How Students' Perspectives on AI Are Related to AI Training in High School, Planned College Major, and Gender

Jeff Schiel

Summary

In this study, students provided perspectives on aspects of artificial intelligence (AI), such as whether it can be trusted, whether it will take jobs away from humans or create more jobs, and whether it will negatively or positively affect society overall. In addition, they provided opinions about whether knowing how to use AI will help prepare them for and be important in their planned college majors and whether the use of AI tools such as ChatGPT will help improve their skills, such as critical thinking and problem-solving. The study investigated the relationships among students' perspectives on AI and three key student characteristics: the amount of AI training students had received in high school, their planned college majors, and their gender.

Key findings from the study are described briefly below.

- As the amount of high school training in how to use AI increased, students' views toward AI also grew more positive. For example, students whose high schools had provided at least a moderate amount of training in how to use AI were significantly more likely than their peers whose high schools had provided no training to agree that knowing how to use AI would help prepare them for a college major, give them an advantage when they applied to college, and be important in their planned college majors.

- Students' planned college majors were related to their views on the relationship between college preparedness and knowing how to use AI. For example, students planning to major in business or computer science and math were significantly more likely than students planning to major in arts or biological and physical sciences to agree that knowing how to use AI would help prepare them for a college major, give them an advantage when they applied to college, and be important in their planned college majors.

- Gender was related to students' views on AI. Male students, on average, were noticeably more optimistic than female students, providing significantly higher mean ratings for all aspects of AI (whether it can be trusted, whether it will negatively or positively affect society overall, etc.). In addition, male students were more inclined than female students to agree that their skills, especially problem-solving, had been improved by their use of AI tools.

Introduction

Artificial intelligence (AI) and tools that reflect the application of this field, such as ChatGPT and Microsoft Copilot, continue to receive widespread attention. Sometimes, the attention is focused on pessimistic views of AI, as findings from a recent survey of high school students, college students, and recent college graduates illustrate. In that survey, 59% of respondents reported that AI would have a more negative than positive impact on society in the next 10 years. Moreover, 62% of respondents reported that they were at least somewhat worried that AI would take away jobs in which they were interested (National Society of High School Scholars, 2024). In comparison, findings from an earlier study, conducted a few years prior to ChatGPT's release in 2022, were more optimistic, indicating that nearly one third (31%) of participating high school students viewed AI as rather more friendly than hostile, with approximately 53% having a neutral opinion on this matter (Bochniarz et al., 2022).

One objective of the present study, therefore, was to learn whether current high school students' perspectives on AI tend to be positive or negative. Perhaps recent improvements in and increased access to AI tools have positively influenced students' opinions of aspects of AI, such as whether it provides accurate information, can be trusted, will create more jobs for humans, and will positively affect society overall.

Not surprisingly, AI will be part of the college experience for many students. Widespread use of ChatGPT among U.S. college students has already been observed, with 77% of participants in one study indicating general use of this tool at least monthly and 31% indicating general use at least weekly. Approximately half (53%) of that study's participants indicated that they used ChatGPT for writing at least monthly (Baek et al., 2024). Moreover, it appears that college faculty members are contributing to students' awareness of how to use AI to help with coursework. In another study, college students were asked if they had a clear sense of when, how, and whether to use generative AI to help with coursework. Various reasons for answering yes to this question could be selected. Nearly one third (31%) of students indicated that their answer was yes because at least some of their professors had discussed the issue of using generative AI to help with coursework (Mowreader, 2024).[1]

As high school students consider a transition to college, they might be wondering whether knowing how to use AI will benefit them. For example, will knowing how to use this technology help prepare them for a college major? Will it give them an advantage when they apply to colleges and/or universities? Will it be important in their planned majors? A second objective of the present study, therefore, was to investigate high school students' opinions of AI as it pertains to college preparedness.

Another possible benefit of the use of AI is related to skills improvement. For example, there is some evidence that the use of AI tools can improve students' critical-thinking skills. In a recent study, students at a Chinese university, who were learning English as a foreign language, were assigned to an experimental group in which AI tools were used in English literature classes for such tasks as interactive quiz facilitation and AI-assisted debates. Students in that group experienced a significant improvement in their critical thinking skills, whereas students in the

control group did not (Liu & Wang, 2024). A third objective of the present study was therefore to investigate high school students' views on whether using AI tools had improved their skills (e.g., critical thinking and problem-solving).

Some studies have examined differences in students' opinions of AI according to student characteristics, such as college major and gender. For example, STEM (science, technology, engineering, and math) majors were found to be more likely than non-STEM majors to use ChatGPT frequently for general and academic tasks. However, sentiment pertaining to ChatGPT use did not vary appreciably for these two groups (Baek et al., 2024). Another study found that males' overall attitudes toward chatbots were significantly more positive than those of females, with males perceiving chatbots as tools that could improve both learning and grades (Stöhr et al., 2024).

Three student characteristics of interest in the present study were 1) the amount of training in high school that students had received in how to use AI, 2) their planned college majors, and 3) their gender. Thus, the study sought to determine whether students' views on aspects of AI, their opinions of AI and college preparedness, and their views on the use of AI tools and consequent skills improvement varied according to these three characteristics.

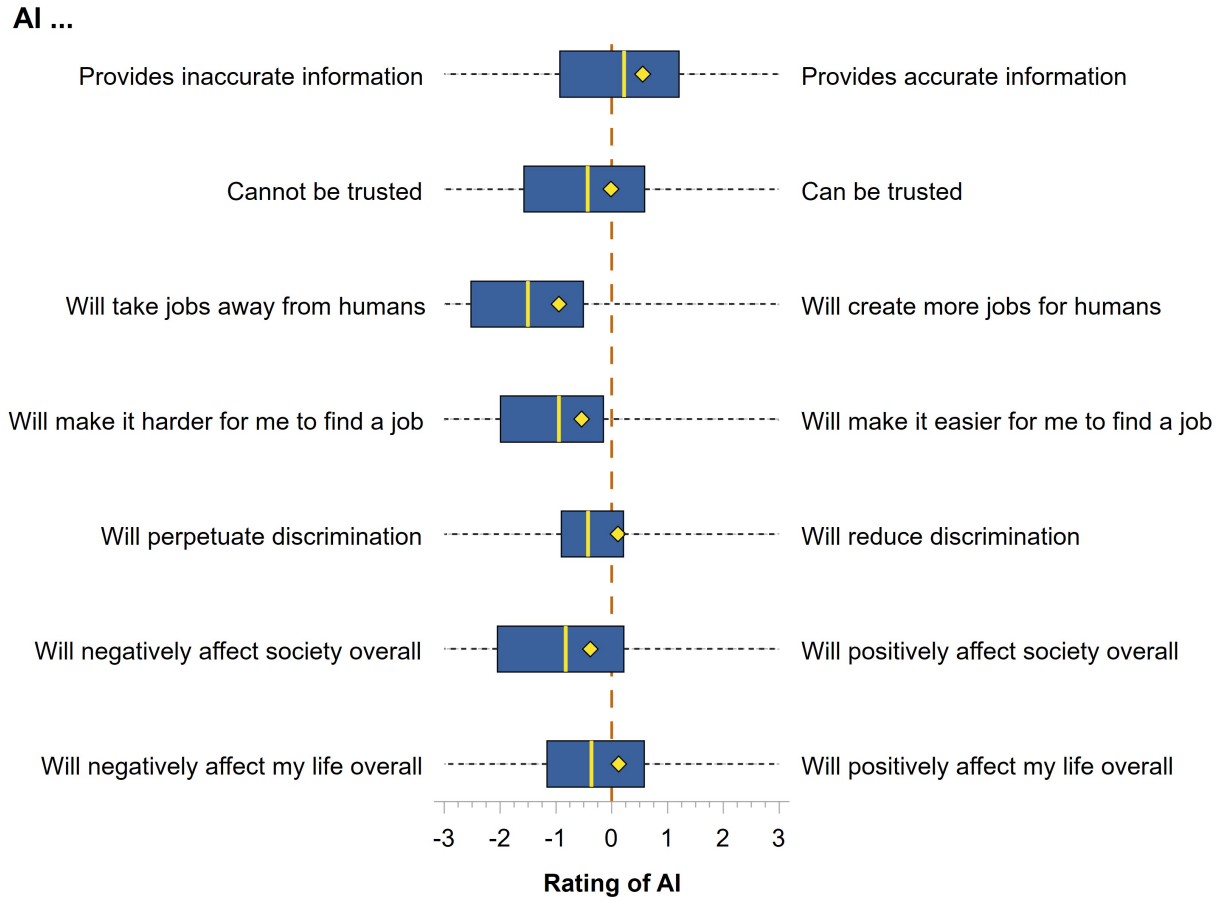
The data for this study were obtained from a sample of high school students who had registered to take the December 2024 national ACT test. In that same month, these students were asked several questions in an online survey about their opinions of AI. Detailed information about the sample of students and the questions they were asked can be found in the technical appendix.

Results

Students' Perspectives on Aspects of AI

Students were asked to rate several aspects of AI, such as the accuracy of the information it provides, the extent to which it can be trusted, and whether it will make it easier or harder for students to find jobs. On a scale of −3 to 3, students' mean ratings of AI across the seven aspects ranged from −0.95 (creating jobs for/taking jobs away from humans) to 0.55 (accuracy of information provided), with positive mean ratings (reflecting favorable perspectives on AI) for three of the aspects, negative mean ratings (reflecting unfavorable perspectives on AI) for three others, and a mean rating very near zero for one aspect (Figure 1).

Figure 1. Ratings of Aspects of AI



Note. In Figure 1, the left- and right-hand edges of a box-and-whisker plot denote the 25th and 75th percentiles of the distribution of responses, respectively. The diamond denotes the mean, and the vertical bar denotes the median. The left- and right-hand whiskers extend to the minimum and maximum reported values, respectively. Unweighted counts ranged from 3,539 (AI's effect on my life overall) to 3,813 (accuracy of information provided by AI; how much AI can be trusted). Non-integer values of percentiles appear in this figure because their computation was adjusted for this study's stratified sampling design. See Francisco and Fuller (1981), for example, for information on percentile estimation for complex designs.

Students' views on some aspects of AI were somewhat favorable. Students believed on average that AI provides accurate information (M = 0.55), will reduce discrimination (e.g., racial or gender; M = 0.11), and will positively affect their lives overall (M = 0.13). However, students' views on other aspects of AI were less favorable. Students believed on average that AI will take jobs away from humans (M = −0.95), will make it harder for them to find jobs (M = −0.54), and will negatively affect society overall (M = −0.38). In general, students' views on the trustworthiness of AI were neutral. Although the mean rating for this aspect was slightly negative (M = −0.01), it was not significantly different from zero (t = −0.62, p = .5359). Mean ratings for

the other aspects, in comparison, were significantly different from zero (see Table A2 in the technical appendix).

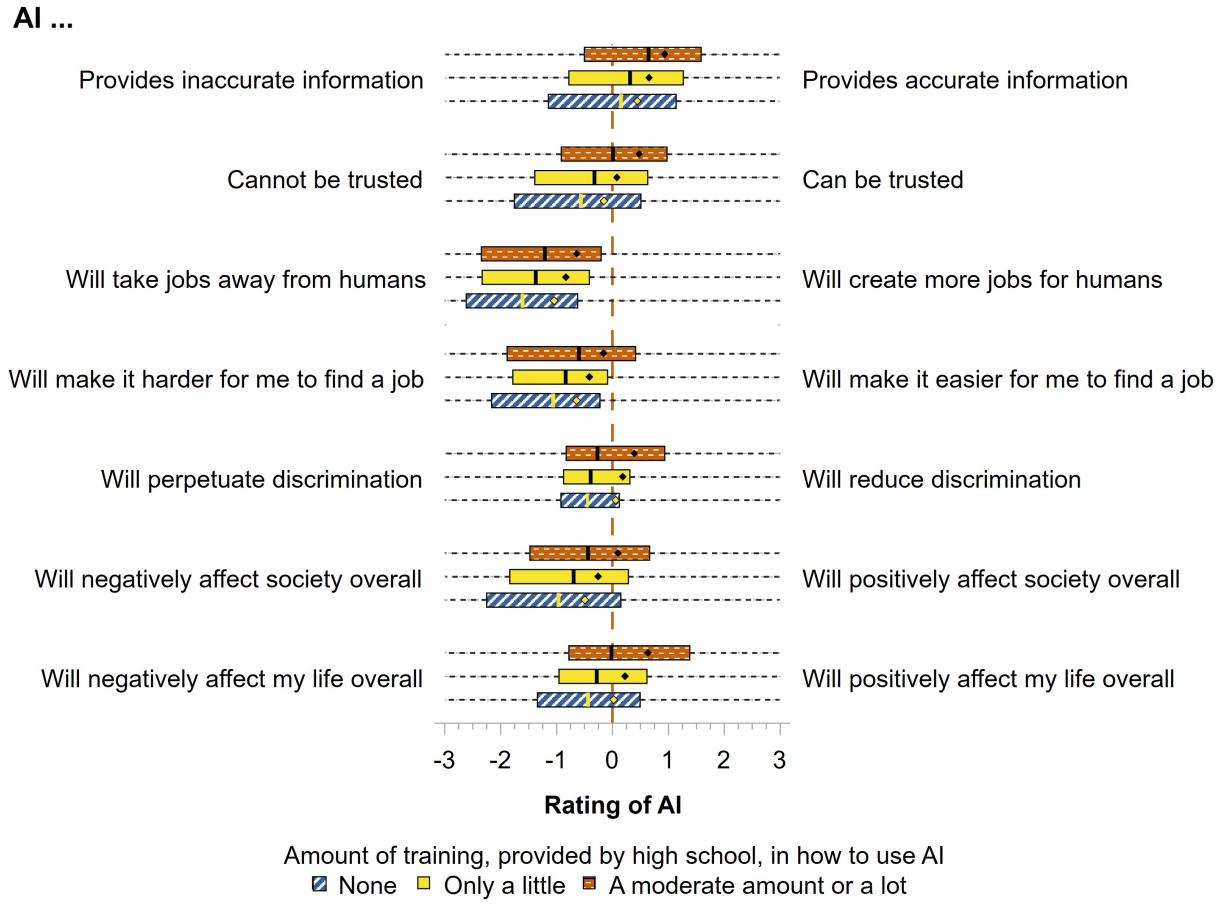
Additional information about students' views on aspects of AI is provided in the technical appendix. For example, Table A3 shows that 56% of students gave a rating of 1, 2, or 3 for the item about the accuracy of information provided by AI.

Students' Views on AI Are Related to AI Training in High School

Students were asked to indicate how much AI training their high school had provided, with the following response options: none, only a little, a moderate amount, or a lot. The last two response options were combined for analysis purposes because of their relatively small sample sizes.

A positive relationship was observed between the amount of AI training provided by high schools and students' views on aspects of AI. On average, students whose high schools had provided at least a moderate amount of AI training had significantly more positive views on AI than did students whose high schools had provided no training. Mean ratings of AI from students with at least a moderate amount of training ranged from −0.64 (creating jobs for/taking jobs away from humans, effect of AI on society overall) to 0.94 (accuracy of information provided). In comparison, mean ratings from students with no training ranged from −1.04 (creating jobs for/taking jobs away from humans) to 0.45 (accuracy of information provided; see Figure 2). Across aspects of AI, test statistics for comparing the means of the no-training group with the means of the group that had at least moderate training ranged from $q = -3.59$ (perpetuation or reduction of discrimination, $p = .001$) to −6.50 (extent to which AI can be trusted; $p < .0001$; see Table A4). Corresponding effect sizes ranged from 0.24 (perpetuation or reduction of discrimination) to 0.42 (effect of AI on life overall).[2]

Figure 2. Ratings of Aspects of AI, by Amount of Training in High School in How to Use AI

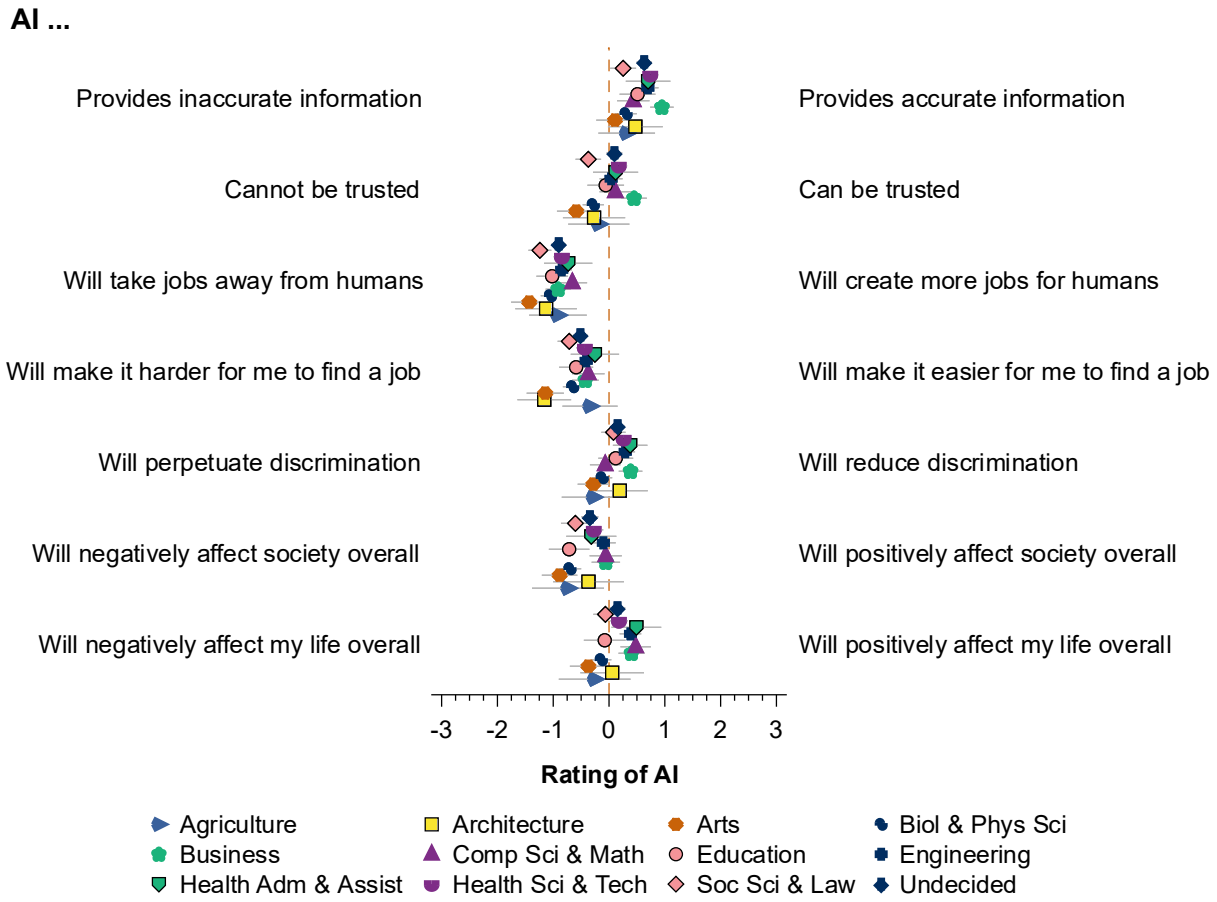


Note. Unweighted counts were 2,280 (no AI training provided by high school), 800 (only a little training), and 306 (a moderate amount or a lot of training).

Students' Views on AI Differ According to Planned College Major

Students' planned college majors were related to their views on aspects of AI. For example, students who reported that they plan to major in visual and performing arts provided the lowest average ratings for five aspects of AI (accuracy of information provided, $M = 0.11$; extent to which AI can be trusted, $M = -0.59$; creating jobs for/taking jobs away from humans, $M = -1.43$; whether AI will positively or negatively affect society overall, $M = -0.89$; and whether AI will positively or negatively affect my life overall, $M = -0.37$; see Figure 3 and Table A5).

Figure 3. Ratings of Aspects of AI, by Planned College Major



Note. Mean ratings of AI, with 99% confidence intervals, are shown in this figure. Unweighted counts ranged from 41 (Agriculture) to 767 (Undecided) and varied slightly across the seven AI aspects.

Moreover, several of the differences between aspiring arts majors' mean ratings and those of students with different planned majors were statistically significant. For example, aspiring arts majors' mean for the item about whether AI will take jobs away from or create more jobs for humans ($M = -1.43$) was significantly lower than those of aspiring computer science and math majors ($M = -0.66$, $q = -4.72$, $p = .0002$, $d = -0.54$), engineering majors ($M = -0.85$, $q = -3.99$, $p = .0039$, $d = -0.41$), and health sciences and technology majors ($M = -0.84$, $q = -4.18$, $p = .0017$, $d = -0.43$; see Table A5).

