech Vendors

63
89
52

- Executive Role (30.9%)
- Product-Facing Role (25.5%)
- Customer-Facing Role (43.6%)

Approximately what percentage of students in your school come from low-income households (e.g. would qualify for free or reduced price lunch or SNAP benefits)?

Teachers   Administrators

	1-20%	21-40%	41-60%	61-80%	81-100%
Teachers	08%	14%	17%	23%	38%
Administrators	13%	19%	22%	25%	22%

5 Trends shaping classrooms of the future

Adoption Hurdles

The absence of artificial intelligence in teacher professional development and edtech product roadmaps exposes notable gaps in the education sector's readiness for these tools.

Learn more here

Workload Reduction

Edtech's ability to reduce teachers' workload points to the evergreen role these tools will play supporting teacher well-being and – in turn – bolstering student outcomes.
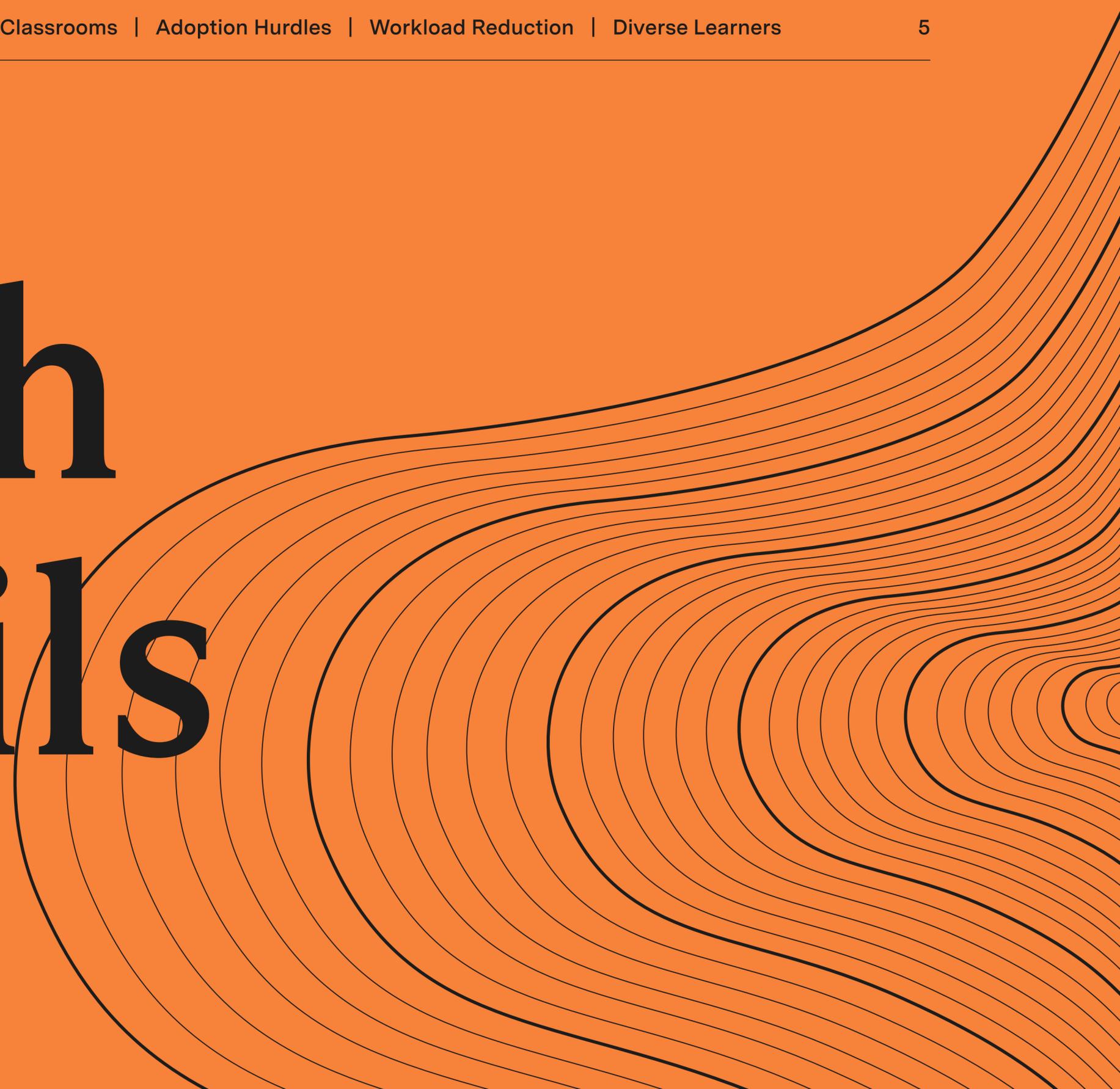
Learn more here

Edtech Prevails

Despite resistance, reinvigorated, positive attitudes towards edtech highlight the integral role these tools will continue to play in classrooms of the future.

Learn more here

AI in the Classrooms

Teachers and admins recognize the significant impact AI will have on education – but its role in the classrooms sparks mixed reviews.

Learn more here

Diverse Learners

Teachers and administrators affirm edtech's pivotal role supporting diverse learners, pointing to personalization and inclusive learning tools as edtech's north star.

Learn more here

Edtech Prevails

Despite concerns of resistance to edtech after negative pandemic experiences, student and teacher attitudes stay positive, recognizing its benefits for engagement and learning outcomes.
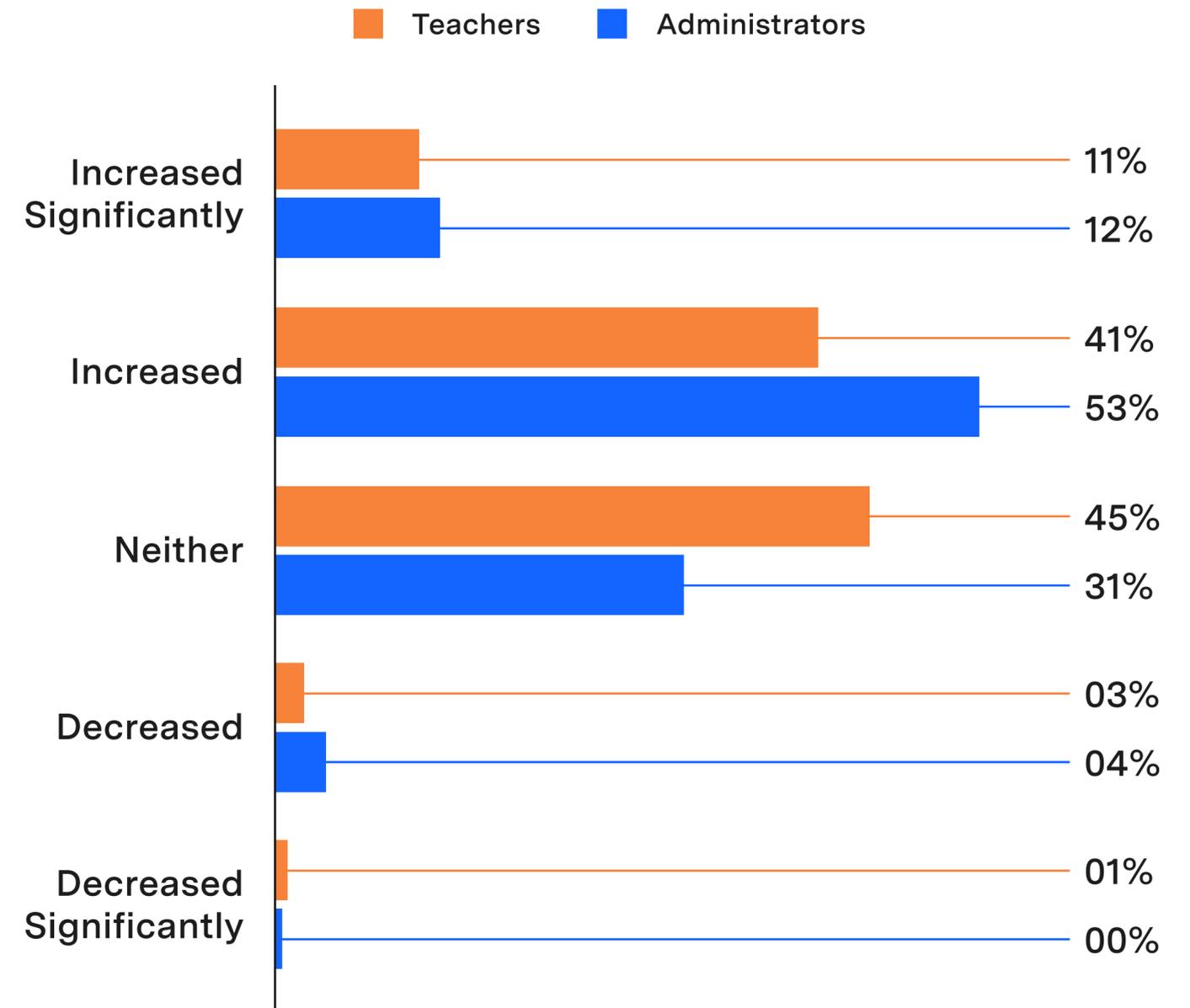
From crisis to core – Edtech ubiquitous following the pandemic

What started as a solution for virtual learning has become an indispensable element of classroom instruction. As the use of edtech continues to rise, these tools are playing an evergreen role in shaping teaching and learning.

52% OF TEACHERS

and 65% of admins report an increase in the number of edtech tools being provided by their school or district

How, if at all, have the number of digital tools currently being provided by your school or district changed since last school year?

