PYMNTS | AMERICAN EXPRESS

August/September 2023

The Automated Campus: Enabling the Future of Higher Education
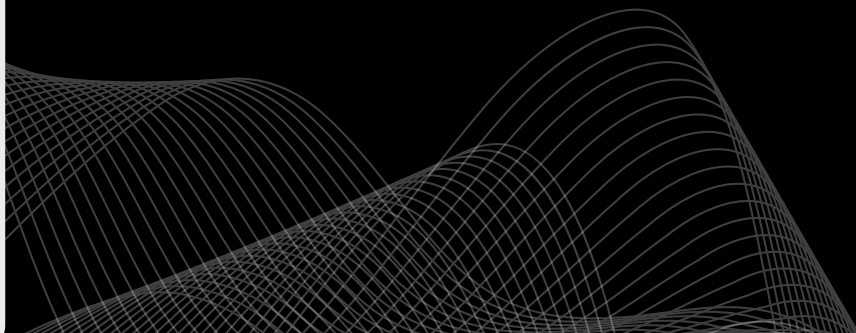
B2B and Digital Payments Tracker® Series

Read the previous edition

August 2023
**B2B and Digital
Payments Tracker® Series**

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What's Inside

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Need to Know

Financial Wellness Will Be on Students' Radar as Loan Payments Resume

As time goes on, life gets no less complex for Generation Z. Widely hailed as the techno-whiz kids of the smartphone era, its digital natives have also come of age during some of the most challenging travails in modern history, including the pandemic, the remote-learning shift and the ensuing economic turbulence. Now Gen Z's recent college graduates are in for a new shock: In the wake of the Supreme Court decision to block the federal student loan forgiveness plan, many will be making their first student loan repayments in October. In addition, while millennials and Generation X still shoulder the brunt of the current $1.6 trillion student loan balance, younger Gen Zers are soon to surpass all previous generations in borrowing for college.

Combined with high inflation and skyrocketing rents, such an outsized burden is too much for any generation to bear. To say these young adults will need help in managing this load is an understatement. As more enter and continue their college years, they will be seeking educational institutions and technologies that not only streamline their daily lives but also provide outreach and support to help them obtain financial aid, manage their budgets and payments, and become the prudent money experts they will need to be.

Total federal student loan debt in the United States has almost tripled since 2007, with nearly one-third of adults having taken on debt to pay for college.

$1.6T
Total federal student loan debt in the U.S.
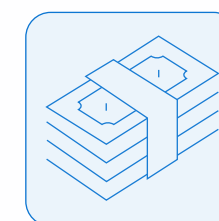
$37,720
Average federal student loan debt per borrower in the U.S.
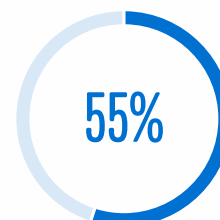
55%
Share of student loan borrowers who do not feel financially ready to resume payments in 2023
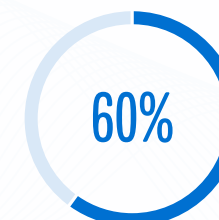
60%
Share of college students who said they would seek support services such as financial coaching if offered by their colleges

Need to Know

Colleges are under pressure as a 'demographic cliff' approaches.

Universities face no fewer challenges than their students in these tumultuous times. The need to focus on student retention is increasing as competition from other colleges and alternative educational models heats up. Potential students may be pondering whether the traditional-college value proposition holds up, especially as debt prospects grow ever more daunting.

Moreover, colleges are bracing themselves for the approaching and unsettlingly named "demographic cliff": a sharp fall in anticipated enrollment due to the birthrate decrease following the Great Recession. This eventuality is leading forecasters to conclude that automation and artificial intelligence (AI) will play essential roles in cementing the campus's place in the future of higher education. Leveraging these technologies for everything from student dining to financial aid and fiscal-wellness coaching can offer universities a competitive edge in attracting and retaining students.

> We are moving into a new normal in higher education: More students will be splitting their educational journeys among a handful of different providers. Because of this, traditional colleges and universities need to be thinking of ways that technology ... can become a part of their overarching strategy to recruit, engage, advise and retain students.

