Publisher's Note

AI and Academia: Student Perspectives and Ethical Implications

In this edition of _student_**POLL** we delve into the ever-evolving landscape of technology and its impact on higher education. More specifically, we focus on the growing presence of artificial intelligence (AI) and its implications for college-bound students.

As AI, particularly generative AI tools, become increasingly accessible, it's crucial for higher education to grasp how prospective students perceive and utilize these transformative technologies. Are generative AI tools becoming as ubiquitous as cellphones, seamlessly integrated into their academic experience? Are high school students relying on AI to complete homework assignments, or even guide their college search and application process? Moreover, are ethical considerations regarding AI use at the forefront of 17 to 18-year-olds' minds?

Last year, our research focused solely on ChatGPT, and this year we've broadened our view to include the most widely known generative AI tools available.

We found that most high school seniors intending to attend four-year colleges and universities as full-time students this fall are broadly familiar with (and many use) generative AI tools. Surprisingly, we found that over one-third of students are using generative AI for schoolwork, but just a fraction are using it for their college search efforts (writing essays, searching for scholarships or calculating chances of getting into certain schools). Additionally, and perhaps most intriguingly, we find that most college-bound students are concerned about the ethical use of generative AI tools, and many expect colleges and universities to educate future students on the proper utilization of these tools.

This _student_**POLL** is not simply a read on the landscape of new technologies, but a call to action to higher education leaders to (quickly) deliberate on, begin to train, and equip their faculty and staff with tools and resources that support an AI-enabled incoming student population that is only likely to continue to grow.

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In this issue of *student***POLL we will answer four main questions...**

1. How knowledgeable are college-bound students of generative AI?

2. How familiar are college-bound students with specific generative AI tools?

3. Which tools are being used, and by whom? And how are college-bound students using these AI tools for their high school academic experience and in their college-search process?

4. What expectations do college-bound students have of colleges' and universities' use of generative AI?

69%

of college-bound students have used generative AI tools

35%

are using these tools for schoolwork

8%

are using them in the college admissions process

~54%

expect that colleges are engaging in AI usage and education in some way

~72%

express significant concerns regarding the potential ethical and societal implications associated with AI tools

How knowledgeable are college-bound students with generative AI?

Analysis of survey responses revealed high levels of self-reported knowledge of generative AI among virtually all college-bound students.

Interestingly, though we did not find significant differences among subgroups across race, income, or first-generation status, significant differences were found across respondents' gender and academic performance – especially when looking at students who believe they are "very knowledgeable" of generative AI. Males (35%) were more likely to self-report a high level of knowledge than females (21%). And curiously, students with lower GPAs (less than 3.6) indicated greater knowledge of these tools than mid- and high-GPA students.

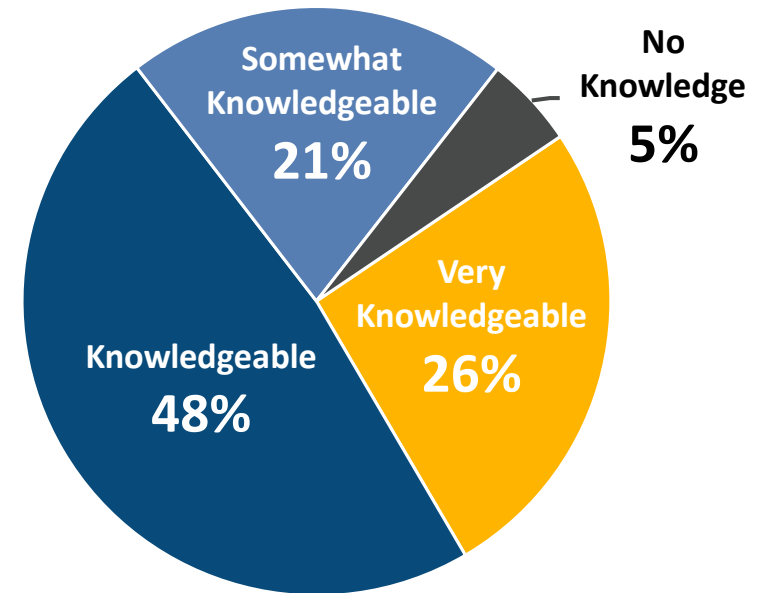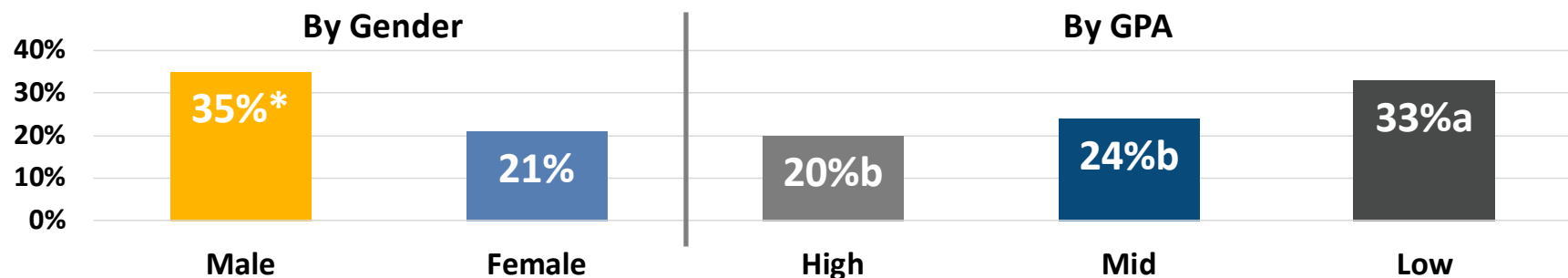**Chart 1: High schools students' self-reported knowledge of generative AI**

