GALLUP | WALTON FAMILY FOUNDATION | HEARTLAND FORWARD
AN INSTITUTE FOR ECONOMIC RENEWAL

VOICES OF GEN Z

Preparing the Heartland for an AI Future

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Executive Summary and Key Findings

Though estimates of the effects that generative artificial intelligence (AI) will have on the American workforce and labor market are changing rapidly alongside the technology itself, several early projections suggest its impact will be substantial.

In 2023, Goldman Sachs economists estimated that two-thirds of U.S. occupations are exposed to at least partial AI automation.[1] The American public is equally alarmed by the prospect of increased reliance on artificial intelligence: A 2024 study from Bentley University and Gallup found that three-quarters of U.S. adults believe AI is likely to reduce the total number of jobs over the next decade.[2]

While these projections agree that AI-related disruptions are likely to affect most U.S. workers, this does not imply that all these workers will be replaced by the technology. Rather, many will find that artificial intelligence is destined to augment, rather than eliminate, their jobs. This may be especially relevant for workers in America's Heartland,[3] 20 states that span the Midwest and non-coastal South of the United States. Heartland Forward, a non-profit think-and-do tank committed to studying economic and wellbeing trends in the middle of the country, found that workers in the Heartland are less exposed to artificial intelligence disruptions.[4] This is due partly to the blue-collar industries that are disproportionately situated in this region, including agricultural, construction and transportation professions.

However, while their current or future job may be, on average, less likely to be eliminated by artificial intelligence, young Heartlanders will still have to understand the dynamics AI has introduced as they chart their courses to the workforce. Moreover, members of Generation Z — children and young adults born between 1997 and 2012 — are especially vulnerable to a separate implication of artificial intelligence: the full automation of entry-level jobs. Research suggests that entry-level jobs — many of which are filled by workers in the same age range as Gen Z is today — are the most likely to fall victim to full automation.

Recognizing the unique impact that artificial intelligence may have on Gen Zers, Heartland Forward partnered with the Walton Family Foundation and Gallup to interview nearly 1,500 13- to 28-year-olds living in the 20 Heartland states. The survey — part of the Walton Family Foundation's larger ***Voices of Gen Z*** study — measured the attitudes of Gen Zers in the Heartland toward artificial intelligence, its impact on school and work and the extent to which they are being prepared to enter or adapt to an AI-integrated job market. Despite Gen Z's widespread adoption of artificial intelligence, the results demonstrate that most do not feel prepared to apply AI in the workplace, in part due to weaknesses in their schools' and employers' policies regarding its use.

1 Goldman Sachs. (2023, April 5). Generative AI could raise global GDP by 7%. https://www.goldmansachs.com/insights/articles/generative-ai-could-raise-global-gdp-by-7-percent

2 Gallup. (2024). Bentley-Gallup Business in Society Survey 2024 Report. https://www.gallup.com/analytics/512066/bentley-business-in-society.aspx?thank-you-contact-form=1

3 For the purposes of this report, the Heartland refers to the following 20 states: Alabama, Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, North Dakota, Nebraska, Ohio, Oklahoma, South Dakota, Tennessee, Texas and Wisconsin. All references to Gen Z in this report include only those living in the 20 Heartland states, unless otherwise noted.

4 DeVol, R., & Ratnatunga, M. (2023, October 23). Heartland has less to fear from AI: Evaluating occupational, industry, and geographic exposure. Heartland Forward. https://heartlandforward.org/case-study/heartland-has-less-to-fear-from-aievaluating-occupational-industry-and-geographic-exposure/

Key findings from the survey include:

01.

More than four in 10 Heartland Gen Zers are weekly AI users.

Seventy-seven percent of Heartland Gen Zers use generative AI, including 43% who do so on a weekly basis. Weekly AI usage in the Heartland is only slightly lower than in the 30 states outside of it (49%).

02.

Most schools are not supporting Heartland students' AI learning.

Nearly half of middle and high school students are using AI for their homework (47%) and other learning outside school (49%). However, fewer say they are using it for in-class activities (30%), and only about one in four (26%) say their school clearly permits AI use in at least some circumstances.

03.

Few Heartland Gen Zers feel prepared to use AI in their postsecondary activities.

Ten percent of Gen Z K-12 students agree their teachers have prepared them to use AI in their future jobs or education. Meanwhile, 9% of Gen Z workers feel "extremely prepared" to use AI in their current jobs.

04.

White-collar workplaces encourage greater AI adoption.

Heartland Gen Zers employed in STEM (61%), education (59%) and other white-collar roles (45%) are more likely than those in healthcare (10%) and blue-collar and service jobs (17%) to say their workplace permits AI use. Additionally, 44% of workers in blue-collar, service and healthcare roles believe AI does not exist for their work.

05.

Men, high schoolers and Black Gen Zers are the most avid AI adopters.

Heartland Gen Zers who are male, Black or African American or currently enrolled in high school are most likely to say they use and are prepared to integrate AI into their lives, learning and work.

Detailed Findings

More than four in 10 Heartland Gen Zers use AI on at least a weekly basis.

