DATIA | K12
INSIGHTS BORN FROM DATA

2024 Report:
AI in K12 Education

Educators describe current uses, common challenges and risks, and the potential to transform teaching and learning

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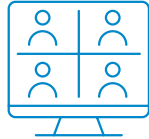Learning**

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Key Findings

High Levels of Interest Leading to Rapid Adoption

40% of respondents described themselves as part of the "early majority" and another **32%** said they were "early adopters" of AI, which suggests that the use of AI is rapidly growing in K12 overall.

AI Being Used in Many Ways

57% said they are using AI for various types of content creation including study guides and quizzes, while **47%** said AI was used for administrative tasks and **45%** are using it for lesson or curriculum development.

Lack of Formal AI Guidelines and Training

The study reveals a significant gap in formal AI guidelines and training. **62%** of respondents indicated that their schools are still planning to develop formal AI guidelines for students, while **59%** rated the lack of training on using AI tools as a major risk and **27%** said it was a significant challenge.

Significant Concerns About AI Misuse and Data Privacy

73% of respondents said they were concerned about potential misuse of AI by students, while **66%** said they were concerned about data privacy and security.

Section 1: Adoption and Current Uses

What Fuels AI Adoption in K12?

The survey found that AI tools are being utilized today by a diverse group of stakeholders in K12, including teachers, administrators, staff, and students. Nearly three in four administrators, staff, and teachers say they use AI for learning or administrative purposes. Half of respondents indicated students were also using AI in some form today.

About one in three respondents (32%) say their school or district is an "early adopter," willing to take some risks to integrate AI early, while 40% describe themselves as part of the "early majority" and 4% say they are "innovators" aggressively pursuing AI. Taken together, these numbers indicate that AI is being adopted at a rapid rate in K12.

Innovators or early adopters tend to be schools and districts with visionary leaders, ample technology budgets and infrastructure, adequate training and professional development, and more positive views of the potential of AI overall.

Conversely, school and district leaders with more conservative leadership, limited financial resources, inadequate training, and who expressed concerns about data privacy, misuse, and ethical issues were more likely to describe themselves as being in the "late majority" or "laggard" categories of AI adoption.

Who currently uses AI tools in your school or district? Select all that apply.

Administrators/ staff	73%
Teachers	73%
Students	50%
Don't know	13%
None of the above	5%
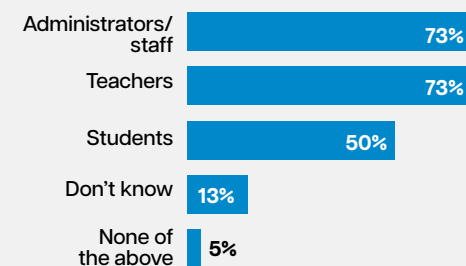
Which of the following best characterizes your school or district's adoption of AI tools?

