



**Inside
Higher
Ed**

AI, Digital Transformation and Online Learning: What Campus Tech Leaders Think

*Inside Higher Ed's 2023 Survey
of Campus CTOs/CIOs*

*An Inside Higher Ed webcast
Nov. 8, 2023, 2 p.m. Eastern*

Presenters



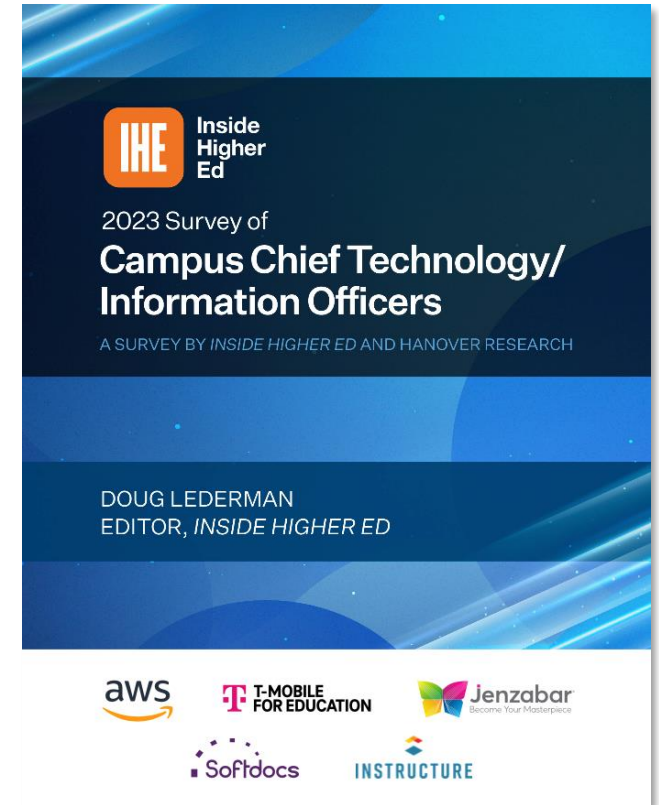
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Methodology

- Questions prepared by *Inside Higher Ed*, in collaboration with Hanover Research.
- Polling conducted in August & September 2023.
- 140 CTOs/CIOs responded.
- Complete anonymity for respondents, but answers coded to allow for breakdown by sector, geography, etc.



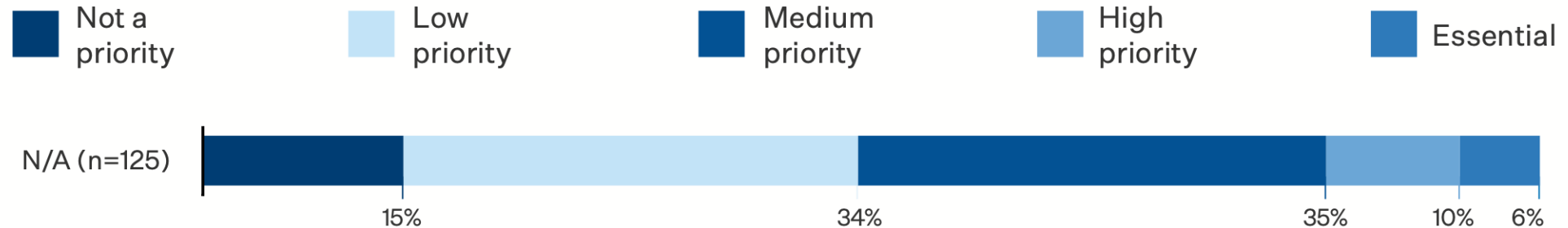
Here's the plan



- Artificial Intelligence
- Cybersecurity
- Online Learning & Infrastructure
- Staffing
- Budgets
- Digital Transformation