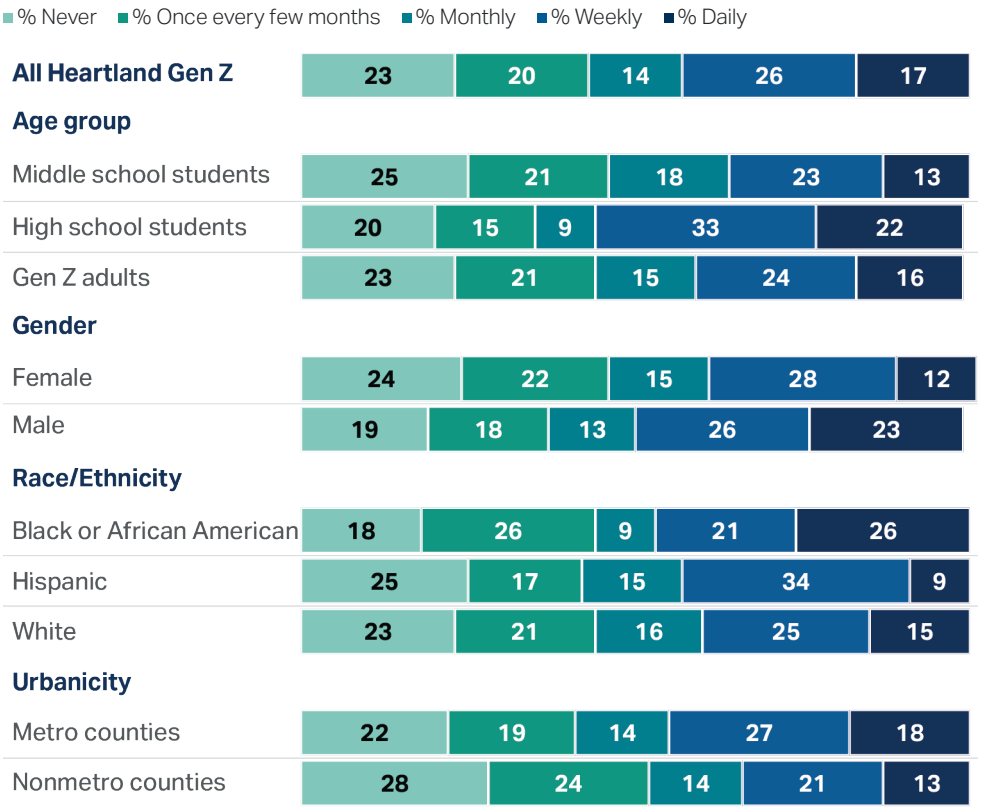
When OpenAI first released its ChatGPT platform to the public in November 2022, it took just two months for the product to reach 100 million active users, making it the fastest-growing consumer application in history.[5] By the end of 2024, ChatGPT boasted more than 300 million weekly users.[6]

The hundreds of millions of people who have used generative artificial intelligence — such as ChatGPT, Google Gemini or Microsoft Copilot — include more than three-quarters of Gen Zers in the Heartland (77%). Frequency of use varies widely, but more than four in 10 (43%) say they use one of these platforms on at least a weekly basis.

CHART 1

AI Use Frequency Among Gen Zers in the Heartland

In your daily life, how often, if at all, do you use artificial intelligence?



Note: Due to rounding, percentages may sum to 100% +/- 1%

5 Hu, K. (2023, February 2). ChatGPT sets record for fastest-growing user base - Analyst note. Reuters. https://www.reuters.com/article/chatgpt-growth-record-analyst-note-idUSXYZ123456

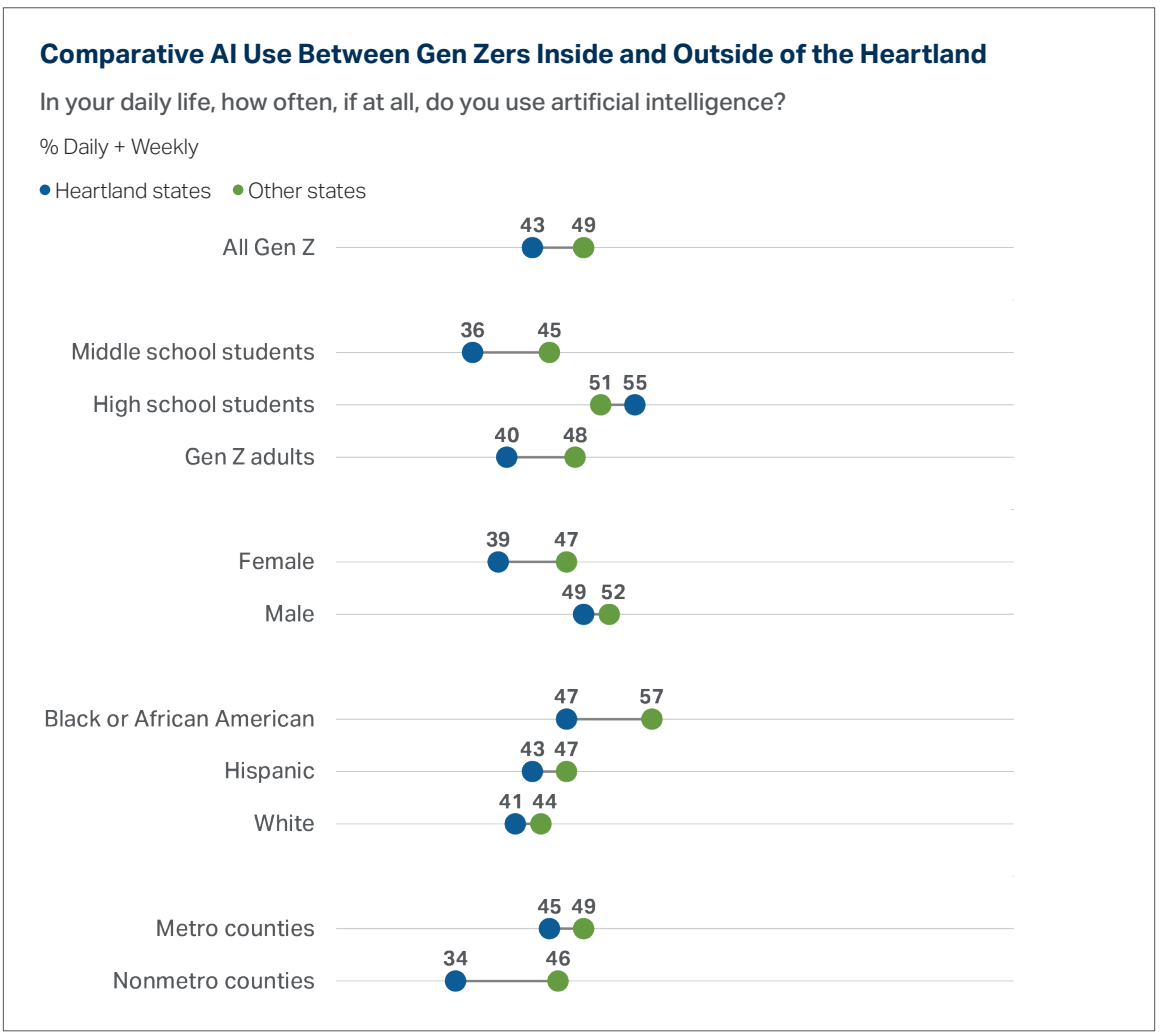
6 Roth, E. (2024, December 4). ChatGPT now has over 300 million weekly users. The Verge. https://www.theverge.com/2024/12/4/chatgpt-300-million-weekly-users