■ Teachers   ■ Administrators

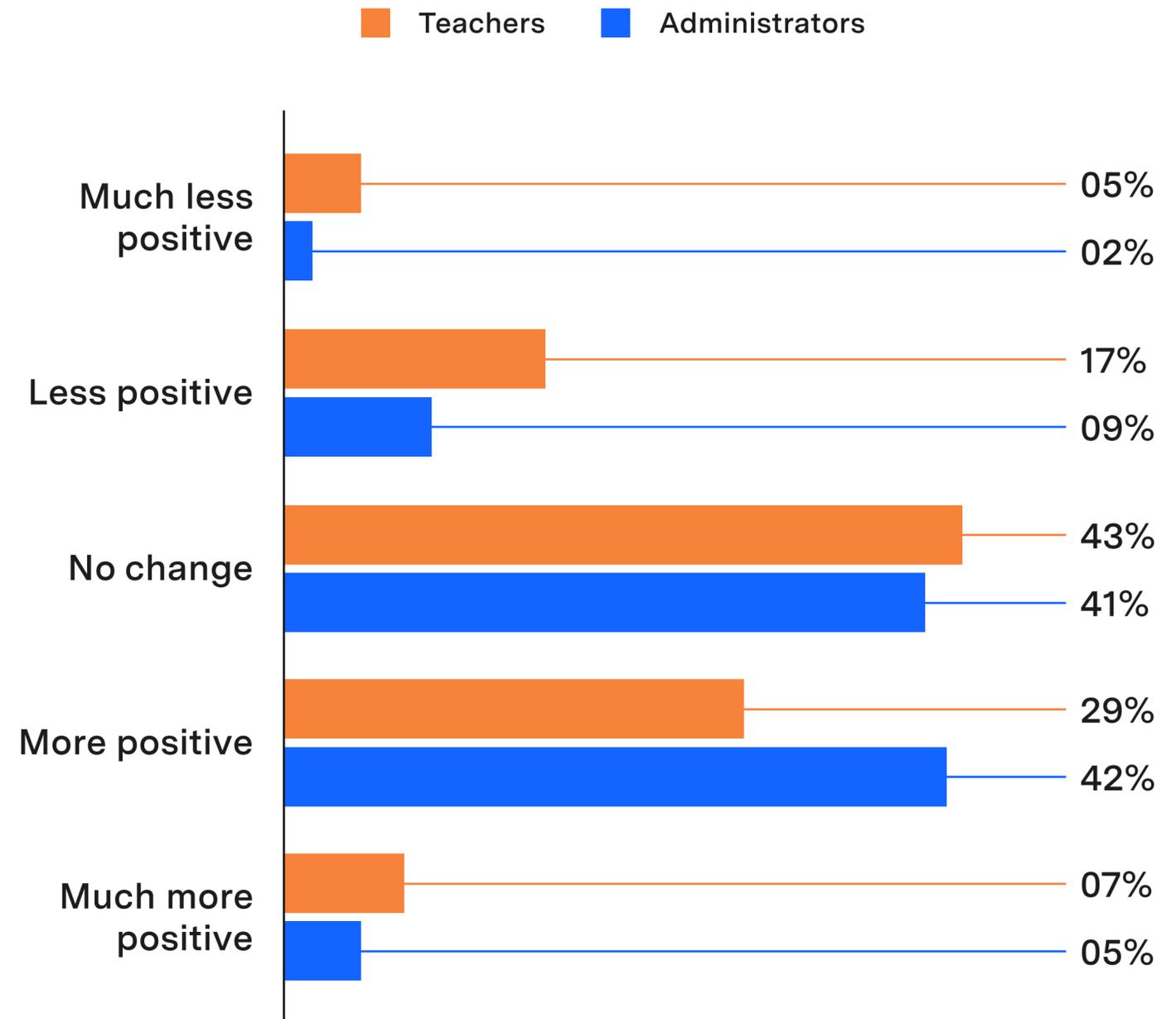|	
Increased Significantly	11% (Teachers) / 12% (Administrators)
Increased	41% (Teachers) / 53% (Administrators)
Neither	45% (Teachers) / 31% (Administrators)
Decreased	03% (Teachers) / 04% (Administrators)
Decreased Significantly	01% (Teachers) / 00% (Administrators)

Students' re-embrace of edtech defies expectations

Despite initial concerns around ongoing student resistance to edtech following the pandemic, an uplifting trend has emerged – students are actively re-embracing these digital tools, and the role they play in fostering engaging learning experiences.

79%
OF TEACHERS

and 89% of admins report sustained or more positive student attitudes toward edtech over the past year

84%
OF TEACHERS

report gamified applications as the top student engagement tool

How have students' in your district attitudes toward edtech changed over the past year?

■ Teachers   ■ Administrators

Category	Teachers	Administrators
Much less positive	05%	02%
Less positive	17%	09%
No change	43%	41%
More positive	29%	42%
Much more positive	07%	05%

"Edtech applications provide teachers with insights into student progress, identifying their student's needs and in many cases offering supplemental resources – a significant relief for teachers and a major support for struggling students."

— **Mark Choi** | Instructional App Specialist, Bellevue School District
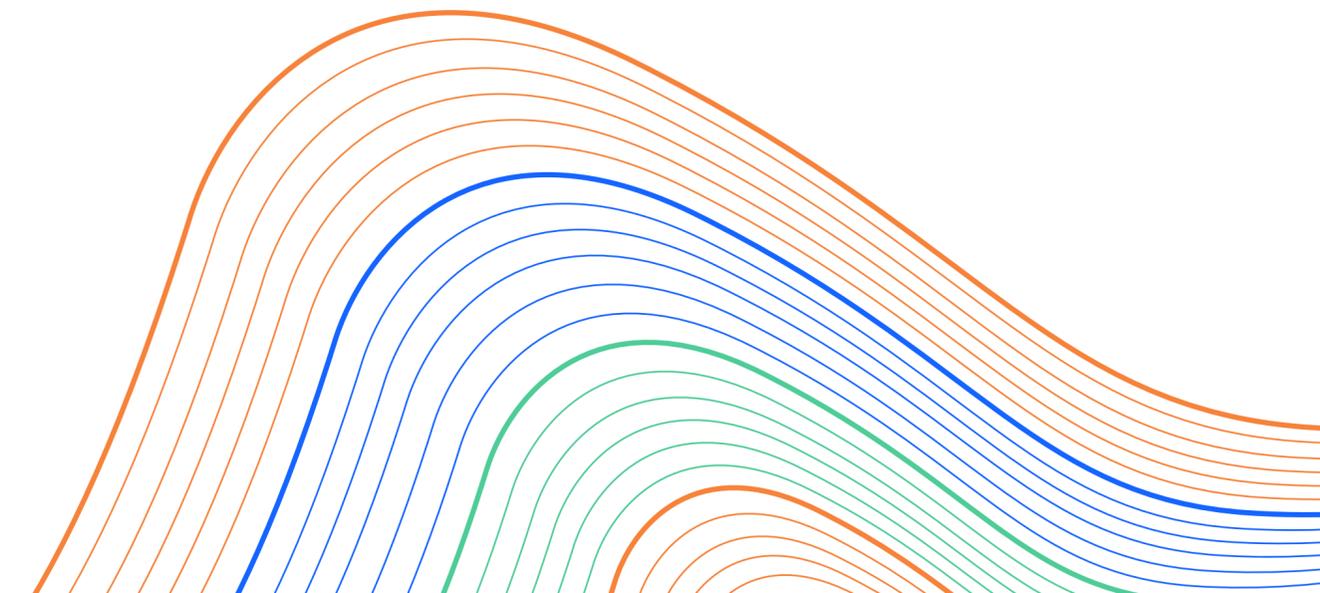
84%
OF TEACHERS

report gamified applications as the top student engagement tool

AI in the Classroom

There is unanimous agreement that AI will significantly impact education; however, a familiarity gap amongst administrators and teachers underscores the need for greater preparation on the use of this emerging technology in classrooms.
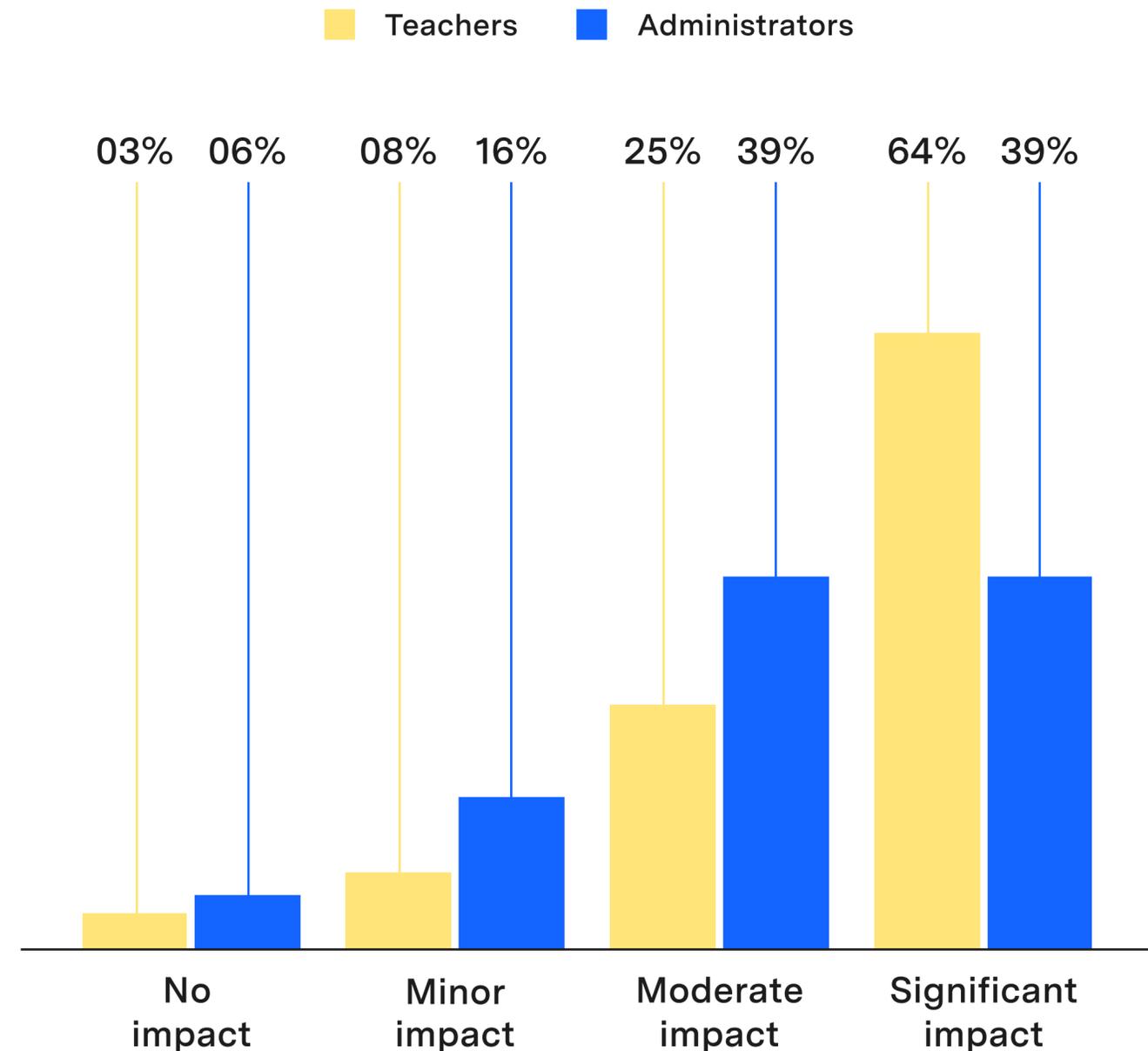
ChatGPT - The future of instruction? Administrators and educators say yes

With the recent surge in AI, both teachers and administrators acknowledge the potential transformative impact of these technologies on education.

