

# Executive Summary

## Artificial Intelligence in Education: West Virginia Stakeholder Survey



### Overall Highlights

#### Scope

Survey responses were received from a total of 1,025 stakeholders, representing school and district staff, as well as family and community members. Questions asked about various perceptions and concerns related to the use of AI in educational settings.

#### Findings

Nearly 97% of respondents agree or strongly agree that essential learning skills (i.e., literacy, numeracy, research, critical thinking) need to remain a focus of public education, and that students should not become overly dependent upon AI. Similarly, almost all stakeholders want to see transparency surrounding AI usage. Approximately 4 in 5 respondents expressed some degree of concern or worry surrounding the uses and adoption of AI. Nonetheless, opinions were still mixed across various other topics.

Roughly 6 in 10 respondents see AI as an inevitable part of the future of education and the workforce. Numerous open-ended responses from educators and family members advocated for ensuring that WV students have opportunities to learn about AI so that they will be better prepared for the future which awaits them, and so they won't be left behind and at a competitive disadvantage as they prepare for post-secondary success.

### Purpose of Report

The purpose of this Executive Summary and the full report is to summarize the results and technical analyses performed with the Spring 2024 **Artificial Intelligence in Education: West Virginia Stakeholder Survey**, which was used to collect stakeholder feedback related to perceptions of using artificial intelligence (AI) in education. The results are being used to inform and enhance the support provided to schools and districts regarding appropriate uses of AI in education, as well as provide stakeholders with transparency about their collective perceptions.

### Survey Details

The survey included a total of 22 or 27 questions total, depending on the stakeholder group. A breakdown of the question types is presented below in Table 1. Across all groups, the survey was conveniently completed by many in a short time span, with the median time to complete the survey being 5 minutes and 28 seconds. A total of 1,025 responses were received across 32 calendar days (i.e., 02/09/2024 through 03/11/2024). Feedback was received from educators, counselors, school administrators, district administrators, other school and district staff, family members, community members, and post-secondary/industry professionals.

**Table 1. Count of questions by type and stakeholder audience.**

Question Type	Number of Questions	Relevant Stakeholders
Survey Consent	1	All
Demographic Group	1	All
Supports Needed	5	Educators and Administrators
Perceptions of AI	14	All
Hypothetical Scenarios	4	All
Open-Ended	1	All
Self-Nominate for Subcommittee	1	All; Separate link, if interested

## Results

### Respondent Information

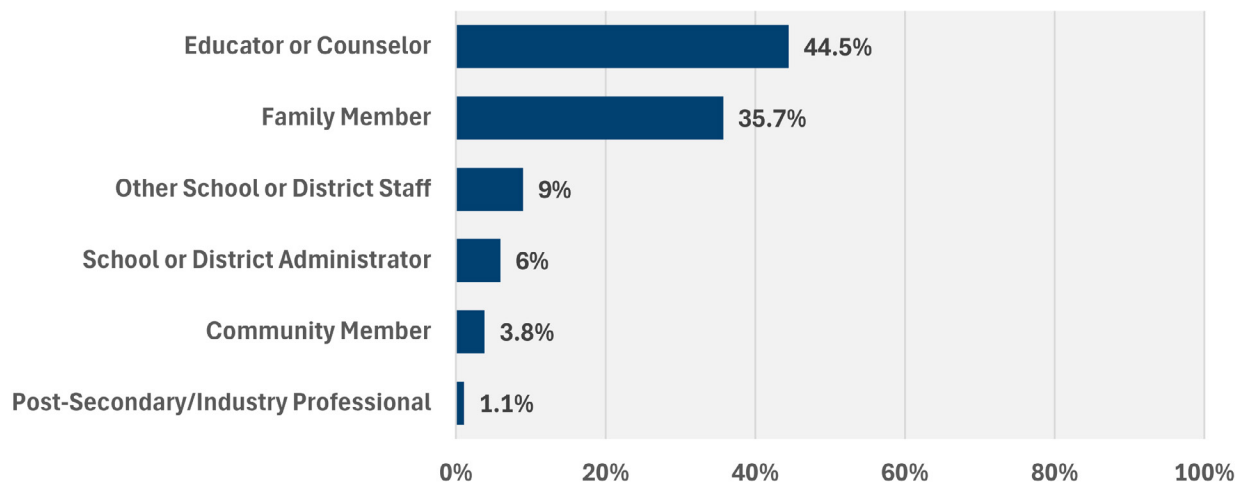
As displayed in Figure 1, roughly 4 in 9 respondents were educators or counselors, while roughly 3 in 9 respondents were family members. Because there were so few respondents in the “Post-Secondary/ Industry Professional” category, it was collapsed with “Community Members” to create a category for “Other Stakeholders” in the disaggregated reporting (see Appendix B in the full report).