While at least one-third of Heartland Gen Zers of all ages, genders, races and geographies use artificial intelligence on a weekly basis, some are more avid adopters than their peers. More than half of high school students (55%) are weekly AI users, compared to 40% of Gen Z adults and 36% of middle school students. Meanwhile, Gen Z men and boys are 10 points more likely than women and girls to use AI at least weekly (49% vs. 39%). While Black Gen Zers are about as likely as their Hispanic and White peers to be weekly AI users, 26% of Black Gen Zers use AI on a daily basis, compared to 15% and 9% of their White and Hispanic peers, respectively.

Gen Zers who live in rural areas of the Heartland are 11 points less likely than those living in more urbanized, metro areas to say they use AI on a weekly basis (34% vs. 45%). Still, while those living in nonmetro counties are the least frequent AI users, nearly three-quarters of these Gen Zers say they do so at least occasionally.

Compared to those living in the 30 states outside of the Heartland, Gen Zers in the Heartland are slightly less likely to say they use artificial intelligence at least once a week (43% vs. 49%). Though these gaps are persistent across most demographic groups, they are especially stark in rural areas: 46% of rural Gen Zers outside the Heartland are weekly AI users, compared to 34% of those in rural areas of the Heartland.

CHART 2



Gen Z students often use AI for learning, but fewer say their schools are helping them do so.

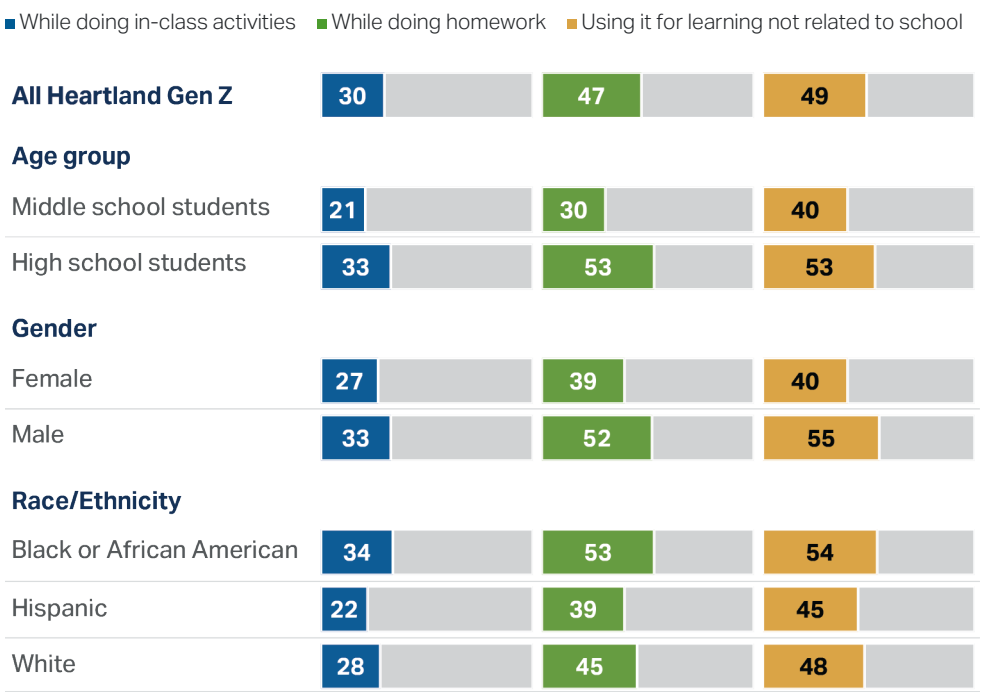
Many Gen Z students are finding ways to augment their learning activities with artificial intelligence tools. About half of middle and high school students say they "often" or "occasionally" use AI for learning outside of school (49%) or while doing their homework (47%). This rises to more than seven in 10 among weekly AI users: 71% at least occasionally use AI for learning outside of school, while 74% occasionally use it while doing their homework. However, as Gen Z students find ways for artificial intelligence to help them learn, schools and teachers are not integrating these tools at the same pace: 30% of students say they are at least occasionally using artificial intelligence in the classroom, while 31% say they rarely use it and 40% say they never use this technology in class.

CHART 3

Heartland Gen Z Students' Use of Artificial Intelligence in School and Other Learning Activities

How often, if at all, do you use artificial intelligence while doing any of the following?

% Often + Occasionally



Note: Due to rounding, percentages may sum to 100% +/- 1%.

As with Gen Z's more general artificial intelligence use, high school students, young men and Black Gen Zers in the Heartland are especially likely to say they have integrated artificial intelligence into all aspects of their learning.

Far more important to students' adoption of artificial intelligence than demographic or community characteristics is the extent to which schools define rules on AI use.

66

Two-thirds of Heartland students (66%) whose school clearly permits artificial intelligence use say they use AI **on at least a weekly basis.**

44

Among Heartland students attending schools that ban AI or do not have official policies regarding it, **44% are at least weekly AI users**.