89% **OF TEACHERS**

and 78% of administrators believe ChatGPT will have a moderate or significant impact on teaching

To what extent do you think ChatGPT, DALL-E, or other generative AI tools will impact teaching (including assessment), if at all?
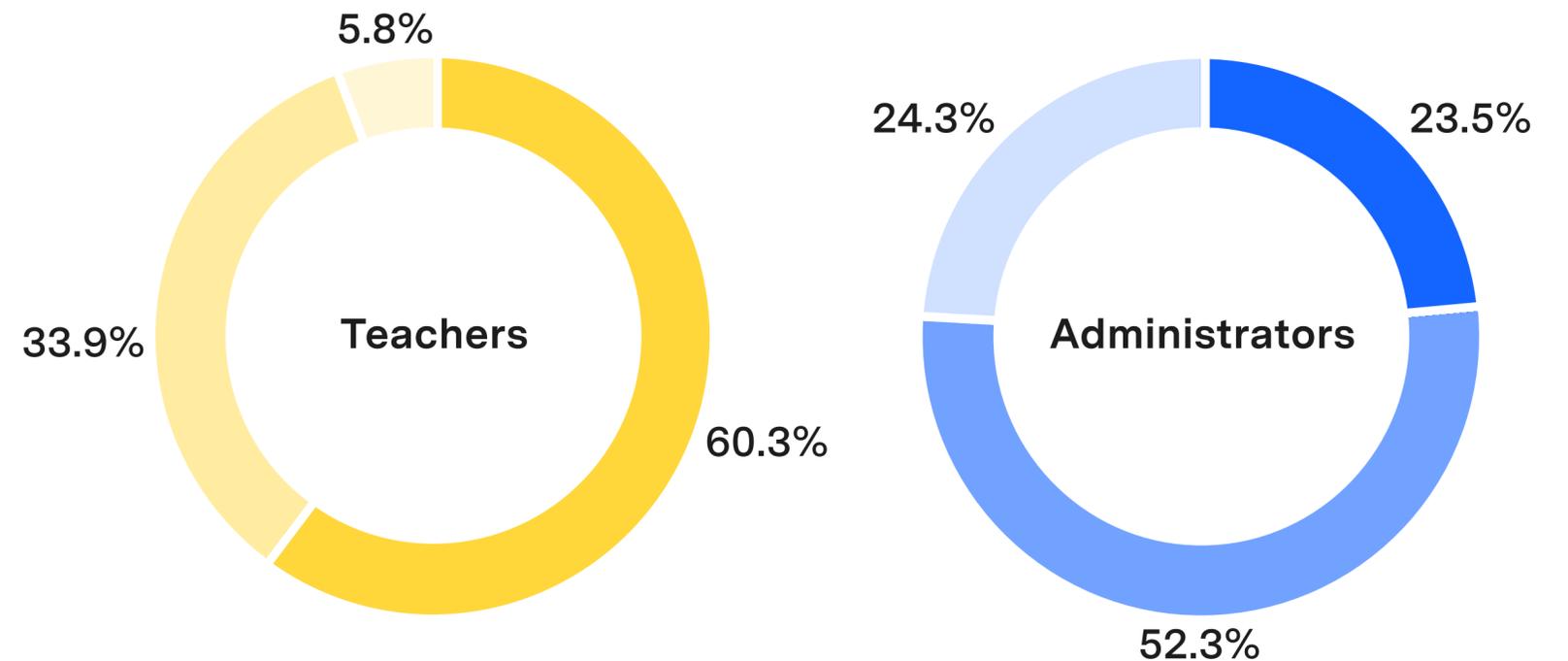
■ Teachers   ■ Administrators

	Teachers	Administrators
No impact	03%	06%
Minor impact	08%	16%
Moderate impact	25%	39%
Significant impact	64%	39%

ChatGPT – The future of instruction? Administrators and educators say yes

With the recent surge in AI, both teachers and administrators acknowledge the potential transformative impact of these technologies on education.

40% **OF TEACHERS** are somewhat or very familiar with ChatGPT compared to 77% of administrators

48% **OF TEACHERS** (high school) believe teachers need to be comfortable using AI in the next 5 years compared to only 31% of elementary teachers

How familiar, if at all, are you with ChatGPT, DALL-E, or other generative AI tools?
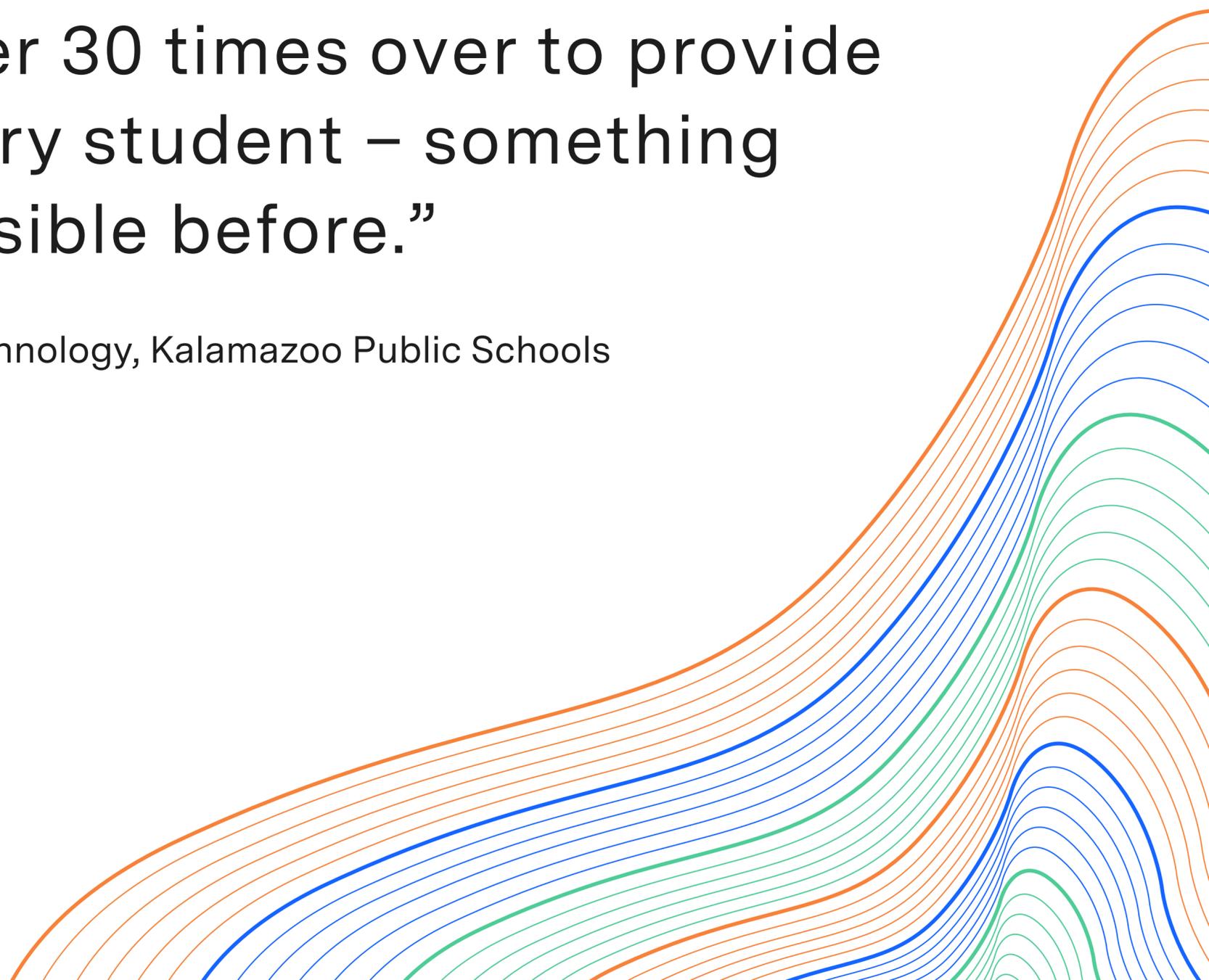
Teachers

- 5.8%
- 33.9%
- 60.3%

Administrators

- 24.3%
- 23.5%
- 52.3%

Teachers:
- Not at all familiar (60.3%)
- Somewhat familiar (33.9%)
- Very familiar (5.8%)

Administrators:
- Not at all familiar (23.5%)
- Somewhat familiar (52.3%)
- Very familiar (24.3%)

"AI is like cloning each teacher 30 times over to provide personalized support for every student – something that wouldn't have been possible before."

— **Alexandra Miller** | Coordinator of Instructional Technology, Kalamazoo Public Schools

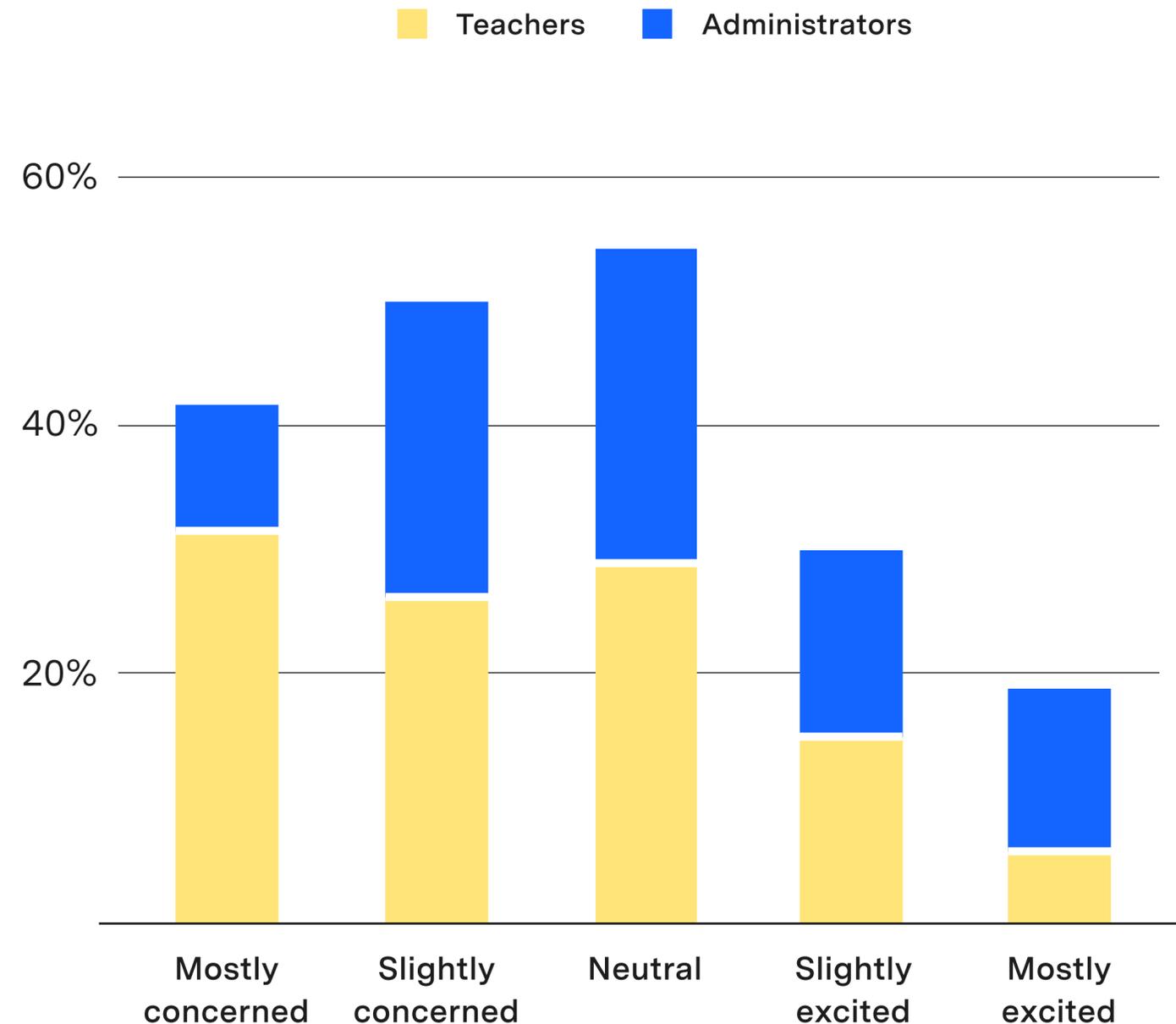**89**% **OF TEACHERS**   believe ChatGPT will have a moderate or significant impact on teaching

AI's double-edge sword: Teachers fear hardship, admins envision ease

Research suggest that AI can support teachers by reducing administrative tasks and redirecting time toward more effective instruction, freeing up time to better support students – and themselves. Nevertheless, AI's growing role in education sparks mixed views, as teachers foresee job difficulty while administrators anticipate ease.