- Somewhat Knowledgeable 21%
- No Knowledge 5%
- Very Knowledgeable 26%
- Knowledgeable 48%

Chart 2: Notable subgroups differences among those that are "very knowledgeable" of generative AI

By Gender
- Male 35%*
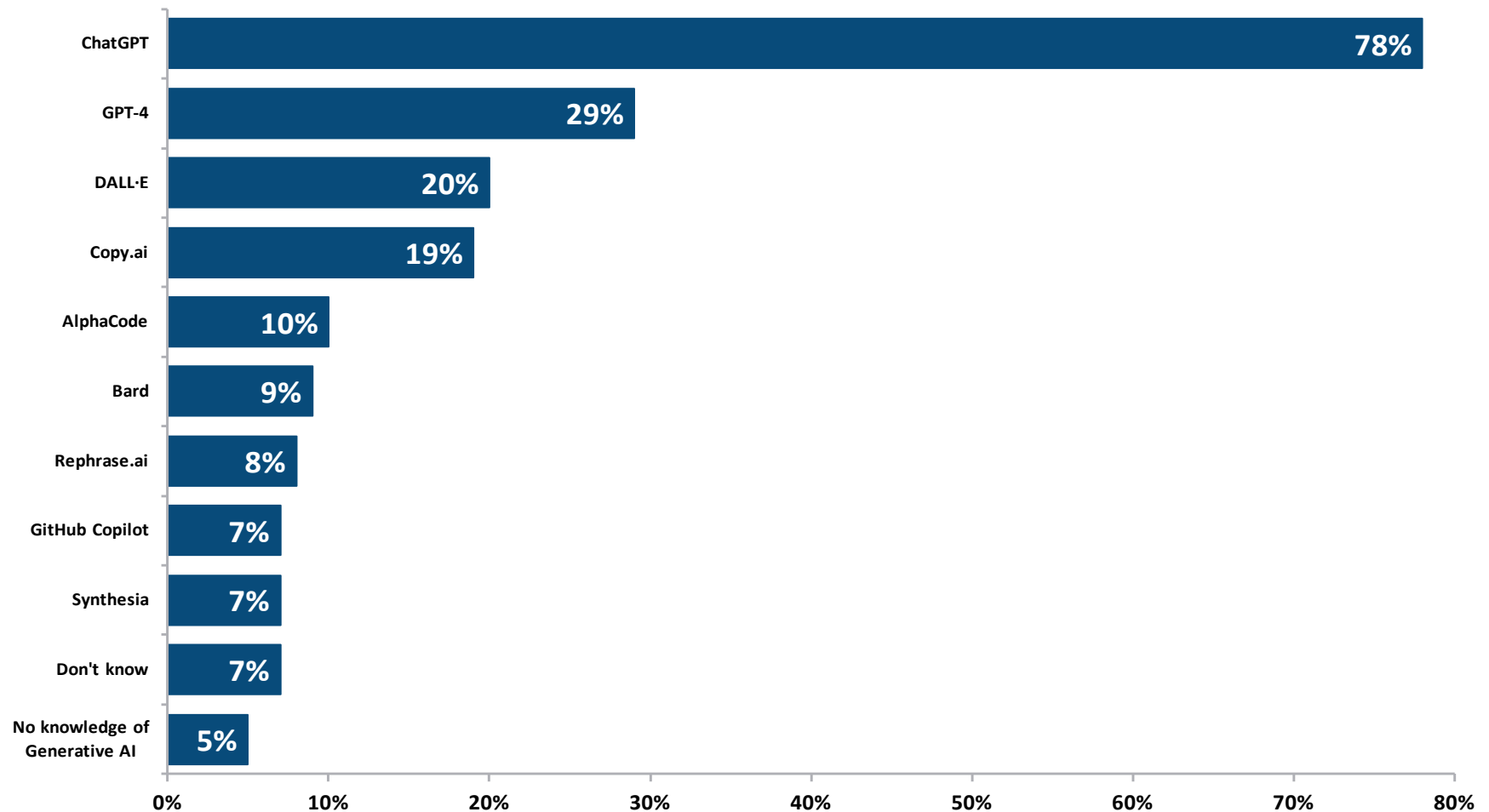- Female 21%

By GPA
- High 20%b
- Mid 24%b
- Low 33%a

Notes: The asterisk denotes a statistically significant difference between males and females. For GPA subgroups, those that share letters are statistically similar. High GPAs are 3.9+; mid GPAs are 3.6<3.9; and low GPAs are <3.6.

How familiar are college-bound students with specific generative AI tools?