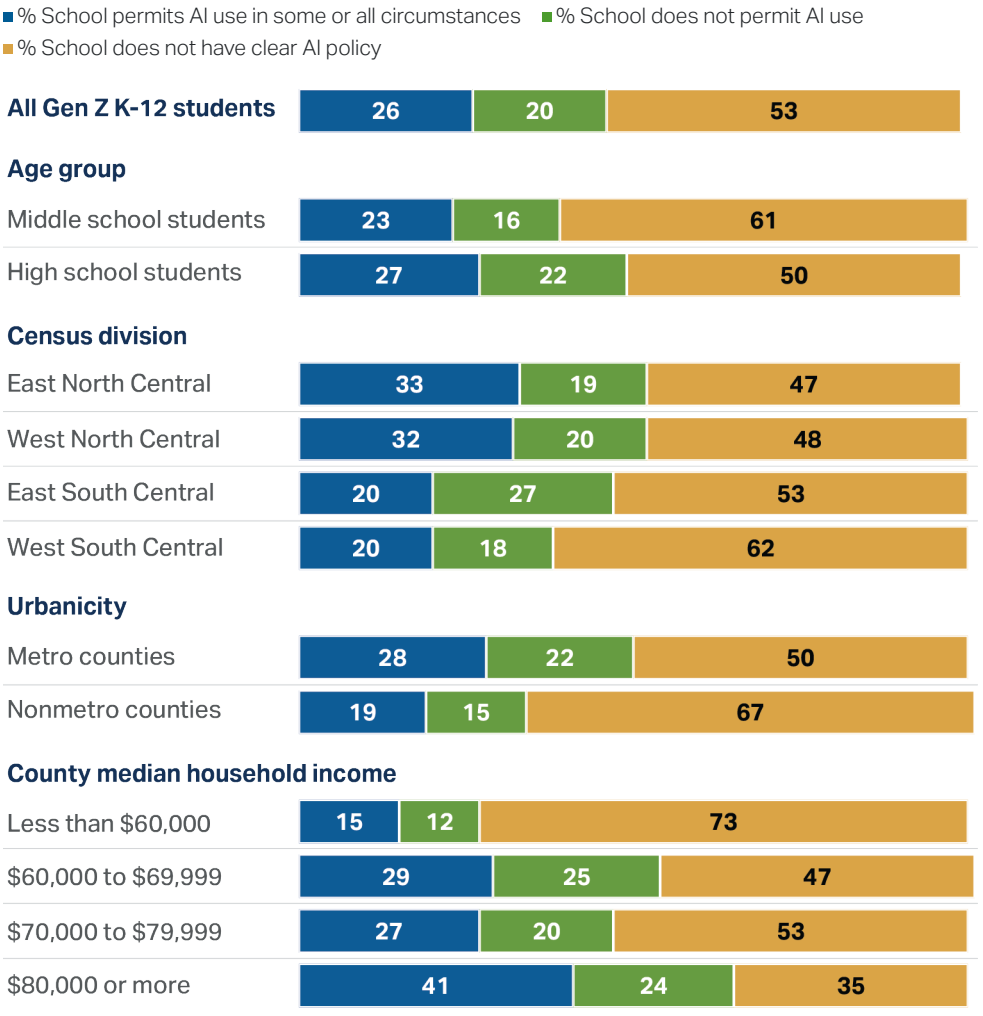
Despite the importance of these policies to Gen Z's artificial intelligence use, just over one in four middle and high school students in the Heartland (26%) say their school clearly permits AI use in at least some circumstances — only slightly higher than the 20% of students who say their school explicitly bans AI use. Perhaps an even larger issue than either policy stance is the widespread lack of AI use policies: More than half of Gen Z K-12 students (53%) say their school does not have a clear set of rules regarding artificial intelligence use.

CHART 4

Heartland Middle and High School Artificial Intelligence Use Policies

Does your school have rules about using artificial intelligence for schoolwork?

If yes: are you allowed to use artificial intelligence for your schoolwork?



Note: Due to rounding, percentages may sum to 100% +/- 1%.

Students living in Heartland counties where the median household income is less than $60,000 per year are more than twice as likely as those living in counties with a median income of at least $80,000 to say their school does not have an artificial intelligence use policy (73% vs. 35%). Similarly, just 15% of students in these lower-income counties say they are permitted to use AI at school, compared to 41% of students in the wealthiest counties. A similar pattern exists based on the urbanicity of a student's county: Two-thirds of students in nonmetro counties (67%) say their school has no clear AI policy compared to half of students in metro counties (50%).

Because of the relationship between these policies and Gen Z's broader AI use, rural and low-income schools that do not permit AI or do not establish clear rules for its use may be hindering their students' development of AI literacy. When controlling for school policies and demographic factors that do have a significant impact on AI use — including age, gender and race — statistical analysis suggests there is no difference in students' use of artificial intelligence based on the wealth of their community or where they live on the urban-rural continuum. That is to say: While students living in rural, lower-income areas are less likely to use artificial intelligence in their lives and schoolwork, that gap is better explained by the slow uptake of AI by their schools than an inherent aversion to artificial intelligence among these students.

While school-level policies play a role in dictating artificial intelligence use, teachers play an equally important role in not only reinforcing those policies, but in cases where it is permitted, setting and enforcing appropriate boundaries. Moreover, teachers can help manage the anxiety that 23% of middle and high school students have about AI by actively discussing the effects this technology may have on their lives and careers. Students themselves acknowledge the important role their schools play in this regard: Prior analysis of national data revealed that more than half of Gen Zers agree their schools should be required to teach students how to use artificial intelligence.

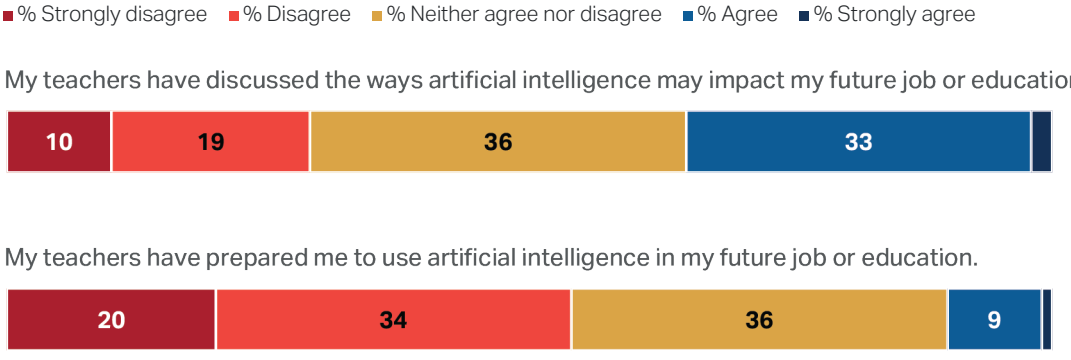
Most Heartland schools are not delivering on this expectation.