Artificial Intelligence

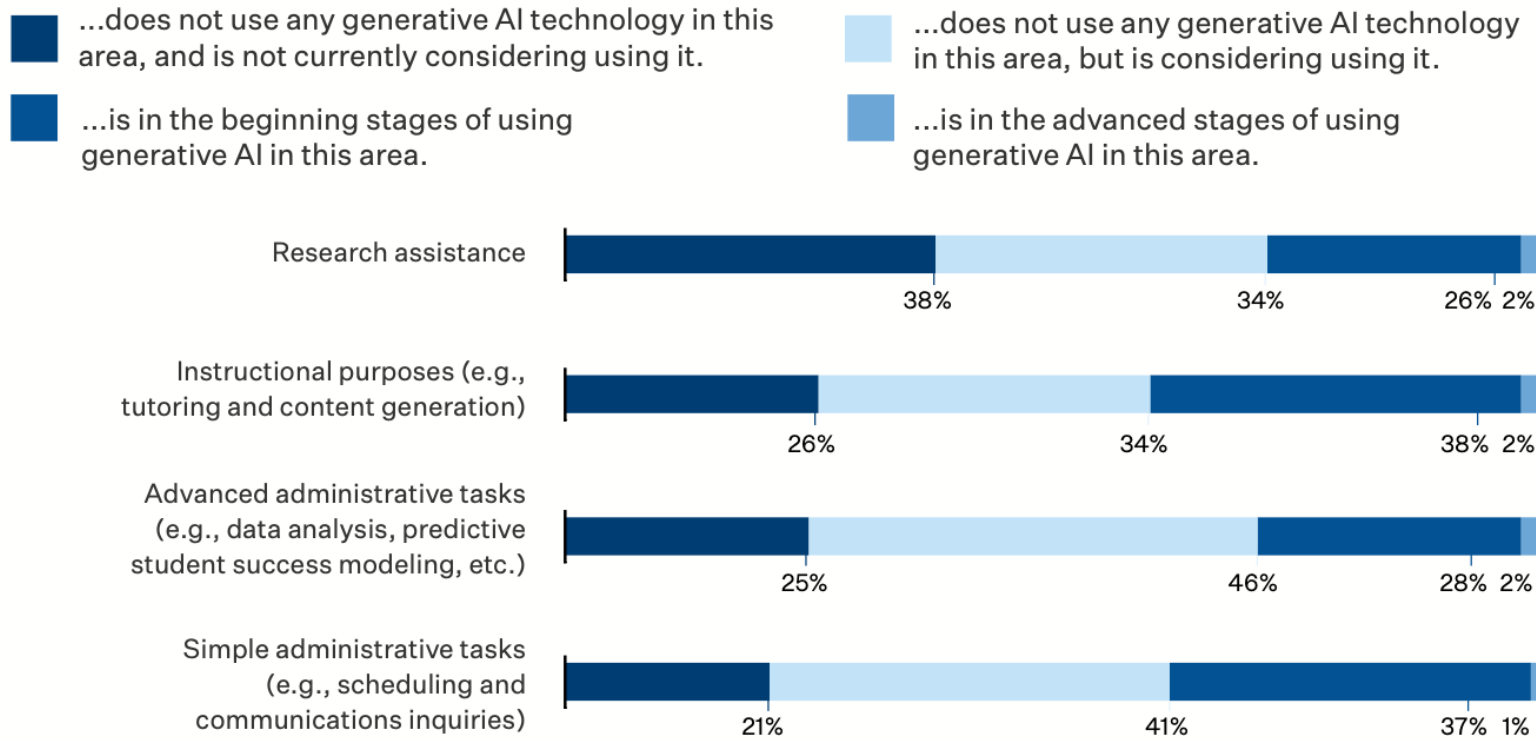
As it stands, how much of a priority is investing in artificial intelligence for your institution?



- Only 16% said investing in AI is a “high” or “essential” priority.
- More than two-thirds of respondents (69%) called it a “low to medium” priority.