College-bound students report varying levels of familiarity with some of the most known generative AI tools available today. ChatGPT unsurprisingly emerges as the most recognized tool, trailed by GPT-4 (Open AI's latest tool, more advanced than ChatGPT), DALL-E (which generates images based on text prompts), and Copy.ai (an AI tool used particularly for writing).

Chart 3: Most popular generative AI tools

Tool	Percentage
ChatGPT	78%
GPT-4	29%
DALL·E	20%
Copy.ai	19%
AlphaCode	10%
Bard	9%
Rephrase.ai	8%
GitHub Copilot	7%
Synthesia	7%
Don't know	7%
No knowledge of Generative AI	5%

Note: This chart only displays the generative AI tools where 5% or more of the surveyed student population had heard about it.

How familiar are college-bound students with specific generative AI tools? *(cont.)*

Chart 4: Differences among those who are somewhat to very familiar with ChatGPT by student quality
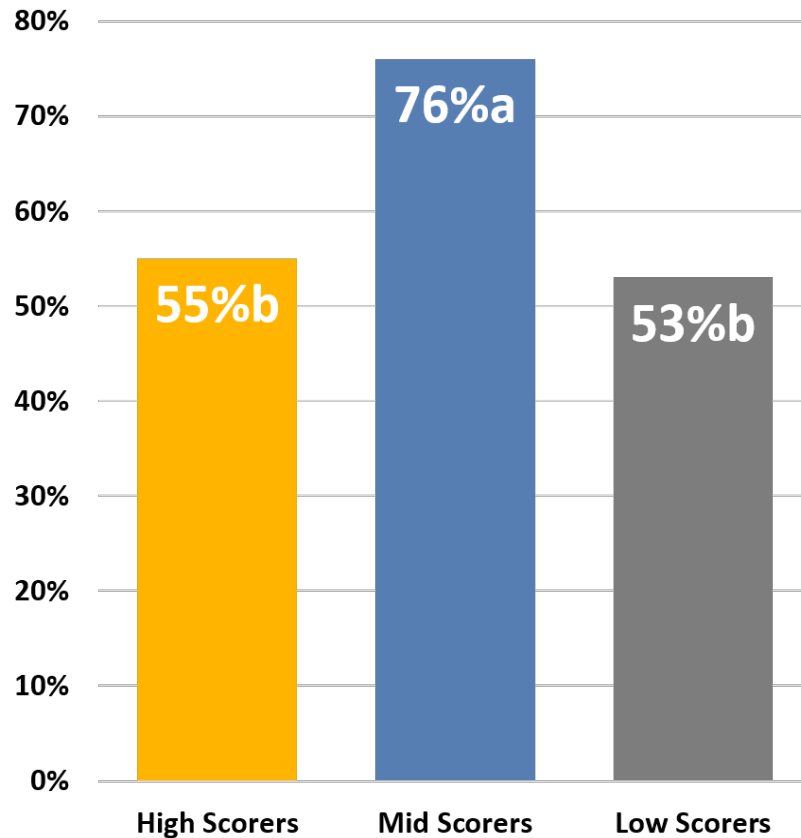
Notes: Groups that share letters are statistically similar. High scorers are those with scores 1400+/30+ on the SAT/ACT; middle scorers are those with scores between 1100<1399/22<29; IWow scorers are those with scores <1100/<22).

Intriguing patterns emerged when analyzing students' familiarity with generative AI tools. Middle-scoring students (those with SAT scores between 1100-1400) reported higher familiarity with ChatGPT compared to both higher and lower scorers. Additionally, we found some specialization in the use of some generative AI tools: GPT-4 was more familiar to those intending to pursue STEM fields, and DALL-E was more familiar to those inclined towards Social Sciences/Humanities/Arts disciplines. These data points may indicate that students are gravitating towards generative AI tools that align with their academic interests and career aspirations.

Curiously, despite the evolving landscape of generative AI technologies, familiarity with ChatGPT has remained consistent since spring 2023. Approximately two-thirds of respondents last year were familiar with ChatGPT, with STEM majors exhibiting a higher familiarity compared to those in Social Sciences/Humanities/Arts and Pre-Professional majors.

Which generative AI tools are being used by college-bound students? And how are they using them?

ChatGPT was the most widely utilized generative AI tool, used by half of college-bound students, followed by GPT-4 (10%) and DALL-E (6%). And despite the increasing availability and awareness of generative AI tools, one-quarter of respondents reported they have never used a generative AI tool.

Generative AI tools are being used by college-bound students for a range of purposes. A large portion (41%) reported employing these tools for recreational purposes such as asking random questions, writing stories, making art, or just "fooling around". Over a third (35%) acknowledged utilizing generative AI for academic purposes (writing assignments, essays or programs, studying, note-taking, studying languages, etc.).