55%
OF TEACHERS

and 41% of administrators are concerned about the impact of AI in education

49%
OF TEACHERS

believe it will make their job harder in 3 years, while a similar proportion of admins (46%) envision AI easing teachers' workload
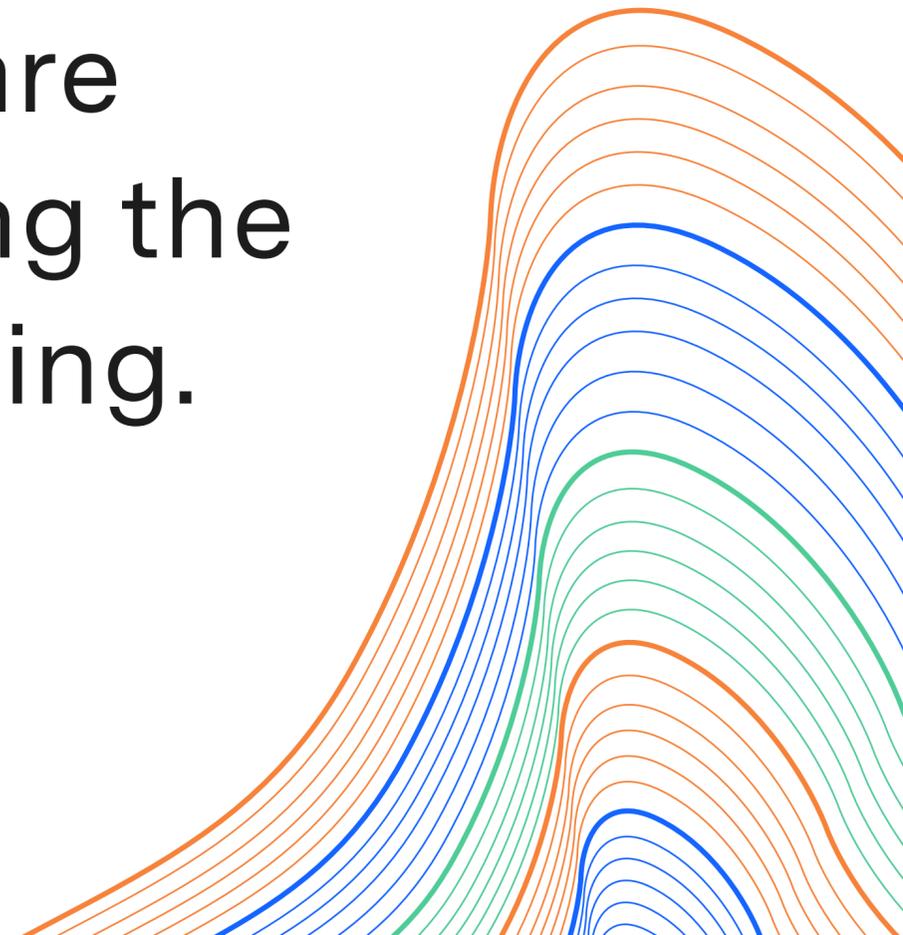
On a spectrum from being mostly concerned about the impact of AI in education, where do you fall?

■ Teachers   ■ Administrators

60%

40%

20%

Mostly concerned | Slightly concerned | Neutral | Slightly excited | Mostly excited

Adoption Hurdles

AI has the power to revolutionize education, but there are notable hurdles ahead. Many schools are not offering AI-related training for teachers and many edtech companies are cautious to adopt AI, despite recognizing the role it can play enhancing student learning.
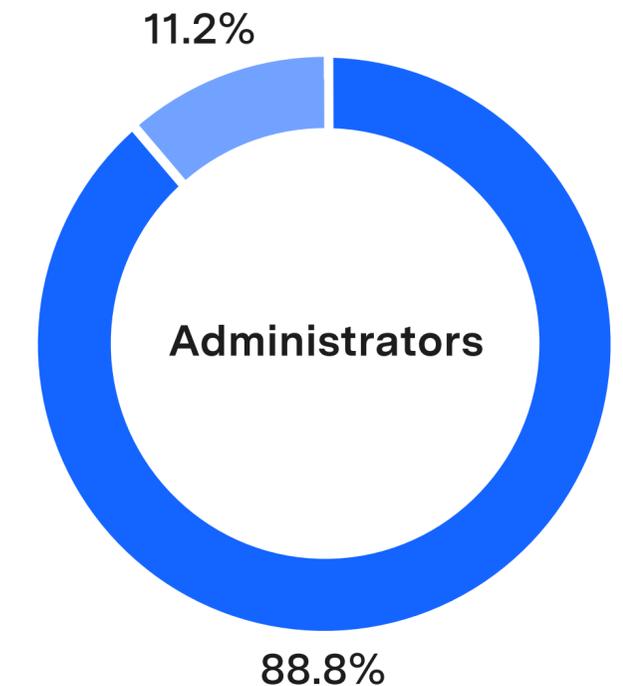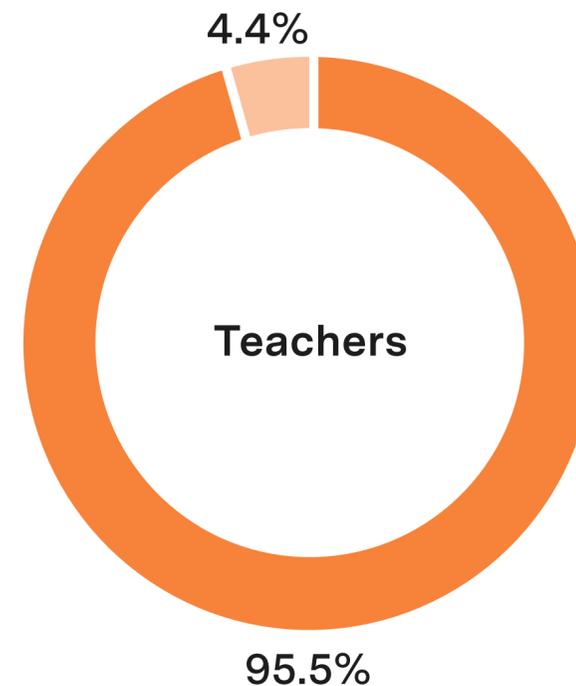
If AI is the future of education, how are we preparing educators for it?

Despite recognizing the significant impact of AI on education, the current lack of professional development reveals the need for additional teacher support in the coming school year.

89% **OF DISTRICTS**
are not offering professional development related to integrating AI into their classrooms

96% **OF TEACHERS**
have not received professional development or training on the topic

Have you or teachers in your district received training or professional development related to integrating AI into the classroom?

4.4%

Teachers

95.5%

11.2%

Administrators

88.8%

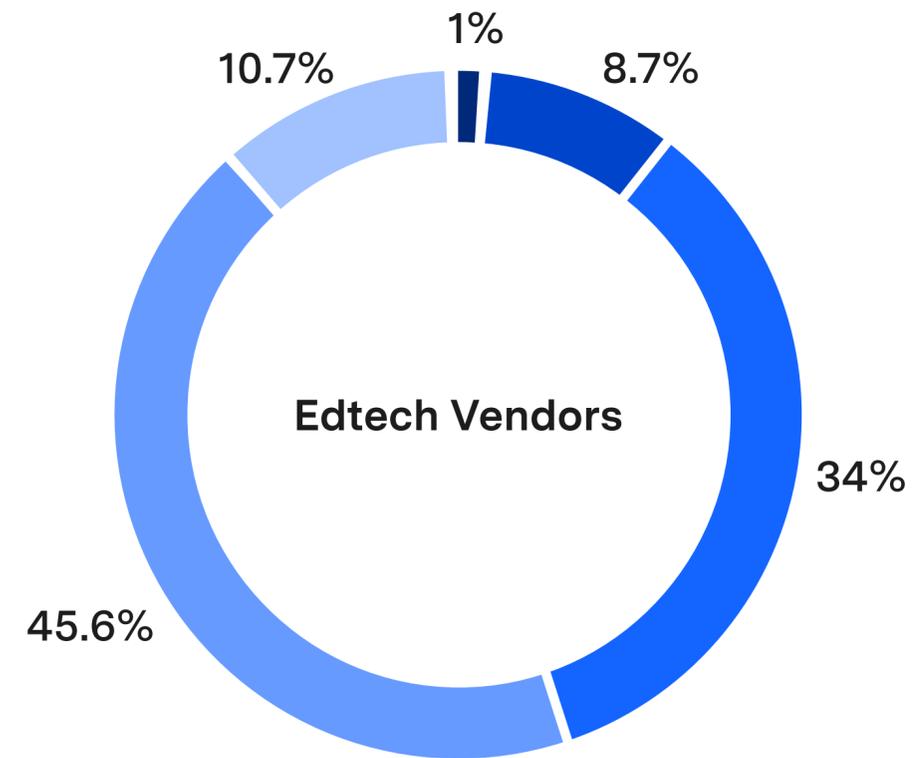■ No (95.5%)   ■ Yes (4.4%)   ■ No (88.8%)   ■ Yes (11.2%)

Edtech vendors take cautious approach to AI adoption

Despite AI's potential to address learning loss and cater to the needs to diverse learners, more than half report that AI is not shaping their products' roadmaps.

39%

OF EDTECH VENDORS

say AI is shaping their product roadmap

To what extent do you think ChatGPT, DALL-E, or other generative AI tools will impact teaching (including assessment), if at all?

Edtech Vendors

1%
8.7%
10.7%
34%
45.6%

■ No impact (1%)   ■ Minor impact (8.7%)   ■ Moderate impact (34%)

■ Significant impact (45.6%)   ■ I don't know (10.7%)

"We are taking a careful approach to classroom AI, with student safety the priority. Thoughtful integration requires guardrails to minimize risks and maintain trust—core to our brand as we explore new technologies like AI."