OZZIE OCELOT

OCELOT®

Source: Ocelot, O. Improving Student Retention with AI Technology. Ocelot blog. 2022. https://www.ocelotbot.com/blog/improving-student-retention-with-ai-technology. Accessed August 2023.

Need to Know

Automation is predicted to become the centerpiece of the campus of the future.

Technology is slated to become a vital element of the campus experience — but not simply to offer the seamless digital services that Gen Z will need and expect. A recent study indicates that technology will also be critical in creating new revenue streams for colleges as enrollment inevitably declines.

According to the study, the connected campus of tomorrow will serve the needs of an increasingly mobile student body with integrated automation across all areas and departments. One key component of this automated experience will be dining, with digital-native students less inclined to live and eat on campus as regularly as past generations did. Future-minded college administrators are looking to protect these revenues now with investments in off-campus dining venues, on-campus franchises, food delivery partnerships and self-service kiosks.

> " An automated, connected campus enables students to use their IDs to access facilities such as residence halls, dining facilities and classroom buildings. Moreover, these systems create a frictionless transaction experience, empowering students to pay for things like meals, parking, books, supplies and laundry without carrying cash or credit cards. "

DAN PARK
CEO

cbord®

Source: The CBORD Group, Inc. Study: Higher Education Leaders Exploring New Dining Revenue Streams in Preparation for a Coming Demographic Cliff. GlobeNewswire. 2023. https://www.globenewswire.com/news-release/2023/07/26/2711223/0/en/Study-Higher-Education-Leaders-Exploring-New-Dining-Revenue-Streams-in-Preparation-for-a-Coming-Demographic-Cliff.html. Accessed August 2023.

News and Trends

Security Is a Top Aim of the 'Connected Campus'

The growing dual risks of physical violence and cyberattacks affecting university campuses are prompting institutions to invest in automation and advanced mobile systems to head off these threats, according to a recent study. In particular, institutions are migrating network infrastructure to higher-security providers and are adopting systems that allow for better tracking of students to alert them of potential physical danger.

The survey found that nearly two-thirds of higher-ed decision-makers at colleges across the United States believe that threats to both physical and network security are top priorities for their institutions to address over the next two to three years. Nearly half plan to invest in improved security systems for both, with many looking to update access management to monitor the use of student IDs campuswide. Other technologies seeing rising adoption are door-prop alerts and remote door-locking controls.

"Student safety and the security of networks have taken on a new dimension with the escalating threats," said Mike Henderson of the University of Tennessee at Knoxville. "Our students are transacting all across campus, using their campus cards or mobile credentials to access buildings, shop for supplies and order food from on- and off-campus vendors. As they move about their day, we can effectively monitor transactions and safety."

The study results offer insights into how automation with integrated campuswide mobile technology is reconfiguring the higher-education landscape. Many leaders see creating this so-called connected campus as critical to their institutions' survival in the long run.

News and Trends

Gen Z's digital shift opens door to self-service college dining

Recent PYMNTS research finds that Gen Z consumers — who make up the current crop of college and university students — disproportionately seek out dining options that give them control over where and when they eat, indicating that the digital shift is impacting college students' dining expectations. To meet a growing demand for all-hours access, colleges are adopting self-service solutions, such as camera-monitored mini-food stores.

"The need for 24/7 access is becoming the norm," Paul Kowalczyk, head of Elior North America's Education segment, told PYMNTS in a recent interview. "[Students today] want to be able to get something to eat on their time, and not just packaged items."

Gen Z is more likely than any other generation to order meals for pickup, according to PYMNTS data. The survey found that 45% of Gen Z consumers purchased their most recent restaurant meals for pickup, compared to only 39% of the overall population.

In addition to the trends in food ordering and payment, Kowalczyk said he expects to see automation play a larger role in the provision of food service at colleges and universities.

"We've seen different innovations with robotics and such, and I think there's also going to be a lot of evolution in the back of the house with these AI systems," he said.