Chart 5: What are high school students using generative AI for?
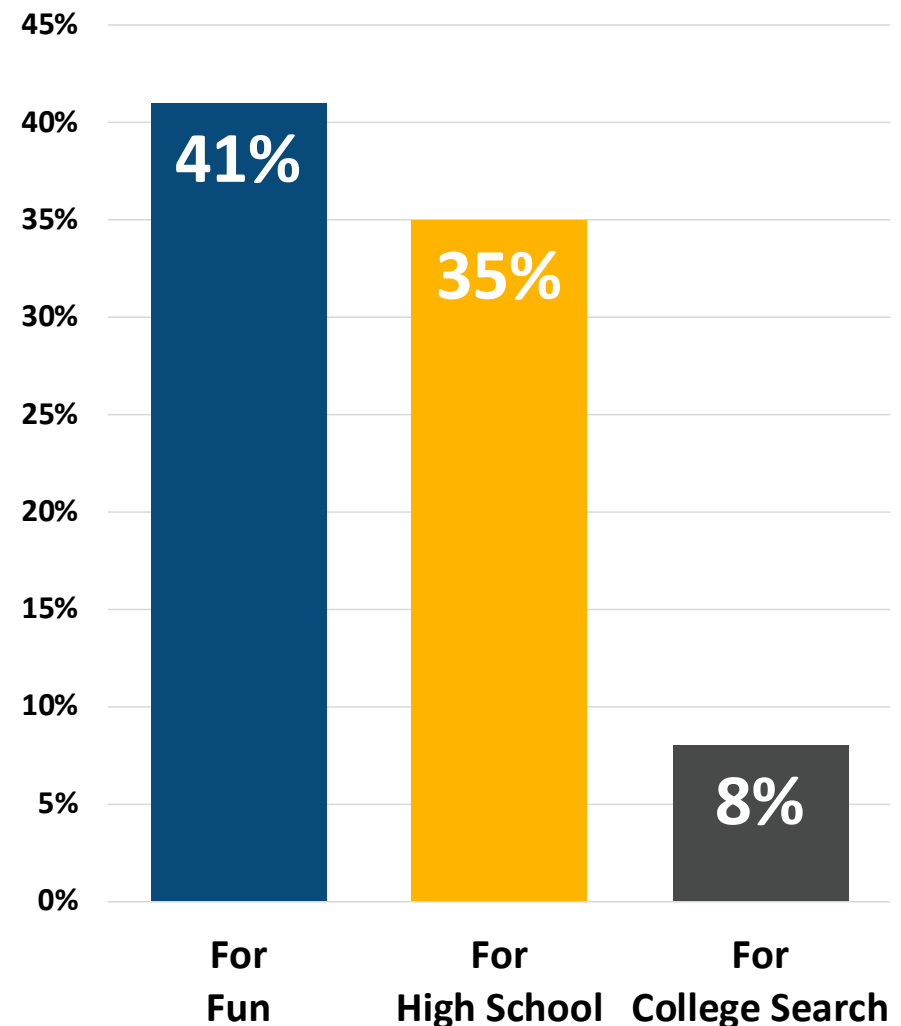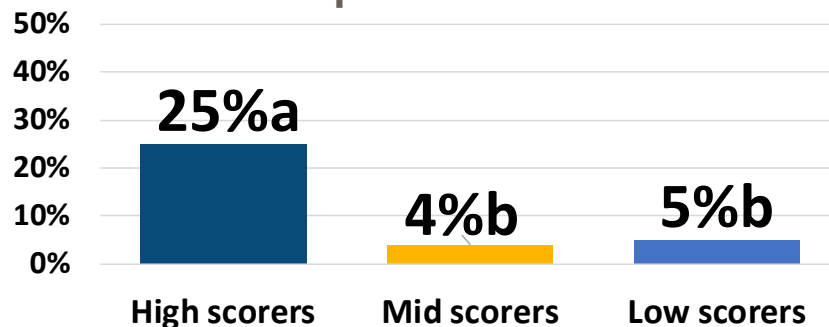

	For Fun	For High School	For College Search
	41%	35%	8%

# Which generative AI tools are being used by college-bound students? And how are they using them? *(cont.)*

College Search Usage

And while students are comfortable using generative AI tools for these purposes, they do not yet see them as integral to the college search process as significantly fewer (8%) have leveraged this technology in their college search journey. Our findings inform of a nascent but likely emerging trend of integrating AI assistance into the college application process. We found that very few college-bound students self-reported using generative AI to "do" some or all of their college-search work, such as writing college applications and financial aid/scholarship essays, and an equally small number lean on generative AI to "support" their efforts, helping them study for exams or researching colleges and their costs.

Chart 6: How are students using AI in their college-search process?

Chart 7: Academic achievement groups' usage of AI tools for the college-search process
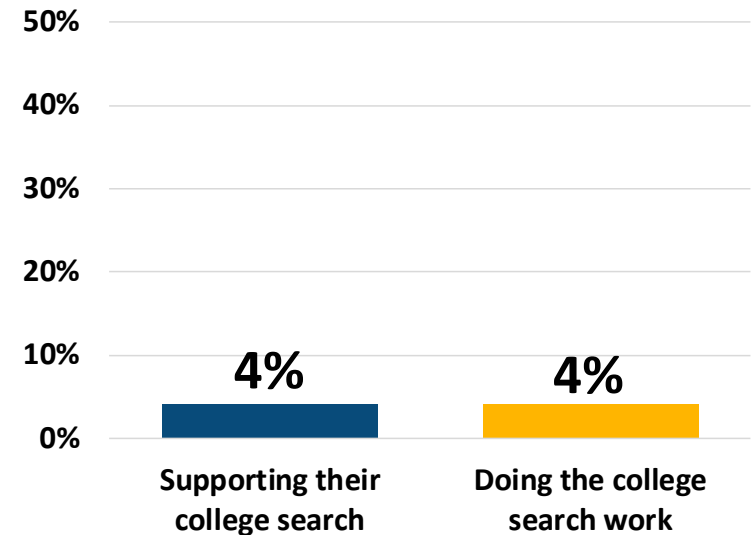
Our data also has revealed a relationship between academic achievement and the use of generative AI for college search efforts. Students with higher academic achievement (higher scorers) were more likely to use generative AI for these purposes, compared to middle and lower scorers. Higher scorers used AI for writing scholarship essays (12%), searching for scholarships (11%), and chatbots to ask questions about college (11%).