Aspiring arts majors' concerns about the possibility of AI taking away jobs in the arts were reflected in their responses to a question about how AI's emergence has caused them to reconsider their education or career plans. A few examples of students' comments follow.[3]

> "Growing up, I wanted to go into a creative/artistic career. I have always enjoyed creating artwork. With AI emerging, I began to feel that I really wouldn't find a job

> in art. I reconsidered and now hope to go into engineering, as I enjoy robotics as well."
>
> "I originally was interested in graphic design. But after seeing the abundance of AI generated art and how companies have been taking advantage of it, I fear the job will not be as dependable financially and will not be seen as valuable to others."
>
> "As an art student, the prevalent culture of AI is horribly affecting my future and I am very very scared of it."
>
> "Wanted to go into a career that deals with art, but with AI generating images, artists will most likely be out of jobs"
>
> "I want to go into art and/or film production. AI has taken that dream away from me."
>
> "I wanted to do something of any kind that is related to art, however I feel like my options are now limited now that AI art is being made, and its quality keeps improving. Becoming a freelance artist, a graphic designer, an illustrator, an animator or a game designer all feels like it's out of the question because people are working to advance AI technology that will make those jobs unnecessary."

Students who reported that they planned to major in agriculture, architecture, or biological and physical sciences similarly tended to give relatively low average ratings on several aspects of AI. Mean ratings from these students ranged from −1.16 (architecture; AI will make it harder or easier for me to find a job) to 0.47 (architecture; accuracy of information provided by AI).

In comparison, students who planned to major in business, computer science and math, health administration and assisting, or health sciences and technology provided relatively high average ratings on several AI aspects (e.g., accuracy of information provided by AI, whether AI will positively or negatively affect society overall, whether AI will positively or negatively affect my life overall). Aspiring computer science and math majors provided the highest average ratings on AI's potential for creating more jobs for humans, and aspiring health administration and assisting majors provided the highest average ratings on its potential for positively affecting a student's life overall (M = −0.66 and 0.49, respectively).

Aspiring business majors gave relatively high average ratings to the accuracy of information provided by AI and the extent to which it can be trusted (M = 0.95 and 0.45, respectively). Means for these students on the item about accuracy of information were significantly higher than those of aspiring arts majors (M = 0.11, q = 5.46, p < .0001, d = 0.57), biological and physical sciences majors (M = 0.31, q = 5.79, p < .0001, d = 0.44), and social sciences and law majors (M = 0.25, q = 5.70, p < .0001, d = 0.48). Similarly, means for aspiring business majors on the item about extent of trust were significantly higher than those of aspiring arts majors (M = −0.59, q = 6.39, p < .0001, d = 0.66), biological and physical sciences majors (M = −0.28, q =

6.29, $p < .0001$, $d = 0.48$), and social sciences and law majors ($M = -0.38$, $q = 6.49$, $p < .0001$, $d = 0.54$).

Students who planned to major in business, computer science and math, health administration and assisting, or health sciences and technology shared varied thoughts about how AI's emergence has caused them to reconsider their education or career plans. Some of these students believed that AI would positively affect their future plans, as expressed in the following examples.

> "I have always been interested in the legal field Ai will greatly help that field which can be very useful to read and summarize large ammounts of data and do research." (aspiring business major)
>
> "I am now more invested in digital marketing as use of ai can be beneficial." (aspiring business major)
>
> "I found that I can use AI to automate mundane tasks that can free me up to do more." (aspiring computer science and math major)
>
> "With the advancement of AI I wanted even more to go into medicine to see how artificial intelligence to help the overall wellbeing of the people." (aspiring health sciences and technology major)

In comparison, some aspiring business and health sciences and technology majors described how AI's emergence has substantially changed their future plans, as stated in these examples.

> "My entire life I've wanted to be a writer. I've always felt at my strongest when I can put ideas together, but now AI can do it just as well, maybe better. Original ideas are no longer a thing with AI introduced to the world. Now, I'm going to go to school for business because I can't avoid AI, so I might as well use it for digital marketing and advertisement." (aspiring business major)
>
> "completely eliminated comp sci as a major" (aspiring health sciences and technology major)
>
> "I used to be very interested in computer science, but the emergence of AI has made me think that the need for humans in computer science will be obsolete in the future." (aspiring health sciences and technology major)
>
> "Computer science can now be entirely done by AI, so my career path is almost completely going to be obsolete." (aspiring health sciences and technology major)
>
> "I felt like I could go into a computer science field originally but after A.I and all the memes of people talking about being homeless with a computer science

degree it made me want to choose a career I'm more passionate about like nursing." (aspiring health sciences and technology major)

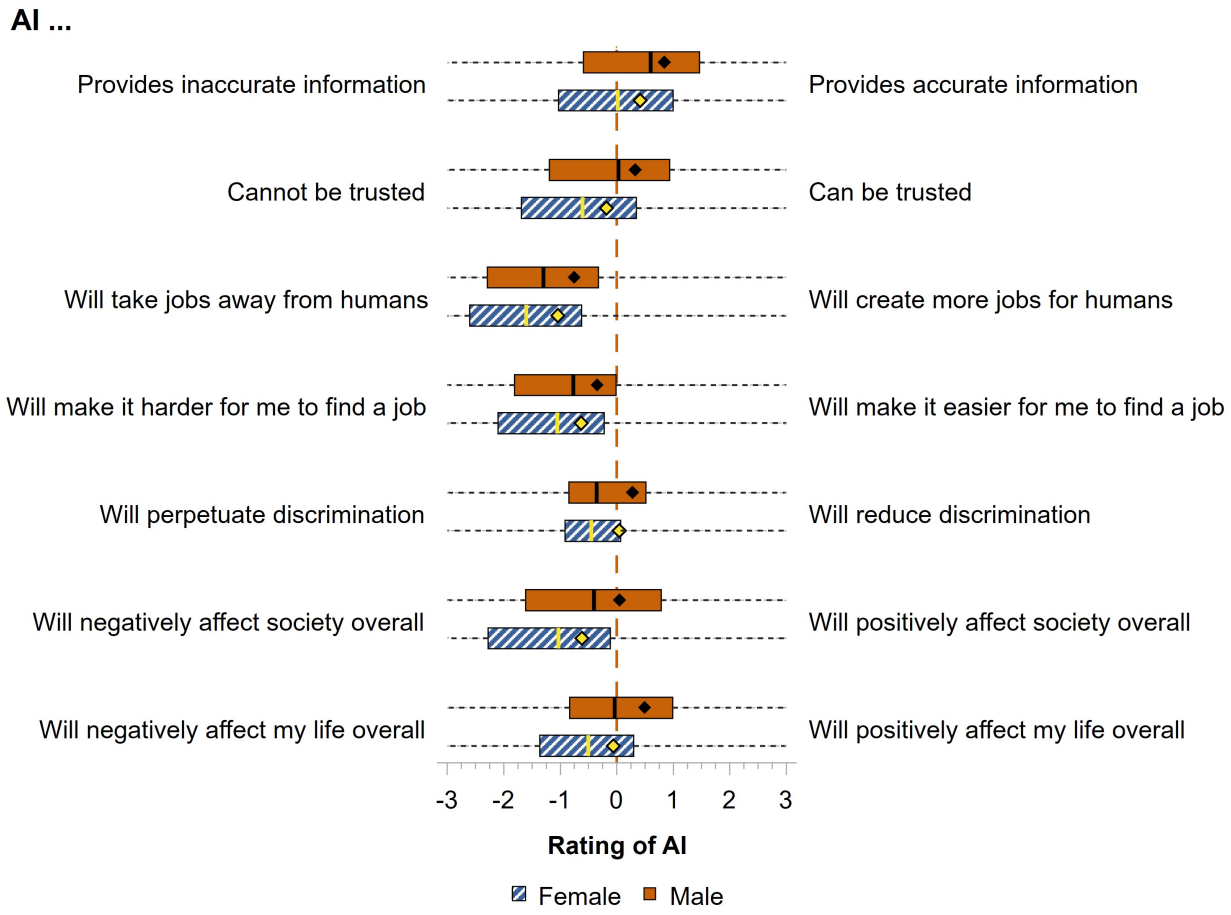
"When choosing my future career/major, I've had to change my thinking. For instance, prioritizing a major in healthcare rather than a language based major or humanities." (aspiring health sciences and technology major)

"I originally wanted to go into a career in design, I was actually considering architectural design. However, as AI advancement increased I was told by many people, including an architect that there is a likely chance that AI will take over the field, especially with the rise of cookie-cutter homes and reused floor plans." (aspiring health sciences and technology major)

Students' Views on AI Differ According to Gender

Male students, on average, were noticeably more optimistic than female students in their views on AI. Male students provided significantly higher mean ratings for all aspects of AI than did female students (see Figure 4). The largest difference between means occurred for the item about AI's effect on society overall, with the mean for males (0.05) exceeding that of females (−0.62) by 0.67 points ($t = 11.76$, $p < .0001$, $d = 0.43$). The smallest difference between means (0.24) occurred for the item about AI's effect on discrimination (male mean = 0.28, female mean = 0.04, $t = 5.04$, $p < .0001$, $d = 0.18$; Table A6).

Figure 4. Ratings of Aspects of AI, by Gender

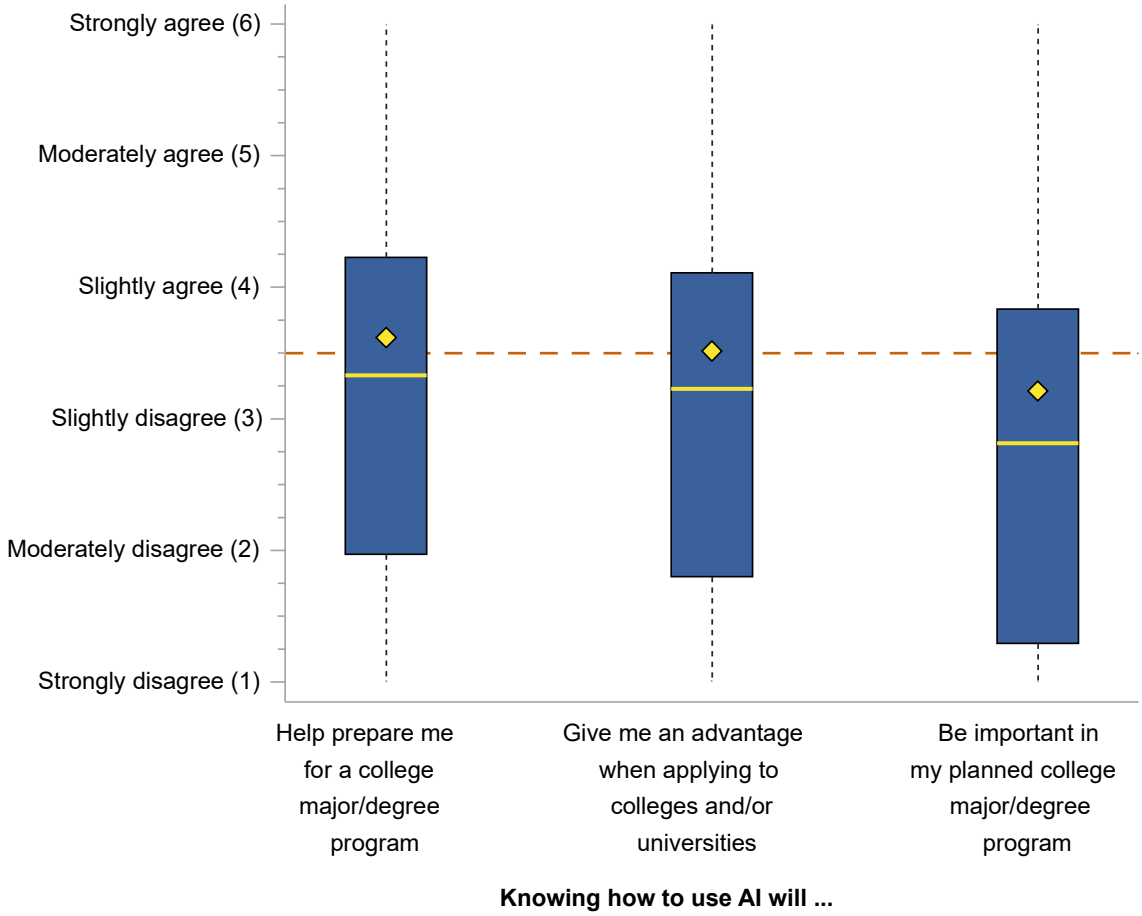


Note. Unweighted counts ranged from 2,169 (AI's effect on my life overall) to 2,364 (accuracy of information provided by AI; extent to which AI can be trusted) for females and from 1,306 (AI's effect on my life overall) to 1,384 (accuracy of information provided by AI; extent to which AI can be trusted) for males.

AI and Students' Preparedness for College

Students were asked how much they agreed or disagreed with three statements about the relationship between college preparedness and knowing how to use AI. On average, students slightly agreed that knowing how to use AI would help prepare them for a college major or degree program (M = 3.62 on a scale ranging from 1 to 6; see Figure 5). Students were somewhat less inclined to agree that knowing how to use AI would give them an advantage when they applied to colleges and/or universities (M = 3.51) or be important in their planned majors or degree programs (M = 3.21).

Figure 5. Knowing How to Use AI and Perspectives on College Preparedness



Note. Unweighted counts ranged from 2,905 (importance in planned college major) to 2,923 (helping prepare for a college major).

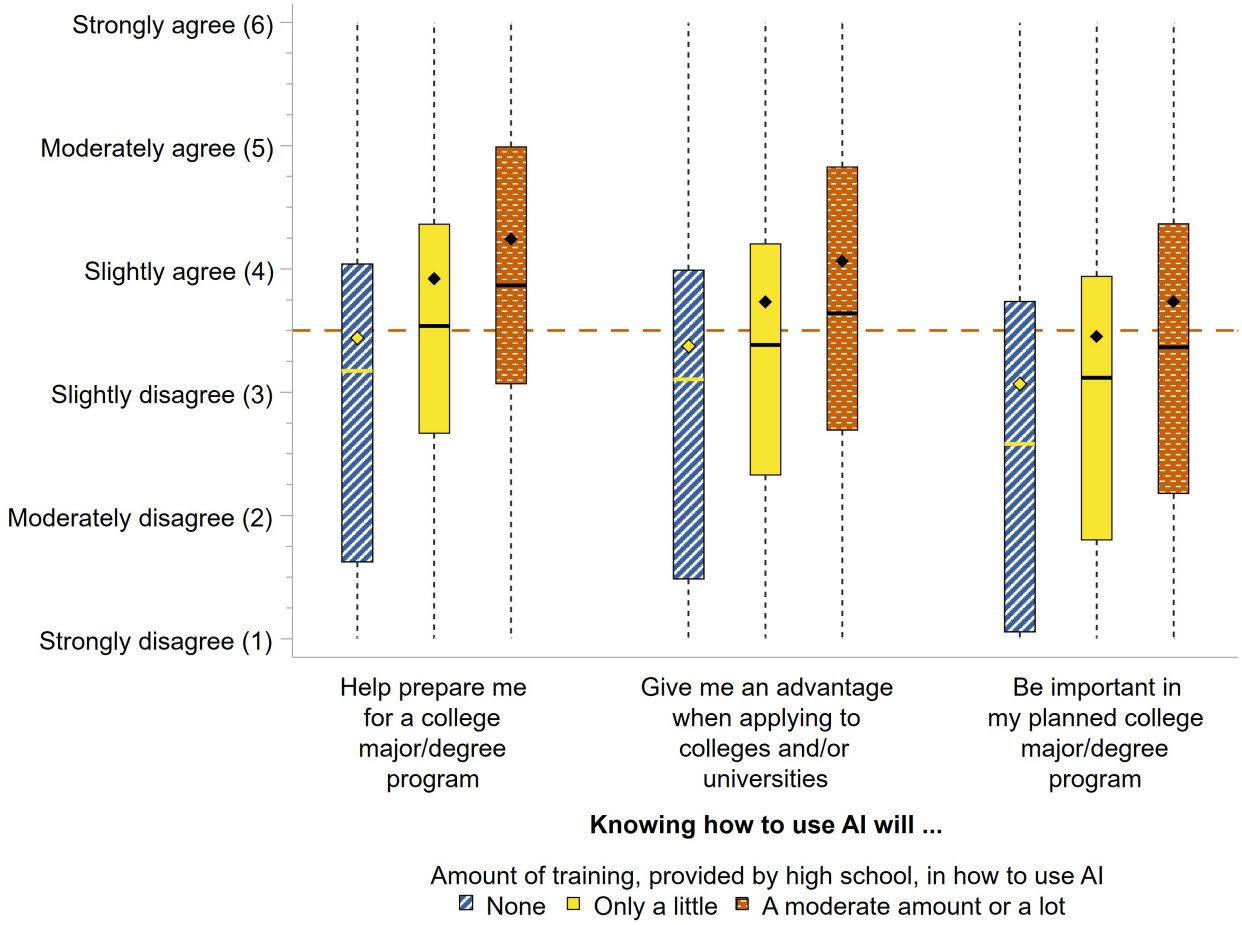
Additional information about students' views on the relationship between college preparedness and knowing how to use AI is provided in the technical appendix. For example, Table A7 shows that 60% of students at least slightly agreed that knowing how to use AI would help prepare them for a college major or degree program.

Students' Views on College Preparedness and Knowing How to Use AI Are Related to AI Training in High School

A positive relationship was observed between the amount of AI training provided by high schools and students' level of agreement that knowing how to use AI would affect college preparedness. Students whose high schools had provided at least a moderate amount of AI training were significantly more likely than students whose high schools had provided no training to agree that knowing how to use AI would help prepare them for a college major (M = 4.24 versus 3.44, respectively; q = 7.72; p < .0001; d = 0.52), give them an advantage when they applied to college (M = 4.06 versus 3.37, respectively; q = 6.64; p < .0001; d = 0.44), and be

important in their planned college majors (M = 3.73 versus 3.07, respectively; q = 6.27; p < .0001; d = 0.41; see Figure 6 and Table A8).

Figure 6. Perspectives on College Preparedness and Knowing How to Use AI, by Amount of Training in High School in How to Use AI



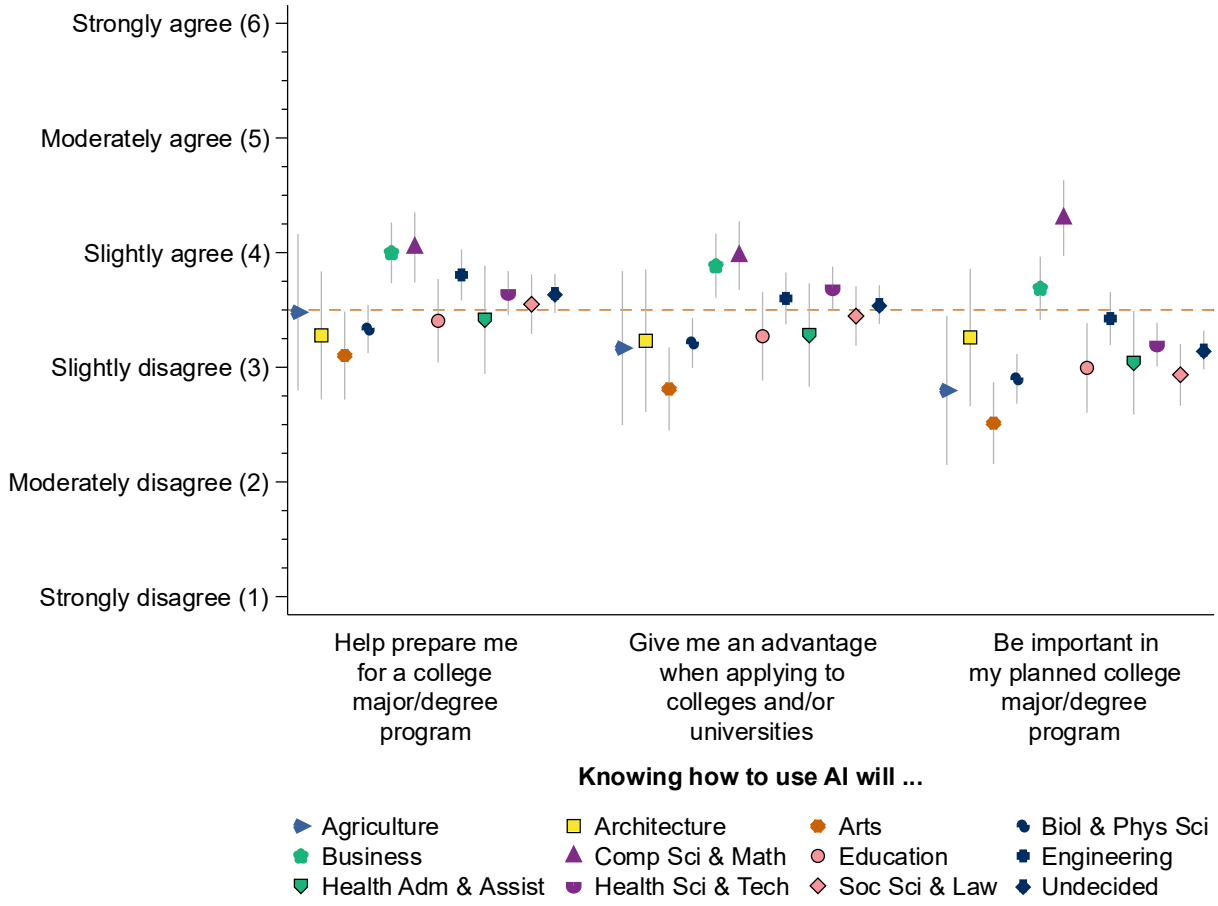
Note. Unweighted counts ranged from 248 (a moderate amount or a lot of training) to 1,993 (no training) and varied slightly across the preparedness items.