**Figure 1. Respondent representation by stakeholder group.**

### Demographic Information

Please select the role that best describes you as it relates to public education.

*Note: Respondents were asked to select the one category most aligned with their role during a typical school day.*



Of the 1,025 respondents, slightly more than two-thirds reported never using AI for work or helping students with school work (see Figure 2). This percentage is fairly comparable to other survey samples across the United States.

**Figure 2. Respondent counts by frequency of AI use.**

**Frequency of Use**

How often do you use newer AI chatbots or visual AI tools for work or helping students (e.g., your child) with school work?

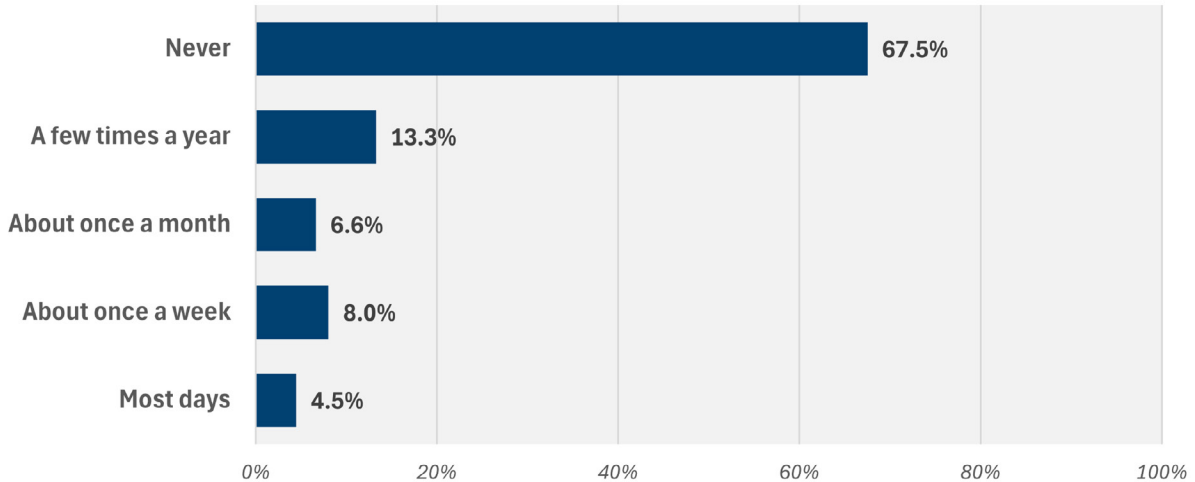


Table 2 contains an overall summary of the question-level findings ordered by the extent of stakeholder agreement (i.e., questions with the highest agreement levels are listed first). It is important to note that some questions measured the degree of concern or worry stakeholders feel, so agreement may assume a different meaning depending on the nature of the question. Overall, stakeholders are universally in agreement that students should learn foundational skills and that any activities and decisions involving AI should be transparent. Roughly 80% expressed some degree of concern or worry related to the impact that AI will have on people. Nearly 6 in 10 indicated that they are confident in their ability to keep up with advancements in AI technologies.