Notes: Groups that share letters are statistically similar. High scorers are those with scores 1400+/30+ on the SAT/ACT; middle scorers are those with scores between 1100<1399/22<29; low scorers are those with scores <1100/<22).

Which generative AI tools are being used by college-bound students? And how are they using them? *(cont.)*

High School Usage

The self-reported usage of generative AI to complete high school tasks is much higher than in the college search process, indicating the increasing integration of generative AI into the educational process and possibly a growing reliance on the use of these technologies by college-bound students. One-quarter of high school students report using generative AI to "do" their high school work (writing essays, completing assignments or writing computer programs for school). However, only one-tenth are using it to "support" their high school pursuits, such as studying or note-taking.
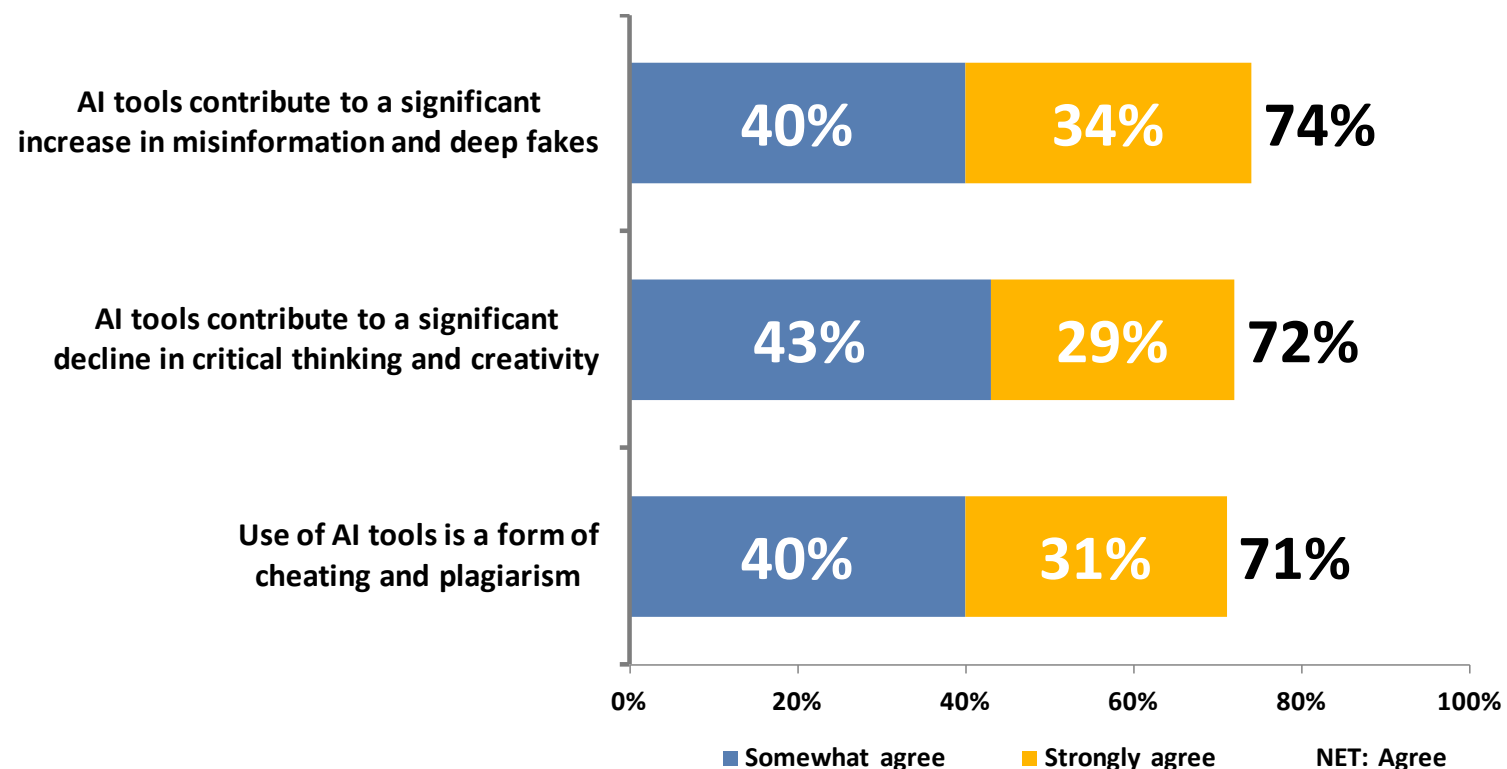
Chart 8: How are students using AI in high school?
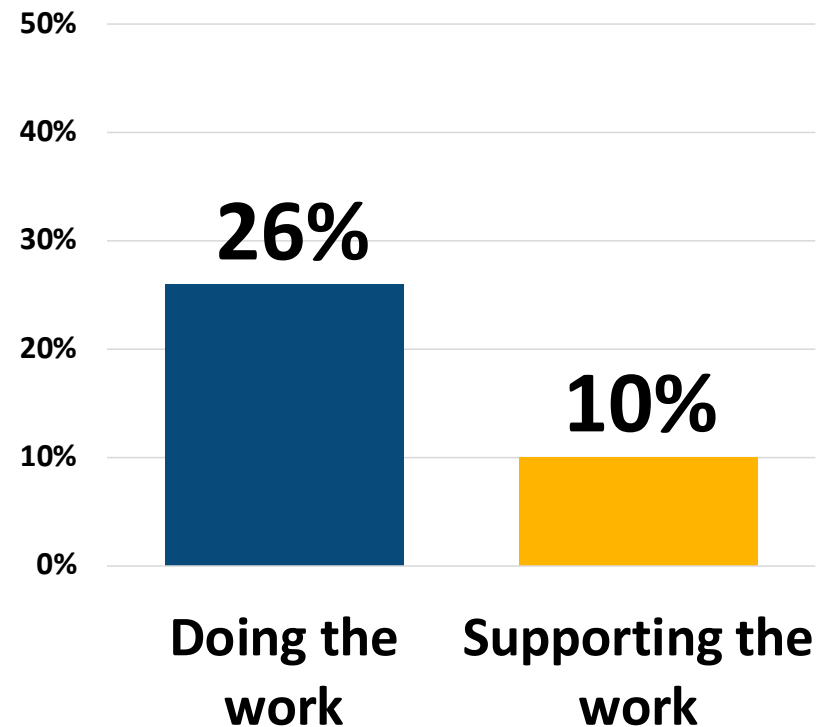
26% Doing the work	**10%** Supporting the work