Students' Views on College Preparedness and Knowing How to Use AI Differ According to Planned College Major

Students' planned college majors were related to their views on the relationship between being college ready and knowing how to use AI. For example, aspiring business and computer science and math majors were significantly more likely than aspiring arts and biological and physical sciences majors to agree that knowing how to use AI would help prepare them for a college major (M = 4.00 and 4.05 versus 3.10 and 3.33, respectively, with test statistics ranging from q = 4.92 to 5.05, all p-values < .0001, and effect sizes ranging from 0.45 to 0.61), give them an advantage when they applied to college (M = 3.89 and 3.97 versus 2.81 and 3.21, respectively; 4.86 ≤ q ≤ 6.32; all p-values < .0001; 0.44 ≤ d ≤ 0.78), and be important in their

planned college majors (M = 3.69 and 4.30 versus 2.51 and 2.90, respectively; 5.76 ≤ q ≤ 9.42; all p-values < .0001; 0.51 ≤ d ≤ 1.15; see Figure 7 and Table A9).

Figure 7. Perspectives on College Preparedness and Knowing How to Use AI, by Planned College Major

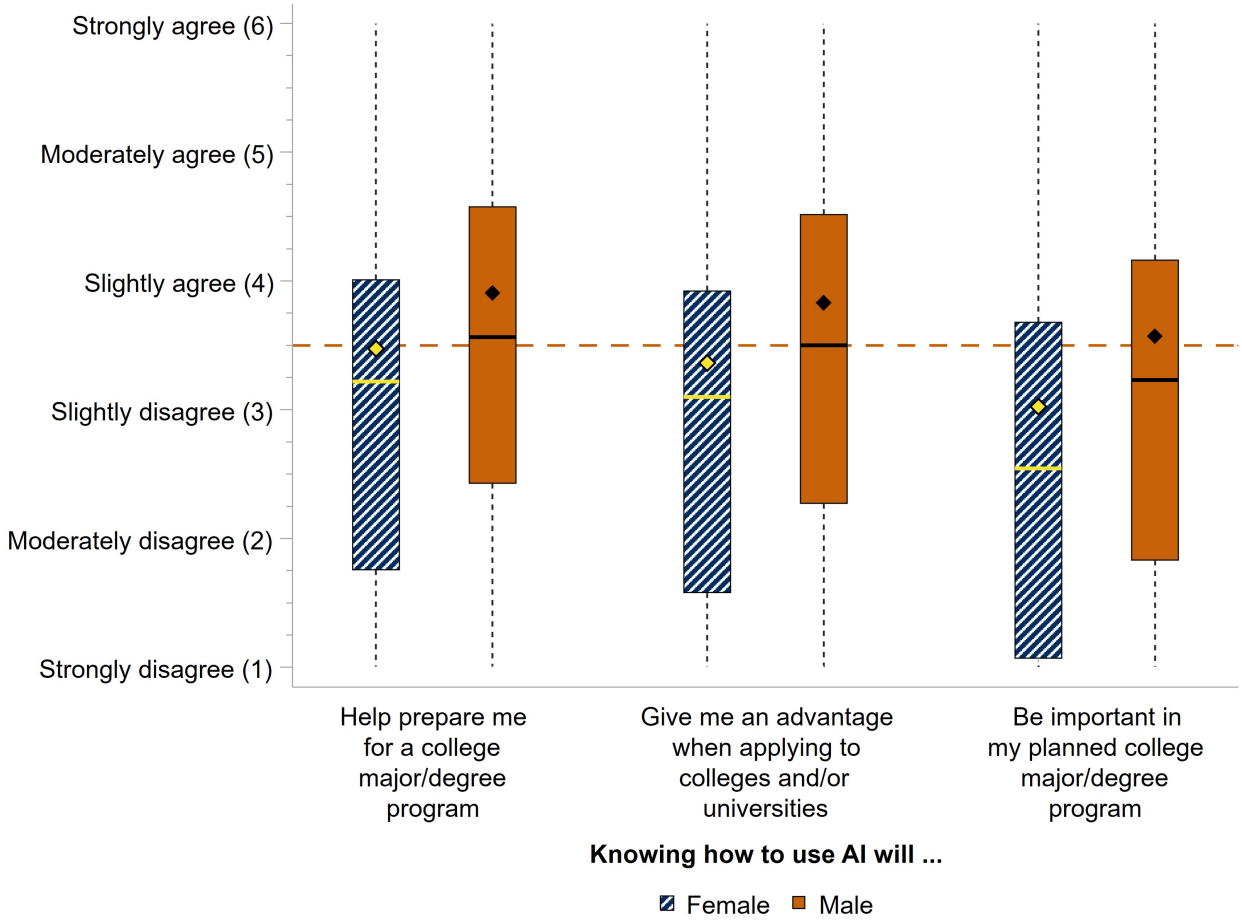


Note. Unweighted counts ranged from 33 (Agriculture) to 544 (Undecided) and varied slightly across the preparedness items.

Students' Views on College Preparedness and Knowing How to Use AI Differ According to Gender

Gender differences were observed for the items pertaining to college preparedness. On average, male students were significantly more likely than female students to agree that knowing how to use AI would help prepare them for a college major (M = 3.90 versus 3.47, respectively; t = 7.24; p < .0001; d = 0.28), give them an advantage when they applied to college (M = 3.83 versus 3.36, respectively; t = 7.75; p < .0001; d = 0.30), and be important in their planned college majors (M = 3.57 versus 3.02, respectively; t = 8.87; p < .0001; d = 0.35; see Figure 8 and Table A10).

Figure 8. Perspectives on College Preparedness and Knowing How to Use AI, by Gender

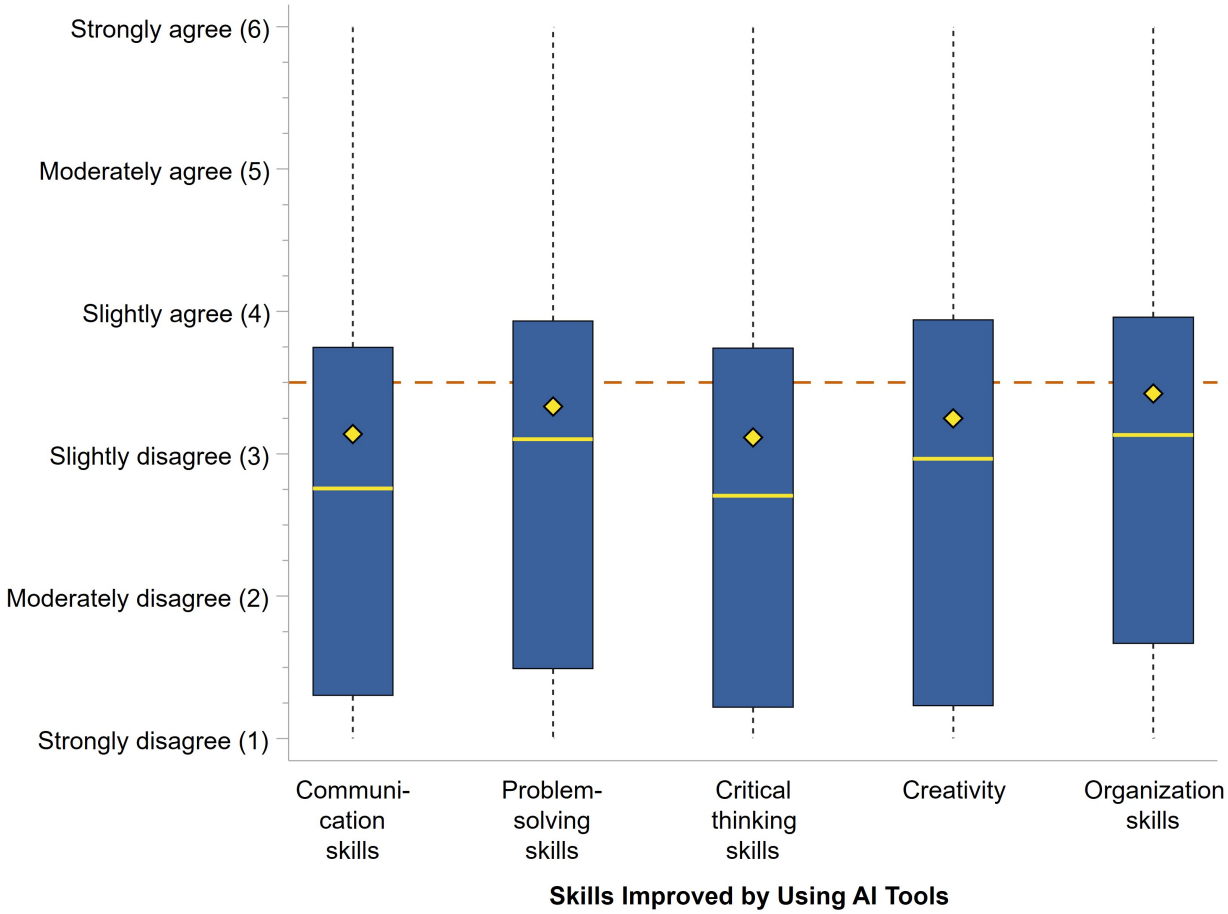


Note. Unweighted counts ranged from 1,802 (importance in planned college major) to 1,811 (helping prepare for a college major; advantage when applying to colleges) for females and from 1,051 (importance in planned college major) to 1,060 (helping prepare for a college major) for males.

Use of AI Tools and Students' Skills Improvement

Students were asked whether they had used AI tools, such as ChatGPT and Microsoft Copilot, for school assignments. Nearly half (49%) indicated that they had done so. These students were then asked how much they agreed or disagreed with several statements about whether using the tools improved their skills in communication, problem-solving, critical thinking, creativity, and organization. On average, students disagreed slightly with these statements, as shown in Figure 9. Mean levels of agreement ranged from 3.11 (critical thinking skills) to 3.42 (organization skills) on a 1–6 scale.

Figure 9. Skills Improved by Using AI Tools



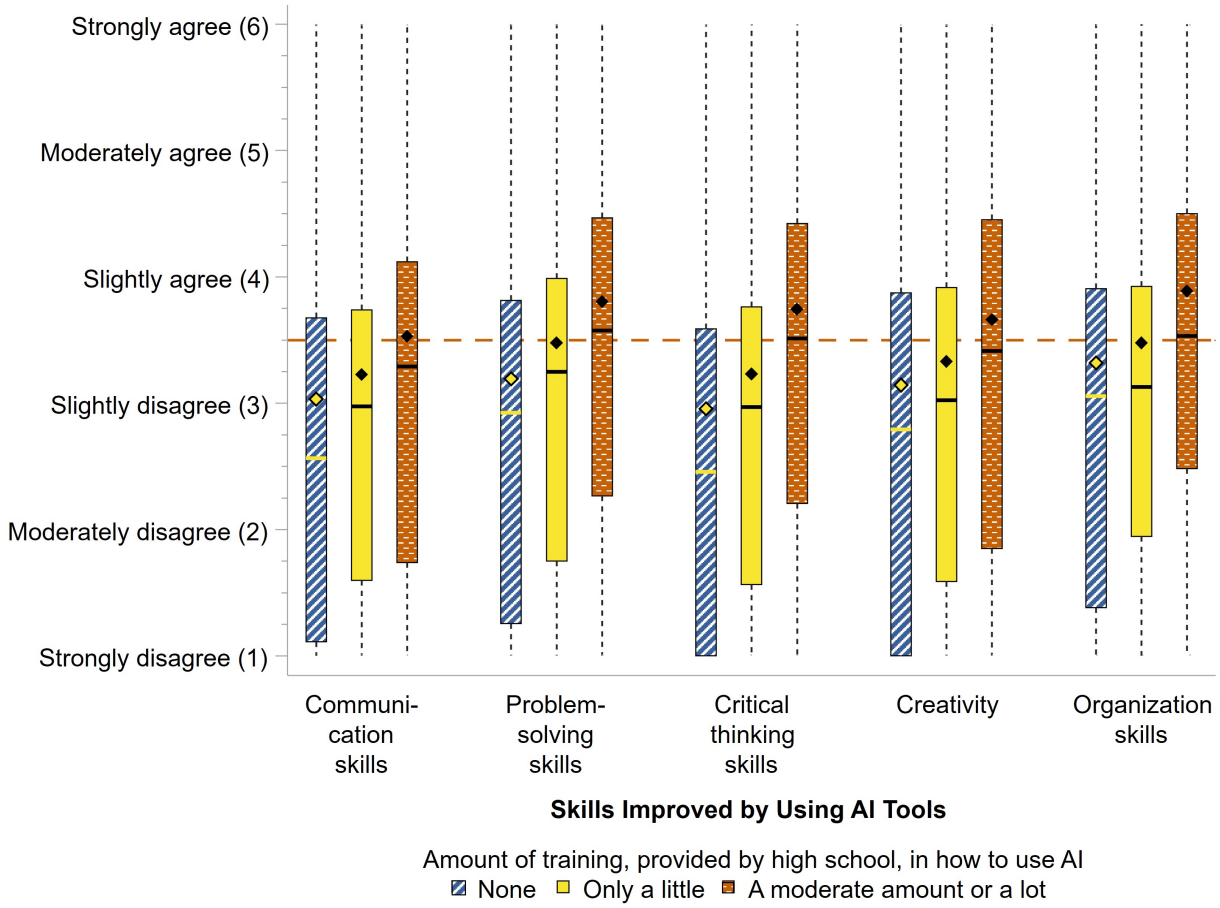
Note. Unweighted counts ranged from 1,425 (organization skills) to 1,429 (communication skills).

Additional information about students' views on skills improved by using AI tools is provided in the technical appendix. For example, Table A11 shows that 54% of students at least slightly agreed that their organization skills had been improved by using AI tools.

Students' Views on AI and Skills Improvement Are Related to AI Training in High School

Students who received at least a moderate amount of AI training in high school tended to agree more with statements about their skills having been improved by using AI tools than did their peers who received no training (see Figure 10). For each of the five skills, mean levels of agreement were significantly higher for the former group than the latter (communication skills: 3.53 versus 3.03, $q = 3.74$, $p = .0006$, $d = 0.32$; problem-solving skills: 3.80 versus 3.19, $q = 4.72$, $p < .0001$, $d = 0.39$; critical thinking skills: 3.74 versus 2.96, $q = 5.89$, $p < .0001$, $d = 0.51$; creativity: 3.66 versus 3.14, $q = 3.67$, $p = .0007$, $d = 0.32$; organization skills: 3.89 versus 3.32, $q = 4.36$, $p < .0001$, $d = 0.36$; see Table A12).

Figure 10. Skills Improved by Using AI Tools, by AI Training in High School

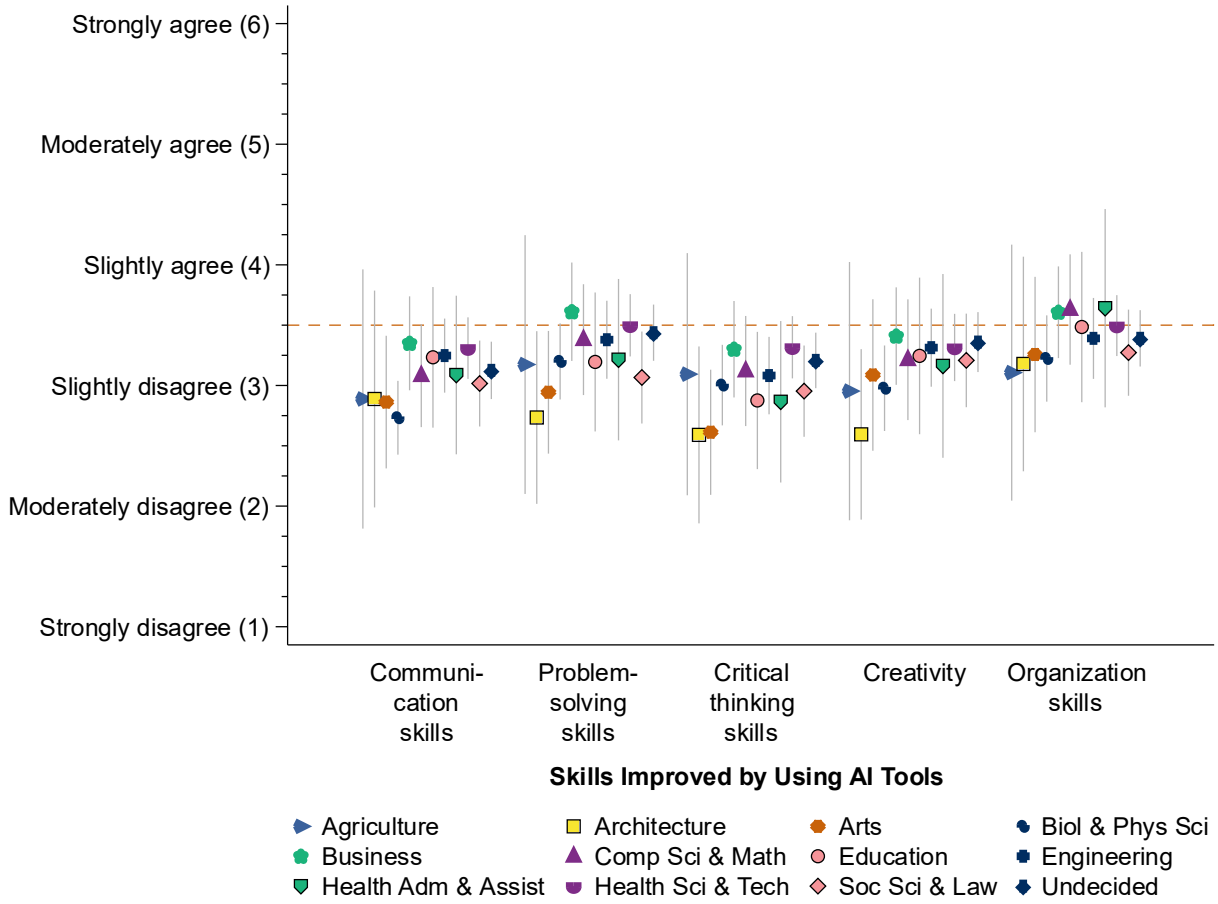


Note. Unweighted counts ranged from 161 (a moderate amount or a lot of training) to 901 (no training) and varied slightly across the skills items.

Students' Views on AI and Skills Improvement Differ According to Planned College Major

Students who were planning to major in business or health sciences and technology had the highest average levels of agreement with the statements about the use of AI tools having improved their communication, problem-solving, and critical thinking skills as well as their creativity (see Figure 11). Aspiring business, computer science and math, and health administration and assisting majors had the highest average levels of agreement with the statement about the use of AI tools having improved their organization skills.

Figure 11. Skills Improved by Using AI Tools, by Planned College Major



Note. Unweighted counts ranged from 17 (Agriculture) to 262 (Undecided) and varied slightly across the skills items.