- Innovator: 4%
- Early Adopter: 32%
- Early Majority: 40%
- Late Majority: 17%
- Laggard: 7%
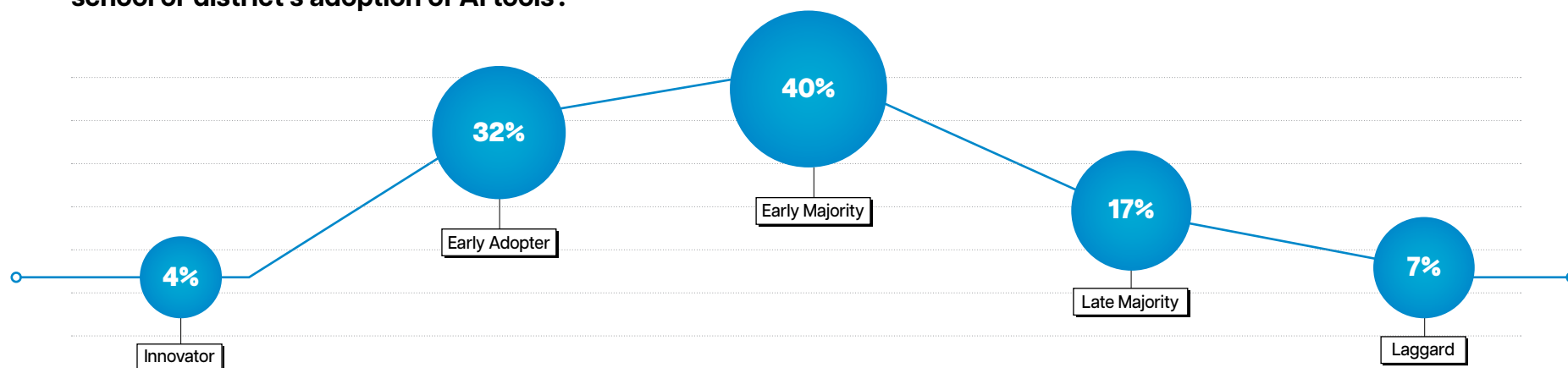
A Wide Variety of Uses

More than half of respondents (57%) said that AI is being utilized in schools for content creation, including study guides, quizzes, interactive simulations and other materials. Administrators are using AI for time-consuming tasks such as scheduling and enrollment.

Nearly half (45%) said they are using AI for lesson and curriculum development, tailoring lessons to meet the diverse needs of their students and ensuring that content is both relevant and effective. At the same time, similar numbers (42%) said AI is being employed to detect student cheating and plagiarism, while 31% said it was being used for assignment and test grading, where it provides timely and consistent feedback to students, reducing the workload on teachers.

More than a quarter of respondents (26%) said that AI is also making education more inclusive and accessible by assisting students with disabilities, and 22% said it was being used to provide customized and adaptive learning experiences based on individual student proficiency.

Additionally, a small percentage (14%) said they were using AI-powered virtual reality (VR) and augmented reality (AR) tools to create immersive learning experiences, making education more engaging and interactive.

How are AI tools being used in your school or district?

Content creation for study guides, quizzes, interactive simulations, etc.
57%

Administrative tasks (scheduling, enrollment, etc.)
47%

Lesson/curriculum development
45%

Detecting student cheating/plagiarism
42%

Assignment/test grading and feedback
31%

Accessibility to assist students with disabilities
26%

Customized/adaptive learning based on individual student proficiency
22%

Language learning
19%

Virtual reality (VR)/augmented reality (AR) for immersive learning
14%

Virtual tutoring
8%

Early intervention to detect learning disabilities
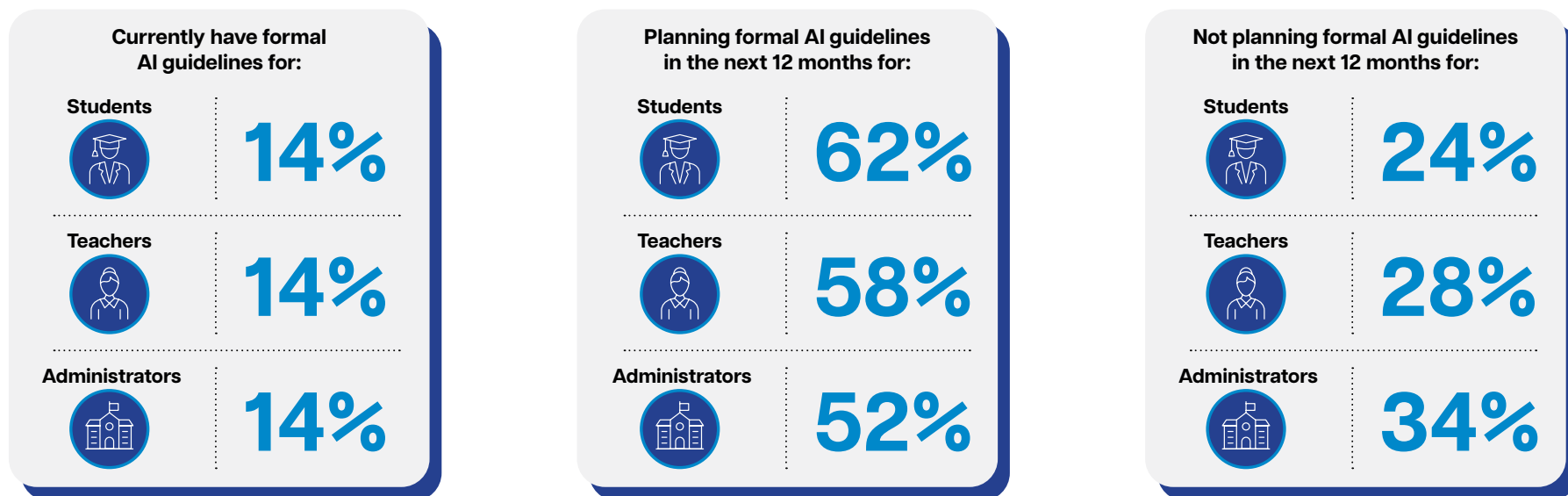**3%**