What are the perceptions, opinions, and expectations of college-bound students on colleges' and universities' uses of generative AI?
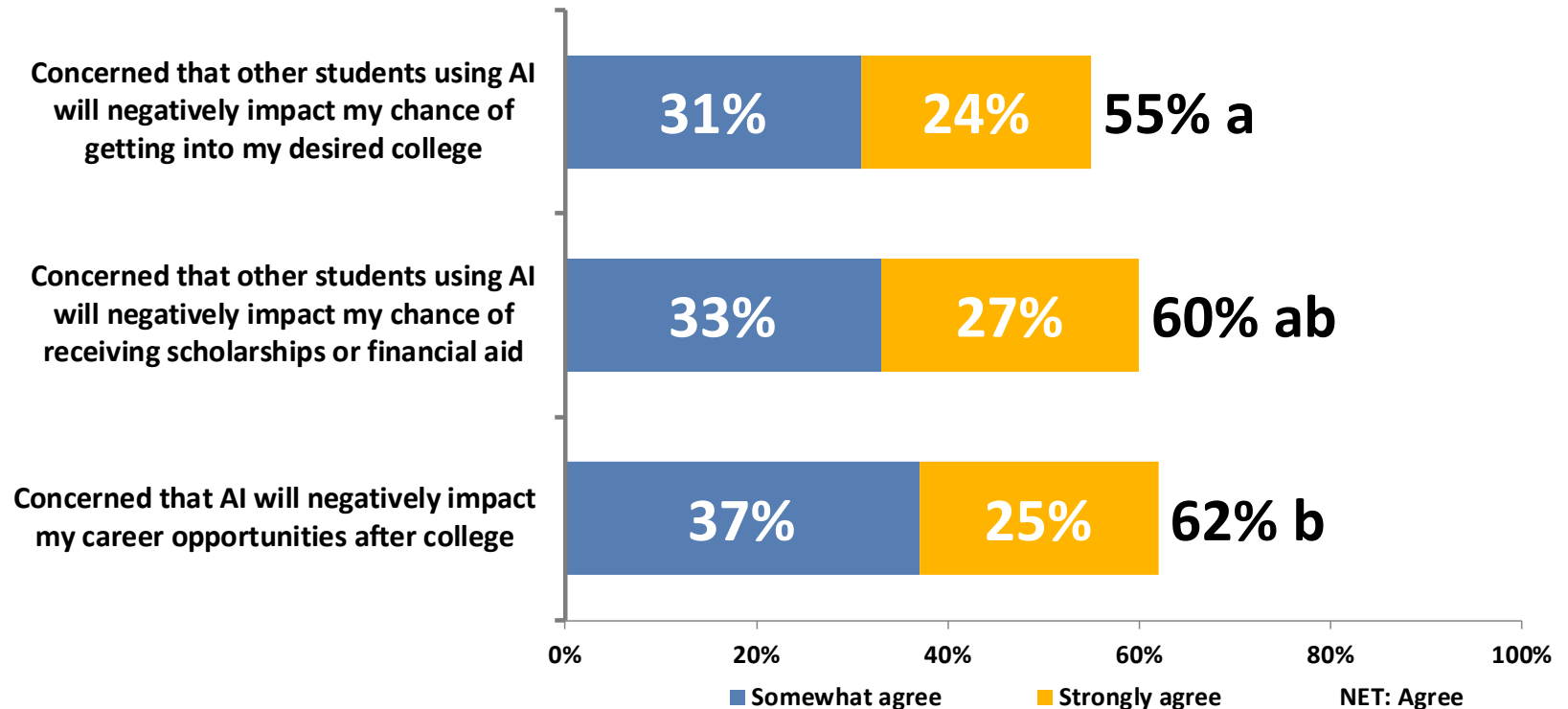
While most students are familiar with generative AI and many of them use generative AI tools, particularly for academic uses, students are cognizant of the potential risks and challenges these tools pose. Nearly three-quarters express significant apprehensions regarding the potential negative impacts of generative AI. These concerns may underscore a growing awareness of the ethical and societal implications associated with generative AI.