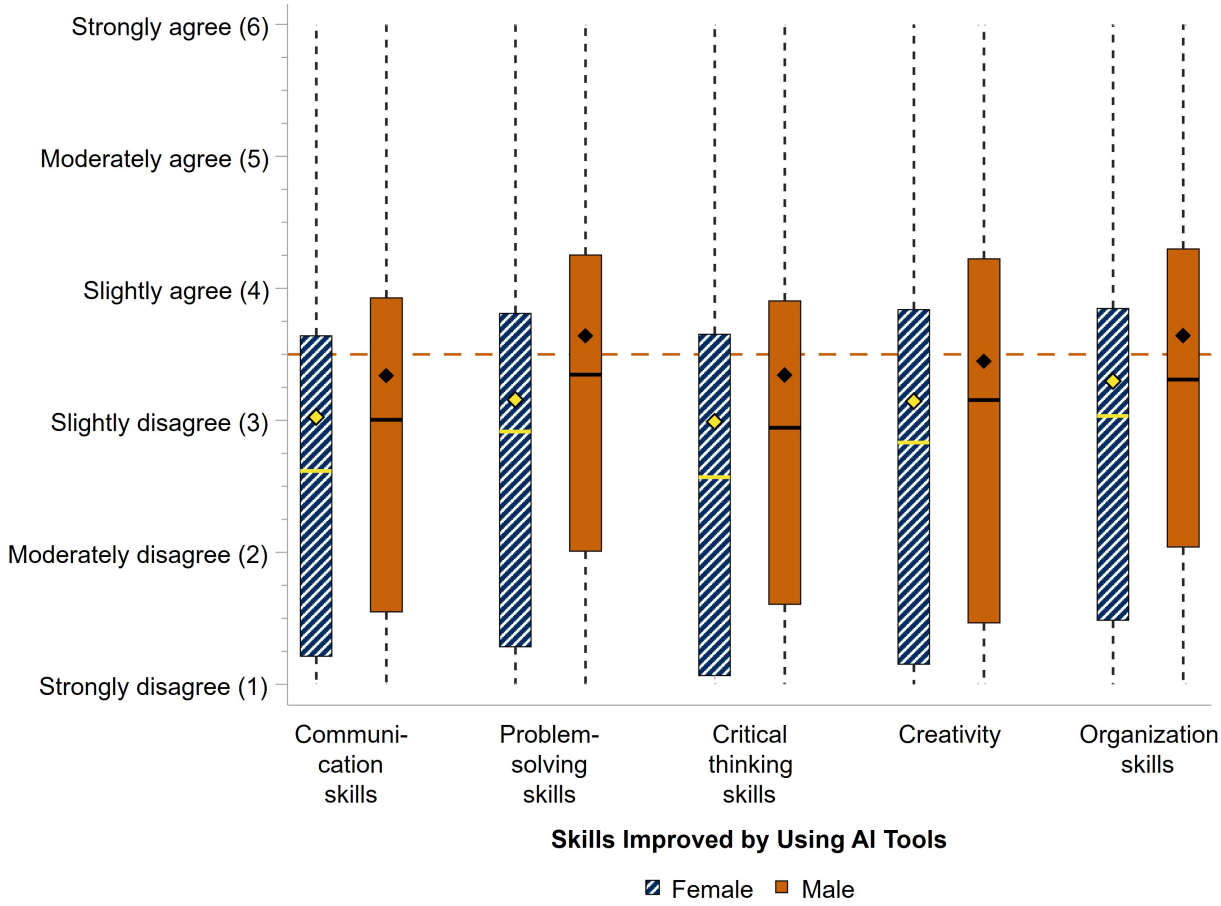
On average, students who were planning to major in agriculture, architecture, arts, or biological and physical sciences had the lowest levels of agreement with the statements about skills improvement in communication, organization, and creativity. Aspiring architecture and arts majors were, on average, somewhat more inclined to disagree with statements about AI improving their problem-solving and critical thinking skills than were their peers who aspired to other majors. However, none of the comparisons among pairs of majors for the skills items were statistically significant (see Table A13). The sample size for students who were planning to major in architecture was relatively small (n = 23), and this could have had some influence on the mean levels of agreement for this group.

Students' Views on AI and Skills Improvement Differ According to Gender

Male students, on average, were significantly more likely than female students to agree that their skills had been improved by using AI tools (see Figure 12). The largest difference between male and female means (0.48) for any of the skills occurred for problem-solving (male mean =

3.64, female mean = 3.16, $t = 5.74$, $p < .0001$, $d = 0.32$). The smallest difference (0.31) occurred for creativity (male mean = 3.45, female mean = 3.14, $t = 3.37$, $p = .0008$, $d = 0.19$; see Table A14).

Figure 12. Skills Improved by Using AI Tools, by Gender



Note. Unweighted counts for females varied little across skills items, ranging from 833 (problem-solving, critical thinking, and organization skills) to 834 (communication skills, creativity). Similarly, unweighted counts for males varied little, ranging from 571 (organization skills) to 574 (communication skills).

Irrespective of gender, mean extent-of-agreement ratings on the skills items exceeded the midpoint of the scale (3.50) for two of the five skills (problem-solving and organization; male students), reflecting slight agreement, on average, that these skills had been improved by the use of AI tools. All other mean ratings reflected slight disagreement about skills having been improved by AI tools.

Discussion

High school students' opinions of AI were balanced, with some opinions being more favorable and some being less favorable. As for more favorable opinions of AI, students believed, on average, that AI provides accurate information, will reduce discrimination (e.g., racial, gender), and will positively affect their lives overall. Even though mean ratings of these three aspects of AI were positive, they were closer to the midpoint (0) of the rating scale than they were to the high end (+3), ranging from 0.11 (will reduce discrimination) to 0.55 (provides accurate information). In addition, students slightly agreed, on average, that knowing how to use AI will help prepare them for a college major or degree program.

As for less favorable opinions of AI, students believed, on average, that AI will take jobs away from humans, will make it harder for the students themselves to find jobs, and will negatively affect society overall. Even though mean ratings of these three aspects of AI were negative, they were closer to the midpoint of the rating scale (0) than they were to the low end (−3), ranging from −0.95 (will take jobs away) to −0.38 (will negatively affect society overall). Moreover, students were not particularly inclined to agree that knowing how to use AI will give them an advantage when they apply to colleges and/or universities or be important in their planned majors or degree programs.

Students were asked whether they had used AI tools, such as ChatGPT and Microsoft Copilot, for school assignments. The 49% of students who had done so disagreed slightly, on average, with several statements about the tools having improved their skills in communication, problem-solving, critical thinking, creativity, and organization. This differs from the findings of Liu and Wang (2024), who reported significant improvement in the critical thinking skills of students using AI tools. The methodology of that study is markedly different from that of the present study, however, and this could account for the different findings. Liu and Wang used a 70-item self-assessment of critical thinking that was administered before and after an eight-week intervention phase during which students in an experimental group used AI tools.

The findings of this study yielded several insights, in that there were noticeable differences observed in students' opinions of AI according to three characteristics: the amount of training in how to use AI that students had received in high school, their planned college majors, and their gender. Findings for each of these characteristics are summarized below, along with potential ways high schools might assist students as they gain knowledge of AI and observe its increasing role in daily activities and society.

AI Training in High School and Students' Perspectives on AI

As the amount of high school training in how to use AI increased, students' average optimism toward AI increased. Specifically, students whose high schools had provided at least a moderate amount of AI training had significantly more positive views on each aspect of AI (e.g., accuracy of information provided by AI, extent to which AI can be trusted) than did students whose high schools had provided no training.

Similarly, students whose high schools had provided at least a moderate amount of AI training were significantly more likely than students whose high schools had provided no training to agree that knowing how to use AI would help prepare them for a college major, give them an advantage when they applied to college, and be important in their planned college majors. Moreover, these students were significantly more likely to agree that their skills had been improved by their use of AI tools.

These findings suggest that high schools could provide a potential benefit to students, in the form of improved optimism toward AI, if they taught students how to use AI. After receiving a moderate amount of training, for example, students planning to major in computer science might have a better understanding of how AI tools could be used to assist with some coding tasks, thereby helping them see AI's potential uses in that major. It is important to keep in mind, however, that although this study provided evidence of positive relationships between the amount of training on how to use AI and students' opinions of AI, it did not, by design, demonstrate that larger amounts of such training caused more positive student opinions.

There is another potential benefit to students in offering them AI training. Through such training, schools could help students learn to leverage AI tools, which will likely have a considerable influence on the future of work. Integrating AI into educational curricula and providing access to AI tools are essential for building national AI capacity, which would help ensure a smooth transition into the workplace as AI continues to advance (United Nations Regional Information Centre for Western Europe, 2025).

Planned College Major and Students' Perspectives on AI

Students' planned college majors were related to their views on aspects of AI. For example, students who planned to major in visual and performing arts provided the lowest average ratings for five aspects of AI (accuracy of information provided, extent to which AI can be trusted, creating jobs for/taking jobs away from humans, whether AI will positively or negatively affect society overall, and whether AI will positively or negatively their lives overall). Similarly, aspiring agriculture, architecture, and biological and physical sciences majors tended to give relatively low average ratings on several aspects of AI. In comparison, students who planned to major in business, computer science and math, health administration and assisting, or health sciences and technology provided relatively high average ratings on several AI aspects (accuracy of information provided by AI, whether AI will positively or negatively affect society overall, whether AI will positively or negatively affect their lives overall).

Students' planned college majors were also related to their views on the relationship between knowing how to use AI and being prepared for college. For example, students planning to major in business or computer science and math were significantly more likely than students planning to major in arts or biological and physical sciences to agree that knowing how to use AI would help prepare them for a college major, give them an advantage when they applied to college, and be important in their planned college majors. Moreover, students' planned college majors were related to their opinions about how using AI tools had improved their skills. For example, students who were planning to major in business or health sciences and technology had the

highest average levels of agreement with statements about the use of AI tools having improved their communication, problem-solving, and critical thinking skills, as well as their creativity.

These findings have implications for AI training in high school. If schools are aware of the potential for differences in opinions of AI across students' planned college majors, then schools might choose to provide additional AI training for some students. For example, because aspiring visual and performing arts majors might have relatively high levels of concern about the effect of AI on potential job opportunities, perhaps schools could lessen these students' concerns by providing them with examples of visual and performing artists who have found ways to use AI in their work.

Potential benefits from AI training exist at the postsecondary level as well. Differences in college students' AI tool usage across majors are evident and, to some extent, consistent with high school students' opinions of the importance of knowing how to use AI in their planned majors. According to a study of German university students, for example, the highest AI tool usage across majors occurred in engineering, mathematics, and the natural sciences (von Garrel & Mayer, 2023). Thus, colleges and universities might want to provide different types and/or amounts of AI training for students in different majors. For example, incoming freshmen in majors that were associated in the present study with a belief that knowing how to use AI is less important (e.g., visual and performing arts, agriculture, and architecture) might benefit from training on how AI could assist with specific coursework in those majors.

It is possible that there is a relationship between gender and planned major that could have influenced students' opinions of AI. For example, males might be more likely than females to plan on a STEM major, and therefore males' relatively optimistic perspectives of AI might influence the results of this study for different majors. To investigate this possibility, responses to relevant items (e.g., knowing how to use AI will help prepare students for planned majors, knowing how to use AI will be important in planned majors) were modeled as a function of gender, planned major, and the interaction between these two variables. Although both gender and planned major were significant predictors of responses to relevant survey items, the interaction between the two was not. This suggests that a gender and planned major relationship did not influence students' opinions of AI.

Gender and Students' Perspectives on AI

Gender was related to students' views on aspects of AI. Male students, on average, were noticeably more optimistic than female students in their views, providing significantly higher mean ratings for all aspects of AI. For example, the largest difference between female and male means occurred for the item about AI's effect on society overall, with the mean for males exceeding that for females by approximately two thirds of a point.

In addition, male students were significantly more likely than female students to agree that knowing how to use AI would help prepare them for a college major, give them an advantage when they applied to college, and be important in their planned college majors. They were also

more inclined than female students to agree that their skills, especially problem-solving, had been improved by their use of AI tools.

Findings pertaining to males' relatively high level of optimism toward AI are consistent with those of other recent studies. For example, male respondents were observed in one study to exhibit "higher hopes for AI systems" than were female respondents (Grassini & Ree, 2023, p. 5). In another study, males were more positive overall toward chatbots, whereas females considered chatbots' use as "potentially contrary to the purpose of education" (Stöhr et al., 2024, p. 4).

When preparing AI training, schools might benefit by being aware of potential gender differences in opinions of AI. One suggestion for addressing these differences is to promote female role models in AI (Grassini & Ree, 2023). Perhaps this approach would be helpful for female students who participate in high school AI training programs.

Limitations

Sample Limitations

It is common to observe high rates of survey nonresponse in research that is based on data from online surveys. Approximately 4.7% of the sampled students responded to this study's survey. Although this rate is typical for surveys of ACT registrants, it is possible that the opinions about AI reported by the relatively small number of respondents differed in some way from those of the nonrespondents.

Ninety-four percent of the students in this study reported that they plan to attend college right after they graduate from high school. Students' views on AI might differ depending on whether they are college-bound or not. For example, college-bound students might have more exposure to AI tools than do students who are not college bound and thus have more favorable views of AI. Therefore, some of the findings of this study might not be generalizable to high school students who do not plan to attend college.

In addition, the sample sizes of some groups (e.g., students who planned to major in agriculture or architecture) were small, so some interpretations are tenuous. Moreover, due to small sample sizes in some categories for high school training in how to use AI, two categories (a moderate amount and a lot) were collapsed into one, yielding a less fine-grained examination of this variable.

Survey Limitations

As discussed above, Liu and Wang (2024) provided some evidence that use of AI tools improves critical thinking skills. However, it is plausible that overreliance on AI could have the opposite effect, and there is some evidence to support this as well (Gerlich, 2024). This is due to what is referred to as cognitive offloading, which occurs when one delegates cognitive tasks to external aids, reducing engagement with deep, reflective thinking. The items in the current survey speak only to skill improvement but not to detriment. Items that would allow students to

express an opinion of the effects of AI tool use on skills—along a continuum of aid versus harm—could provide for a more thorough investigation in future studies.

The questions in the survey asked about AI in general, with the exception of the question about AI tool use, which mentioned ChatGPT and Copilot as examples of tools. It is possible that questions that focus on specific types of AI would yield different findings. For example, asking students whether generative AI will positively affect society overall could elicit different responses than asking them whether AI in general will have such an effect.

About the Author

Jeff Schiel, PhD, a lead research scientist at ACT, specializes in survey methodology and sampling. His research interests include the study of high school students' educational experiences and plans.

Acknowledgments

The author thanks Becky Bobek, Jeremy Burrus, and Dana Murano for their feedback on a draft of the survey instrument, as well as Dana Murano, Kate Allen, and Kate Walton for their reviews of a draft of this paper.

References

Baek, C., Tate, T., & Warschauer, M. (2024). “ChatGPT seems too good to be true”: College students’ use and perceptions of generative AI. *Computers and Education: Artificial Intelligence*, *7*. https://doi.org/10.1016/j.caeai.2024.100294

Bochniarz, K. T., Czerwiński, S. K., Sawicki, A., & Atroszko, P. A. (2022). Attitudes to AI among high school students: Understanding distrust towards humans will not help us understand distrust towards AI. *Personality and Individual Differences*, *185*. https://doi.org/10.1016/j.paid.2021.111299

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Gerlich, M. (2024). AI tools in society: Impacts on cognitive offloading and the future of critical thinking. *Societies*, *15*(6), 1–28. https://doi.org/10.3390/soc15010006

Grassini, S., & Ree, A. S. (2023, September). *Hope or doom AI-ttitude? Examining the impact of gender, age, and cultural differences on the envisioned future impact of artificial intelligence on humankind* [Paper presentation]. European Conference in Cognitive Ergonomics (ECCE ’23), Swansea, United Kingdom. https://doi.org/10.1145/3605655.3605669

Francisco, C. A., & Fuller, W. A. (1981). Quantile estimation with a complex survey design. *The Annals of Statistics*, *19*(1), 454–469. https://doi.org/10.1214/aos/1176347993

Liu, W., & Wang, Y. (2024). The effects of using AI tools on critical thinking in English literature classes among EFL learners: An intervention study. *European Journal of Education*, *59*(4). https://doi.org/10.1111/ejed.12804

Mowreader, A. (2024). *Employers say students need AI skills. What if students don’t want them?* Inside Higher Ed. https://www.insidehighered.com/news/student-success/life-after-college/2024/10/03/are-ai-skills-key-part-career-preparation

National Society of High School Scholars (2024). *Career interest survey*. https://www.nshss.org/media/g01jg34p/2024careerinterestsurvey1.pdf

Stöhr, C., Ou, A. W., & Malmström, H. (2024). Perceptions and usage of AI chatbots among students in higher education across genders, academic levels and fields of study. *Computers and Education: Artificial Intelligence*, *7*. https://doi.org/10.1016/j.caeai.2024.100259

United Nations Regional Information Centre for Western Europe (2025). Artificial intelligence and the future of work: Will AI replace our jobs? https://unric.org/en/artificial-intelligence-and-the-future-of-work-will-ai-replace-our-jobs/

von Garrel, J. & Mayer, J. (2023). Artificial intelligence in studies—Use of ChatGPT and AI-based tools among students in Germany. *Humanities and Social Sciences Communications*, *10*, *Article 799*. https://doi.org/10.1057/s41599-023-02304-7

Notes

[1] The percentage reported here is from *Inside Higher Ed*'s Generation Lab. There is a link to the Lab in the methodology section of the article.

[2] The effect size reported in this study is Cohen's *d* (Cohen, 1988). Generally accepted guidelines for interpreting effect sizes are as follows: An effect size (in absolute value) of 0.20 or less is small, 0.21–0.49 is small to medium, 0.50–0.79 is medium to large, and 0.80 or more is large.

[3] All student comments in this paper are reproduced as written and without editing.

Technical Appendix

Sample

A stratified random sample of 81,689 high school students in Grades 9–12 nationwide was used for this study. These students had registered to take the December 2024 national ACT test. Ninety-four percent of them indicated that they planned to attend college right after graduating from high school. Asian, Black, and Hispanic students were intentionally oversampled to ensure enough respondents in each of these racial/ethnic groups. Students were invited by email to participate in the online survey. A total of 3,816 students responded to the survey, for a response rate of 4.7%.

Student characteristics (race/ethnicity, gender, high school grade point average, high school rank, and grade level) are reported in Table A1 for the survey's target population, sampled population, sample, and respondents. All the characteristics in this table were reported by students and were collected when they registered for the national ACT.

Table A1. Characteristics of the Survey Population, Sample, and Respondents

Characteristic		Target population		Sampled population		Sample		Respondents	
		N	%	*n*	%	*n*	%	*n*	%
Race/ethnicity	American Indian/ Alaska Native	1,135	1%	1,072	1%	630	1%	22	1%
	Asian	9,151	6%	7,904	6%	7,904	10%	456	12%
	Black	22,726	15%	21,397	15%	18,000	22%	497	13%
	Hispanic	22,146	15%	20,995	15%	18,000	22%	622	16%
	Native Hawaiian/ Other Pacific Islander	191	0%	183	0%	105	0%	2	0%
	White	82,579	55%	75,414	54%	30,000	37%	1,847	48%
	Two or more races	6,991	5%	6,454	5%	3,790	5%	198	5%
	Prefer not to respond	6,149	4%	5,441	4%	3,200	4%	169	4%
	Unknown	106	0%	97	0%	60	0%	3	0%
Gender	Female	85,574	57%	78,521	57%	42,269	57%	2,364	62%
	Male	63,804	42%	58,757	42%	34,435	42%	1,384	36%
	Another gender	251	0%	230	0%	130	0%	14	0%
	Prefer not to respond	1,502	1%	1,407	1%	827	1%	51	1%
	Unknown	43	0%	42	0%	28	0%	3	0%
High school grade point average	(A− to A) 3.5–4.0 or higher	93,353	62%	84,339	61%	46,404	57%	2,733	72%
	(B to B+) 3.0–3.4	22,448	15%	21,003	15%	13,021	16%	377	10%
	(B− to B) 2.5–2.9	7,992	5%	7,667	6%	5,092	6%	117	3%
	(C to B−) 2.0–2.4	2,977	2%	2,878	2%	1,950	2%	41	1%
	(C− to C) 1.5–1.9	667	0%	650	0%	462	1%	10	0%
	(D to C−) 1.0–1.4	132	0%	130	0%	99	0%	1	0%
	(D− to D) 0.5–0.9 or lower	16	0%	16	0%	12	0%	0	0%

Characteristic		Target population		Sampled population		Sample		Respondents	
		N	%	*n*	%	*n*	%	*n*	%
	Unknown	23,589	16%	22,274	16%	14,649	18%	537	14%
High school rank	Top quarter	67,932	45%	61,148	44%	32,957	40%	2,060	54%
	Second quarter	31,515	21%	29,203	21%	17,290	21%	587	15%
	Third quarter	11,334	7%	10,715	8%	6,863	8%	176	5%
	Fourth quarter	3,095	2%	2,894	2%	1,974	2%	39	1%
	Unknown	37,298	25%	34,997	25%	22,605	28%	954	25%
Grade level	12	71,469	47%	64,455	46%	39,321	48%	1,282	34%
	11	69,663	46%	64,843	47%	37,038	45%	2,145	56%
	10	8,773	6%	8,437	6%	4,675	6%	335	9%
	9	1,269	1%	1,222	1%	655	1%	54	1%
Total		151,174	100%	138,957	100%	81,689	100%	3,816	100%

The target population (*N* = 151,174) included U.S. high school students in Grades 9–12 who had registered for the December 2024 national ACT test. The sampled population (*n* = 138,957), which is a subset of the target population, excluded students who opted out of receiving nontransactional communications from ACT. It also excluded students who were in samples for other recent ACT surveys. A stratified random sample (*n* = 81,689), which was disproportionately stratified on race/ethnicity and test date, was drawn from the sampled population. The respondents (*n* = 3,816) included students from the sample who responded to the survey and whose data were used in the analyses.