Developing Guidelines for AI Usage

While a significant percentage said they lack teacher guidelines for AI usage, more than half of schools or districts are currently developing formal AI guidelines for teachers. As one administrator put it, "Still working on set guidelines... [AI] can be used sparingly for certain projects or classroom paperwork and can be used to check students work," while an IT team member noted that teachers "can use [AI] at their discretion."

Most respondents indicated they have plans to implement formal AI guidelines for students within the next year. Comments such as "Cannot use to plagiarize, otherwise okay," "Cannot use for creation of writing projects," and "No AI for any student work" reflect some difference of opinion on student use.

While a significant number of schools are planning to establish AI guidelines for administrators and staff, a considerable portion still lacks such plans. Comments included "They [administrators] are aware of AI, but we don't have a policy in place to restrict any of it," "Still working on these...", and "Really no limit except cannot share PII."

While these results indicate a trend towards developing formal AI guidelines across all roles within schools, they also indicate a clear need for more comprehensive policies to ensure that AI tools are used effectively and ethically.

By The Numbers

Currently have formal AI guidelines for:

Students	14%
Teachers	14%
Administrators	14%

Planning formal AI guidelines in the next 12 months for:

Students	62%
Teachers	58%
Administrators	52%

Not planning formal AI guidelines in the next 12 months for:

Students	24%
Teachers	28%
Administrators	34%

Training and Professional Development

63% of respondents reported that they had any type of AI training for teachers, administrators, or staff at their school or district, with the top training method cited (48%) being training provided by internal IT support staff. While a cost-effective and readily available option, the effectiveness of this training can vary depending on the IT staff's familiarity with AI tools and their training abilities.

30% said they use online courses and workshops for AI training, offering flexibility and accessibility. These programs can be tailored to individual schedules and learning paces, however, the quality, consistency and relevance of online training can vary.

Some respondents (15%) have used AI product vendors and/or external training or consulting firms for specialized AI training. However, vendor-provided training may be limited to specific products and may not cover broader AI concepts or applications.

A small percentage (12%) highlighted the value of consulting firms, which, despite being more costly than other resources, can provide expert knowledge and tailored training solutions that address the specific needs of a school or district. For example, a school district might hire a consulting firm to conduct a series of workshops on AI integration, covering topics such as ethical considerations, data privacy, and practical applications in the classroom.

Most notably, 37% reported that no AI training is provided at their schools, indicating a gap in professional development that could hinder the effective adoption and utilization of AI.

Which of the following is used to provide AI training for teachers or administrators/staff at your school or district?