— **Tommy Day** | Senior Product Manager, Khan Academy
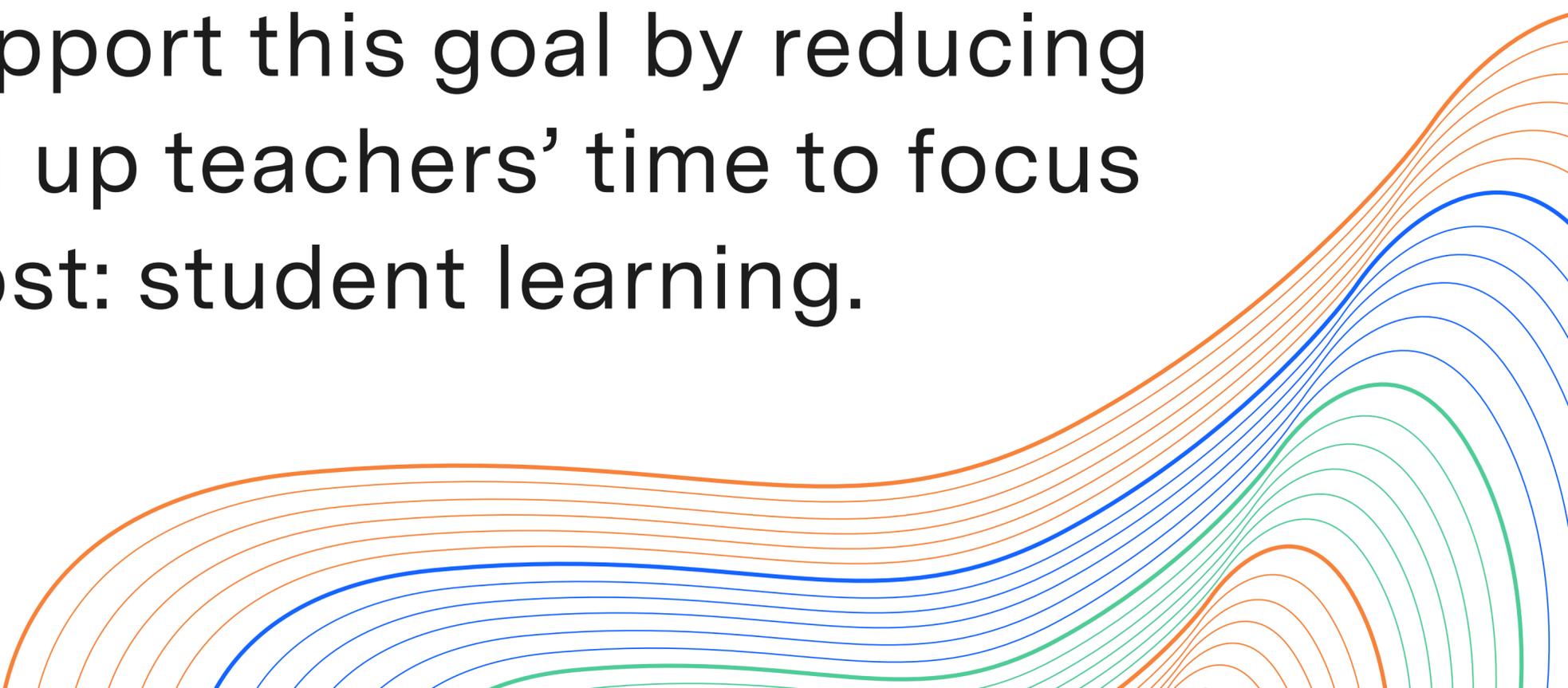
39%

OF EDTECH VENDORS

say AI is shaping their product roadmap

Workload Reduction

Ongoing fatigue and an increased focus on educator (and student) mental health necessitates a shift towards teacher-friendly digital classrooms. Survey results reveal how edtech tools can support this goal by reducing burnout and freeing up teachers' time to focus on what matters most: student learning.

Efficiency reported as primary driver of edtech usage amongst teachers

Teachers and administrators largely agree that edtech has significantly streamlined their work and made their jobs more manageable, allowing them to focus on what's most impactful – learning in the classroom. This supports existing data demonstrating that edtech has the potential to increase what teachers are able to accomplish with their students.

68% **OF TEACHERS** are using edtech because it makes them more efficient; even more admins (74%) think this is the driver of teachers' edtech usage

What are the primary reasons you or teachers in your district use edtech in the classroom (choose all that apply)?

■ Teachers   ■ Administrators

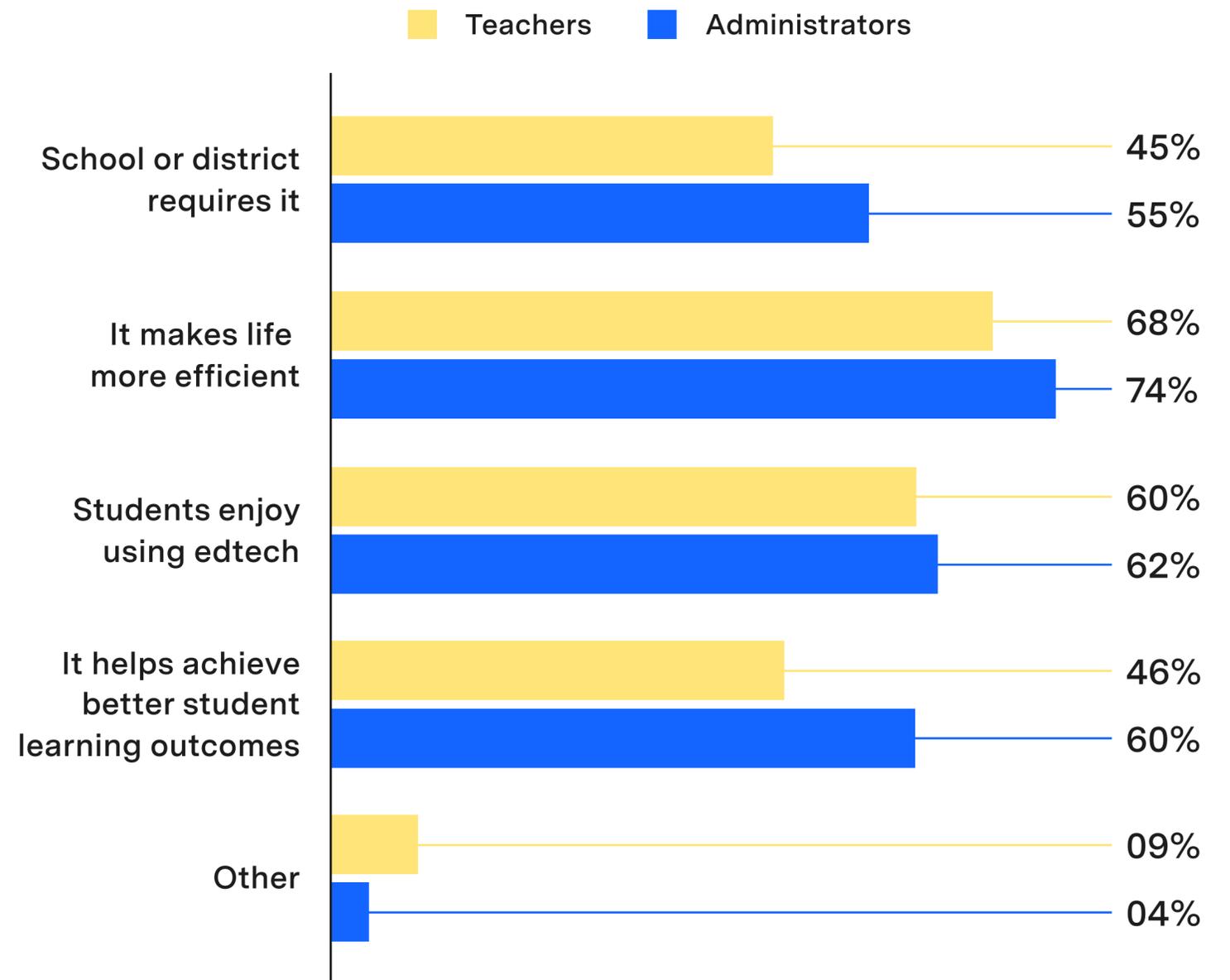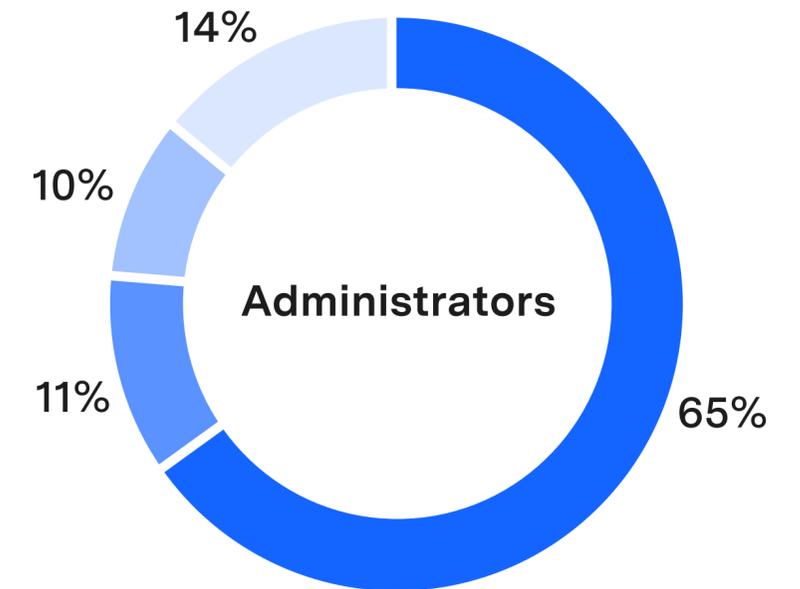| Reason	Teachers	Administrators
School or district requires it	45%	55%
It makes life more efficient	68%	74%
Students enjoy using edtech	60%	62%
It helps achieve better student learning outcomes	46%	60%
Other	09%	04%

Efficiency reported as primary driver of edtech usage amongst teachers

Teachers and administrators largely agree that edtech has significantly streamlined their work and made their jobs more manageable, allowing them to focus on what's most impactful – learning in the classroom. This supports existing data demonstrating that edtech has the potential to increase what teachers are able to accomplish with their students.

63% OF TEACHERS

and 65% of administrators believe edtech has made their (teachers') jobs easier and more efficient

Which of these statements best captures your feelings about the impact of edtech on your teaching and teachers in your district?

Teachers

12%
14%
12%
63%

Administrators

14%
10%
11%
65%

- It's made my/their job easier
- It made my/their job harder
- It has not had much impact
- Other