The sample and respondents differed on some characteristics. For example, students who reported that they were in the top quarter of their high school class represent 40% of the sample but 54% of the respondents. It is typical in surveys of ACT test registrants for students who report higher class ranks and higher grade point averages to respond at higher rates compared with those who report lower class ranks and lower grade point averages. In addition, it is typical in these surveys for Asian and White students to respond at higher rates than Black and Hispanic students and for females to respond at higher rates than males.

The oversampling of Asian, Black, and Hispanic students is illustrated in Table A1. These racial/ethnic groups represent 6%, 15%, and 15%, respectively, of the sampled population but 10%, 22%, and 22%, respectively, of the sample. White students represent 54% of the sampled population but only 37% of the sample. Weights were used to adjust statistically for these intentional differences in representation. Additional information on the weights is provided in the Analysis section.

Survey Instrument

The survey instrument was administered online to participating students in December 2024. The first question in this instrument was intended to identify whether each respondent was a student, a parent or guardian, or a school counselor. This question was needed because when caregivers and counselors assist with a student's ACT registration, they sometimes provide their

own email address instead of the student's. Only those respondents who indicated that they were students were permitted to continue the survey. Other relevant items are listed below.

1. For each of the following items, move the slider along the continuum so that it best represents your opinion of AI. *The slider's default position is 0. If you do not move the slider, your response will be recorded as 0.*

AI . . .

	−3 −2 −1 0 1 2 3	
Provides inaccurate information		Provides accurate information
Cannot be trusted		Can be trusted
Will take jobs away from humans		Will create more jobs for humans
Will make it harder for me to find a job		Will make it easier for me to find a job
Will perpetuate discrimination (racial, gender, etc.)		Will reduce discrimination (racial, gender, etc.)
Will negatively affect society overall		Will positively affect society overall
Will negatively affect my life overall		Will positively affect my life overall

2. What do you plan to do right after you graduate from high school?

   ○ Start a job or continue in my present job
   ○ Start a program offered by a trade school
   ○ Attend college (either two- or four-year)
   ○ Other (please specify) _____

3. How much training in how to use AI has your high school provided you?

   ○ None
   ○ Only a little
   ○ A moderate amount
   ○ A lot

4. How much do you agree or disagree with each of the following statements?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
Knowing how to use AI will help prepare me for a college major/degree program.	○	○	○	○	○	○
Knowing how to use AI will give me an advantage when applying to colleges and/or universities.	○	○	○	○	○	○
Knowing how to use AI will be important in my planned college major/degree program.	○	○	○	○	○	○

5. Have you used AI tools for school assignments? (Examples of AI tools include ChatGPT and Microsoft Copilot.)

○ No
○ Yes

6. How much do you agree or disagree with the following statements about AI tools? *(Displayed to students only if the answer to the previous question was "yes")*

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
I have improved my communication skills by using AI tools.	○	○	○	○	○	○
I have improved my problem-solving skills by using AI tools.	○	○	○	○	○	○
I have improved my critical-thinking skills by using AI tools.	○	○	○	○	○	○
I have improved my creativity by using AI tools.	○	○	○	○	○	○
I have improved my organization skills by using AI tools.	○	○	○	○	○	○

Analysis

The data analyzed in this study were obtained from students' responses to the survey instrument and from information provided by students when they registered to take the ACT test. Analyses were performed on data from the entire group of students who responded to the survey (n = 3,816). Data from the survey were matched by student ID to ACT registration data.

The data were also analyzed by the amount of training in how to use AI that was provided by high schools, students' planned college majors/degree programs, and gender. Percentages of responses were computed for all survey questions, and mean responses were computed for questions that had appropriate scales (Questions 1, 4, and 6). For each multiple comparison of mean responses across amount of training and planned college major, an analysis of variance

(ANOVA) with pairwise comparisons based on the Tukey-Kramer procedure was used. The test statistic yielded by this procedure is denoted in this report by *q*. For comparing mean responses of female students with those of male students, a two-sample *t*-test was used.

Whenever a statistically significant difference was observed between a pair of means, an effect size was computed using Cohen's *d*, with a pooled sample standard deviation as the denominator (Cohen, 1988, p. 66). Because the sample was disproportionately stratified on student race/ethnicity, weights that reflect statistical adjustments for population representation in the sampling design and survey nonresponse were used in the computation of all statistics.

Tables of Comparison Statistics and Frequency Distributions

Table A2. Comparisons of Whether Mean Ratings of Aspects of AI Differ From Zero

Aspect of AI	*n*	Mean	*t*	*p*
Provides inaccurate or accurate information	3,813	0.55	23.32	<.0001
Cannot or can be trusted	3,813	−0.01	−0.62	.5359
Will take jobs away or create jobs	3,711	−0.95	−41.40	<.0001
Will make it harder or easier for me to find a job	3,711	−0.54	−23.07	<.0001
Will perpetuate or reduce discrimination	3,567	0.11	5.11	<.0001
Will negatively or positively affect society overall	3,567	−0.38	−14.25	<.0001
Will negatively or positively affect my life overall	3,539	0.13	5.14	<.0001

Note. *N*-counts in this table are unweighted. Means are weighted to reflect the sampling design.

Table A3. Ratings of Aspects of AI

Rating of AI	AI provides inaccurate or accurate information		AI cannot or can be trusted		AI will take jobs away or create more jobs		AI will make it harder or easier for me to find a job		AI will perpetuate or reduce discrimination		AI will negatively or positively affect society overall		AI will negatively or positively affect my life overall	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
−3	116	3.1	275	7.5	539	14.9	405	11.1	196	5.6	430	12.5	216	6.3
−2	264	6.9	374	10.1	770	21.1	514	13.8	182	5.0	457	13.1	242	6.9
−1	506	13.5	658	17.4	1,067	28.1	884	23.4	332	9.4	697	19.6	492	14.1
0	787	20.6	1,005	26.3	825	22.2	1,165	31.5	1,846	52.2	944	26.3	1,257	35.7
1	991	26.0	911	23.4	327	8.8	467	12.8	512	14.0	587	16.0	740	20.6
2	911	23.5	421	11.0	123	3.3	179	4.8	306	8.4	299	8.2	374	10.4
3	238	6.4	169	4.4	60	1.7	97	2.6	193	5.5	153	4.3	218	6.0
Total	3,813	—	3,813	—	3,711	—	3,711	—	3,567	—	3,567	—	3,539	—

Note. The percentages in this table are weighted to reflect the sampling design. The *n*-counts are unweighted.

Table A4. Comparison Statistics for Aspects of AI, by Amount of Training in High School in How to Use AI

		Amount of training in high school in how to use AI											
		None (1)		Only a little (2)		A moderate amount or a lot (3)		*q*			*d*		
Aspect of AI	***F***	***n***	**Mean**	***n***	**Mean**	***n***	**Mean**	**1 vs. 2**	**1 vs. 3**	**2 vs. 3**	**1 vs. 2**	**1 vs. 3**	**2 vs. 3**
Provides inaccurate or accurate information	17.70***	2,280	0.45	800	0.66	306	0.94	−3.52*	−5.36***	−2.85*	−0.14	−0.33	−0.20
Cannot or can be trusted	24.72***	2,280	−0.15	800	0.08	306	0.48	−3.80**	−6.50***	−3.81**	−0.15	−0.41	−0.28
Will take jobs away or create jobs	13.40***	2,280	−1.04	800	−0.83	306	−0.64	3.73**	−4.12**	−1.84	−0.15	−0.28	—
Will make it harder or easier for me to find a job	17.19***	2,280	−0.64	800	−0.41	306	−0.16	−4.04**	−4.84***	−2.37	−0.16	−0.33	—
Will perpetuate or reduce discrimination	8.11**	2,280	0.06	800	0.18	306	0.39	−2.38	−3.59*	−2.09	—	−0.24	—
Will negatively or positively affect society overall	20.45***	2,280	−0.49	800	−0.26	306	0.10	−3.66**	−5.81***	−3.22*	−0.14	−0.36	−0.23
Will negatively or positively affect my life overall	23.06***	2,280	0.02	800	0.23	306	0.64	−3.56*	−6.31***	−3.95**	−0.15	−0.42	−0.29

Note. The statistical significance of the test statistic (*F*) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are provided only for statistically significant comparisons.

Table A5. Comparison Statistics for Aspects of AI, by Planned College Major

Major 1	Major 2	Provides inaccurate or accurate information (F = 6.90***)				Cannot or can be trusted (F = 8.35***)				Will take jobs away or create jobs (F = 4.25***)				Will make it harder or easier for me to find a job (F = 4.90***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Agriculture	Architecture	45 / 0.32	51 / 0.47	−0.57	—	45 / −0.18	51 / −0.27	0.28	—	44 / −0.92	51 / −1.13	0.72	—	44 / −0.34	51 / −1.16	3.05	—
	Arts	45 / 0.32	153 / 0.11	0.88	—	45 / −0.18	153 / −0.59	1.60	—	44 / −0.92	147 / − 1.43	2.16	—	44 / −0.34	147 / −1.14	3.45	—
	Biol. & phys. sci.	45 / 0.32	436 / 0.31	0.05	—	45 / −0.18	436 / −0.28	0.44	—	44 / −0.92	428 / −1.05	0.63	—	44 / −0.34	428 / −0.65	1.52	—
	Business	45 / 0.32	291 / 0.95	−2.95	—	45 / −0.18	291 / 0.45	−2.73	—	44 / −0.92	278 / −0.91	−0.02	—	44 / −0.34	278 / −0.42	0.39	—
	Comp. sci. & math	45 / 0.32	204 / 0.43	−0.52	—	45 / −0.18	204 / 0.11	−1.23	—	44 / −0.92	202 / −0.66	−1.14	—	44 / −0.34	202 / −0.37	0.14	—
	Education	45 / 0.32	128 / 0.51	−0.83	—	45 / −0.18	128 / −0.06	−0.50	—	44 / −0.92	126 / −1.02	0.46	—	44 / −0.34	126 / −0.59	1.10	—
	Engineering	45 / 0.32	390 / 0.70	−1.79	—	45 / −0.18	390 / 0.04	−0.96	—	44 / −0.92	386 / −0.85	−0.32	—	44 / −0.34	386 / −0.41	0.33	—
	Health adm. & assist.	45 / 0.32	88 / 0.70	−1.53	—	45 / −0.18	88 / 0.12	−1.13	—	44 / −0.92	85 / −0.73	−0.70	—	44 / −0.34	85 / −0.25	−0.34	—
	Health sci. & tech	45 / 0.32	569 / 0.74	−2.06	—	45 / −0.18	569 / 0.17	−1.61	—	44 / −0.92	547 / −0.84	−0.34	—	44 / −0.34	547 / −0.43	0.46	—
	Soc. sci. & law	45 / 0.32	299 / 0.25	0.29	—	45 / −0.18	299 / −0.38	0.81	—	44 / −0.92	292 / −1.24	1.50	—	44 / −0.34	292 / −0.72	1.78	—
	Undecided	45 / 0.32	768 / 0.63	−1.54	—	45 / −0.18	768 / 0.10	−1.27	—	44 / −0.92	743 / −0.90	−0.07	—	44 / −0.34	743 / −0.51	0.87	—
Architecture	Arts	51 / 0.47	153 / 0.11	1.58	—	51 / −0.27	153 / −0.59	1.24	—	51 / −1.13	147 / − 1.43	1.21	—	51 / −1.16	147 / −1.14	−0.08	—
	Biol. & phys. sci.	51 / 0.47	436 / 0.31	0.81	—	51 / −0.27	436 / −0.28	0.06	—	51 / −1.13	428 / −1.05	−0.35	—	51 / −1.16	428 / −0.65	−2.55	—
	Business	51 / 0.47	291 / 0.95	−2.29	—	51 / −0.27	291 / 0.45	−3.05	—	51 / −1.13	278 / −0.91	−0.93	—	51 / −1.16	278 / −0.42	−3.52	—
	Comp. sci. & math	51 / 0.47	204 / 0.43	0.17	—	51 / −0.27	204 / 0.11	−1.56	—	51 / −1.13	202 / −0.66	−1.97	—	51 / −1.16	202 / −0.37	−3.60	—
	Education	51 / 0.47	128 / 0.51	−0.17	—	51 / −0.27	128 / −0.06	−0.83	—	51 / −1.13	126 / −1.02	−0.45	—	51 / −1.16	126 / −0.59	−2.57	—
	Engineering	51 / 0.47	390 / 0.70	−1.09	—	51 / −0.27	390 / 0.04	−1.32	—	51 / −1.13	386 / −0.85	−1.24	—	51 / −1.16	386 / −0.41	−3.73	—
	Health adm. & assist.	51 / 0.47	88 / 0.70	−0.93	—	51 / −0.27	88 / 0.12	−1.44	—	51 / −1.13	85 / −0.73	−1.45	—	51 / −1.16	85 / −0.25	−3.60	—
	Health sci. & tech	51 / 0.47	569 / 0.74	−1.34	—	51 / −0.27	569 / 0.17	−1.97	—	51 / −1.13	547 / −0.84	−1.27	—	51 / −1.16	547 / −0.43	−3.69	—
	Soc. sci. & law	51 / 0.47	299 / 0.25	1.04	—	51 / −0.27	299 / −0.38	0.44	—	51 / −1.13	292 / −1.24	0.48	—	51 / −1.16	292 / −0.72	−2.19	—
	Undecided	51 / 0.47	768 / 0.63	−0.80	—	51 / −0.27	768 / 0.10	−1.63	—	51 / −1.13	743 / −0.90	−1.03	—	51 / −1.16	743 / −0.51	−3.34	—
Arts	Biol. & phys. sci.	153 / 0.11	436 / 0.31	−1.32	—	153 / −0.59	436 / −0.28	−1.98	—	147 / −1.43	428 / −1.05	−2.64	—	147 / −1.14	428 / −0.65	−3.35	—
	Business	153 / 0.11	291 / 0.95	−5.46***	−0.57	153 / −0.59	291 / 0.45	−6.39***	−0.66	147 / −1.43	278 / −0.91	−3.35	—	147 / −1.14	278 / −0.42	−4.49**	−0.46
	Comp. sci. & math	153 / 0.11	204 / 0.43	−1.90	—	153 / −0.59	204 / 0.11	−4.00*	−0.45	147 / −1.43	202 / −0.66	−4.72**	−0.54	147 / −1.14	202 / −0.37	−4.47**	−0.50
	Education	153 / 0.11	128 / 0.51	−2.23	—	153 / −0.59	128 / −0.06	−2.83	—	147 / −1.43	126 / −1.02	−2.44	—	147 / −1.14	126 / −0.59	−3.14	—
	Engineering	153 / 0.11	390 / 0.70	−3.91*	−0.40	153 / −0.59	390 / 0.04	−3.96*	−0.40	147 / −1.43	386 / −0.85	−3.99*	−0.41	147 / −1.14	386 / −0.41	−4.9***	−0.50
	Health adm. & assist.	153 / 0.11	88 / 0.70	−2.92	—	153 / −0.59	88 / 0.12	−3.40	—	147 / −1.43	85 / −0.73	−3.30	—	147 / −1.14	85 / −0.25	−4.18*	−0.57
	Health sci. & tech	153 / 0.11	569 / 0.74	−4.44**	−0.45	153 / −0.59	569 / 0.17	−5.17***	−0.53	147 / −1.43	547 / −0.84	−4.18*	−0.43	147 / −1.14	547 / −0.43	−4.93***	−0.49
	Soc. sci. & law	153 / 0.11	299 / 0.25	−0.92	—	153 / −0.59	299 / −0.38	−1.33	—	147 / −1.43	292 / −1.24	−1.27	—	147 / −1.14	292 / −0.72	−2.8	—
	Undecided	153 / 0.11	768 / 0.63	−3.72	—	153 / −0.59	768 / 0.10	−4.69**	−0.45	147 / −1.43	743 / −0.90	−3.86*	−0.38	147 / −1.14	743 / −0.51	−4.53**	−0.46
Biol. & phys. sci.	Business	436 / 0.31	291 / 0.95	−5.79***	−0.44	436 / −0.28	291 / 0.45	−6.29***	−0.48	428 / −1.05	278 / −0.91	−1.25	—	428 / −0.65	278 / −0.42	−1.96	—
	Comp. sci. & math	436 / 0.31	204 / 0.43	−0.96	—	436 / −0.28	204 / 0.11	−2.96	—	428 / −1.05	202 / −0.66	−3.18	—	428 / −0.65	202 / −0.37	−2.11	—