Table 3 contains an overall summary of the vignette findings. The vignettes presented respondents an opportunity to respond to **theoretical scenarios** that are not necessarily already occurring in WV public schools. For example, two-thirds of respondents believed that schools should have the ability to prohibit personal devices that are AI-powered. Half of respondents believed it to be permissible for a company to store location data related to bus routes if it helped to improve the way an associated app works. Only 1 in 5 respondents believed that using facial recognition technology to track daily attendance would be acceptable. There were mixed responses when it came to using automated machines to do routine floor cleaning and supply delivery between classrooms, though open-ended responses more strongly clarified that stakeholders did not want to see any school staff in jeopardy of losing their employment due to decisions involving AI technologies.

**Table 2. Question-level survey results for all respondents on questions measuring agreement (sorted by average value from largest to smallest).**

Question	Response Counts						Percentages				Combined Agree %
	Valid	Blank	SD	D	A	SA					
<b>Q13</b> Students should continue to learn the essential principles and skills of literacy, math, research, & critical thinking so that they can use AI as an assistant or tool rather than becoming dependent upon it.	1,019	6	21	14	160	824	15.7%	80.9%			96.6%
<b>Q9</b> Schools should communicate with students and families about the emergence of deepfake technology (i.e., fake audio or video created by AI that appears real and was created to confuse or deceive others).	1,022	3	12	15	258	737	25.2%	72.1%			97.3%
<b>Q11</b> Vendors of AI products for educational use should be required to demonstrate that their algorithms work in the way that is described to users.	1,021	4	3	18	333	667	32.6%	65.3%			97.9%
<b>Q8</b> I feel that it is important for schools and districts to communicate with students and families about which AI-powered tools are being used and their reasons for being used.	1,022	3	14	38	344	626	33.7%	61.3%			95.0%
<b>Q5</b> I am concerned about who takes responsibility when AI fails at a task.	1,022	3	23	98	376	525	36.8%	51.4%			88.2%
<b>Q10</b> I am concerned that the data used by AI algorithms, or the output from AI, may be biased against particular groups of people or points of view.	1,014	11	22	163	375	454	16.1%	37.0%	44.8%		81.8%
<b>Q12</b> I am concerned about AI technology using multiple types of data to predict behavior of students or staff.	1,014	11	21	220	341	432	21.7%	33.6%	42.6%		76.2%
<b>Q6.</b> I am concerned about who takes responsibility when AI succeeds at a task.	1,024	1	37	178	455	354	17.4%	44.4%	34.6%		79.0%
<b>Q4</b> I would like to learn more about data privacy when using AI tools.	1,023	2	71	105	505	342	10.3%	49.4%	33.4%		82.8%
<b>Q7</b> I worry that AI will replace many job roles currently performed by humans.	1,021	4	64	226	337	394	22.1%	33.0%	38.6%		71.6%
<b>Q2</b> I believe the adoption of AI is unavoidable in the workforce.	1,023	2	175	195	377	276	17.0%	19.1%	36.9%	27.0%	63.9%
<b>Q1</b> I believe the adoption of AI is unavoidable in education.	1,023	2	208	210	358	247	20.4%	20.5%	35.0%	24.1%	59.1%
<b>Q3</b> I am confident in my ability to keep up with advancements in AI technologies.	1,021	4	134	285	470	132	13.1%	27.9%	46.0%	13.0%	59.0%

**Legend/Notes:** SD = "Strongly Disagree"    D = "Disagree"    A = "Agree"    SA = "Strongly Agree"

Due to space restrictions, parts of the stacked bar charts may not have percentage labels and can be assumed to be a value lower than 10%.