News and Trends

With more data than ever, universities look to improve experiences for students, faculty

A recent survey finds that colleges and universities are leaning ever more heavily on data to inform business decisions, grow revenue and deliver operational efficiencies.

The survey, which polled 150 executives from universities across the U.S. and Canada, revealed that pandemic-driven data collection has left higher-ed institutions with more data than ever. This includes information on facility and resource usage, the impact of remote work and changing student demographics. Institutions said they seek to use the data to improve student and staff experiences, at 56% and 46%, respectively.

However, disconnected data still poses a hurdle for universities in deriving more value from this information. More than eight in 10 respondents said having a unified source of data across all systems and departments would be very or extremely helpful. Another 80% said that two capabilities stood out as the greatest needs: mobile access to data and a centralized dashboard for data integration and automation.
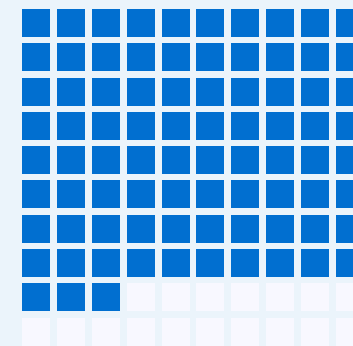
83%
Share of college executives who say a single source of data across systems and departments would be very or extremely helpful in delivering on performance objectives
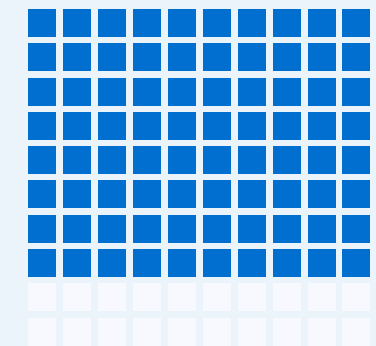
80%
Share of college executives who say mobile access to data insights and the ability to log in to a centralized dashboard would be very or extremely helpful

PYMNTS Intelligence

Why Automation Is Mission-Critical for Campuses' Future

Higher education has come a long way from its ivy-covered image of the past. Universities have had to become digitally nimble to keep up with both students' changing habits and life-changing world events. The pandemic not only required a massive shift to remote learning but also kick-started colleges' and universities' widespread adoption of online [payment portals and cashless payment methods](#).

The result is that in just the past few years, college-related payments have made a dramatic switch from traditional paper-based and in-person methods to digital and mobile portals, with other advancements right on their heels. Students are now leveraging virtual school ID cards for everything from gaining access to campus buildings to paying for meals.

However remarkable, this transformation is merely the tip of the iceberg. Wider trends are rapidly bringing the future of a fully connected and automated campus into focus. As students grapple with issues ranging from college affordability struggles to cybersecurity threats to campus violence, technology will be an important differentiator for schools looking to draw the best students and ease their educational journeys. It will also be a lifeline for higher-ed institutions needing to find new revenue streams as larger demographic and economic variables shift.

PYMNTS Intelligence

Connected campus becoming a reality

With smartphones having become college students' preferred payment tool, colleges are looking to enable mobile transactions across the entire campus environment. In a recent survey, students rated their college app features in importance, ranking the top four functions as making and managing payments; having a streamlined, all-in-one app; checking and updating finances; and using the app as a virtual ID card. However, more than half of students also cited getting refunds, class check-in, and building or door access as well, indicating the extent to which mobile automation is becoming an indispensable enabler of a secure and convenient campus experience.