Chart 9: High school students' perspectives of the ethical concerns of generative AI

	Somewhat agree	Strongly agree	NET: Agree
AI tools contribute to a significant increase in misinformation and deep fakes	40%	34%	74%
AI tools contribute to a significant decline in critical thinking and creativity	43%	29%	72%
Use of AI tools is a form of cheating and plagiarism	40%	31%	71%

What are the perceptions, opinions, and expectations of college-bound students on colleges' and universities' uses of generative AI? *(cont.)*

Chart 10: High school students' perspectives of how generative AI may impact achieving their college and career goals

Concerned that other students using AI will negatively impact my chance of getting into my desired college — 31% / 24% — **55% a**

Concerned that other students using AI will negatively impact my chance of receiving scholarships or financial aid — 33% / 27% — **60% ab**

Concerned that AI will negatively impact my career opportunities after college — 37% / 25% — **62% b**

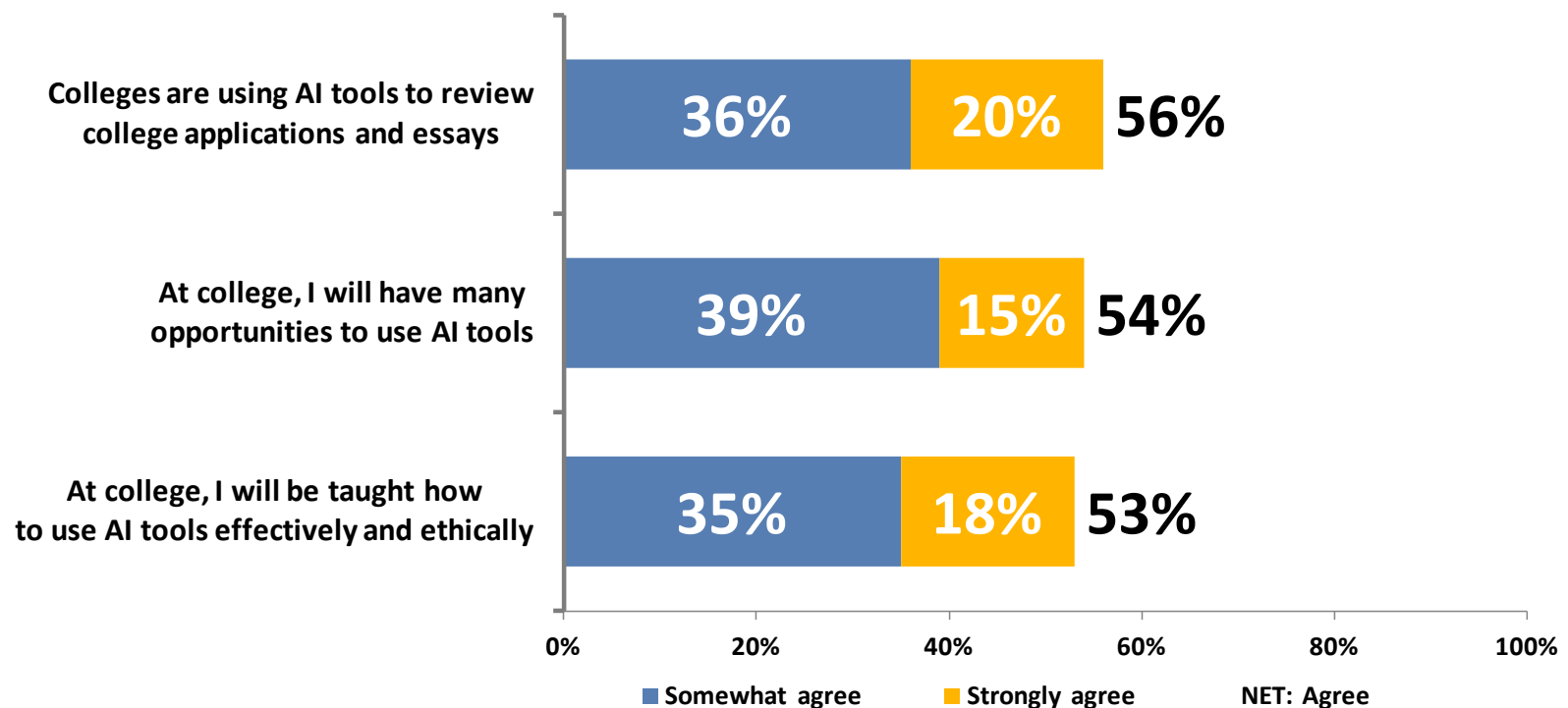■ Somewhat agree   ■ Strongly agree   NET: Agree

Note: Netted percentages that share letters are statistically similar.