Major 1	Major 2	Provides inaccurate or accurate information (F = 6.90***)				Cannot or can be trusted (F = 8.35***)				Will take jobs away or create jobs (F = 4.25***)				Will make it harder or easier for me to find a job (F = 4.90***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
	Education	436 / 0.31	128 / 0.51	−1.41	—	436 / −0.28	128 / −0.06	−1.50	—	428 / −1.05	126 / −1.02	−0.23	—	428 / −0.65	126 / −0.59	−0.44	—
	Engineering	436 / 0.31	390 / 0.70	−3.69	—	436 / −0.28	390 / 0.04	−2.90	—	428 / −1.05	386 / −0.85	−2.05	—	428 / −0.65	386 / −0.41	−2.39	—
	Health adm. & assist.	436 / 0.31	88 / 0.70	−2.29	—	436 / −0.28	88 / 0.12	−2.29	—	428 / −1.05	85 / −0.73	−1.75	—	428 / −0.65	85 / −0.25	−2.18	—
	Health sci. & tech	436 / 0.31	569 / 0.74	−4.63**	−0.31	436 / −0.28	569 / 0.17	−4.82***	−0.32	428 / −1.05	547 / −0.84	−2.29	—	428 / −0.65	547 / −0.43	−2.36	—
	Soc. sci. & law	436 / 0.31	299 / 0.25	0.45	—	436 / −0.28	299 / −0.38	0.77	—	428 / −1.05	292 / −1.24	1.81	—	428 / −0.65	292 / −0.72	0.59	—
	Undecided	436 / 0.31	768 / 0.63	−3.56	—	436 / −0.28	768 / 0.10	−4.11*	−0.25	428 / −1.05	743 / −0.90	−1.75	—	428 / −0.65	743 / −0.51	−1.63	—
Business	Comp. sci. & math	291 / 0.95	204 / 0.43	3.67	—	291 / 0.45	204 / 0.11	2.36	—	278 / −0.91	202 / −0.66	−1.87	—	278 / −0.42	202 / −0.37	−0.36	—
	Education	291 / 0.95	128 / 0.51	2.92	—	291 / 0.45	128 / −0.06	3.26	—	278 / −0.91	126 / −1.02	0.77	—	278 / −0.42	126 / −0.59	1.10	—
	Engineering	291 / 0.95	390 / 0.70	2.28	—	291 / 0.45	390 / 0.04	3.43	—	278 / −0.91	386 / −0.85	−0.56	—	278 / −0.42	386 / −0.41	−0.13	—
	Health adm. & assist.	291 / 0.95	88 / 0.70	1.41	—	291 / 0.45	88 / 0.12	1.83	—	278 / −0.91	85 / −0.73	−0.94	—	278 / −0.42	85 / −0.25	−0.89	—
	Health sci. & tech	291 / 0.95	569 / 0.74	2.10	—	291 / 0.45	569 / 0.17	2.57	—	278 / −0.91	547 / −0.84	−0.63	—	278 / −0.42	547 / −0.43	0.09	—
	Soc. sci. & law	291 / 0.95	299 / 0.25	5.70***	0.48	291 / 0.45	299 / −0.38	6.49***	0.54	278 / −0.91	292 / −1.24	2.76	—	278 / −0.42	292 / −0.72	2.34	—
	Undecided	291 / 0.95	768 / 0.63	3.26	—	291 / 0.45	768 / 0.10	3.36	—	278 / −0.91	743 / −0.90	−0.09	—	278 / −0.42	743 / −0.51	0.84	—
Comp. sci. & math	Education	204 / 0.43	128 / 0.51	−0.45	—	204 / 0.11	128 / −0.06	1.02	—	202 / −0.66	126 / −1.02	2.41	—	202 / −0.37	126 / −0.59	1.33	—
	Engineering	204 / 0.43	390 / 0.70	−1.92	—	204 / 0.11	390 / 0.04	0.56	—	202 / −0.66	386 / −0.85	1.52	—	202 / −0.37	386 / −0.41	0.28	—
	Health adm. & assist.	204 / 0.43	88 / 0.70	−1.38	—	204 / 0.11	88 / 0.12	−0.02	—	202 / −0.66	85 / −0.73	0.38	—	202 / −0.37	85 / −0.25	−0.58	—
	Health sci. & tech	204 / 0.43	569 / 0.74	−2.41	—	204 / 0.11	569 / 0.17	−0.49	—	202 / −0.66	547 / −0.84	1.58	—	202 / −0.37	547 / −0.43	0.49	—
	Soc. sci. & law	204 / 0.43	299 / 0.25	1.26	—	204 / 0.11	299 / −0.38	3.41	—	202 / −0.66	292 / −1.24	4.46**	0.43	202 / −0.37	292 / −0.72	2.45	—
	Undecided	204 / 0.43	768 / 0.63	−1.57	—	204 / 0.11	768 / 0.10	0.13	—	202 / −0.66	743 / −0.90	2.13	—	202 / −0.37	743 / −0.51	1.14	—
Education	Engineering	128 / 0.51	390 / 0.70	−1.27	—	128 / −0.06	390 / 0.04	−0.64	—	126 / −1.02	386 / −0.85	−1.31	—	126 / −0.59	386 / −0.41	−1.29	—
	Health adm. & assist.	128 / 0.51	88 / 0.70	−0.95	—	128 / −0.06	88 / 0.12	−0.87	—	126 / −1.02	85 / −0.73	−1.43	—	126 / −0.59	85 / −0.25	−1.63	—
	Health sci. & tech	128 / 0.51	569 / 0.74	−1.66	—	128 / −0.06	569 / 0.17	−1.66	—	126 / −1.02	547 / −0.84	−1.41	—	126 / −0.59	547 / −0.43	−1.17	—
	Soc. sci. & law	128 / 0.51	299 / 0.25	1.67	—	128 / −0.06	299 / −0.38	2.00	—	126 / −1.02	292 / −1.24	1.61	—	126 / −0.59	292 / −0.72	0.85	—
	Undecided	128 / 0.51	768 / 0.63	−0.88	—	128 / −0.06	768 / 0.10	−1.13	—	126 / −1.02	743 / −0.90	−0.98	—	126 / −0.59	743 / −0.51	−0.60	—
Engineering	Health adm. & assist.	390 / 0.70	88 / 0.70	−0.03	—	390 / 0.04	88 / 0.12	−0.46	—	386 / −0.85	85 / −0.73	−0.64	—	386 / −0.41	85 / −0.25	−0.85	—
	Health sci. & tech	390 / 0.70	569 / 0.74	−0.47	—	390 / 0.04	569 / 0.17	−1.38	—	386 / −0.85	547 / −0.84	−0.04	—	386 / −0.41	547 / −0.43	0.26	—
	Soc. sci. & law	390 / 0.70	299 / 0.25	3.78*	0.31	390 / 0.04	299 / −0.38	3.40	—	386 / −0.85	292 / −1.24	3.65	—	386 / −0.41	292 / −0.72	2.76	—
	Undecided	390 / 0.70	768 / 0.63	0.71	—	390 / 0.04	768 / 0.10	−0.62	—	386 / −0.85	743 / −0.90	0.62	—	386 / −0.41	743 / −0.51	1.16	—
Health adm. & assist.	Health sci. & tech	88 / 0.70	569 / 0.74	−0.24	—	88 / 0.12	569 / 0.17	−0.34	—	85 / −0.73	547 / −0.84	0.63	—	85 / −0.25	547 / −0.43	1.01	—
	Soc. sci. & law	88 / 0.70	299 / 0.25	2.48	—	88 / 0.12	299 / −0.38	2.70	—	85 / −0.73	292 / −1.24	2.72	—	85 / −0.25	292 / −0.72	2.46	—
	Undecided	88 / 0.70	768 / 0.63	0.42	—	88 / 0.12	768 / 0.10	0.12	—	85 / −0.73	743 / −0.90	0.97	—	85 / −0.25	743 / −0.51	1.48	—
Health sci. & tech	Soc. sci. & law	569 / 0.74	299 / 0.25	4.57**	0.35	569 / 0.17	299 / −0.38	5.11***	—	547 / −0.84	292 / −1.24	3.99*	0.30	547 / −0.43	292 / −0.72	2.75	—
	Undecided	569 / 0.74	768 / 0.63	1.41	—	569 / 0.17	768 / 0.10	0.96	—	547 / −0.84	743 / −0.90	0.75	—	547 / −0.43	743 / −0.51	1.00	—
Soc. sci. & law	Undecided	299 / 0.25	768 / 0.63	−3.62	—	299 / −0.38	768 / 0.10	−4.48**	—	292 / −1.24	743 / −0.90	−3.58	—	292 / −0.72	743 / −0.51	−2.11	—

Table A5 (continued). Comparison Statistics for Aspects of AI, by Planned College Major

Major 1	Major 2	Will perpetuate or reduce discrimination (F = 5.43***)				Will negatively or positively affect society overall (F = 7.07***)				Will negatively or positively affect my life overall (F = 6.84***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Agriculture	Architecture	41 / −0.28	51 / 0.19	−1.59	—	41 / −0.74	51 / −0.37	−1.04	—	41 / −0.26	51 / 0.06	−0.93	—
	Arts	41 / −0.28	144 / −0.28	0.01	—	41 / −0.74	144 / −0.89	0.54	—	41 / −0.26	143 / −0.37	0.40	—
	Biol. & phys. sci.	41 / −0.28	414 / −0.12	−0.67	—	41 / −0.74	414 / −0.7	−0.13	—	41 / −0.26	410 / −0.14	−0.46	—
	Business	41 / −0.28	264 / 0.39	−2.81	—	41 / −0.74	264 / −0.06	−2.51	—	41 / −0.26	261 / 0.4	−2.48	—
	Comp. sci. & math	41 / −0.28	200 / −0.07	−0.85	—	41 / −0.74	200 / −0.06	−2.45	—	41 / −0.26	199 / 0.48	−2.70	—
	Education	41 / −0.28	114 / 0.12	−1.57	—	41 / −0.74	114 / −0.71	−0.07	—	41 / −0.26	112 / −0.08	−0.62	—
	Engineering	41 / −0.28	376 / 0.29	−2.45	—	41 / −0.74	376 / −0.1	−2.39	—	41 / −0.26	375 / 0.38	−2.45	—
	Health adm. & assist.	41 / −0.28	83 / 0.38	−2.6	—	41 / −0.74	83 / −0.32	−1.36	—	41 / −0.26	82 / 0.49	−2.45	—
	Health sci. & tech	41 / −0.28	512 / 0.26	−2.37	—	41 / −0.74	512 / −0.28	−1.77	—	41 / −0.26	507 / 0.18	−1.68	—
	Soc. sci. & law	41 / −0.28	284 / 0.09	−1.5	—	41 / −0.74	284 / −0.6	−0.49	—	41 / −0.26	284 / −0.07	−0.73	—
	Undecided	41 / −0.28	714 / 0.15	−1.91	—	41 / −0.74	714 / −0.34	−1.52	—	41 / −0.26	706 / 0.15	−1.60	—
Architecture	Arts	51 / 0.19	144 / −0.28	2.11	—	51 / −0.37	144 / −0.89	1.87	—	51 / 0.06	143 / −0.37	1.65	—
	Biol. & phys. sci.	51 / 0.19	414 / −0.12	1.52	—	51 / −0.37	414 / −0.7	1.28	—	51 / 0.06	410 / −0.14	0.83	—
	Business	51 / 0.19	264 / 0.39	−0.91	—	51 / −0.37	264 / −0.06	−1.17	—	51 / 0.06	261 / 0.4	−1.45	—
	Comp. sci. & math	51 / 0.19	200 / −0.07	1.17	—	51 / −0.37	200 / −0.06	−1.13	—	51 / 0.06	199 / 0.48	−1.71	—
	Education	51 / 0.19	114 / 0.12	0.32	—	51 / −0.37	114 / −0.71	1.22	—	51 / 0.06	112 / −0.08	0.50	—
	Engineering	51 / 0.19	376 / 0.29	−0.47	—	51 / −0.37	376 / −0.10	−1.02	—	51 / 0.06	375 / 0.38	−1.40	—
	Health adm. & assist.	51 / 0.19	83 / 0.38	−0.81	—	51 / −0.37	83 / −0.32	−0.17	—	51 / 0.06	82 / 0.49	−1.54	—
	Health sci. & tech	51 / 0.19	512 / 0.26	−0.34	—	51 / −0.37	512 / −0.28	−0.37	—	51 / 0.06	507 / 0.18	−0.53	—
	Soc. sci. & law	51 / 0.19	284 / 0.09	0.53	—	51 / −0.37	284 / −0.60	0.88	—	51 / 0.06	284 / −0.07	0.51	—
	Undecided	51 / 0.19	714 / 0.15	0.19	—	51 / −0.37	714 / −0.34	−0.10	—	51 / 0.06	706 / 0.15	−0.42	—
Arts	Biol. & phys. sci.	144 / −0.28	414 / −0.12	−1.22	—	144 / −0.89	414 / −0.70	−1.26	—	143 / −0.37	410 / −0.14	−1.57	—
	Business	144 / −0.28	264 / 0.39	−4.85***	−0.50	144 / −0.89	264 / −0.06	−5.21***	−0.52	143 / −0.37	261 / 0.4	−4.88***	−0.51
	Comp. sci. & math	144 / −0.28	200 / −0.07	−1.39	—	144 / −0.89	200 / −0.06	−4.93***	−0.56	143 / −0.37	199 / 0.48	−5.05***	−0.58
	Education	144 / −0.28	114 / 0.12	−2.45	—	144 / −0.89	114 / −0.71	−0.91	—	143 / −0.37	112 / −0.08	−1.50	—
	Engineering	144 / −0.28	376 / 0.29	−4.42**	−0.44	144 / −0.89	376 / −0.1	−5.19***	−0.50	143 / −0.37	375 / 0.38	−5.03***	−0.52
	Health adm. & assist.	144 / −0.28	83 / 0.38	−4.05*	−0.53	144 / −0.89	83 / −0.32	−2.64	—	143 / −0.37	82 / 0.49	−3.97*	−0.56
	Health sci. & tech	144 / −0.28	512 / 0.26	−4.46**	−0.45	144 / −0.89	512 / −0.28	−4.34**	−0.41	143 / −0.37	507 / 0.18	−3.82*	−0.39
	Soc. sci. & law	144 / −0.28	284 / 0.09	−2.60	—	144 / −0.89	284 / −0.6	−1.77	—	143 / −0.37	284 / −0.07	−1.97	—
	Undecided	144 / −0.28	714 / 0.15	−3.64	—	144 / −0.89	714 / −0.34	−3.93*	−0.35	143 / −0.37	706 / 0.15	−3.72	—
Biol. & phys. sci.	Business	414 / −0.12	264 / 0.39	−4.69**	−0.37	414 / −0.7	264 / −0.06	−5.08***	−0.40	410 / −0.14	261 / 0.4	−4.71**	−0.38
	Comp. sci. & math	414 / −0.12	200 / −0.07	−0.42	—	414 / −0.7	200 / −0.06	−4.66**	−0.42	410 / −0.14	199 / 0.48	−4.83***	−0.45
	Education	414 / −0.12	114 / 0.12	−1.72	—	414 / −0.7	114 / −0.71	0.09	—	410 / −0.14	112 / −0.08	−0.38	—
	Engineering	414 / −0.12	376 / 0.29	−4.22*	−0.31	414 / −0.7	376 / −0.1	−5.13***	−0.38	410 / −0.14	375 / 0.38	−5.06***	−0.37
	Health adm. & assist.	414 / −0.12	83 / 0.38	−3.59	—	414 / −0.7	83 / −0.32	−1.99	—	410 / −0.14	82 / 0.49	−3.35	—

Major 1	Major 2	Will perpetuate or reduce discrimination (F = 5.43***)				Will negatively or positively affect society overall (F = 7.07***)				Will negatively or positively affect my life overall (F = 6.84***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
	Health sci. & tech	414 / −0.12	512 / 0.26	−4.39**	−0.30	414 / −0.7	512 / −0.28	−4.13*	−0.28	410 / −0.14	507 / 0.18	−3.38	—
	Soc. sci. & law	414 / −0.12	284 / 0.09	−1.83	—	414 / −0.7	284 / −0.6	−0.76	—	410 / −0.14	284 / −0.07	−0.67	—
	Undecided	414 / −0.12	714 / 0.15	−3.27	—	414 / −0.7	714 / −0.34	−3.61	—	410 / −0.14	706 / 0.15	−3.27	—
Business	Comp. sci. & math	264 / 0.39	200 / −0.07	3.37	—	264 / −0.06	200 / −0.06	0.02	—	261 / 0.4	199 / 0.48	−0.53	—
	Education	264 / 0.39	114 / 0.12	1.80	—	264 / −0.06	114 / −0.71	3.80*	0.41	261 / 0.4	112 / −0.08	2.79	—
	Engineering	264 / 0.39	376 / 0.29	0.89	—	264 / −0.06	376 / −0.1	0.33	—	261 / 0.4	375 / 0.38	0.16	—
	Health adm. & assist.	264 / 0.39	83 / 0.38	0.05	—	264 / −0.06	83 / −0.32	1.30	—	261 / 0.4	82 / 0.49	−0.44	—
	Health sci. & tech	264 / 0.39	512 / 0.26	1.26	—	264 / −0.06	512 / −0.28	1.82	—	261 / 0.4	507 / 0.18	2.05	—
	Soc. sci. & law	264 / 0.39	284 / 0.09	2.59	—	264 / −0.06	284 / −0.6	3.87*	0.32	261 / 0.4	284 / −0.07	3.78*	0.33
	Undecided	264 / 0.39	714 / 0.15	2.43	—	264 / −0.06	714 / −0.34	2.47	—	261 / 0.4	706 / 0.15	2.37	—
Comp. sci. & math	Education	200 / −0.07	114 / 0.12	−1.17	—	200 / −0.06	114 / −0.71	3.62	—	199 / 0.48	112 / −0.08	3.07	—
	Engineering	200 / −0.07	376 / 0.29	−2.84	—	200 / −0.06	376 / −0.1	0.29	—	199 / 0.48	375 / 0.38	0.71	—
	Health adm. & assist.	200 / −0.07	83 / 0.38	−2.78	—	200 / −0.06	83 / −0.32	1.24	—	199 / 0.48	82 / 0.49	−0.06	—
	Health sci. & tech	200 / −0.07	512 / 0.26	−2.78	—	200 / −0.06	512 / −0.28	1.64	—	199 / 0.48	507 / 0.18	2.44	—
	Soc. sci. & law	200 / −0.07	284 / 0.09	−1.08	—	200 / −0.06	284 / −0.6	3.60	—	199 / 0.48	284 / −0.07	4.00*	0.39
	Undecided	200 / −0.07	714 / 0.15	−1.91	—	200 / −0.06	714 / −0.34	2.22	—	199 / 0.48	706 / 0.15	2.72	—
Education	Engineering	114 / 0.12	376 / 0.29	−1.22	—	114 / −0.71	376 / −0.1	−3.70	—	112 / −0.08	375 / 0.38	−2.81	—
	Health adm. & assist.	114 / 0.12	83 / 0.38	−1.51	—	114 / −0.71	83 / −0.32	−1.76	—	112 / −0.08	82 / 0.49	−2.5	—
	Health sci. & tech	114 / 0.12	512 / 0.26	−1.07	—	114 / −0.71	512 / −0.28	−2.81	—	112 / −0.08	507 / 0.18	−1.61	—
	Soc. sci. & law	114 / 0.12	284 / 0.09	0.28	—	114 / −0.71	284 / −0.6	−0.64	—	112 / −0.08	284 / −0.07	−0.07	—
	Undecided	114 / 0.12	714 / 0.15	−0.26	—	114 / −0.71	714 / −0.34	−2.41	—	112 / −0.08	706 / 0.15	−1.47	—
Engineering	Health adm. & assist.	376 / 0.29	83 / 0.38	−0.64	—	376 / −0.1	83 / −0.32	1.11	—	375 / 0.38	82 / 0.49	−0.56	—
	Health sci. & tech	376 / 0.29	512 / 0.26	0.33	—	376 / −0.1	512 / −0.28	1.59	—	375 / 0.38	507 / 0.18	2.12	—
	Soc. sci. & law	376 / 0.29	284 / 0.09	1.94	—	376 / −0.1	284 / −0.6	3.79*	0.30	375 / 0.38	284 / −0.07	3.98*	0.32
	Undecided	376 / 0.29	714 / 0.15	1.64	—	376 / −0.1	714 / −0.34	2.30	—	375 / 0.38	706 / 0.15	2.49	—
Health adm. & assist.	Health sci. & tech	83 / 0.38	512 / 0.26	0.89	—	83 / −0.32	512 / −0.28	−0.23	—	82 / 0.49	507 / 0.18	1.70	—
	Soc. sci. & law	83 / 0.38	284 / 0.09	2.03	—	83 / −0.32	284 / −0.6	1.41	—	82 / 0.49	284 / −0.07	2.88	—
	Undecided	83 / 0.38	714 / 0.15	1.74	—	83 / −0.32	714 / −0.34	0.14	—	82 / 0.49	706 / 0.15	1.86	—
Health sci. & tech	Soc. sci. & law	512 / 0.26	284 / 0.09	1.83	—	512 / −0.28	284 / −0.6	2.73	—	507 / 0.18	284 / −0.07	2.33	—
	Undecided	512 / 0.26	714 / 0.15	1.52	—	512 / −0.28	714 / −0.34	0.77	—	507 / 0.18	706 / 0.15	0.31	—
Soc. sci. & law	Undecided	284 / 0.09	714 / 0.15	−0.77	—	284 / −0.6	714 / −0.34	−2.22	—	284 / −0.07	706 / 0.15	−2.17	—

Note. The statistical significance of the test statistic (F) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The n-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are provided only for statistically significant comparisons.

Table A6. Comparison Statistics for Aspects of AI, by Gender

Aspect of AI	Female		Male		*t*	*d*
	n	Mean	*n*	Mean		
Provides inaccurate or accurate information	2,364	0.41	1,384	0.84	−8.61***	−0.30
Cannot or can be trusted	2,364	−0.18	1,384	0.33	−9.79***	−0.34
Will take jobs away or create jobs	2,294	−1.04	1,353	−0.75	−5.98***	−0.21
Will make it harder or easier for me to find a job	2,294	−0.63	1,353	−0.35	−5.73***	−0.20
Will perpetuate or reduce discrimination	2,186	0.04	1,317	0.28	−5.04***	−0.18
Will negatively or positively affect society overall	2,186	−0.62	1,317	0.05	−11.76***	−0.43
Will negatively or positively affect my life overall	2,169	−0.06	1,306	0.49	−10.79***	−0.38

Note. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the comparison tests is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$.