About one in three middle and high school students (35%) say their teachers have discussed the potential impacts of artificial intelligence on their futures.

Just one in 10 say their teachers have helped them prepare for that eventuality.

CHART 5

School Support for Heartland Students' Artificial Intelligence Proficiency^



Note: Due to rounding, percentages may sum to 100% +/- 1%. Data labels <3% are not displayed.

^Among Gen Z K-12 students.

While educators are not currently meeting students' hopes for schools to train them in this technology, students are broadly interested in doing so: About half of students (51%) say they would be "very" or "somewhat" interested in taking a class that taught them to use artificial intelligence, including 43% of students whose schools ban AI use, and 48% of students whose schools do not have a clear AI policy on its use. However, just 14% of middle and high school students say any of their classes have taught them to use artificial intelligence.

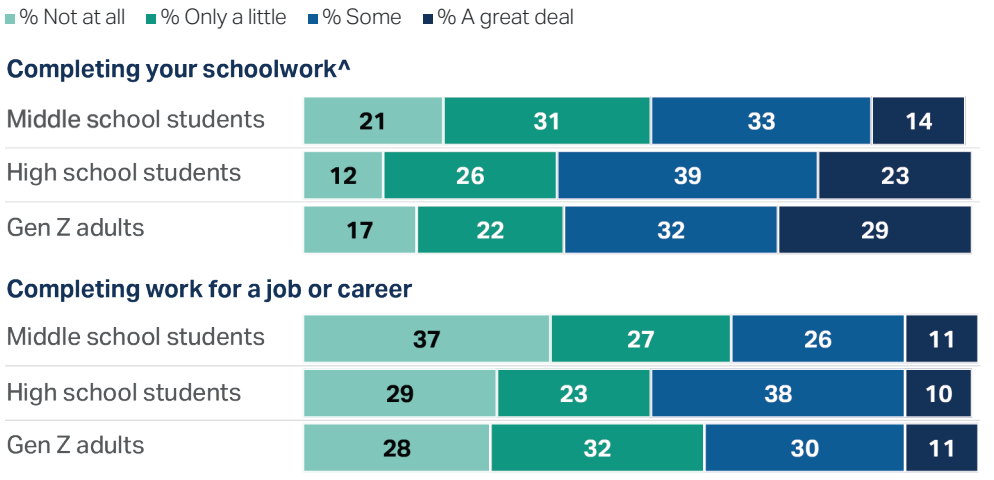
About one in 10 Gen Z adults feels highly prepared to use AI in their jobs.

If K-12 students in the Heartland are feeling underprepared to adapt to an AI-integrated world, Gen Z adults appear to be just as, if not more, concerned. The combined novelty of widely available generative AI tools and limited codification of its use in schools and workplaces has led 24% of K-12 and postsecondary students to say their current knowledge of this technology provides "a great deal of help" with their schoolwork. Meanwhile, just 11% of Gen Z adults say the same of the impact their knowledge of artificial intelligence has on their work.

CHART 6

Impact of Heartland Gen Z's Knowledge of Artificial Intelligence on Their Schoolwork and Jobs

How much could your current knowledge of artificial intelligence help you with each of the following?



Note: Due to rounding, percentages may sum to 100% +/- 1%.

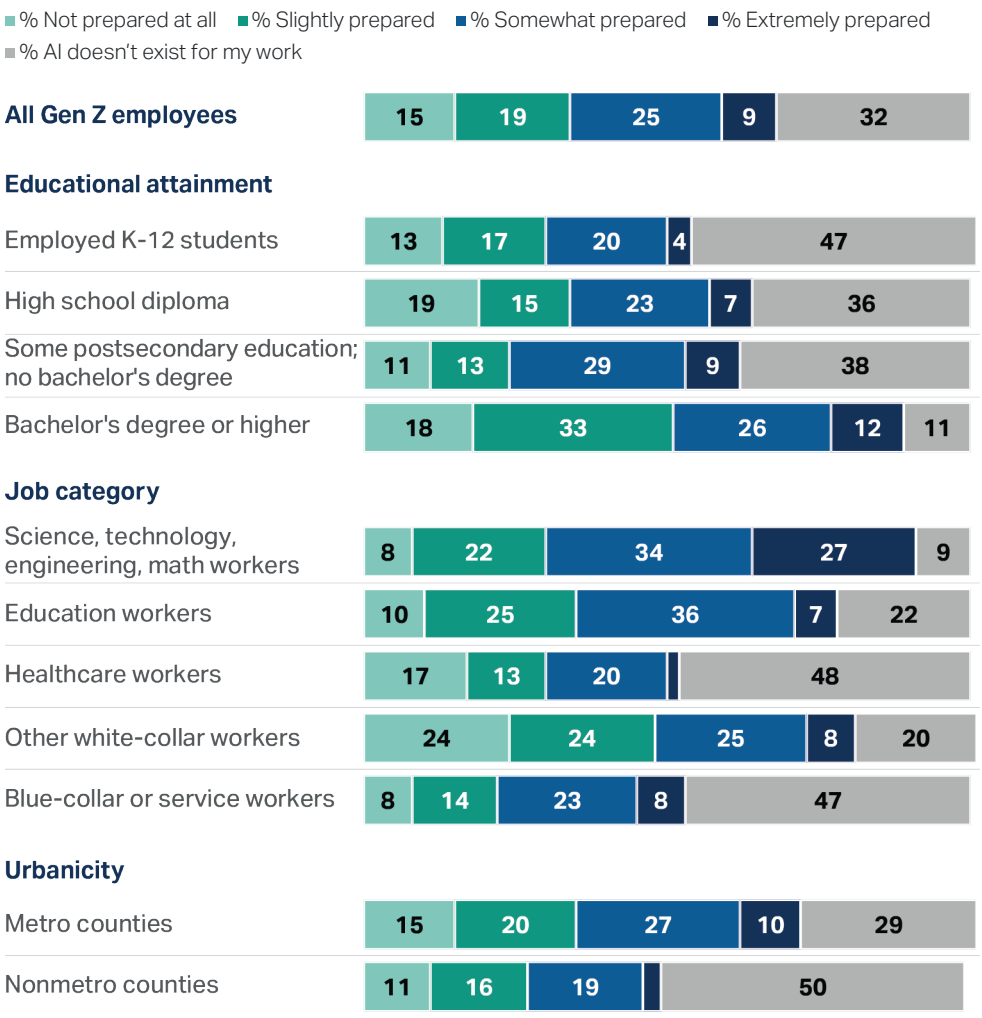
^Among Gen Z K-12 and postsecondary students.