Artificial Intelligence

Which of the following best describes your institution's utilization of large language models and generative AI, such as ChatGPT and Bard, across the following use cases? My institution... (n=123)

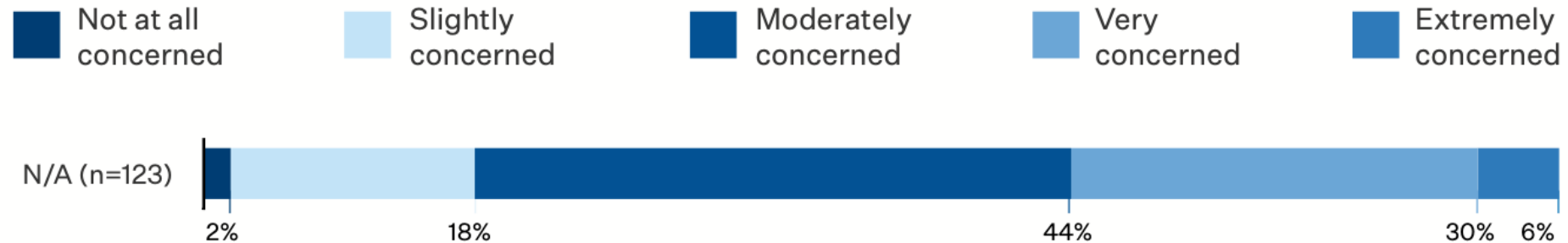


- Nearly 4 in 10 CIOs indicate that their institution is in the beginning stages of using generative AI technology for instructional purposes (38%) and simple administrative tasks (37%).



Artificial Intelligence

How would you rate your level of concern about the potential implications (such as security, privacy, and ethical issues) of using large language models like ChatGPT, Bard, and other generative AI technologies in your institution?