Table A7. Knowing How to Use AI and Perspectives on College Preparedness

Response	Knowing how to use AI will help prepare me for a college major/degree program		Knowing how to use AI will give me an advantage when applying to colleges and/or universities		Knowing how to use AI will be important in my planned college major/degree program	
	n	%	*n*	%	*n*	%
Strongly disagree	393	13.9	457	16.2	580	20.6
Moderately disagree	323	11.4	311	11.0	421	14.9
Slightly disagree	404	14.2	463	15.9	517	17.8
Slightly agree	930	31.5	873	30.2	758	26.0
Moderately agree	518	17.2	468	15.5	323	10.7
Strongly agree	355	11.7	344	11.2	306	9.9
Total	2,923	—	2,916	—	2,905	—

Note. The percentages in this table are weighted to reflect the sampling design. The *n*-counts are unweighted.

Table A8. Comparison Statistics for Knowing How to Use AI and Perspectives on College Preparedness, by Amount of Training in High School in How to Use AI

		Amount of training in high school in how to use AI											
		None (1)		Only a little (2)		A moderate amount or a lot (3)		*q*			*d*		
Knowing how to use AI will . . .	*F*	*n*	Mean	*n*	Mean	*n*	Mean	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3
Help prepare me for a college major/degree program	49.30***	1,993	3.44	681	3.92	249	4.24	−7.60***	−7.72***	−2.90	−0.32	−0.52	—
Give me an advantage when applying for college major/degree programs	31.15***	1,987	3.37	680	3.73	249	4.06	−5.46***	−6.64***	−2.97*	−0.23	−0.44	−0.23
Be important in my planned college major/degree program	30.17***	1,982	3.07	675	3.45	248	3.73	−5.65***	−6.27***	−2.44	−0.24	−0.41	—

Note. The statistical significance of the test statistic (*F*) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are provided only for statistically significant comparisons.

Table A9. Comparison Statistics for Knowing How to Use AI and Perspectives on College Preparedness, by Planned College Major

Major 1	Major 2	Knowing how to use AI will …											
		Help prepare me for a college major/degree program (F = 5.63***)				Give me an advantage when applying for college major/degree programs (F = 7.14***)				Be important in my planned college major/degree program (F = 13.52***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Agriculture	Architecture	33 / 3.48	43 / 3.28	0.59	—	33 / 3.17	43 / 3.23	−0.18	—	33 / 2.80	43 / 3.26	−1.34	—
	Arts	33 / 3.48	124 / 3.10	1.23	—	33 / 3.17	124 / 2.81	1.20	—	33 / 2.80	123 / 2.51	0.98	—
	Biol. & phys. sci.	33 / 3.48	353 / 3.33	0.53	—	33 / 3.17	352 / 3.21	−0.16	—	33 / 2.80	351 / 2.90	−0.38	—
	Business	33 / 3.48	203 / 4.00	−1.82	—	33 / 3.17	202 / 3.89	−2.53	—	33 / 2.80	202 / 3.69	−3.24	—
	Comp. sci. & math	33 / 3.48	168 / 4.05	−1.94	—	33 / 3.17	167 / 3.97	−2.81	—	33 / 2.80	167 / 4.30	−5.29***	−0.98
	Education	33 / 3.48	98 / 3.41	0.25	—	33 / 3.17	98 / 3.27	−0.34	—	33 / 2.80	97 / 2.99	−0.67	—
	Engineering	33 / 3.48	317 / 3.81	−1.16	—	33 / 3.17	317 / 3.60	−1.57	—	33 / 2.80	316 / 3.43	−2.33	—
	Health adm. & assist.	33 / 3.48	65 / 3.42	0.20	—	33 / 3.17	65 / 3.28	−0.36	—	33 / 2.80	65 / 3.04	−0.78	—
	Health sci. & tech	33 / 3.48	433 / 3.65	−0.61	—	33 / 3.17	431 / 3.69	−1.91	—	33 / 2.80	429 / 3.20	−1.51	—
	Soc. sci. & law	33 / 3.48	250 / 3.55	−0.25	—	33 / 3.17	249 / 3.46	−0.99	—	33 / 2.80	247 / 2.94	−0.50	—
	Undecided	33 / 3.48	544 / 3.64	−0.60	—	33 / 3.17	544 / 3.54	−1.41	—	33 / 2.80	544 / 3.15	−1.35	—
Architecture	Arts	43 / 3.28	124 / 3.10	0.66	—	43 / 3.23	124 / 2.81	1.49	—	43 / 3.26	123 / 2.51	2.74	—
	Biol. & phys. sci.	43 / 3.28	353 / 3.33	−0.24	—	43 / 3.23	352 / 3.21	0.07	—	43 / 3.26	351 / 2.90	1.45	—
	Business	43 / 3.28	203 / 4.00	−2.99	—	43 / 3.23	202 / 3.89	−2.46	—	43 / 3.26	202 / 3.69	−1.66	—
	Comp. sci. & math	43 / 3.28	168 / 4.05	−3.09	—	43 / 3.23	167 / 3.97	−2.75	—	43 / 3.26	167 / 4.30	−3.89*	−0.67
	Education	43 / 3.28	98 / 3.41	−0.49	—	43 / 3.23	98 / 3.27	−0.14	—	43 / 3.26	97 / 2.99	0.95	—
	Engineering	43 / 3.28	317 / 3.81	−2.25	—	43 / 3.23	317 / 3.60	−1.43	—	43 / 3.26	316 / 3.43	−0.66	—
	Health adm. & assist.	43 / 3.28	65 / 3.42	−0.48	—	43 / 3.23	65 / 3.28	−0.17	—	43 / 3.26	65 / 3.04	0.76	—
	Health sci. & tech	43 / 3.28	433 / 3.65	−1.60	—	43 / 3.23	431 / 3.69	−1.80	—	43 / 3.26	429 / 3.20	0.25	—
	Soc. sci. & law	43 / 3.28	250 / 3.55	−1.13	—	43 / 3.23	249 / 3.46	−0.82	—	43 / 3.26	247 / 2.94	1.27	—
	Undecided	43 / 3.28	544 / 3.64	−1.60	—	43 / 3.23	544 / 3.54	−1.26	—	43 / 3.26	544 / 3.15	0.45	—
Arts	Biol. & phys. sci.	124 / 3.10	353 / 3.33	−1.35	—	124 / 2.81	352 / 3.21	−2.42	—	123 / 2.51	351 / 2.90	−2.37	—
	Business	124 / 3.10	203 / 4.00	−4.92***	−0.59	124 / 2.81	202 / 3.89	−6.00***	−0.68	123 / 2.51	202 / 3.69	−6.67***	−0.75
	Comp. sci. & math	124 / 3.10	168 / 4.05	−4.92***	−0.61	124 / 2.81	167 / 3.97	−6.32***	−0.78	123 / 2.51	167 / 4.30	−9.42***	−1.15
	Education	124 / 3.10	98 / 3.41	−1.46	—	124 / 2.81	98 / 3.27	−2.21	—	123 / 2.51	97 / 2.99	−2.33	—
	Engineering	124 / 3.10	317 / 3.81	−4.05*	−0.46	124 / 2.81	317 / 3.60	−4.72**	−0.51	123 / 2.51	316 / 3.43	−5.50***	−0.60
	Health adm. & assist.	124 / 3.10	65 / 3.42	−1.31	—	124 / 2.81	65 / 3.28	−2.08	—	123 / 2.51	65 / 3.04	−2.34	—
	Health sci. & tech	124 / 3.10	433 / 3.65	−3.25	—	124 / 2.81	431 / 3.69	−5.48***	−0.57	123 / 2.51	429 / 3.20	−4.34**	−0.45
	Soc. sci. & law	124 / 3.10	250 / 3.55	−2.47	—	124 / 2.81	249 / 3.46	−3.64	—	123 / 2.51	247 / 2.94	−2.42	—
	Undecided	124 / 3.10	544 / 3.64	−3.29	—	124 / 2.81	544 / 3.54	−4.7**	−0.47	123 / 2.51	544 / 3.15	−4.13*	−0.42

Major 1	Major 2	Knowing how to use AI will …											
		Help prepare me for a college major/degree program (F = 5.63***)				Give me an advantage when applying for college major/degree programs (F = 7.14***)				Be important in my planned college major/degree program (F = 13.52***)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Biol. & phys. sci.	Business	353 / 3.33	203 / 4.00	−5.05***	−0.45	352 / 3.21	202 / 3.89	−4.86***	−0.44	351 / 2.90	202 / 3.69	−5.76***	−0.51
	Comp. sci. & math	353 / 3.33	168 / 4.05	−4.93***	−0.49	352 / 3.21	167 / 3.97	−5.25***	−0.50	351 / 2.90	167 / 4.30	−9.09***	−0.91
	Education	353 / 3.33	98 / 3.41	−0.44	—	352 / 3.21	98 / 3.27	−0.33	—	351 / 2.90	97 / 2.99	−0.55	—
	Engineering	353 / 3.33	317 / 3.81	−3.96*	−0.32	352 / 3.21	317 / 3.60	−3.16	—	351 / 2.90	316 / 3.43	−4.26*	−0.35
	Health adm. & assist.	353 / 3.33	65 / 3.42	−0.41	—	352 / 3.21	65 / 3.28	−0.35	—	351 / 2.90	65 / 3.04	−0.72	—
	Health sci. & tech	353 / 3.33	433 / 3.65	−2.84	—	352 / 3.21	431 / 3.69	−4.21*	−0.31	351 / 2.90	429 / 3.20	−2.65	—
	Soc. sci. & law	353 / 3.33	250 / 3.55	−1.66	—	352 / 3.21	249 / 3.46	−1.77	—	351 / 2.90	247 / 2.94	−0.26	—
	Undecided	353 / 3.33	544 / 3.64	−2.94	—	352 / 3.21	544 / 3.54	−3.11	—	351 / 2.90	544 / 3.15	−2.34	—
Business	Comp. sci. & math	203 / 4.00	168 / 4.05	−0.3	—	202 / 3.89	167 / 3.97	−0.55	—	202 / 3.69	167 / 4.30	−3.64	—
	Education	203 / 4.00	98 / 3.41	3.38	—	202 / 3.89	98 / 3.27	3.29	—	202 / 3.69	97 / 2.99	3.71	—
	Engineering	203 / 4.00	317 / 3.81	1.44	—	202 / 3.89	317 / 3.60	2.03	—	202 / 3.69	316 / 3.43	1.88	—
	Health adm. & assist.	203 / 4.00	65 / 3.42	2.76	—	202 / 3.89	65 / 3.28	2.92	—	202 / 3.69	65 / 3.04	3.15	—
	Health sci. & tech	203 / 4.00	433 / 3.65	2.76	—	202 / 3.89	431 / 3.69	1.50	—	202 / 3.69	429 / 3.20	3.74	—
	Soc. sci. & law	203 / 4.00	250 / 3.55	3.11	—	202 / 3.89	249 / 3.46	2.94	—	202 / 3.69	247 / 2.94	5.00***	0.47
	Undecided	203 / 4.00	544 / 3.64	2.90	—	202 / 3.89	544 / 3.54	2.65	—	202 / 3.69	544 / 3.15	4.26*	0.35
Comp. sci. & math	Education	168 / 4.05	98 / 3.41	3.45	—	167 / 3.97	98 / 3.27	3.67	—	167 / 4.30	97 / 2.99	6.54***	0.84
	Engineering	168 / 4.05	317 / 3.81	1.63	—	167 / 3.97	317 / 3.60	2.54	—	167 / 4.30	316 / 3.43	5.58***	0.57
	Health adm. & assist.	168 / 4.05	65 / 3.42	2.87	—	167 / 3.97	65 / 3.28	3.27	—	167 / 4.30	65 / 3.04	5.78***	0.84
	Health sci. & tech	168 / 4.05	433 / 3.65	2.83	—	167 / 3.97	431 / 3.69	2.06	—	167 / 4.30	429 / 3.20	7.41***	0.72
	Soc. sci. & law	168 / 4.05	250 / 3.55	3.17	—	167 / 3.97	249 / 3.46	3.40	—	167 / 4.30	247 / 2.94	8.21***	0.85
	Undecided	168 / 4.05	544 / 3.64	2.95	—	167 / 3.97	544 / 3.54	3.17	—	167 / 4.30	544 / 3.15	7.96***	0.75
Education	Engineering	98 / 3.41	317 / 3.81	−2.41	—	98 / 3.27	317 / 3.60	−1.88	—	97 / 2.99	316 / 3.43	−2.43	—
	Health adm. & assist.	98 / 3.41	65 / 3.42	−0.04	—	98 / 3.27	65 / 3.28	−0.05	—	97 / 2.99	65 / 3.04	−0.19	—
	Health sci. & tech	98 / 3.41	433 / 3.65	−1.51	—	98 / 3.27	431 / 3.69	−2.48	—	97 / 2.99	429 / 3.20	−1.19	—
	Soc. sci. & law	98 / 3.41	250 / 3.55	−0.83	—	98 / 3.27	249 / 3.46	−0.96	—	97 / 2.99	247 / 2.94	0.33	—
	Undecided	98 / 3.41	544 / 3.64	−1.52	—	98 / 3.27	544 / 3.54	−1.67	—	97 / 2.99	544 / 3.15	−0.93	—
Engineering	Health adm. & assist.	317 / 3.81	65 / 3.42	1.91	—	317 / 3.60	65 / 3.28	1.62	—	316 / 3.43	65 / 3.04	1.95	—
	Health sci. & tech	317 / 3.81	433 / 3.65	1.38	—	317 / 3.60	431 / 3.69	−0.76	—	316 / 3.43	429 / 3.20	1.94	—
	Soc. sci. & law	317 / 3.81	250 / 3.55	1.92	—	317 / 3.60	249 / 3.46	1.14	—	316 / 3.43	247 / 2.94	3.54	—
	Undecided	317 / 3.81	544 / 3.64	1.48	—	317 / 3.60	544 / 3.54	0.48	—	316 / 3.43	544 / 3.15	2.47	—
Health adm. & assist.	Health sci. & tech	65 / 3.42	433 / 3.65	−1.17	—	65 / 3.28	431 / 3.69	−2.13	—	65 / 3.04	429 / 3.20	−0.83	—
	Soc. sci. & law	65 / 3.42	250 / 3.55	−0.64	—	65 / 3.28	249 / 3.46	−0.81	—	65 / 3.04	247 / 2.94	0.51	—
	Undecided	65 / 3.42	544 / 3.64	−1.16	—	65 / 3.28	544 / 3.54	−1.42	—	65 / 3.04	544 / 3.15	−0.59	—

Major 1	Major 2	Knowing how to use AI will …											
		Help prepare me for a college major/degree program ($F = 5.63^{***}$)				Give me an advantage when applying for college major/degree programs ($F = 7.14^{***}$)				Be important in my planned college major/degree program ($F = 13.52^{***}$)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Health sci. & tech	Soc. sci. & law	433 / 3.65	250 / 3.55	0.78	—	431 / 3.69	249 / 3.46	1.92	—	429 / 3.20	247 / 2.94	2.04	—
	Undecided	433 / 3.65	544 / 3.64	0.04	—	431 / 3.69	544 / 3.54	1.42	—	429 / 3.20	544 / 3.15	0.48	—
Soc. sci. & law	Undecided	250 / 3.55	544 / 3.64	−0.78	—	249 / 3.46	544 / 3.54	−0.83	—	247 / 2.94	544 / 3.15	−1.73	—

Note. The statistical significance of the test statistic (*F*) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are provided only for statistically significant comparisons.

Table A10. Comparison Statistics for Knowing How to Use AI and Perspectives on College Preparedness, by Gender

Knowing how to use AI will …	Female		Male			
	n	Mean	*n*	Mean	*t*	*d*
Help prepare me for a college major/degree program	1,811	3.47	1,060	3.90	−7.24***	−0.28
Give me an advantage when applying for college major/degree programs	1,811	3.36	1,053	3.83	−7.75***	−0.30
Be important in my planned college major/degree program	1,802	3.02	1,051	3.57	−8.87***	−0.35

Note. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the comparison tests is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$.

Table A11. Skills Improved by Using AI Tools

Response	By using AI tools, I have improved my . . .									
	Communication skills		Problem-solving skills		Critical thinking skills		Creativity		Organization skills	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Strongly disagree	282	20.3	257	18.5	302	21.9	307	22.0	244	17.6
Moderately disagree	221	15.5	187	13.3	196	13.9	181	12.9	157	11.1
Slightly disagree	273	18.8	224	15.2	293	20.1	231	15.6	250	17.4
Slightly agree	389	27.3	425	30.0	371	25.7	370	26.0	425	30.1
Moderately agree	169	11.7	223	15.5	167	11.6	208	14.5	190	13.0
Strongly agree	95	6.4	111	7.5	98	6.7	131	9.0	159	10.8
Total	1,429	—	1,427	—	1,427	—	1,428	—	1,425	—

Note. The percentages in this table are weighted to reflect the sampling design. The *n*-counts are unweighted.

Table A12. Skills Improved by Using AI Tools, by AI Training in High School

		Amount of training in high school in how to use AI											
		None (1)		Only a little (2)		A moderate amount or a lot (3)		*q*			*d*		
Skill	*F*	*n*	Mean	*n*	Mean	*n*	Mean	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3
Communication	7.87**	902	3.03	366	3.23	162	3.53	−2.13	−3.74**	−2.13	—	−0.32	—
Problem-solving	13.14***	902	3.19	365	3.48	161	3.80	−3.01*	−4.72***	−2.30	−0.19	−0.39	—
Critical thinking	18.84***	901	2.96	365	3.23	162	3.74	−2.97*	−5.89***	−3.53*	−0.18	−0.51	−0.35
Creativity	7.36**	901	3.14	366	3.33	162	3.66	−1.91	−3.67**	−2.17	—	−0.32	—
Organization	9.69***	899	3.32	365	3.48	162	3.89	−1.66	−4.36***	−2.89*	—	−0.36	−0.28

Note. The statistical significance of the test statistic (*F*) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are provided only for statistically significant comparisons.