Internal IT support staff
48%

Online courses/workshops
30%

AI product vendors
15%

Training or consulting firm
12%

Other
4%

None - no training is provided
37%

Section 2: Potential to Personalize Learning

Positivity About the Potential,
But Concerns About Certain Areas

More than half of respondents (53%) said they strongly believe that AI can help teachers be more efficient, enabling them to focus more on instructional quality and student engagement. A substantial number of participants (41%) were also optimistic about AI's ability to help teachers dedicate more time to deeper student instruction and engagement.

One in three respondents said they saw AI as a positive force in K12 education. While this positive sentiment reflects the growing recognition of AI's potential, there are clearly still reservations and areas that need to be addressed.

One of the most pressing concerns highlighted by the survey is the adequacy of AI training for teachers. Nearly half (46%) of all respondents said they strongly believe that teachers in their school or district do not have adequate training on the use of AI in education.

Only 11% said they strongly agreed that AI is more likely to harm students than benefit them.

Percentage of educators who say they strongly agree that:

AI enables teachers to be more efficient.

53%

Teachers in my school/district do not have adequate training on the use of AI in education.

46%

AI tools can help teachers dedicate more time to deeper student instruction and engagement by automating other time-consuming administrative tasks.

41%

Overall, AI technology is a positive force in K12 education.

32%

AI technology is more likely to harm students than benefit them.

11%

Note: Chart shows percentage of respondents selecting a 6 or 7 on a scale of 1 to 7.

Efficiency, Personalized Learning, and Professional Development

Common themes in respondents' comments about potential AI use included efficiency and time savings. Respondents were enthusiastic about how AI could automate routine tasks such as grading, attendance tracking, and scheduling, allowing teachers to focus on more important activities. Additionally, respondents thought AI could assist in creating lesson plans, quizzes, and other materials quickly and efficiently.

Another common theme the potential for personalized learning. AI tools can tailor instruction to meet individual student needs by analyzing performance data and providing personalized learning paths. Adaptive learning technologies offer real-time feedback and adjust the difficulty of tasks based on student progress, ensuring that each student is appropriately challenged.

Many respondents also believe improved communication is an additional benefit of AI, as AI can assist in drafting communications such as emails and newsletters, making it easier for teachers to keep parents and students informed. Respondents also commented that AI tools could facilitate better collaboration among teachers, support professional development by providing resources and training, and help evaluate teacher performance and provide constructive feedback for professional growth.

"**Over the next few years, AI will be a game-changer in K12 education, particularly in personalizing learning and automating tasks. Imagine AI tutors adapting to each student's needs, providing customized lessons and support, while teachers gain valuable time by offloading grading and administrative duties to AI. This allows for more focus on individual student needs and creating engaging classroom experiences.**"

- School Administrator

Section 3: Awareness of Potential Risks

Concerns About Misuse, Privacy, and Training

The most frequently mentioned concern about AI was potential misuse by students, cited by 73% of respondents. This includes fears that students might use AI tools to cheat on assignments or exams. The unauthorized use of AI by students to complete assignments is another risk that 59% of respondents said they are concerned about.

Another concern is the risk related to data privacy and security, mentioned by 66% of participants. With the increasing use of AI, there is a heightened risk of sensitive student data being exposed or misused, which could have serious implications for student privacy and safety.