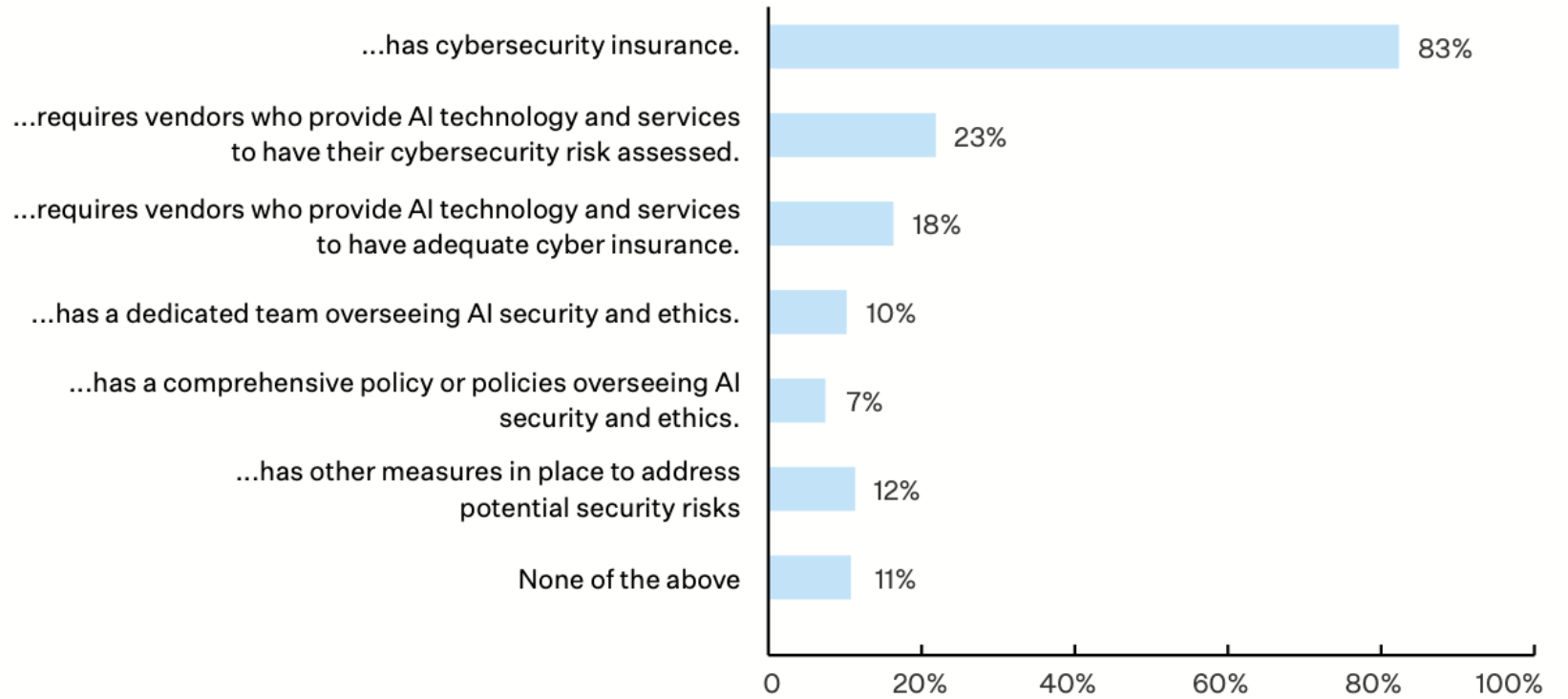


- About a third of CIOs and CTOs (36%) say they are very or extremely concerned about AI.
- Public institutions had slightly more concerns than private institutions—83 percent of CIOs at public institutions had “moderate” to “extreme” concerns. Three-quarters of tech leaders at private institutions said they were moderately, very or extremely concerned.

Artificial Intelligence

- More than 4 of 5 (83%) said they had cybersecurity insurance to help address AI-driven security concerns.
- But few said their institution has teams (10%) or policies (7%) overseeing AI security and ethics.

**Which of the following measures has your institution taken to address potential security risks and ethical concerns associated with the use of AI models?
Please select all that apply. My institution... (n=122)**



Cybersecurity

University of Michigan Halts Internet During First Week of Classes
Online access may not resume for days as concerns of a cyberattack.

Missouri System Hit by MOVEit Cyber Attack
The University of Missouri System is the latest institution battered in the MOVEit cybersecurity breach sweeping the nation. The...
MOVEit Attack Signals Growing Cybersecurity Threats for Higher Ed
Security experts warn the success of recent hacker actions will mean more attacks against vulnerable institutions.

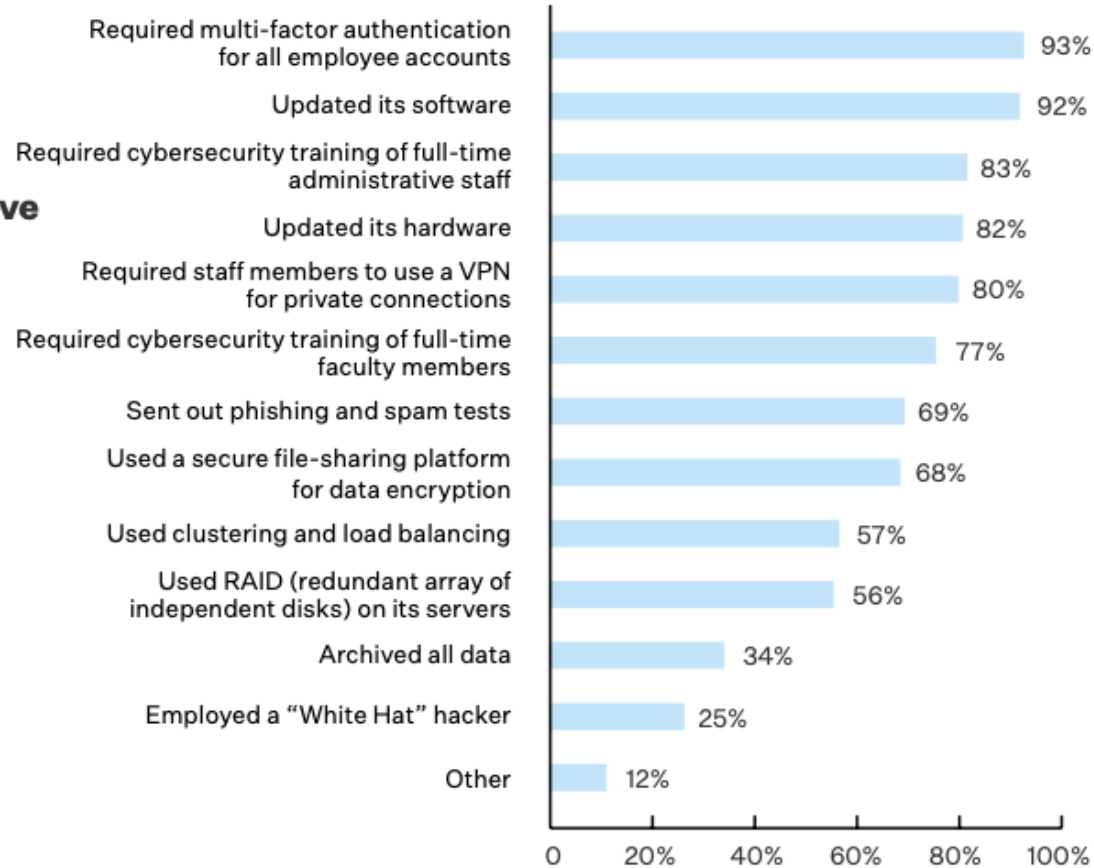
How confident are you that your institution's practices can prevent cyber attacks that could compromise data or intellectual property or lead to a ransomware event?