Most important college/university app features

Make/manage payments
67%

Streamlined, all-in-one
65%

Check/update finances
64%

Virtual ID
59%

Get refunds
59%

Class check-in
57%

Building/door access
50%
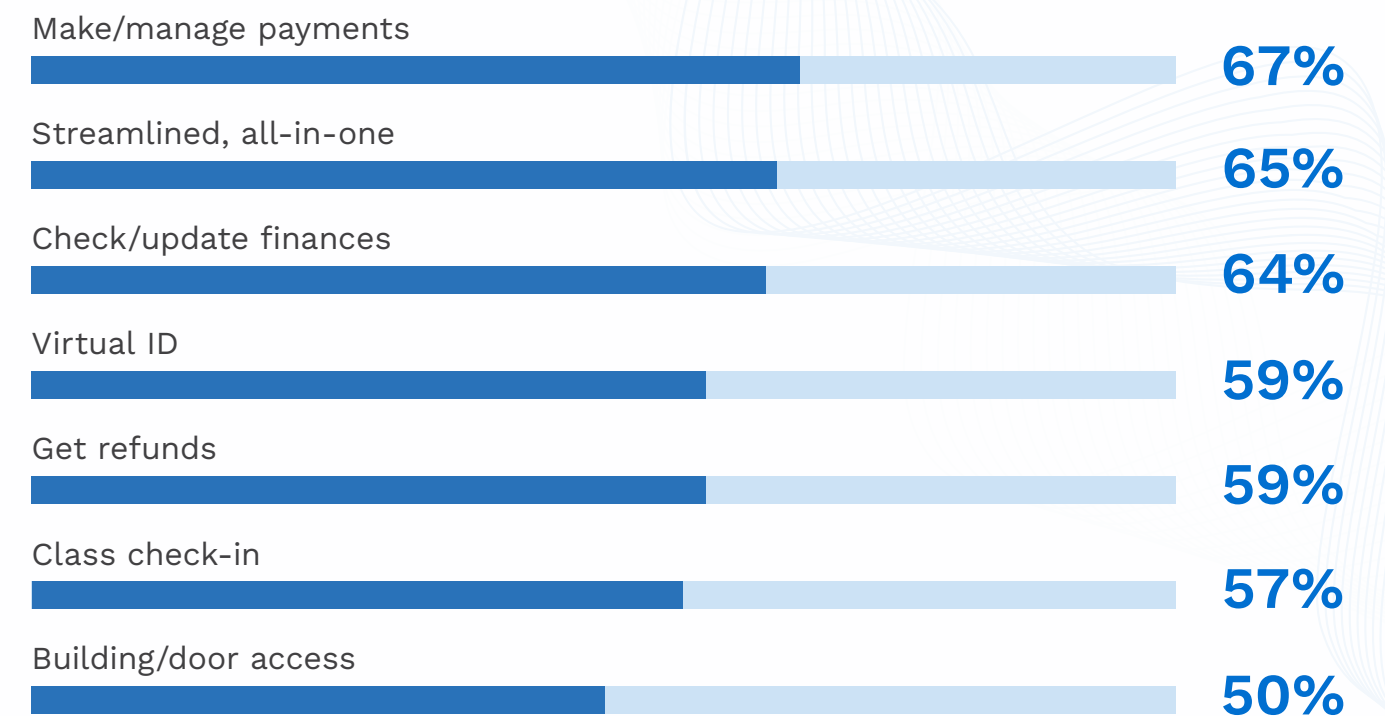
Moreover, although students' needs are colleges' top priority, students are not the sole beneficiaries of this technology. Automation not only eases students' everyday lives but also helps universities streamline operations, cut costs and increase cash flow. It further promises to provide a powerful differentiator to make colleges stand out in attracting and retaining students.

PYMNTS Intelligence

Automation as the next normal in higher education

Automation could be the key to unlocking secure streams of revenue to universities in the coming years as well. Dining services traditionally offer universities one of their most important revenue sources, but the pandemic brought home how fragile this source was. School closures during its early days forced many institutions to reexamine their financial models. In addition, universities are expecting a significant contraction in enrollment as the so-called demographic cliff — a sharp drop-off in the college-aged population — nears, beginning in 2025.

A new study reveals that almost half of surveyed college decision-makers are undertaking initiatives to automate dining operations, both to create frictionless service for students and to offset the coming decline in dining revenue due to the demographic cliff. Among the initiatives being considered are off-campus dining venues, on-campus franchises, food delivery partnerships and self-service kiosks. Department heads saw these initiatives as their schools' first priority.