About 6 in 10 respondents were concerned that AI could lead to a diminished role for teachers and a potential loss of critical thinking and creativity among students, while identical numbers expressed concern at the lack of AI training for teachers. Without adequate training, teachers may struggle to effectively integrate AI tools into their classrooms, potentially leading to misuse or underutilization.
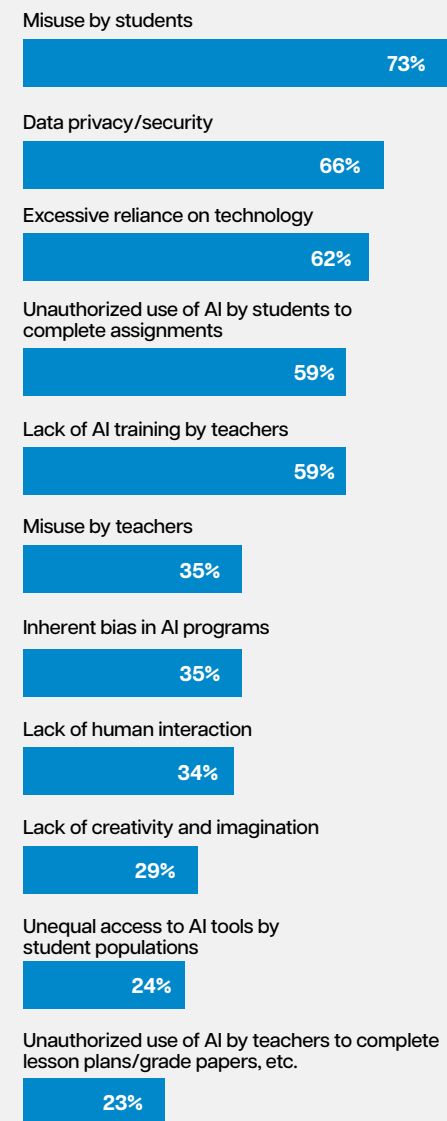
Additionally, 35% of participants said they are concerned about inherent bias in AI programs. It's important to understand that AI systems are only as good as the data they use, and if this data is somehow biased, it can lead to unfair or discriminatory outcomes.

Other concerns selected included the possibility of reduced human interaction (34%) and reduced creativity and imagination (29%) if students become too reliant on AI.

Overall, educators recognize that while AI holds significant promise for enhancing education, it also presents some risks that need to be carefully managed. Addressing these risks will require a concerted effort to develop robust ethical guidelines, provide comprehensive training for educators, and ensure that AI systems are fair, transparent, and supportive of human interaction and creativity.
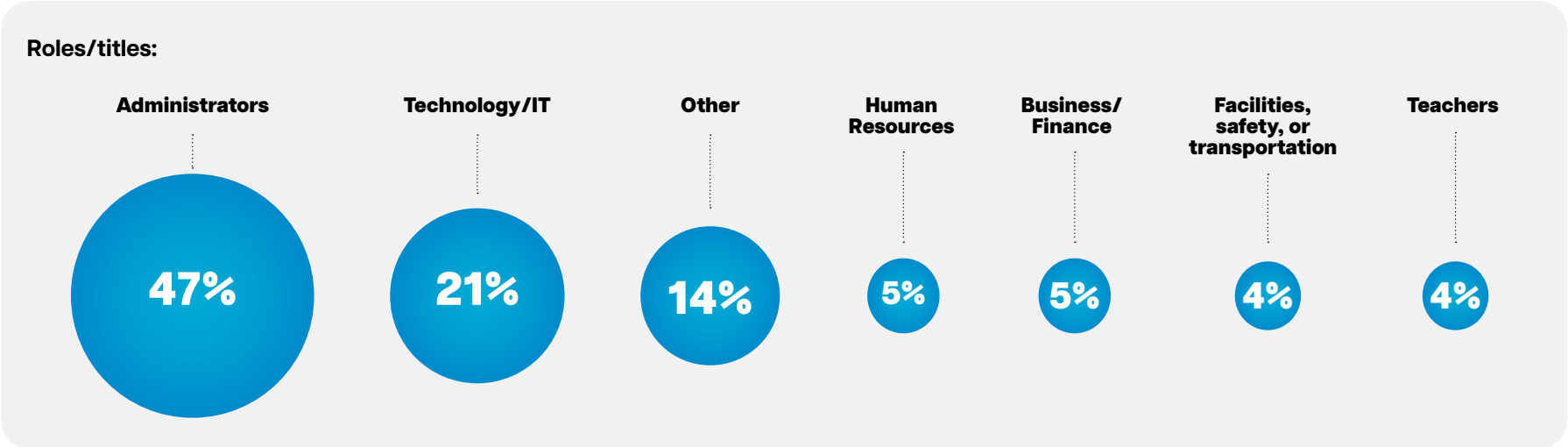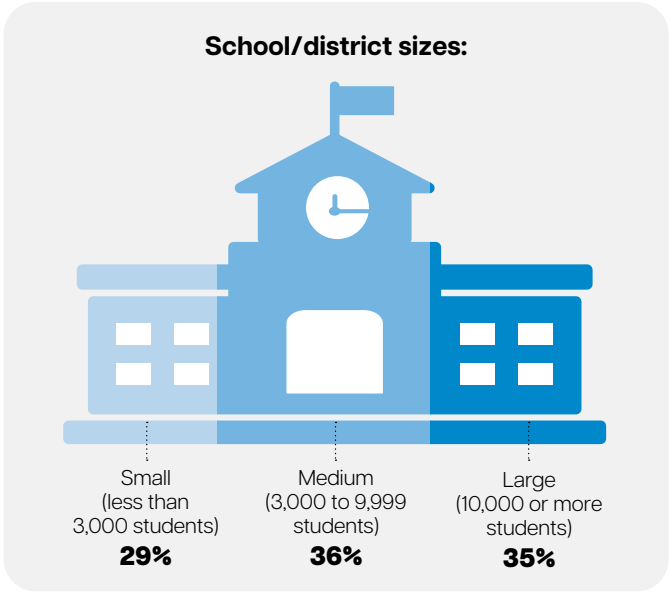
What do you see as the top risks of using AI in education?