- Most CIOs (82%) are moderately to very confident that their institution's practices can prevent ransomware attacks. This is up from 73% last year.
- In fact, fewer than a quarter report being less than "moderately confident."

Cybersecurity

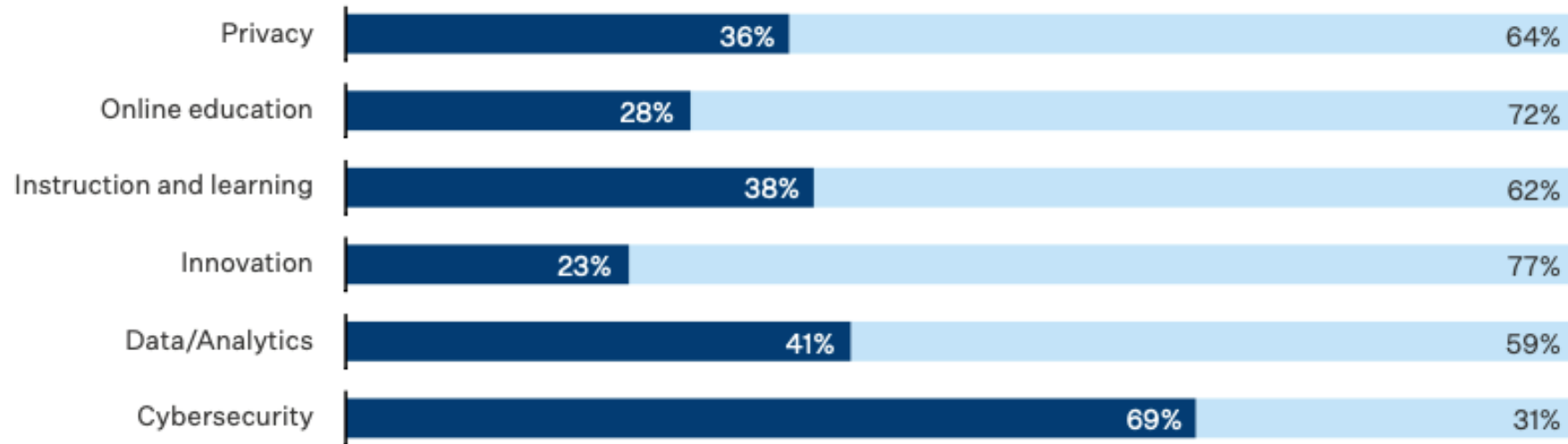
Within the last 12 months, which of the following has your institution undertaken to improve its cybersecurity practices? Please select all that apply. (n=122)



- The most used cybersecurity offerings are multifactor authentication, updating software within the last year and required cybersecurity training for full-time administrative staff.
- Only 34 percent said they had archived all data in the last 12 months and just a quarter of respondents (25%) had employed a "white-hat" hacker to flag vulnerabilities.

