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# HOW ANALYTICS CAN HELP NAVIGATE EDUCATION TRENDS

WHITE PAPER

## INTRODUCTION



The world of higher education took as big a hit as any industry did during the pandemic. While some industries were able to incorporate into everyday use some of the changes the pandemic brought on, education was turned on its head in ways in which the repercussions might be felt for years to come.

That shift in higher education is dictating some of the industry's major trends. In this white paper, we lay out some of those trends, and [how analytics can help you navigate the new terrain that lies ahead](#).

The trends include:

- Artificial intelligence (AI)
- Enrollment
- Student support
- Environmental efforts
- Political impacts



## INCREASING PRESENCE OF AI

Artificial intelligence technology has made significant progress in recent years, and it impacts the world of education in a number of ways. While some educators spend time worrying about how students might misuse technology such as ChatGPT to write papers for them, others have found a way to productively use AI themselves for tasks such as grant writing.

The use of AI in the classroom is one thing. Its administrative use is another. Some colleges and universities have used the technology to sort through admissions applications. Others have shied away from the practice because AI can negatively impact diversity. Data bias can occur when groups of people are under-represented in data that the technology is trained on, and that can have an effect on AI's performance.

As it becomes increasingly reliable in a number of areas, expect to see AI used in higher education to help improve the student experience. AI tutoring is one solution schools are looking at to overcome challenges such as the availability, cost, and location of in-person human tutoring.



### ENROLLMENT

Undergraduate enrollment hit its peak in 2010 with about 18 million students. Since then, [there has been a downward trend in enrollment](#), with about 15.4 million students enrolled in college in 2021. Experts say there are a number of factors that could impact college enrollment from birth rates to the impact of the pandemic, but the one area many focus on is the rising cost of tuition.



**Students want a better sense of their return on investment (ROI) for a college degree.** To provide that, colleges and universities are using analytics to break down the data in terms of metrics such as ROI based on a major, or even getting as granular as breaking it down by ROI based on major for students from certain income levels.

Another trend to keep an eye on is K-12 partnerships with higher education institutions, which can help make higher ed attainable for more students. These partnerships require commitment from both sides because they unfold over many years, and the collaboration involves making sure colleges and universities are getting students that are prepared. With so many possible combinations available among the tens of thousands of K-12 schools across the country as well as the thousands of colleges and universities, analytics can help figure out which partnerships could work best.

## STUDENT SUPPORT

One of the consequences of the pandemic that is likely to linger is the educational impact from when schools were forced to close their doors unexpectedly. When they returned in an online-only mode at first, educators and students were forced to adjust in a way that left many students playing catch-up.

Some numbers are starting to back up what many people only suspected at first. ACT scores have declined for six years in a row, and the average score for the class of 2023 was three points below the scores for the class of 2022. The class of 2023 was in their spring semester of freshman year of high school in March of 2020. The average composite ACT score from all 50 states was at a 30-year low, and [a report from the National Assessment of Educational Progress](#) also showed declining scores in math and reading among 13-year-old students.

For colleges and universities, those numbers offer an indication that they will need to adjust their offerings to accommodate incoming classes, or offer support in new ways to make sure students are prepared to handle the accompanying workloads.



Schools are increasingly using data to identify at-risk students and monitor those students in real time by accessing grades, attendance, and other metrics such as registration.

**Another area where schools are recognizing a need to support students is with mental health.** [The American Council on Education \(ACE\)](#) reports that from 2014 to 2022 the percentage of students with significant symptoms of depression rose from 20% to 44%, and the percentage of students with significant symptoms of anxiety rose from 20% to 37%. ACE recommends schools use data to the greatest extent possible to work to improve mental health in higher education, regularly assessing population-level needs, priorities, and progress.



### ENVIRONMENTAL EFFORTS



As college campuses continue to grow, they are being held responsible for making sure they are being environmentally responsible. Data is constantly being monitored as far as energy consumption and a school's environmental impact.

[The University of Pittsburgh partnered with an energy company](#) to secure 100% of a solar farm's output over the next 20 years. The solar farm will provide 18% of the power to Pitt's urban campus each year. The school says the greenhouse gas emissions it is avoiding through the deal is the equivalent of taking 3,330 gas-fueled cars off the road. As part of the agreement, students from the university will have the opportunity to visit the site and use a nearby observation area as part of their studies.

Expect other schools to find similar models in the coming years. **Data will be the guidepost for those schools to figure out how to make a situation like Pitt's work for them.**



## POLITICAL IMPACTS ON UNIVERSITIES

A number of recent events involving politics and global relations have stretched onto college campuses and are likely to have lasting effects.

After the Supreme Court's ruling in favor of a group that challenged affirmative action practices, some schools had to immediately change the way they handle admissions. In the long run, **schools need to make sure their diversity programs are structured in a way that won't invite legal challenges.**

If schools look for the right kind of data they can do just that. [The University of California,](#)

[Davis might offer an indication of the future of admissions with its socioeconomic disadvantage scale, which scores students applying to the medical school based on a portfolio that includes grades, test scores, recommendations, interviews, and life circumstances, including family income and parental education.](#) Despite California banning affirmative action in 1996, U.C. Davis has used the scale to become one of the most diverse medical schools in the country.

Schools have also become at risk of cyberattacks whenever there is a global conflict. The U.S. government partners with and either accredits or recognizes schools across the country in an effort [to train college students to fill job vacancies in cybersecurity.](#) This, combined with higher education's reliance on digital technology since the pandemic, has made schools a target for criminal organizations looking to access confidential data or cause disruptions. Just as colleges and universities are preparing students to enter a working world in which data and analytics will play a major role, there is an increased emphasis on work in the cybersecurity field as well.

## ABOUT DIMENSIONAL INSIGHT

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## CONCLUSION

When it comes to using data in the world of higher education, the industry is unique. [It takes a unique analytics solution](#) to accommodate all the needs colleges and universities have. From administrative aspects such as finances, tracking donors, or handling registration to the elements that directly impact student success, a solution needs to integrate many different data sources and be customizable to each school's individual needs.

Whether or not schools were directly impacted by the changes brought on by the pandemic, the future of higher education as a whole will feel those effects. **The best way to get a sense of the trends listed above, and how those changes impact your institution, is through data, and the right analytics solution can help make sense of it all.**



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Thank you for reading:

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