- It's made my/their job easier
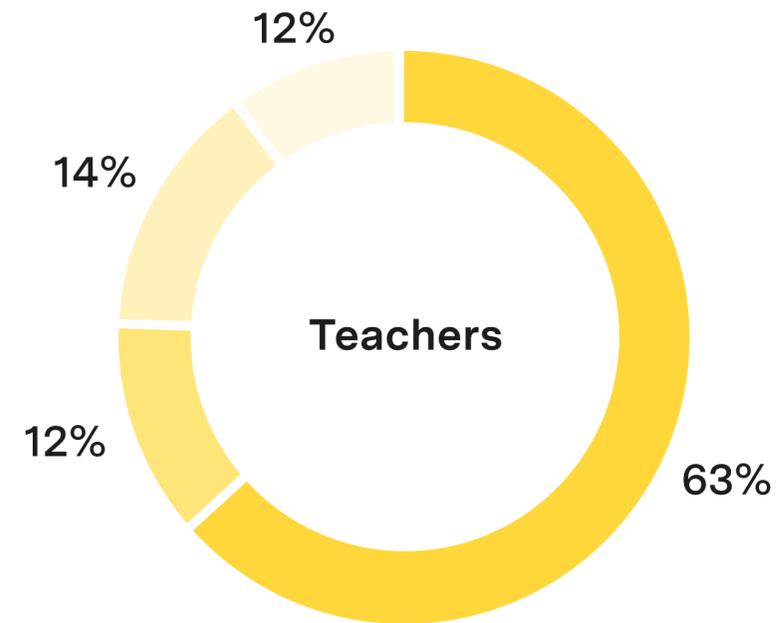- It made my/their job harder
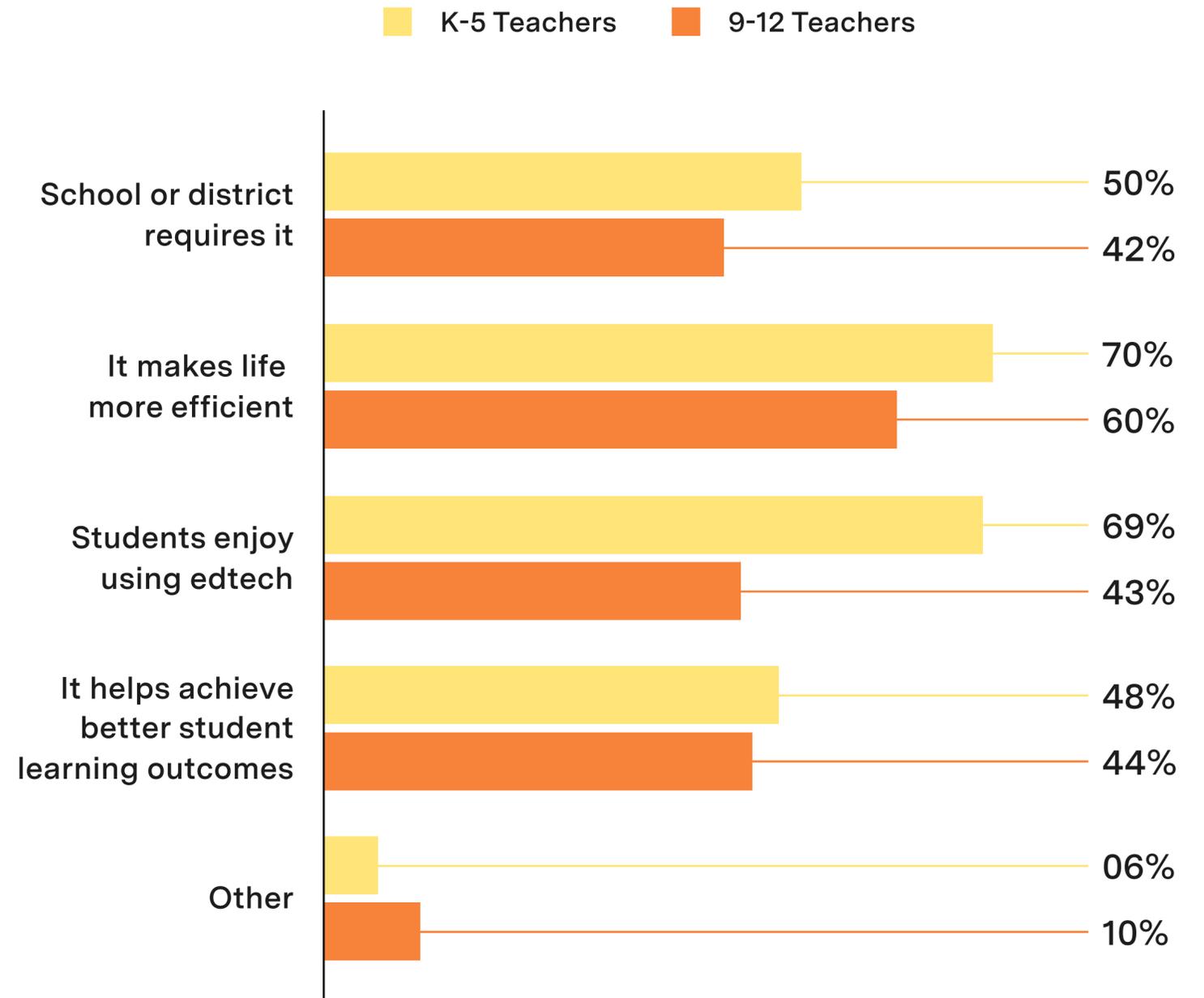- It has not had much impact
- Other

Efficiency reported as primary driver of edtech usage amongst teachers

Teachers and administrators largely agree that edtech has significantly streamlined their work and made their jobs more manageable, allowing them to focus on what's most impactful – learning in the classroom. This supports existing data demonstrating that edtech has the potential to increase what teachers are able to accomplish with their students.

61%
OF TEACHERS

and 66% of administrators report a marked increase in the usage of document collaboration tools

70%
OF TEACHERS

(elementary) report that the driver of edtech usage is student enjoyment compared to only 43% of high school teachers who say the same

What are the primary reasons you use edtech in your classroom (choose all that apply)?

- K-5 Teachers
- 9-12 Teachers

Reason	K-5 Teachers	9-12 Teachers
School or district requires it	50%	42%
It makes life more efficient	70%	60%
Students enjoy using edtech	69%	43%
It helps achieve better student learning outcomes	48%	44%
Other	06%	10%

"Reducing administrative workload for teachers is important, but we can't view efficiency as the only goal. How edtech tools are used in the classroom is key – they should be implemented in ways that empower student voice, choice, and deeper learning, not just faster completion of tasks."
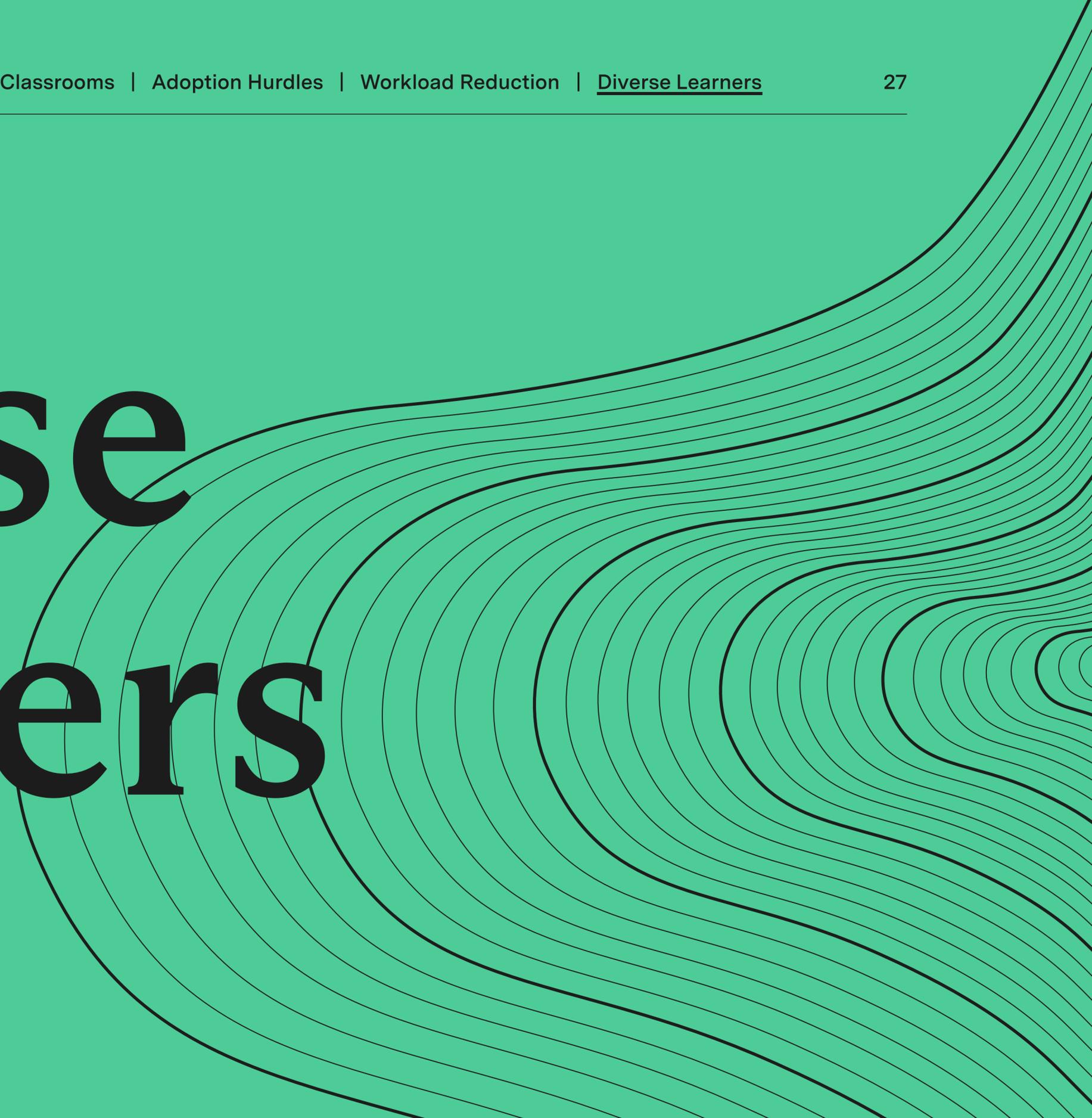
— **Louisa Rosenheck** | Director of Learning Design, Kahoot!

70% **OF TEACHERS**   (elementary) report that the primary driver of edtech usage is student enjoyment
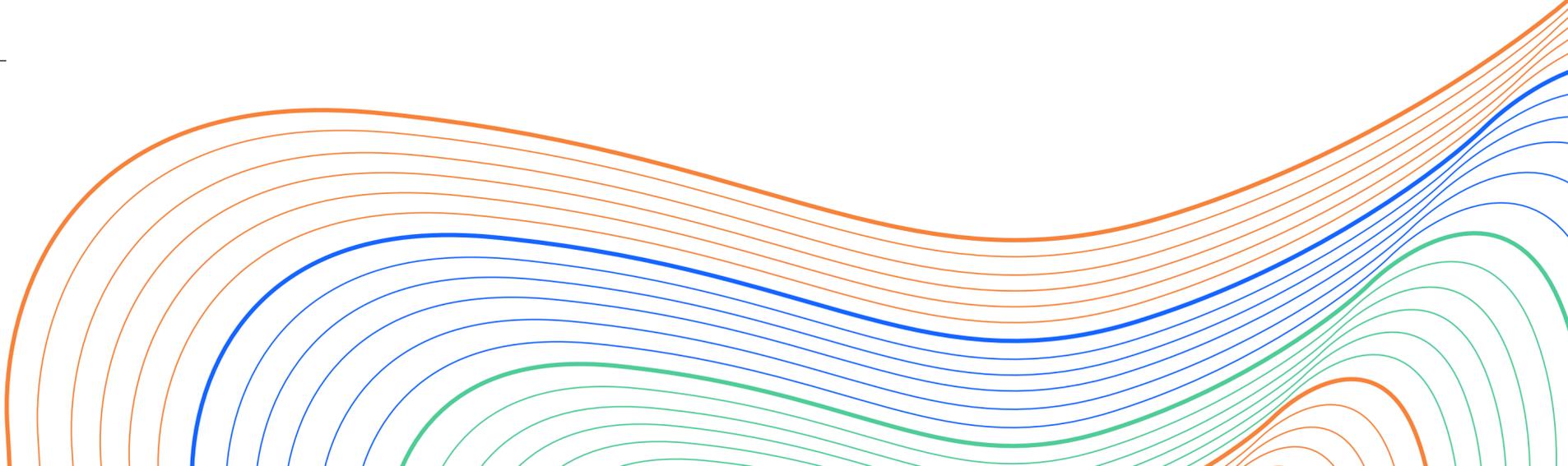
Diverse Learners

As educators continue to face new challenges in addressing learning loss and supporting diverse learners*, personalization will be critical in ensuring educators - and most of all, students - can benefit from emerging edtech.