Cybersecurity

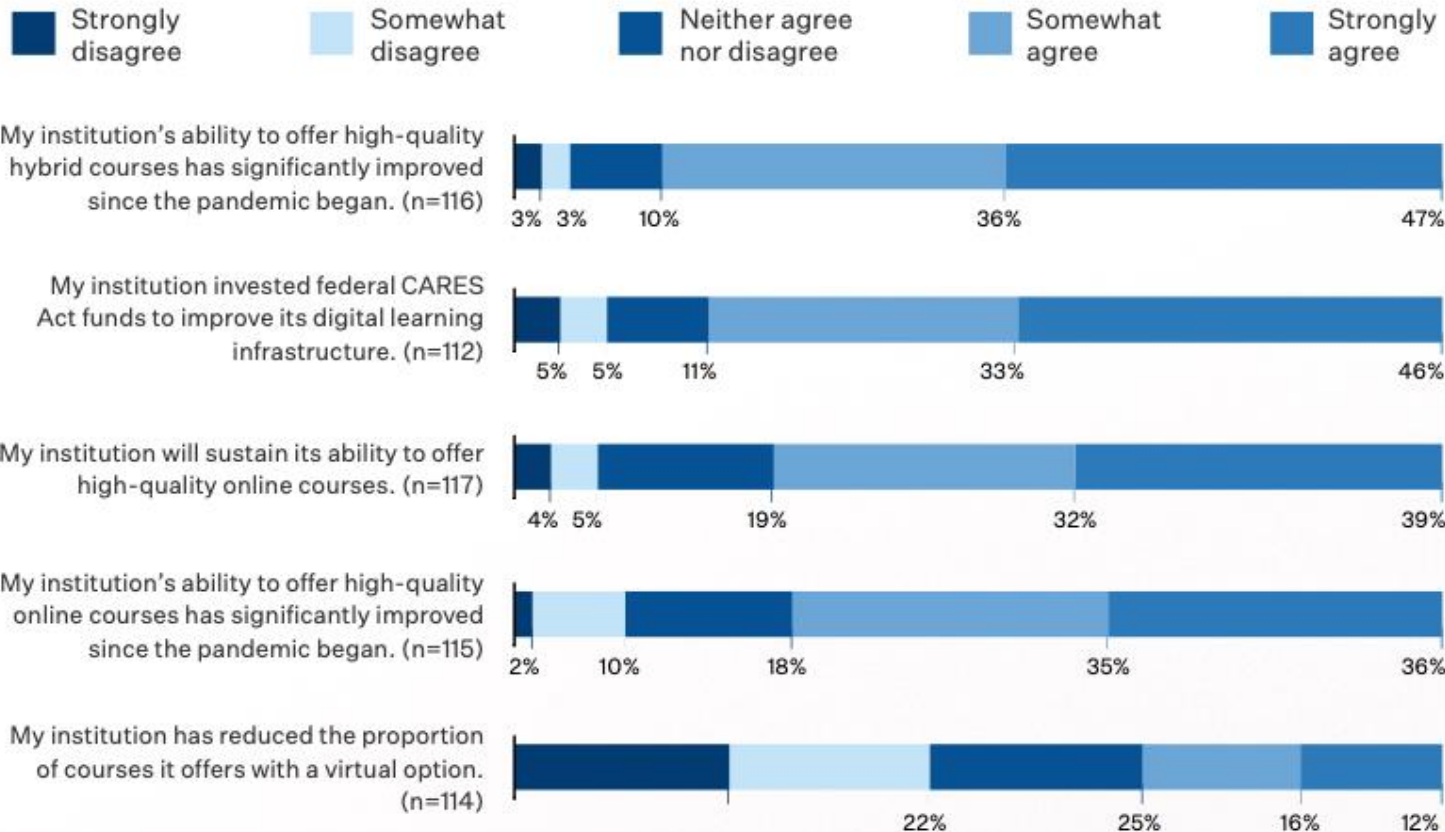
Does your institution have a chief or senior technology officer who is primarily responsible for overseeing any of the following areas? (n=138)



- More than two-thirds (69%) of CIOs said they had a chief or senior technology officer primarily responsible for overseeing cybersecurity.