Similarly, **9% of employed Gen Zers feel "extremely" prepared to use artificial intelligence in their current jobs, while an additional one in four feels "somewhat" prepared.** However, certain categories of workers feel more prepared than others: 61% of Gen Zers employed in a science, technology, engineering or math (STEM) occupation feel at least somewhat prepared to use AI in their jobs. This is 18 to 39 percentage points higher than the percentage among those working in blue-collar and service vocations (30%), healthcare (22%), education (43%) or other white-collar positions (32%).

CHART 7

Heartland Gen Z Workers' Preparedness to Use Artificial Intelligence in Their Jobs^

How prepared, if at all, are you to use artificial intelligence in your current job or career?



Note: Due to rounding, percentages may sum to 100% +/- 1%. Data labels <4% are not displayed.

^Among employed Gen Zers.

These feelings of preparedness may partly be due to the clear relevance that artificial intelligence has to STEM jobs: Just 9%* of these workers say AI does not exist for their work, compared to less than half of healthcare workers (48%*) and those employed in blue-collar or service roles (47%*).

Workers' confidence in their artificial intelligence skills varies slightly by education level. Just under four in 10 Gen Z workers with any postsecondary education (38%) feel somewhat prepared to use AI in the workplace, compared to 30% of those who only have a high school diploma. However, this is largely related to the types of jobs that workers with postsecondary education have — particularly those with a bachelor's degree — as compared to their peers without a degree or other postsecondary credential. Gen Z workers with a bachelor's degree are about four times more likely than their peers to be employed in a STEM job and twice as likely to be employed in education. Meanwhile, those without a bachelor's degree are more than five times as likely to be employed in a blue-collar or service role. When controlling for an employee's job category, educational attainment is not a significant predictor of AI confidence.

> **More than half of Gen Z workers say AI does not exist for their work, or their employer does not have clear AI policies.**

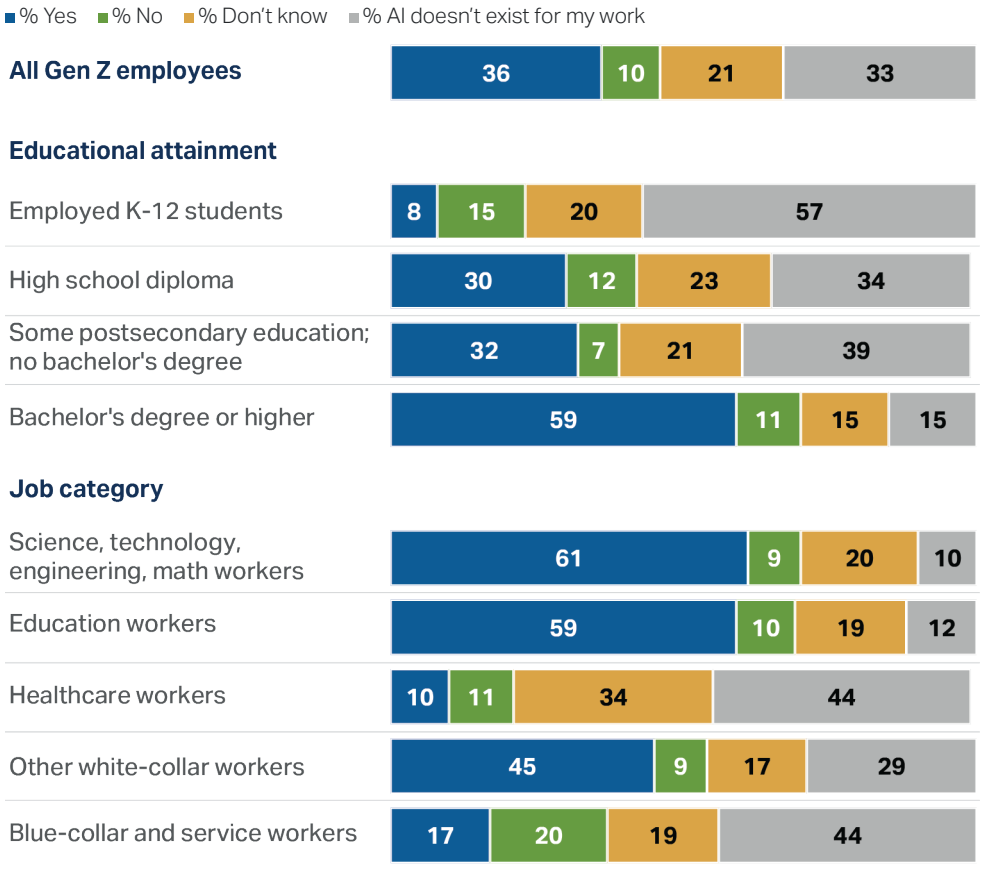
As with artificial intelligence gaps seen at the K-12 level, some of these large gaps in employment-based AI preparedness are rooted in Heartland workplaces' proactive adoption of artificial intelligence and promotion of its employees' skills in this area. Gen Z workers are about equally split across those whose workplaces allow artificial intelligence use (36%), those who are prohibited from using this technology or are unsure whether it is allowed (31%) and those who do not believe AI exists for their work (33%).

* Respondents were given the option to select "AI does not exist for my work" in response to multiple questions. As a result of variations in how respondents interpreted the survey items, the percentage of workers who report that AI does not exist for their work may differ slightly across questions.