Table A13. Comparison Statistics for Skills Improved by Using AI Tools, by Planned College Major

Major 1	Major 2	Communication skills (*F* = 1.86)				Problem-solving skills (*F* = 1.87)				Critical thinking skills (*F* = 1.80)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Agriculture	Architecture	17 / 2.89	23 / 2.89	0.00	—	17 / 3.17	23 / 2.73	0.87	—	17 / 3.09	23 / 2.59	1.03	—
	Arts	17 / 2.89	45 / 2.86	0.05	—	17 / 3.17	45 / 2.94	0.49	—	17 / 3.09	45 / 2.61	1.08	—
	Biol. & phys. sci.	17 / 2.89	159 / 2.73	0.35	—	17 / 3.17	159 / 3.20	−0.06	—	17 / 3.09	159 / 3.00	0.22	—
	Business	17 / 2.89	118 / 3.35	−1.03	—	17 / 3.17	119 / 3.61	−0.97	—	17 / 3.09	119 / 3.30	−0.49	—
	Comp. sci. & math	17 / 2.89	87 / 3.08	−0.43	—	17 / 3.17	87 / 3.38	−0.45	—	17 / 3.09	87 / 3.12	−0.06	—
	Education	17 / 2.89	42 / 3.23	−0.72	—	17 / 3.17	42 / 3.19	−0.04	—	17 / 3.09	42 / 2.88	0.48	—
	Engineering	17 / 2.89	155 / 3.25	−0.82	—	17 / 3.17	155 / 3.38	−0.47	—	17 / 3.09	156 / 3.08	0.03	—
	Health adm. & assist.	17 / 2.89	34 / 3.09	−0.40	—	17 / 3.17	34 / 3.21	−0.08	—	17 / 3.09	34 / 2.86	0.48	—
	Health sci. & tech	17 / 2.89	220 / 3.31	−0.97	—	17 / 3.17	218 / 3.50	−0.75	—	17 / 3.09	219 / 3.32	−0.55	—
	Soc. sci. & law	17 / 2.89	113 / 3.02	−0.29	—	17 / 3.17	113 / 3.07	0.24	—	17 / 3.09	112 / 2.96	0.33	—
	Undecided	17 / 2.89	262 / 3.13	−0.55	—	17 / 3.17	262 / 3.44	−0.61	—	17 / 3.09	261 / 3.21	−0.28	—
Architecture	Arts	23 / 2.89	45 / 2.86	0.06	—	23 / 2.73	45 / 2.94	−0.61	—	23 / 2.59	45 / 2.61	−0.06	—
	Biol. & phys. sci.	23 / 2.89	159 / 2.73	0.42	—	23 / 2.73	159 / 3.20	−1.51	—	23 / 2.59	159 / 3.00	−1.30	—
	Business	23 / 2.89	118 / 3.35	−1.20	—	23 / 2.73	119 / 3.61	−2.71	—	23 / 2.59	119 / 3.30	−2.16	—
	Comp. sci. & math	23 / 2.89	87 / 3.08	−0.50	—	23 / 2.73	87 / 3.38	−1.93	—	23 / 2.59	87 / 3.12	−1.56	—
	Education	23 / 2.89	42 / 3.23	−0.82	—	23 / 2.73	42 / 3.19	−1.28	—	23 / 2.59	42 / 2.88	−0.78	—
	Engineering	23 / 2.89	155 / 3.25	−0.96	—	23 / 2.73	155 / 3.38	−2.09	—	23 / 2.59	156 / 3.08	−1.56	—
	Health adm. & assist.	23 / 2.89	34 / 3.09	−0.45	—	23 / 2.73	34 / 3.21	−1.24	—	23 / 2.59	34 / 2.86	−0.70	—
	Health sci. & tech	23 / 2.89	220 / 3.31	−1.15	—	23 / 2.73	218 / 3.50	−2.56	—	23 / 2.59	219 / 3.32	−2.38	—
	Soc. sci. & law	23 / 2.89	113 / 3.02	−0.34	—	23 / 2.73	113 / 3.07	−1.04	—	23 / 2.59	112 / 2.96	−1.12	—
	Undecided	23 / 2.89	262 / 3.13	−0.65	—	23 / 2.73	262 / 3.44	−2.38	—	23 / 2.59	261 / 3.21	−2.04	—
Arts	Biol. & phys. sci.	45 / 2.86	159 / 2.73	0.52	—	45 / 2.94	159 / 3.20	−1.09	—	45 / 2.61	159 / 3.00	−1.61	—
	Business	45 / 2.86	118 / 3.35	−1.84	—	45 / 2.94	119 / 3.61	−2.60	—	45 / 2.61	119 / 3.30	−2.67	—
	Comp. sci. & math	45 / 2.86	87 / 3.08	−0.80	—	45 / 2.94	87 / 3.38	−1.62	—	45 / 2.61	87 / 3.12	−1.87	—
	Education	45 / 2.86	42 / 3.23	−1.18	—	45 / 2.94	42 / 3.19	−0.83	—	45 / 2.61	42 / 2.88	−0.87	—
	Engineering	45 / 2.86	155 / 3.25	−1.56	—	45 / 2.94	155 / 3.38	−1.84	—	45 / 2.61	156 / 3.08	−1.96	—
	Health adm. & assist.	45 / 2.86	34 / 3.09	−0.67	—	45 / 2.94	34 / 3.21	−0.82	—	45 / 2.61	34 / 2.86	−0.76	—
	Health sci. & tech	45 / 2.86	220 / 3.31	−1.88	—	45 / 2.94	218 / 3.50	−2.48	—	45 / 2.61	219 / 3.32	−3.09	—
	Soc. sci. & law	45 / 2.86	113 / 3.02	−0.60	—	45 / 2.94	113 / 3.07	−0.49	—	45 / 2.61	112 / 2.96	−1.35	—
	Undecided	45 / 2.86	262 / 3.13	−1.12	—	45 / 2.94	262 / 3.44	−2.25	—	45 / 2.61	261 / 3.21	−2.67	—
Biol. & phys. sci.	Business	159 / 2.73	118 / 3.35	−3.17	—	159 / 3.20	119 / 3.61	−2.03	—	159 / 3.00	119 / 3.30	−1.45	—
	Comp. sci. & math	159 / 2.73	87 / 3.08	−1.69	—	159 / 3.20	87 / 3.38	−0.82	—	159 / 3.00	87 / 3.12	−0.53	—
	Education	159 / 2.73	42 / 3.23	−1.94	—	159 / 3.20	42 / 3.19	0.02	—	159 / 3.00	42 / 2.88	0.49	—

Major 1	Major 2	Communication skills (F = 1.86)				Problem-solving skills (F = 1.87)				Critical thinking skills (F = 1.80)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
	Engineering	159 / 2.73	155 / 3.25	−3.03	—	159 / 3.20	155 / 3.38	−1.01	—	159 / 3.00	156 / 3.08	−0.43	—
	Health adm. & assist.	159 / 2.73	34 / 3.09	−1.24	—	159 / 3.20	34 / 3.21	−0.05	—	159 / 3.00	34 / 2.86	0.47	—
	Health sci. & tech	159 / 2.73	220 / 3.31	−3.69	—	159 / 3.20	218 / 3.50	−1.87	—	159 / 3.00	219 / 3.32	−1.89	—
	Soc. sci. & law	159 / 2.73	113 / 3.02	−1.53	—	159 / 3.20	113 / 3.07	0.68	—	159 / 3.00	112 / 2.96	0.25	—
	Undecided	159 / 2.73	262 / 3.13	−2.58	—	159 / 3.20	262 / 3.44	−1.55	—	159 / 3.00	261 / 3.21	−1.28	—
Business	Comp. sci. & math	118 / 3.35	87 / 3.08	1.18	—	119 / 3.61	87 / 3.38	0.96	—	119 / 3.30	87 / 3.12	0.76	—
	Education	118 / 3.35	42 / 3.23	0.42	—	119 / 3.61	42 / 3.19	1.50	—	119 / 3.30	42 / 2.88	1.56	—
	Engineering	118 / 3.35	155 / 3.25	0.52	—	119 / 3.61	155 / 3.38	1.13	—	119 / 3.30	156 / 3.08	1.08	—
	Health adm. & assist.	118 / 3.35	34 / 3.09	0.87	—	119 / 3.61	34 / 3.21	1.29	—	119 / 3.30	34 / 2.86	1.42	—
	Health sci. & tech	118 / 3.35	220 / 3.31	0.22	—	119 / 3.61	218 / 3.50	0.59	—	119 / 3.30	219 / 3.32	−0.09	—
	Soc. sci. & law	118 / 3.35	113 / 3.02	1.61	—	119 / 3.61	113 / 3.07	2.48	—	119 / 3.30	112 / 2.96	1.61	—
	Undecided	118 / 3.35	262 / 3.13	1.25	—	119 / 3.61	262 / 3.44	0.94	—	119 / 3.30	261 / 3.21	0.51	—
Comp. sci. & math	Education	87 / 3.08	42 / 3.23	−0.53	—	87 / 3.38	42 / 3.19	0.64	—	87 / 3.12	42 / 2.88	0.85	—
	Engineering	87 / 3.08	155 / 3.25	−0.80	—	87 / 3.38	155 / 3.38	0.00	—	87 / 3.12	156 / 3.08	0.17	—
	Health adm. & assist.	87 / 3.08	34 / 3.09	−0.02	—	87 / 3.38	34 / 3.21	0.52	—	87 / 3.12	34 / 2.86	0.80	—
	Health sci. & tech	87 / 3.08	220 / 3.31	−1.17	—	87 / 3.38	218 / 3.50	−0.57	—	87 / 3.12	219 / 3.32	−0.95	—
	Soc. sci. & law	87 / 3.08	113 / 3.02	0.30	—	87 / 3.38	113 / 3.07	1.34	—	87 / 3.12	112 / 2.96	0.72	—
	Undecided	87 / 3.08	262 / 3.13	−0.23	—	87 / 3.38	262 / 3.44	−0.28	—	87 / 3.12	261 / 3.21	−0.44	—
Education	Engineering	42 / 3.23	155 / 3.25	−0.06	—	42 / 3.19	155 / 3.38	−0.71	—	42 / 2.88	156 / 3.08	−0.81	—
	Health adm. & assist.	42 / 3.23	34 / 3.09	0.42	—	42 / 3.19	34 / 3.21	−0.05	—	42 / 2.88	34 / 2.86	0.03	—
	Health sci. & tech	42 / 3.23	220 / 3.31	−0.30	—	42 / 3.19	218 / 3.50	−1.23	—	42 / 2.88	219 / 3.32	−1.80	—
	Soc. sci. & law	42 / 3.23	113 / 3.02	0.81	—	42 / 3.19	113 / 3.07	0.48	—	42 / 2.88	112 / 2.96	−0.29	—
	Undecided	42 / 3.23	262 / 3.13	0.44	—	42 / 3.19	262 / 3.44	−0.99	—	42 / 2.88	261 / 3.21	−1.38	—
Engineering	Health adm. & assist.	155 / 3.25	34 / 3.09	0.56	—	155 / 3.38	34 / 3.21	0.57	—	156 / 3.08	34 / 2.86	0.74	—
	Health sci. & tech	155 / 3.25	220 / 3.31	−0.39	—	155 / 3.38	218 / 3.50	−0.74	—	156 / 3.08	219 / 3.32	−1.45	—
	Soc. sci. & law	155 / 3.25	113 / 3.02	1.26	—	155 / 3.38	113 / 3.07	1.59	—	156 / 3.08	112 / 2.96	0.66	—
	Undecided	155 / 3.25	262 / 3.13	0.80	—	155 / 3.38	262 / 3.44	−0.37	—	156 / 3.08	261 / 3.21	−0.81	—
Health adm. & assist.	Health sci. & tech	34 / 3.09	220 / 3.31	−0.80	—	34 / 3.21	218 / 3.50	−1.01	—	34 / 2.86	219 / 3.32	−1.60	—
	Soc. sci. & law	34 / 3.09	113 / 3.02	0.24	—	34 / 3.21	113 / 3.07	0.49	—	34 / 2.86	112 / 2.96	−0.29	—
	Undecided	34 / 3.09	262 / 3.13	−0.14	—	34 / 3.21	262 / 3.44	−0.80	—	34 / 2.86	261 / 3.21	−1.23	—
Health sci. & tech	Soc. sci. & law	220 / 3.31	113 / 3.02	1.71	—	218 / 3.50	113 / 3.07	2.39	—	219 / 3.32	112 / 2.96	2.02	—
	Undecided	220 / 3.31	262 / 3.13	1.35	—	218 / 3.50	262 / 3.44	0.45	—	219 / 3.32	261 / 3.21	0.80	—
Soc. sci. & law	Undecided	113 / 3.02	262 / 3.13	−0.65	—	113 / 3.07	262 / 3.44	−2.12	—	112 / 2.96	261 / 3.21	−1.46	—

Table A13 (continued). Comparison Statistics for Skills Improved by Using AI Tools, by Planned College Major

Major 1	Major 2	Creativity (F = 1.22)				Organization skills (F = 0.79)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
Agriculture	Architecture	17 / 2.95	23 / 2.59	0.71	—	17 / 3.11	23 / 3.18	−0.13	—
	Arts	17 / 2.95	45 / 3.09	−0.27	—	17 / 3.11	45 / 3.26	−0.31	—
	Biol. & phys. sci.	17 / 2.95	159 / 2.98	−0.05	—	17 / 3.11	159 / 3.22	−0.27	—
	Business	17 / 2.95	118 / 3.41	−1.01	—	17 / 3.11	116 / 3.61	−1.13	—
	Comp. sci. & math	17 / 2.95	87 / 3.21	−0.56	—	17 / 3.11	87 / 3.63	−1.15	—
	Education	17 / 2.95	42 / 3.24	−0.59	—	17 / 3.11	42 / 3.48	−0.78	—
	Engineering	17 / 2.95	156 / 3.31	−0.82	—	17 / 3.11	155 / 3.39	−0.65	—
	Health adm. & assist.	17 / 2.95	34 / 3.16	−0.40	—	17 / 3.11	34 / 3.64	−1.01	—
	Health sci. & tech	17 / 2.95	220 / 3.31	−0.83	—	17 / 3.11	220 / 3.50	−0.91	—
	Soc. sci. & law	17 / 2.95	112 / 3.21	−0.57	—	17 / 3.11	113 / 3.27	−0.38	—
	Undecided	17 / 2.95	262 / 3.36	−0.94	—	17 / 3.11	261 / 3.39	−0.67	—
Architecture	Arts	23 / 2.59	45 / 3.09	−1.33	—	23 / 3.18	45 / 3.26	−0.18	—
	Biol. & phys. sci.	23 / 2.59	159 / 2.98	−1.23	—	23 / 3.18	159 / 3.22	−0.12	—
	Business	23 / 2.59	118 / 3.41	−2.55	—	23 / 3.18	116 / 3.61	−1.13	—
	Comp. sci. & math	23 / 2.59	87 / 3.21	−1.82	—	23 / 3.18	87 / 3.63	−1.15	—
	Education	23 / 2.59	42 / 3.24	−1.73	—	23 / 3.18	42 / 3.48	−0.72	—
	Engineering	23 / 2.59	156 / 3.31	−2.35	—	23 / 3.18	155 / 3.39	−0.57	—
	Health adm. & assist.	23 / 2.59	34 / 3.16	−1.39	—	23 / 3.18	34 / 3.64	−0.97	—
	Health sci. & tech	23 / 2.59	220 / 3.31	−2.41	—	23 / 3.18	220 / 3.50	−0.88	—
	Soc. sci. & law	23 / 2.59	112 / 3.21	−1.94	—	23 / 3.18	113 / 3.27	−0.25	—
	Undecided	23 / 2.59	262 / 3.36	−2.60	—	23 / 3.18	261 / 3.39	−0.59	—
Arts	Biol. & phys. sci.	45 / 3.09	159 / 2.98	0.39	—	45 / 3.26	159 / 3.22	0.11	—
	Business	45 / 3.09	118 / 3.41	−1.10	—	45 / 3.26	116 / 3.61	−1.19	—
	Comp. sci. & math	45 / 3.09	87 / 3.21	−0.40	—	45 / 3.26	87 / 3.63	−1.20	—
	Education	45 / 3.09	42 / 3.24	−0.45	—	45 / 3.26	42 / 3.48	−0.65	—
	Engineering	45 / 3.09	156 / 3.31	−0.82	—	45 / 3.26	155 / 3.39	−0.47	—
	Health adm. & assist.	45 / 3.09	34 / 3.16	−0.19	—	45 / 3.26	34 / 3.64	−0.94	—
	Health sci. & tech	45 / 3.09	220 / 3.31	−0.84	—	45 / 3.26	220 / 3.50	−0.88	—
	Soc. sci. & law	45 / 3.09	112 / 3.21	−0.42	—	45 / 3.26	113 / 3.27	−0.05	—
	Undecided	45 / 3.09	262 / 3.36	−1.03	—	45 / 3.26	261 / 3.39	−0.50	—
Biol. & phys. sci.	Business	159 / 2.98	118 / 3.41	−2.05	—	159 / 3.22	116 / 3.61	−1.87	—
	Comp. sci. & math	159 / 2.98	87 / 3.21	−0.98	—	159 / 3.22	87 / 3.63	−1.78	—
	Education	159 / 2.98	42 / 3.24	−0.92	—	159 / 3.22	42 / 3.48	−0.92	—
	Engineering	159 / 2.98	156 / 3.31	−1.79	—	159 / 3.22	155 / 3.39	−0.87	—
	Health adm. & assist.	159 / 2.98	34 / 3.16	−0.56	—	159 / 3.22	34 / 3.64	−1.18	—

Major 1	Major 2	Creativity (F = 1.22)				Organization skills (F = 0.79)			
		Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*	Major 1 *n* / mean	Major 2 *n* / mean	*q*	*d*
	Health sci. & tech	159 / 2.98	220 / 3.31	−1.91	—	159 / 3.22	220 / 3.50	−1.59	—
	Soc. sci. & law	159 / 2.98	112 / 3.21	−1.12	—	159 / 3.22	113 / 3.27	−0.24	—
	Undecided	159 / 2.98	262 / 3.36	−2.25	—	159 / 3.22	261 / 3.39	−0.99	—
Business	Comp. sci. & math	118 / 3.41	87 / 3.21	0.77	—	116 / 3.61	87 / 3.63	−0.10	—
	Education	118 / 3.41	42 / 3.24	0.55	—	116 / 3.61	42 / 3.48	0.43	—
	Engineering	118 / 3.41	156 / 3.31	0.47	—	116 / 3.61	155 / 3.39	1.09	—
	Health adm. & assist.	118 / 3.41	34 / 3.16	0.73	—	116 / 3.61	34 / 3.64	−0.09	—
	Health sci. & tech	118 / 3.41	220 / 3.31	0.49	—	116 / 3.61	220 / 3.50	0.62	—
	Soc. sci. & law	118 / 3.41	112 / 3.21	0.92	—	116 / 3.61	113 / 3.27	1.63	—
	Undecided	118 / 3.41	262 / 3.36	0.27	—	116 / 3.61	261 / 3.39	1.23	—
Comp. sci. & math	Education	87 / 3.21	42 / 3.24	−0.10	—	87 / 3.63	42 / 3.48	0.48	—
	Engineering	87 / 3.21	156 / 3.31	−0.43	—	87 / 3.63	155 / 3.39	1.07	—
	Health adm. & assist.	87 / 3.21	34 / 3.16	0.14	—	87 / 3.63	34 / 3.64	−0.03	—
	Health sci. & tech	87 / 3.21	220 / 3.31	−0.45	—	87 / 3.63	220 / 3.50	0.65	—
	Soc. sci. & law	87 / 3.21	112 / 3.21	0.02	—	87 / 3.63	113 / 3.27	1.57	—
	Undecided	87 / 3.21	262 / 3.36	−0.66	—	87 / 3.63	261 / 3.39	1.18	—
Education	Engineering	42 / 3.24	156 / 3.31	−0.24	—	42 / 3.48	155 / 3.39	0.34	—
	Health adm. & assist.	42 / 3.24	34 / 3.16	0.21	—	42 / 3.48	34 / 3.64	−0.39	—
	Health sci. & tech	42 / 3.24	220 / 3.31	−0.25	—	42 / 3.48	220 / 3.50	−0.05	—
	Soc. sci. & law	42 / 3.24	112 / 3.21	0.13	—	42 / 3.48	113 / 3.27	0.75	—
	Undecided	42 / 3.24	262 / 3.36	−0.42	—	42 / 3.48	261 / 3.39	0.36	—
Engineering	Health adm. & assist.	156 / 3.31	34 / 3.16	0.46	—	155 / 3.39	34 / 3.64	−0.72	—
	Health sci. & tech	156 / 3.31	220 / 3.31	−0.01	—	155 / 3.39	220 / 3.50	−0.64	—
	Soc. sci. & law	156 / 3.31	112 / 3.21	0.53	—	155 / 3.39	113 / 3.27	0.62	—
	Undecided	156 / 3.31	262 / 3.36	−0.29	—	155 / 3.39	261 / 3.39	0.00	—
Health adm. & assist.	Health sci. & tech	34 / 3.16	220 / 3.31	−0.48	—	34 / 3.64	220 / 3.50	0.43	—
	Soc. sci. & law	34 / 3.16	112 / 3.21	−0.14	—	34 / 3.64	113 / 3.27	1.05	—
	Undecided	34 / 3.16	262 / 3.36	−0.63	—	34 / 3.64	261 / 3.39	0.74	—
Health sci. & tech	Soc. sci. & law	220 / 3.31	112 / 3.21	0.57	—	220 / 3.50	113 / 3.27	1.30	—
	Undecided	220 / 3.31	262 / 3.36	−0.30	—	220 / 3.50	261 / 3.39	0.78	—
Soc. sci. & law	Undecided	112 / 3.21	262 / 3.36	−0.84	—	113 / 3.27	261 / 3.39	−0.71	—

Note. The statistical significance of the test statistic (F) for each ANOVA model is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the multiple comparisons is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$. Effect sizes are not provided, because none of the comparisons were statistically significant.

Table A14. Comparison Statistics for Skills Improved by Using AI Tools, by Gender

Skill	Female		Male		*t*	*d*
	n	Mean	*n*	Mean		
Communication	834	3.02	574	3.34	−3.78**	−0.21
Problem-solving	833	3.16	573	3.64	−5.74***	−0.32
Critical thinking	833	2.99	573	3.34	−4.18***	−0.23
Creativity	834	3.14	573	3.45	−3.37**	−0.19
Organization	833	3.30	571	3.64	−4.02***	−0.22

Note. The *n*-counts in this table are unweighted. Means are weighted to reflect the sampling design. Statistical significance of the comparison tests is denoted by * $p < .01$, ** $p < .001$, or *** $p < .0001$.

ABOUT ACT

ACT is transforming college and career readiness pathways so that everyone can discover and fulfill their potential. Grounded in more than 65 years of research, ACT's learning resources, assessments, research, and work-ready credentials are trusted by students, job seekers, educators, schools, government agencies, and employers in the U.S. and around the world to help people achieve their education and career goals at every stage of life. Visit us at www.act.org.