College-bound students are also concerned about how the use of generative AI might impact their chances of achieving their college and career goals. As there exists already in the higher education landscape a plurality of concerns around college acceptance and scholarship opportunities, the high levels of familiarity and usage of generative AI by college-bound high school seniors may be cause for concern. Perhaps we're on the precipice of a new arms race for tools that will increase the chances of students getting into their top choice college.

What are the perceptions, opinions, and expectations of college-bound students on colleges' and universities' uses of generative AI? *(cont.)*

Curiously, half of college-bound students think that AI is already present in their college search process, assuming that colleges and universities are using generative AI to review their applications and essays. These same students also expect that colleges and universities will offer opportunities to use generative AI tools, as well as teach them how to use them in a productive way, perhaps expecting a similar approach to how the internet was integrated into learning for millennials in the late nineties and early aughts.

Chart 11: High school students' perspectives of the use of generative AI on college campuses

Statement	Somewhat agree	Strongly agree	NET: Agree
Colleges are using AI tools to review college applications and essays	36%	20%	56%
At college, I will have many opportunities to use AI tools	39%	15%	54%
At college, I will be taught how to use AI tools effectively and ethically	35%	18%	53%

■ Somewhat agree ■ Strongly agree NET: Agree

Conclusion

As artificial intelligence technologies, particularly generative AI tools, become increasingly accessible and integrated into various aspects of academic and professional life, it's crucial for colleges and universities to understand how students are perceiving AI, using it already, and expecting it to impact their college education.

Many college-bound students have already adopted generative AI in a short time, including a significant number using it to do, rather than support, some of their work in high school. It is reasonable to assume that generative AI's use will continue to spread, especially in light of students' concerns that they will be put at a disadvantage by others' use of AI. Indeed, we might be entering a new arms race in students' use of AI.

Generative AI tools have the potential to revolutionize the college experience, and institutions would be wise to do what they can to get ahead of the curve as quickly as they can.

That means addressing a wide array of questions. To what extent should we try to constrain the role of these technologies in how and what students learn, vs. fostering a culture that embraces new opportunities they might bring for learning, creativity, and innovation? How, and how much, should we integrate generative AI into our existing curriculum? How can we ensure that students address our ethical concerns, and their own, about generative AI? How can we promote equity in the development and deployment of these technologies?

Different institutions, each with its own mission, character, student body, and prospective student markets, will, and should, take different approaches to answer these questions and others. For some, the answers may even represent an opportunity to develop more compelling distinctions vis-à-vis their peers. But all colleges and universities must determine how they will prepare students for success and what success might look like, in the era of generative AI.

Study Methodology

The findings in this issue of *student***POLL** are based on survey research fielded in February 2024. The survey was completed by 1,351 domestic high school seniors; 739 of whom intended at that point to attend a four-year institution as a full-time student next fall.

Respondents were 61% female and 56% white. The median household income was around $90,000. Responses are weighted by income, race, region, and gender so that findings represent the larger domestic college-going population. The margin of error was plus or minus 3.6%.

This study was designed to provide a broad understanding of college-bound high school students' perspectives as they make application and/or enrollment decisions. Findings and conclusions, therefore, do not reflect the circumstances, challenges, and opportunities of any individual institution, which tend to be highly idiosyncratic. Rather, they are intended to contribute to the national conversation around access to higher education, inform policymakers, and prompt each individual institution to consider what its own particular situation might be with regard to this *student***POLL** topic and how it can determine what its own best solution might be.

About *student*POLL

The publication by Art & Science Group, LLC, *student*POLL, presents the results from a series of national surveys that measure the opinions, perceptions and behaviors of high school students and their parents. Published for the benefit of college and university senior leaders and enrollment officers, as well as secondary school college counselors, *student*POLL seeks to provide insights and understanding that will result in better communication and service to college-bound students across the nation.

First published in 1995 by Art & Science Group, a leading national source of market intelligence for higher education, *student*POLL has become a trusted and widely cited source of reliable data and insights on many critical questions concerning college choice. *student*POLL findings and analysis are provided free on the [Art & Science Group website](#).

About Art & Science Group

Art & Science Group offers market-informed strategy to higher education, independent schools and the non-profit sector. Since our founding in 1994, we have provided our clients with strategic market research and recommendations, built on a foundation of both creative thinking and empirical rigor — art and science. We work in a variety of arenas, leveraging a foundation of market data, analysis and inventive ideas, to guide and advance our institution's strategic interests and critical investments. Our firm is dedicated to helping each institution position itself in ways that positively affect the decisions of its key constituents — whether to apply, matriculate, give and so on — in an institution's favor. We provide a customized and collaborative approach for each client, with recommendations rooted in sophisticated research and thorough analysis. Our experienced consultants and researchers produce the highest quality findings and recommendations on the market.