CHART 8

Heartland Gen Z Employees' Workplace Policies Regarding Artificial Intelligence^

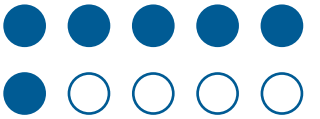
Are you allowed to use artificial intelligence for your work?



Note: Due to rounding, percentages may sum to 100% +/- 1%.

^Among employed Gen Zers.

Significant gaps in AI policies exist based on the type of industry Gen Zers are employed in. Roughly six in 10 STEM workers (61%) and those working in education (59%) say their employer allows AI use at work. This percentage is somewhat higher than the 45% of other white-collar workers who say the same, and significantly higher than that of healthcare (10%) and blue-collar and service workers (17%). Perhaps just as importantly, **44% of those working in healthcare, blue-collar or service industries say artificial intelligence does not exist for their roles**, and those who do believe this technology applies to their job are more likely to say their employer bans artificial intelligence than to say their employer allows it.



Roughly six in 10 STEM workers (61%) and those working in education (59%) say their employer allows AI use at work.

Furthermore, those who have a bachelor's degree — and are therefore disproportionately likely to be employed in STEM, education and white-collar roles — are more confident than those without a college education to understand how AI can be used in their work, and to work for an employer that permits its use.

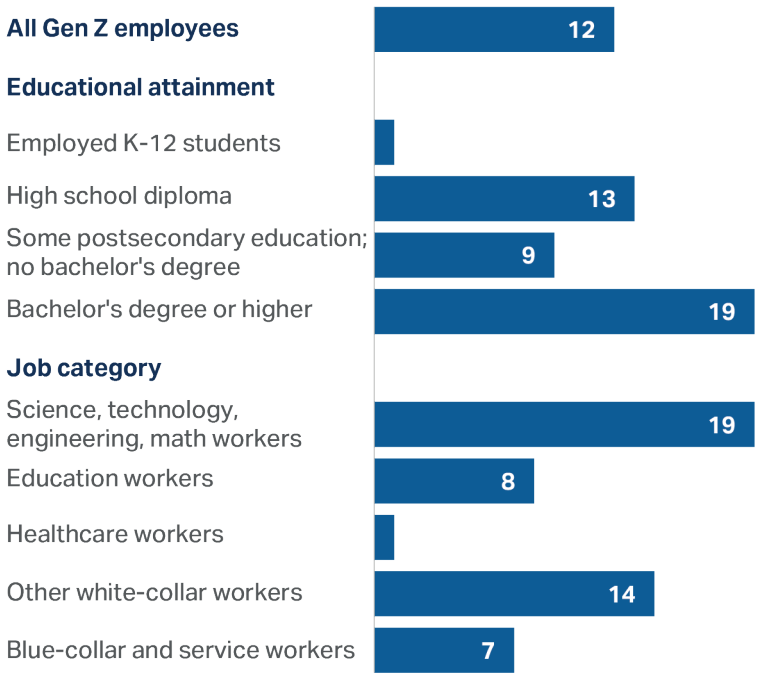
While having clear policies on artificial intelligence use is an important step for employers to take, those who want their workers to fully integrate this technology into their roles will likely have to provide their workforces with training. This will not only benefit the 60% of workers who do not feel extremely prepared to use AI at work but will also help the roughly one in three workers who do not believe artificial intelligence exists for their role understand how they can integrate AI into their work. Thus far, few of these workers have ever received such training: Just 12% of Gen Z employees say their employer has provided them with any on-the-job training related to artificial intelligence.

CHART 9

Prevalence of Employer-Provided Artificial Intelligence Training in the Heartland^

Have you ever received on-the-job training on how to best use artificial intelligence to do your work?

% Yes



Note: Data labels <3% are not displayed.

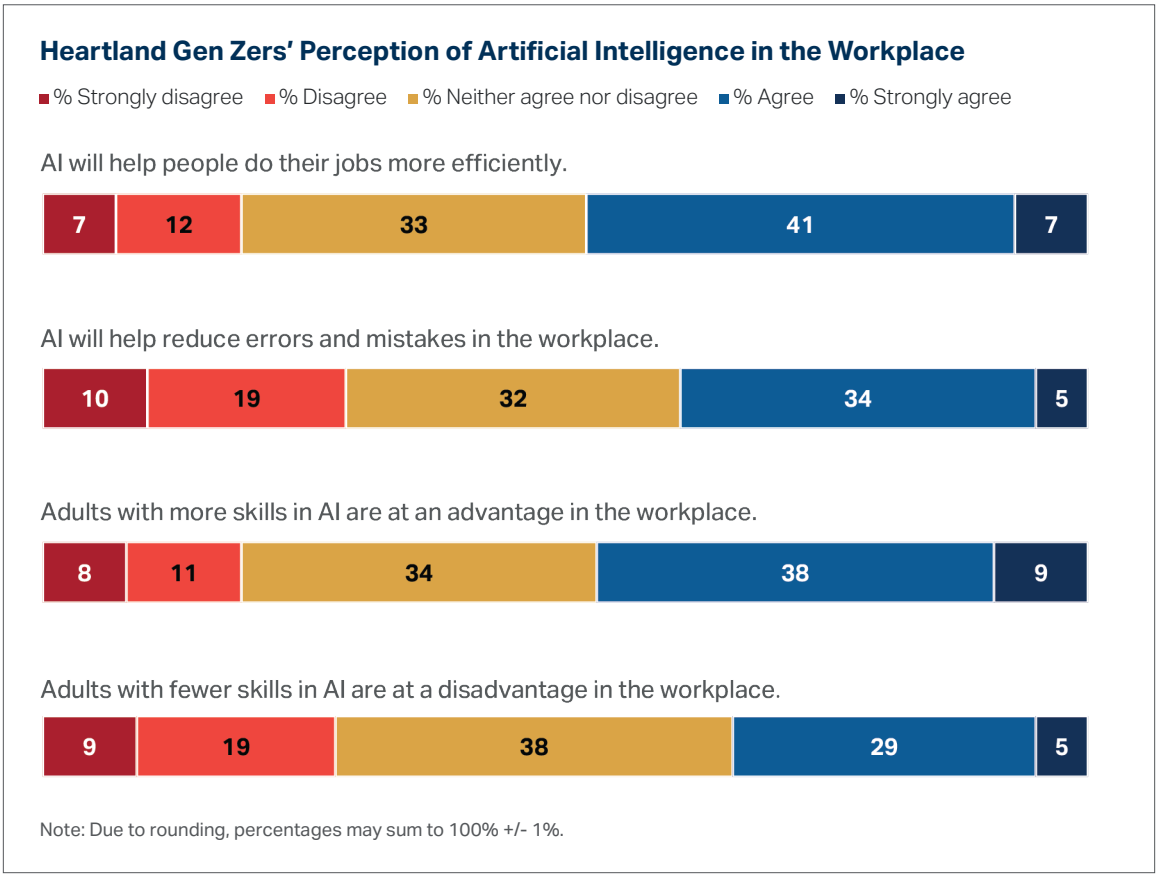
^Among employed Gen Zers.