"Just as many of our programs have adapted to both an on-campus and a remote element, we are seeing many opportunities to use mobile technology to collaborate with our surrounding communities to provide dining services to our students in the years ahead," Mike Henderson of the University of Tennessee at Knoxville said in a press release.

90%
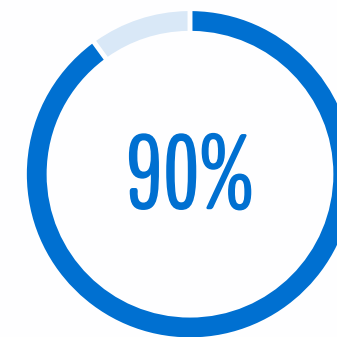
Percentage of students interested in using their phones to purchase food, access buildings and use campus services

49%
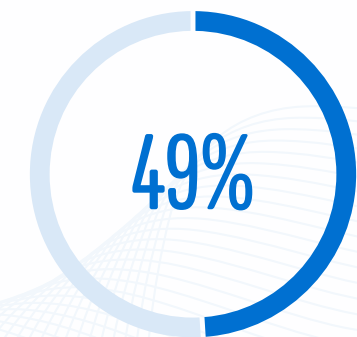
Percentage of college C-level and department leaders whose institutions have already launched mobile credentials initiatives

Chart of the Month

Generation Z Tops All Others in Use of Meal Pickup

Recent PYMNTS research reveals that Gen Z, comprising the current generation of college students, is leading the ongoing trend toward takeout that became a hallmark of the pandemic. Nearly 45% of Gen Z respondents reported using pickup options for their most recent restaurant meals, compared to almost 43% of millennials, 42% of bridge millennials, just under 42% for Generation X and 33% for baby boomers and seniors.

Generational pickup and delivery preferences

Share of consumers who acquired their most recent restaurant meal in select ways, by generation

- ■ Inside the restaurant
- ■ Pickup
- ■ Delivery

Generation Z
- Inside the restaurant: 41.6%
- Pickup: 44.7%
- Delivery: 13.6%

Millennials
- Inside the restaurant: 40.7%
- Pickup: 42.7%
- Delivery: 16.2%

Bridge millennials
- Inside the restaurant: 43.6%
- Pickup: 42.1%
- Delivery: 14.0%

Generation X
- Inside the restaurant: 49.8%
- Pickup: 41.5%
- Delivery: 8.2%

Baby boomers and seniors
- Inside the restaurant: 61.7%
- Pickup: 33.1%
- Delivery: 3.9%

Source: PYMNTS
Connected Dining: Rising Costs Push Consumers Toward Pickup, February 2023
N = 2,168: Complete responses, fielded Jan. 9, 2023 – Jan. 13, 2023

Insider POV

How Technology Is Easing the College Cost Conundrum

> " Like many companies today, schools are facing tighter budgets and labor markets. In other words, they're being asked to deliver the same or better service with fewer resources. Automation through technology is key to their future success. "

RYAN AUDUS
Vice President of Product Strategy

touchnet
A Global Payments Company

PYMNTS interviews Ryan Audus, Vice President of Product Strategy at TouchNet, about the joint problems of spiraling educational costs and student debt — and how technology is playing a part in relieving both.

Recent events have placed student debt front and center in many college-goers' minds — but many do not realize this is an area where technology can help. Audus explained that the Supreme Court decision to strike down the federal student loan forgiveness program may push more students and families to explore alternative options for making payments as a way to reduce or eliminate their need for student loans. One of those options is to break up tuition payments into smaller installments.

"Many schools today offer tuition installment plans that are very similar to the buy now, pay later [BNPL] concept," Audus told PYMNTS. "Payment plan software provides schools the flexibility to offer several installment plan options to students while giving them the convenience of setting up recurring payments — so they can 'set it and forget it.'"

Insider POV

Automation technology will also determine schools' ability to thrive under the leaner budgets and tighter labor markets of tomorrow. Cost-consciousness is also at the helm for schools anticipating greater competition, lower budgets and labor shortages in the years ahead. [Automation through technology](#) can help schools tamp down spiraling costs and offer more for less. Installment payment plans, for example, not only help students avoid long-term debt but also reduce costs at the source by helping to eliminate schools' resource-intensive manual billing processes.