**Table 3. Question-level survey results for all respondents on vignette questions.**

Question	Response Counts					Percentages		
	Valid	Blank	Unacceptable	Unsure	Acceptable			
<p><b>AI-powered devices sometimes send data they collect to a computer owned by the company that sold the product. Please indicate whether each of the following scenarios are acceptable decisions regarding the use of AI:</b></p>								
<p><b>Q14</b> School limitations or prohibitions on personal devices that collect information about the surroundings if the devices are not medically important for a student. For example, a school should be allowed to prohibit the wearing of personal smart glasses to school, which are able to record pictures and video and store data about the types of objects they see, including potential storage in the cloud.</p>	1,005	20	173	157	675	17.2%	15.6%	67.2%
<p><b>Q15</b> The district is using an app to give parents/caregivers the ability to track bus location in real-time, and the company selling the app stores and uses the location data to improve their algorithm.</p>	1,005	20	236	258	511	23.5%	25.7%	50.8%
<p><b>AI-powered devices can potentially use personal data or assume traditionally human roles. Please indicate whether the following scenarios are acceptable decisions regarding the use of AI:</b></p>								
<p><b>Q16</b> Using facial recognition to track classroom attendance.</p>	977	48	563	214	200	57.6%	21.9%	20.5%
<p><b>Q17</b> A school district is purchasing automated machines that clean the floors and deliver items between rooms. These collect data about the environment to navigate the school grounds. These machines could save the district tens of thousands of dollars each year, but it might result in the custodians losing work hours or losing their jobs completely. On the other hand, it might free up custodians to do other maintenance work that still needs to be done.</p>	1,010	15	391	273	346	38.7%	27.0%	34.3%

**Legend/Notes:**



## Recommendations for Action Steps

Based upon these survey findings, as well as informal stakeholder feedback that the WVDE has received, multiple supports have been identified that could be further developed to ensure all stakeholders receive the necessary training and materials in adapting to a world filled with AI technologies. The following strategic supports are proposed as action steps and are grouped by the entity which should be best equipped to provide the supports. In crafting these recommendations, consideration was given to the foundational policy ideas proposed by TeachAI (2024)<sup>1</sup>.

### West Virginia Department of Education

#### Recommendation 1: Maintain Focus on Essential Skills/Knowledge and Student Well-Being

Maintaining a focus on essential skills and knowledge means a standards-based<sup>2</sup> approach to instruction. Any considerations of AI will always need to be person-centered, done to further advance instructional quality of the WV content standards, and be centered on the whole-child.

#### Recommendation 2: Provide Additional Guidance and Supports to Promote AI Literacy

The WVDE is creating additional trainings and resources. These supports are being developed such that districts can simultaneously build their capacity and be able to use resources in their own trainings and standard operating procedures.

#### Recommendation 3: Provide Guidelines regarding District Reviews of Artificial Intelligence Solutions

A process manual will be created that will guide WV districts in their reviews of potential artificial intelligence solutions. The manual will describe a system of AI review, implementation, and transparency. The goal is to provide a framework for WV districts to use before implementing AI-enabled products *en masse*, and address use cases for administration/management, planning and design of instructional materials, as well as real-time interactions with AI technologies.

### Public School Districts and Schools

#### Recommendation 4: Invest in Professional Learning to Build Capacity and Support Innovation

Professional learning surrounding AI cannot simply be lecture-style presentations in isolated instances. Using the existing and forthcoming trainings/resources provided by the WVDE, districts should train professional and service personnel on the opportunities and risks that can arise from using AI in public education.

#### Recommendation 5: Invest in Leadership

It is crucial for districts to support schools with organizational strategy, goal-setting, as well as monitoring and evaluation practices in the use and adoption of AI. District- and school-level administrators should take steps to build a situational awareness about the professional learning needs of their staff and how parents/caregivers are feeling about various applications of AI tools.

#### Recommendation 6: Collect Stakeholder Input

Districts and schools should collect input from their stakeholders when considering new applications of AI. Communication is crucial, and collecting feedback is a necessary part of that process. Many parents/caregivers are only aware of AI based upon what is seen in media or social media, so it is important to use common language that is not connotatively laden (either in support or opposition).

<sup>1</sup> TeachAI (2024). *Foundational Policy Ideas for AI in Education*. Retrieved from: <http://teachai.org/policy>.

<sup>2</sup> Standards-based – The system of instructional practices, evaluation and reporting that shows a student's growth towards the mastery of specific skills and knowledge they are expected to learn as they proceed through their education. West Virginia has established College and Career Readiness Standards to prepare students to transition successfully into higher education or the workplace (West Virginia Professional Teaching Standards, 2023).