* Diverse learners includes: English learners, economically disadvantaged students, students with disabilities, amongst others.
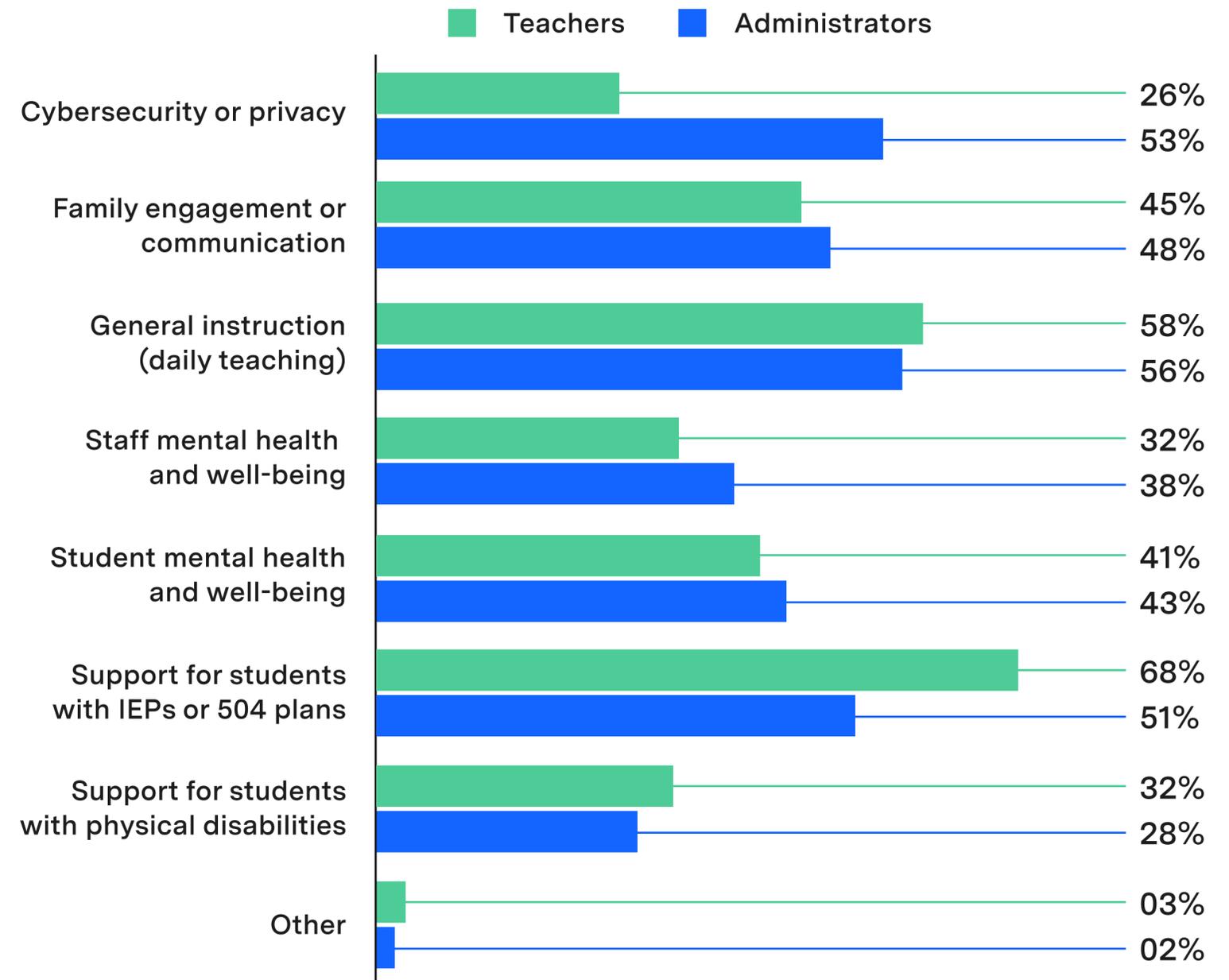
Majority of teachers need edtech support for students with IEPs or 504 plans

Despite edtech vendors' focus on addressing the needs of diverse learners, current offerings may not fully meet the needs of all students and underscores the need for future roadmaps to address these concerns.

70%
OF TEACHERS

and half of administrators want more edtech support for students with IEPs or 504 plans

56%
OF TEACHERS

and 59% of administrators are concerned about the availability of products that can effectively serve diverse learners

In which of the following areas, if any, would you like more edtech resources to support your teaching and district needs (choose all that apply)?

■ Teachers   ■ Administrators

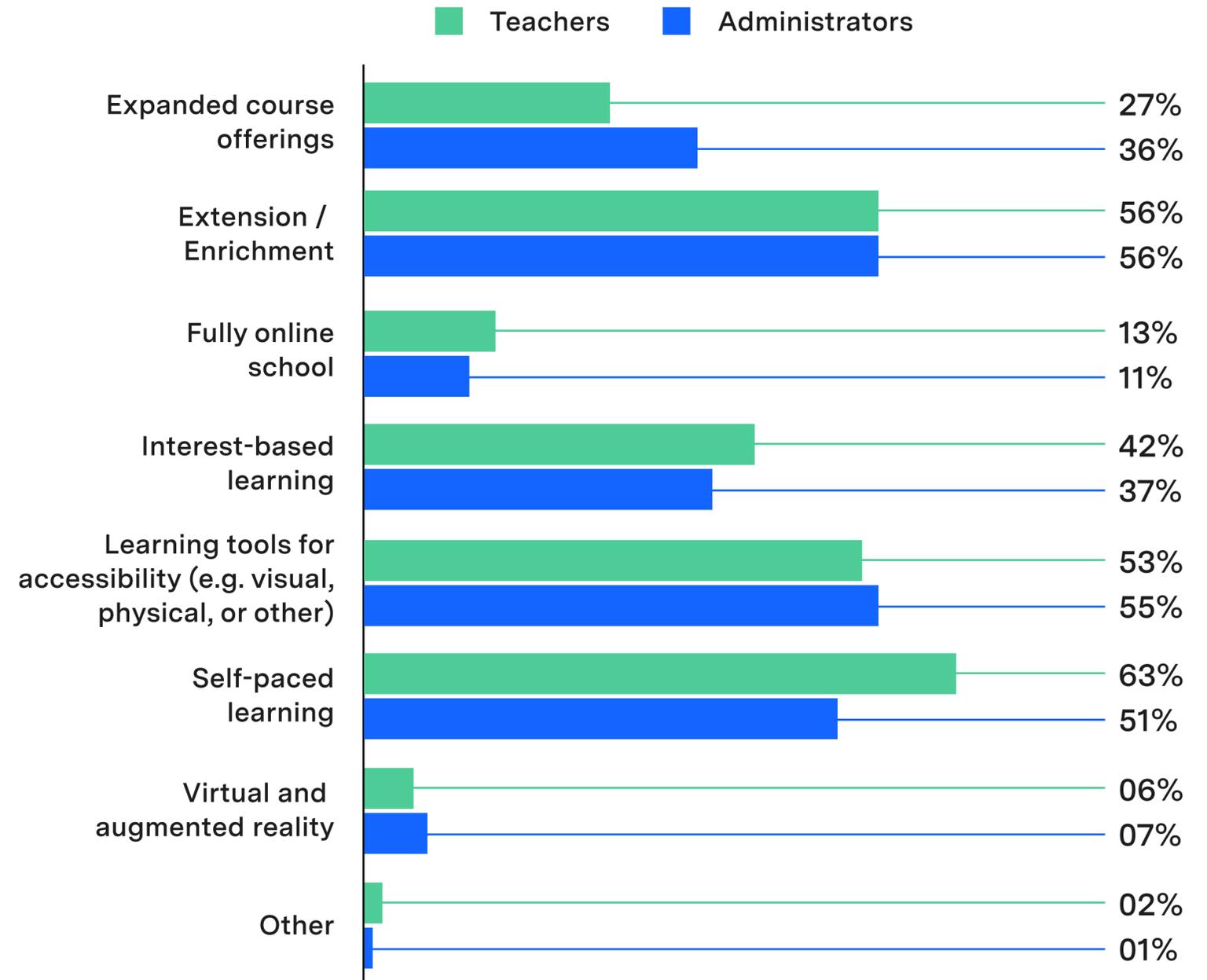|	Teachers	Administrators
Cybersecurity or privacy	26%	53%
Family engagement or communication	45%	48%
General instruction (daily teaching)	58%	56%
Staff mental health and well-being	32%	38%
Student mental health and well-being	41%	43%
Support for students with IEPs or 504 plans	68%	51%
Support for students with physical disabilities	32%	28%
Other	03%	02%

Data highlights a growing need for accessible, inclusive, and personalized education

Edtech tools, particularly those promoting self-paced, skill-based learning and accessibility, are increasingly recognized by educators as key to enhancing and personalizing student learning experiences.

53% **OF TEACHERS** report that learning tools designed for accessibility (e.g. visual, physical, etc.) play a key role supporting student outcomes

Of the following, for which use case (if any) do you think edtech has the biggest impact on student learning?

■ Teachers   ■ Administrators

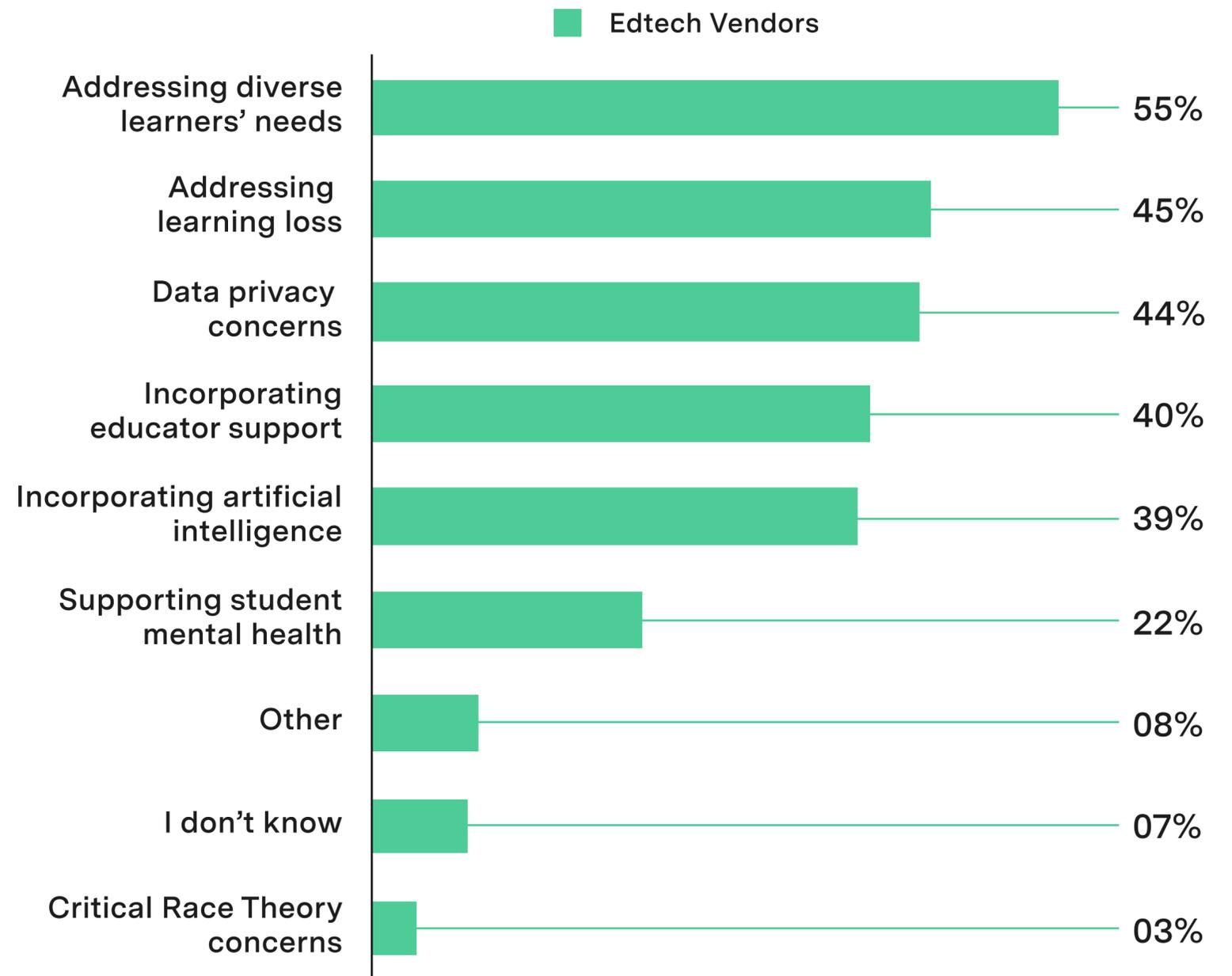|	Teachers	Administrators
Expanded course offerings	27%	36%
Extension / Enrichment	56%	56%
Fully online school	13%	11%
Interest-based learning	42%	37%
Learning tools for accessibility (e.g. visual, physical, or other)	53%	55%
Self-paced learning	63%	51%
Virtual and augmented reality	06%	07%
Other	02%	01%

Product roadmaps prioritize the need to serve students with special needs and learning loss

Vendors recognize the need to ensure that their products are serving the growing needs of diverse learners, amongst other critical challenges like addressing learning loss and data privacy concerns.