"Without this kind of software, schools manually create plans and manage billing using a spreadsheet or other manual processes," Audus said. "This has now become automated for the business office through self-service enrollment for students, automated calculations of installment amounts owed, and the ability to set up recurring payments by students."

Another cost- and labor-saving resource he mentioned is chatbot technology for student support. Leveraging machine learning, chatbot solutions offer campuses a way to respond to student questions at any hour of the day, with access to live agents only if needed.

Debt is not the only student burden schools can ease with technology, however. Audus remarked that schools are increasingly focused on improving the campus experience — and mobile technology with virtual IDs is a principal element of this strategy. This can help institutions looking to differentiate themselves by offering greater convenience and security to their students.

"It's no secret that today's students maintain a close relationship with their mobile devices," he said. "In many cases, it's the primary way for students to access their account information, make payments and communicate with the campus. This relationship is also why virtual IDs — also known as mobile IDs — have become highly popular on those campuses where they've been implemented."

Such IDs tap the phones' near-field communication (NFC) capabilities, allowing students to use their mobile devices to access buildings and make closed-loop transactions across the campus. This ties in with another concept schools are implementing to provide better service to students, Audus said: the creation of a "one-stop shop."

Insider POV

"Campuses are large organizations with multiple departments," he explained. "Before the idea of the one-stop shop, it wasn't uncommon for students to be passed from one department to another to help answer a question. Now, with new integrated dashboards, one-stop shops are able to successfully centralize student information into a single view, giving students a [unified source] for getting help when it's needed."

Third-party provider solutions can save campuses scarce resources on these initiatives. Audus observed that keeping up with security and compliance requirements, building integration between multiple systems, and understanding new and emerging technology trends all require significant resources — all of which tend to fall outside core campus functions.

"These are the main reasons schools look to third-party providers to help with these solutions," he added.

As an example, Audus said, payment card industry (PCI) compliance is something most schools are aware of, but a significant percentage do not have the on-campus expertise to keep up with changing requirements. Partners can help bridge the gap between the campus and industry standards to ensure compliance, he said. They can also help schools track and understand new technologies and how they can be used on campus.

Mobile payments technology and other innovations are on course to play a greater role in the higher-education space. Cashless campuses, Audus noted, will be an interesting trend to watch in the coming years. The move toward this scenario will involve schools embracing digital payment options and closed-loop accounts.

"I think the next few years will see a continued push into mobile technology," he predicted. "This includes the ongoing expansion of mobile IDs on campus, as well as the implementation of mobile ordering for dining halls and stadiums, the growth of unattended shopping options, and a focus on making the overall payment experience as frictionless as possible."

What's Next

Higher-Ed Software Market to Hit Almost $170B by 2030

The higher-education software market is on track to grow from $77.7 billion in 2022 to $169.7 billion in 2030, representing a compound annual growth rate of 10% between 2023 and 2030. As colleges wrestle with rising costs, labor shortages and competition from other institutions, 88% of C-level executives are looking to solve these matters by building a connected campus through automation. Such innovation has the power to bridge siloed processes, enable centralized control of operations and ensure the best experience for students, but it will not — and does not need to — happen overnight. By breaking up initiatives into manageable phases, universities can achieve incremental goals and spread out costs over time. Third-party providers can offer an expert assessment of current systems and the shortest way to get there from here.

> "Universities and colleges have an opportunity to enhance their payment processes to meet digitally native students where they are. By embracing new payment technologies, like the automated solutions American Express provides, educational institutions can smooth back-office processes while empowering students with their preferred ways to pay — optimizing tuition and everyday payments, including those for parking, events, dining and more."

Alexander Paull
Vice President
OptBlue & Payment Facilitator Partnerships

AMERICAN EXPRESS

About

PYMNTS

PYMNTS is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way in which companies in payments share relevant information about the initiatives that shape the future of this dynamic sector and make news. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovation that is at the cutting edge of this new world.

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