Notably, 8% of Gen Z education workers say they have received artificial intelligence training, which may be one of the reasons why so few middle and high school students report receiving any instruction or guidance from their teachers about how to use these tools.

Overall, employer-provided training does appear to have a positive impact on workforce AI readiness: 57% of workers who have received training feel extremely or somewhat prepared to use artificial intelligence in their current role, compared to 31% of those who have never received training. Still, among the relatively few workers who have been trained, most feel it was not as productive as it could have been. Sixteen percent of those who received training say it was "extremely useful," with an additional 36% saying it was "somewhat useful."

Beyond feeling generally unprepared to integrate artificial intelligence into their own work, Gen Zers' skepticism regarding the impact of AI may also be suppressing their desire to do so. Less than half of workers (48%) agree that artificial intelligence will increase workers' effectiveness, and even fewer are confident it will reduce workplace errors (39%).

CHART 10

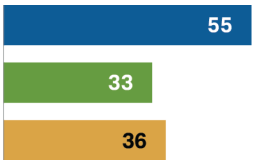


Additionally, less than half of Gen Zers (47%) believe that employees with a firm grasp on artificial intelligence have an advantage in the workplace. This belief may stem from a lack of understanding of AI's potential and the belief that this technology will not reduce mistakes, and in some cases, may create additional mistakes through "hallucinations" and other AI-generated errors.

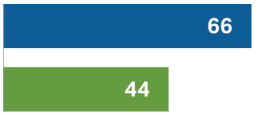
Implications

Gen Zers living in the Heartland have widely adopted or experimented with artificial intelligence and recognize the impact that this technology will have on their lives, learning and work. However, most of them also note that their schools and employers have not implemented clear rules and guidelines on this technology, nor have they actively sought to prepare their students and workers to use AI more effectively.

This is a critical gap to address because of the impact these policies have on Gen Z's attitudes toward AI. The evidence for this is consistent:



More than half of workers whose **employers permit AI use** are **weekly users** (55%), compared to about **one in three workers** whose employers **do not clearly permit AI use** (33%) or **don't believe AI can support** their work (36%).



Meanwhile, 66% of **middle and high school students** whose **schools permit some AI** use are **weekly AI users**, compared to 44% of students whose schools **do not clearly allow AI use.**

Parents also influence their children's AI use: 73% of **children whose parents** are weekly AI users are **weekly users themselves**, compared to 36% of children whose **parents use AI less than weekly**.

These relationships do not apply only to the frequency of AI use: Similar patterns emerge when looking at how policies and parental usage impact Gen Zers' interest in learning more about AI and their confidence in using it at work and school.

Addressing gaps in students' and workers' AI use and training will be particularly important for those living in lower-income and rural areas, as well as blue-collar, service-based and healthcare workers, all of whom report the lowest levels of AI knowledge and support from their schools and employers. Moreover, more research is needed to understand why sizable pockets of Gen Z — including young women, Gen Z adults and White Gen Zers — feel less ready or more reticent to use these tools, and to ensure they are equipped to work with artificial intelligence where necessary.

Gen Z's readiness to enter the workforce may be increasingly contingent on their AI-related knowledge and aptitude. As a result, encouraging schools and workplaces to implement clear rules around artificial intelligence, while providing their students and workers with opportunities to learn and experiment with these tools, will likely drive Gen Z's comfortability with and confidence in using this technology. Policymakers, educators, employers and others interested in the competitiveness and success of young people in the Heartland — and by extension, the future competitiveness and success of the Heartland itself — should take notice of these findings and support schools and workplaces in facilitating their students' and workers' adoption of this rising technology.

Methodology

Results are based on a Gallup Panel™ web survey conducted March 6-13, 2025, with a sample of 3,465 13- to 28-year-olds living in all 50 states and the District of Columbia. The Gallup Panel is a probability-based panel of U.S. adults who are randomly selected using address-based sampling methodology. Gallup also recruits using random-digit-dial phone interviews that cover landline and cellphones.

Within the overall sample, 1,517 13- to 18-year-old children were reached through adult members of the Gallup Panel who indicated they had at least one child 18 or younger living in their household. The remaining 1,948 18- to 28-year-old respondents are members of the Gallup Panel.

The majority of this report focuses on the 1,474 Gen Z children and adults living in one of the 20 Heartland states. This includes 638 13- to 18-year-old children reached through their Panel member parents, and 836 adult Panel members.

For the total sample of 1,474 Heartland Gen Z respondents, the margin of sampling error is ±3.7 percentage points at the 95% confidence level. For the sample of 610 children still enrolled in K-12 school, the margin of sampling error is ±5.0 percentage points at the 95% confidence level. For the sample of 864 Gen Z youth who are no longer enrolled in K-12 school, the margin of sampling error is ±5.0 percentage points at the 95% confidence level. Margins of error for subgroups are higher.

All reported margins of sampling error include computed design effects for weighting. In addition to sampling error, question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of public opinion polls.

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