55% OF EDTECH VENDORS

are primarily driven by addressing the needs of diverse learners

Which of the following factors is shaping - or do you anticipate will shape - your product roadmap the most over the next few years?
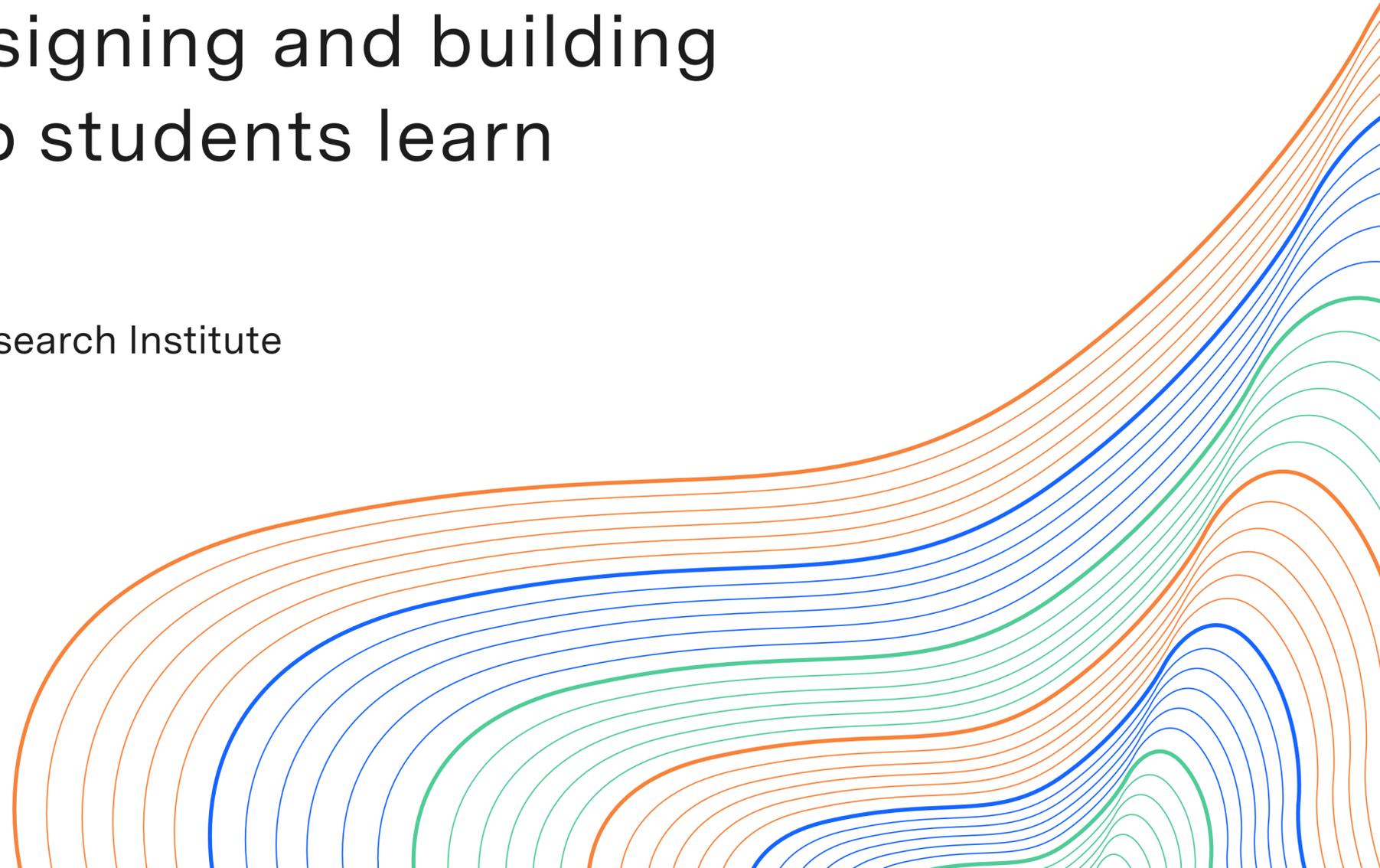
■ Edtech Vendors

Factor	Edtech Vendors
Addressing diverse learners' needs	55%
Addressing learning loss	45%
Data privacy concerns	44%
Incorporating educator support	40%
Incorporating artificial intelligence	39%
Supporting student mental health	22%
Other	08%
I don't know	07%
Critical Race Theory concerns	03%

"Teachers are the pilots of the classroom. Right now, we're asking them to both build the plane and fly it—an immense task. Our job is to make their lives easier by co-designing and building the tools they want to help students learn more effectively."

— **Matthew Feldmann** | VP of Product, MIND Research Institute

70% **OF TEACHERS** want more edtech support for students with IEPs or 504 plans

Acknowledgements

We collaborated with districts and edtech partners to develop this report, incorporating their qualitative insights that influenced our key findings. We would like to express our gratitude to these forward-thinking Clever partners:

Alexandra Miller

Coordinator of Instructional Technology, Kalamazoo Public Schools

Bill Weger

Assistant Director of Data and Analytics, KIPP Columbus

David Brunsting

Director of Student Information Systems, Indianapolis Public Schools

Karina Linch

Chief Product Officer, BrainPOP

Kristen Demland

Coordinator of Instructional Technology, Brazosport Independent School District

Louisa Rosenheck

Director of Learning Design, Kahoot!

Matthew Feldmann

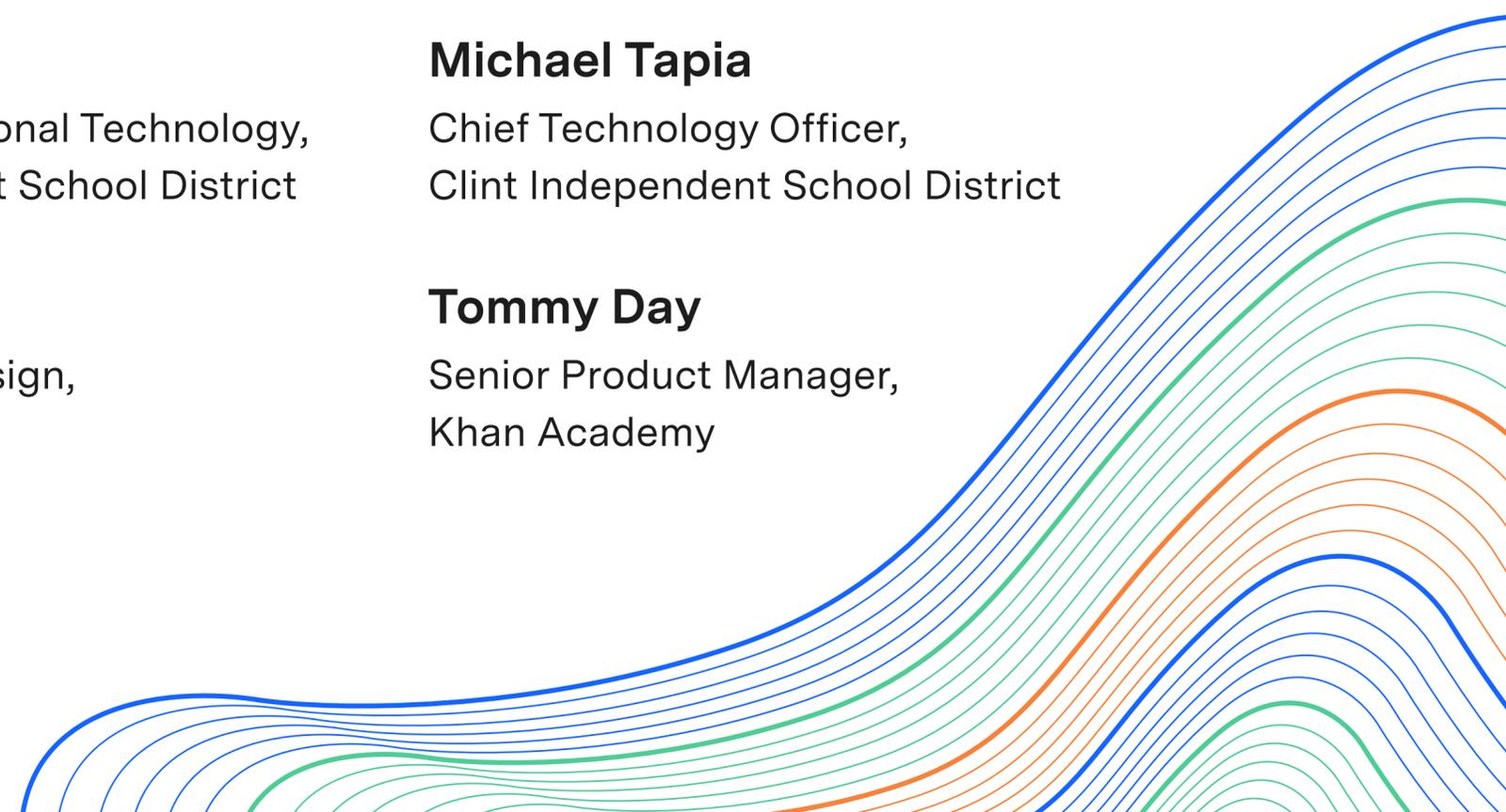Vice President of Product, MIND Research Institute

Mark Choi

Instructional App Specialist, Bellevue School District

Michael Tapia

Chief Technology Officer, Clint Independent School District

Tommy Day

Senior Product Manager, Khan Academy

Clever

Clever is on a mission to connect every student to a world of learning. More than 75% of U.S. K-12 schools now use Clever to power secure digital learning experiences. With our platform for schools and a network of leading application providers, we're committed to advance education with technology that works for students everywhere. Clever, a Kahoot! company, has an office in San Francisco, CA, but you can visit us at clever.com anytime.

W/A Whiteboard Advisors

Whiteboard Advisors is a mission-driven communications, research, and consulting firm that supports organizations working to advance educational equity and economic mobility. Our clients include the nation's most respected philanthropies, companies, nonprofit organizations, and investors. Our work is truly multidisciplinary, sitting at the intersection of business, policy, practice, and the media.

Clever