Misuse by students
73%

Data privacy/security
66%

Excessive reliance on technology
62%

Unauthorized use of AI by students to complete assignments
59%

Lack of AI training by teachers
59%

Misuse by teachers
35%

Inherent bias in AI programs
35%

Lack of human interaction
34%

Lack of creativity and imagination
29%

Unequal access to AI tools by student populations
24%

Unauthorized use of AI by teachers to complete lesson plans/grade papers, etc.
23%

Methodology

The data and insights in this report are based on an online survey conducted in September and October 2024 among 241 K12 education professionals, including administrators, IT, and other district staff in the U.S.

The objective of this study was to explore the adoption of and use cases for AI in K12 education, as well as respondents' opinions about the benefits, risks, and challenges of AI. Various issues, such as the presence of AI guidelines and teacher/staff training were also explored.

School/district settings:

- Urban: **21%**
- Suburban: **46%**
- Rural: **33%**

School/district sizes:

- Small (less than 3,000 students) **29%**
- Medium (3,000 to 9,999 students) **36%**
- Large (10,000 or more students) **35%**

Roles/titles:

- Administrators **47%**
- Technology/IT **21%**
- Other **14%**
- Human Resources **5%**
- Business/Finance **5%**
- Facilities, safety, or transportation **4%**
- Teachers **4%**

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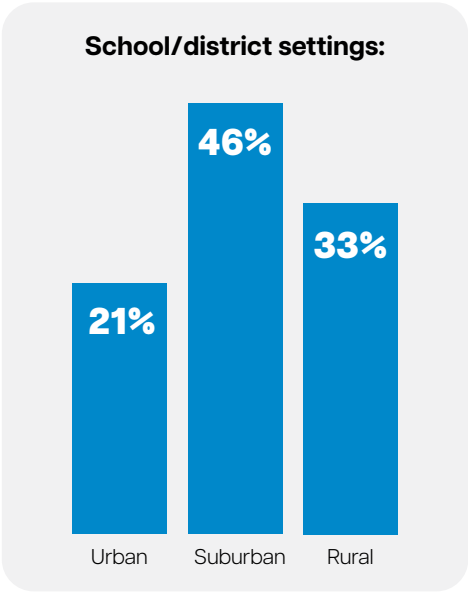
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