Online Learning & Infrastructure

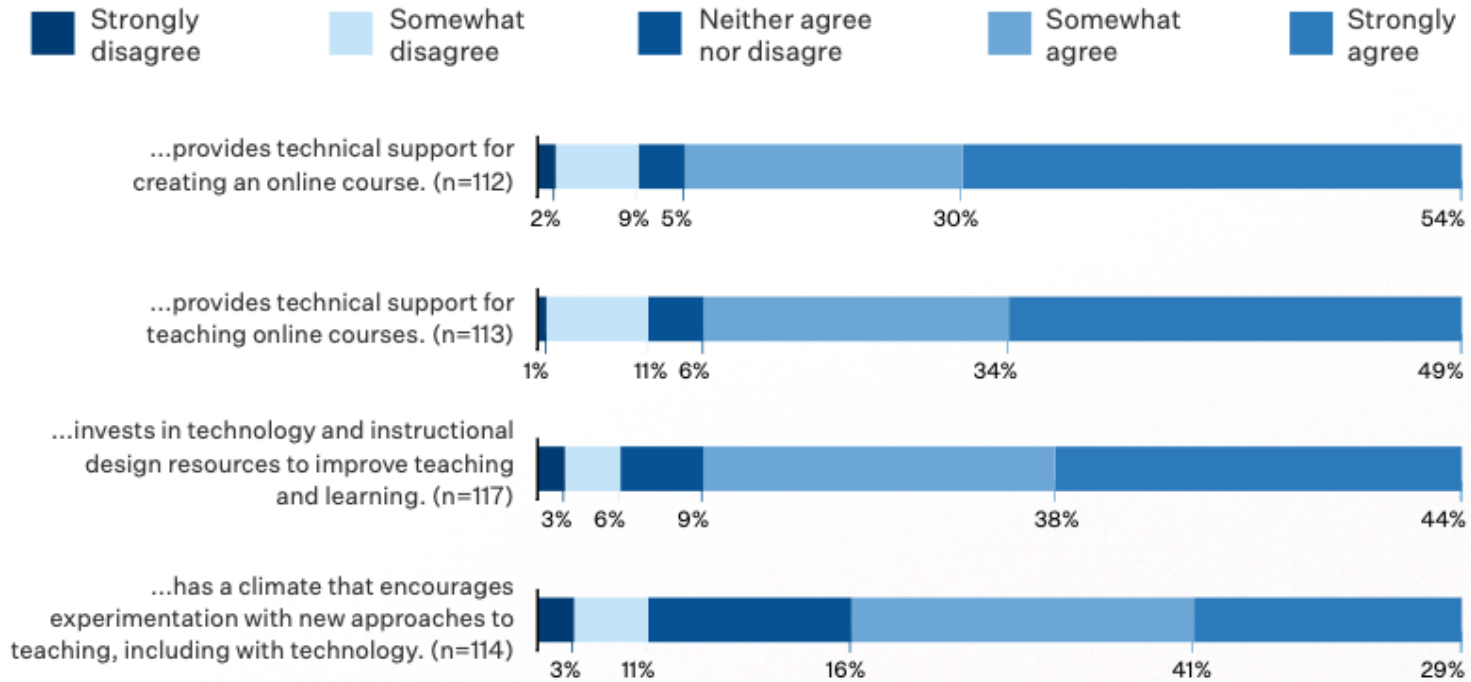
To what extent do you agree or disagree with the following statements related to digital learning at your institution?



- 83 percent of CIOs said their ability to offer high-quality hybrid courses has increased since the pandemic, with 71 percent agreeing their online offerings have significantly improved.
- That same number (71%) said their institutions will sustain the ability to offer high-quality online courses.

Online Learning & Infrastructure

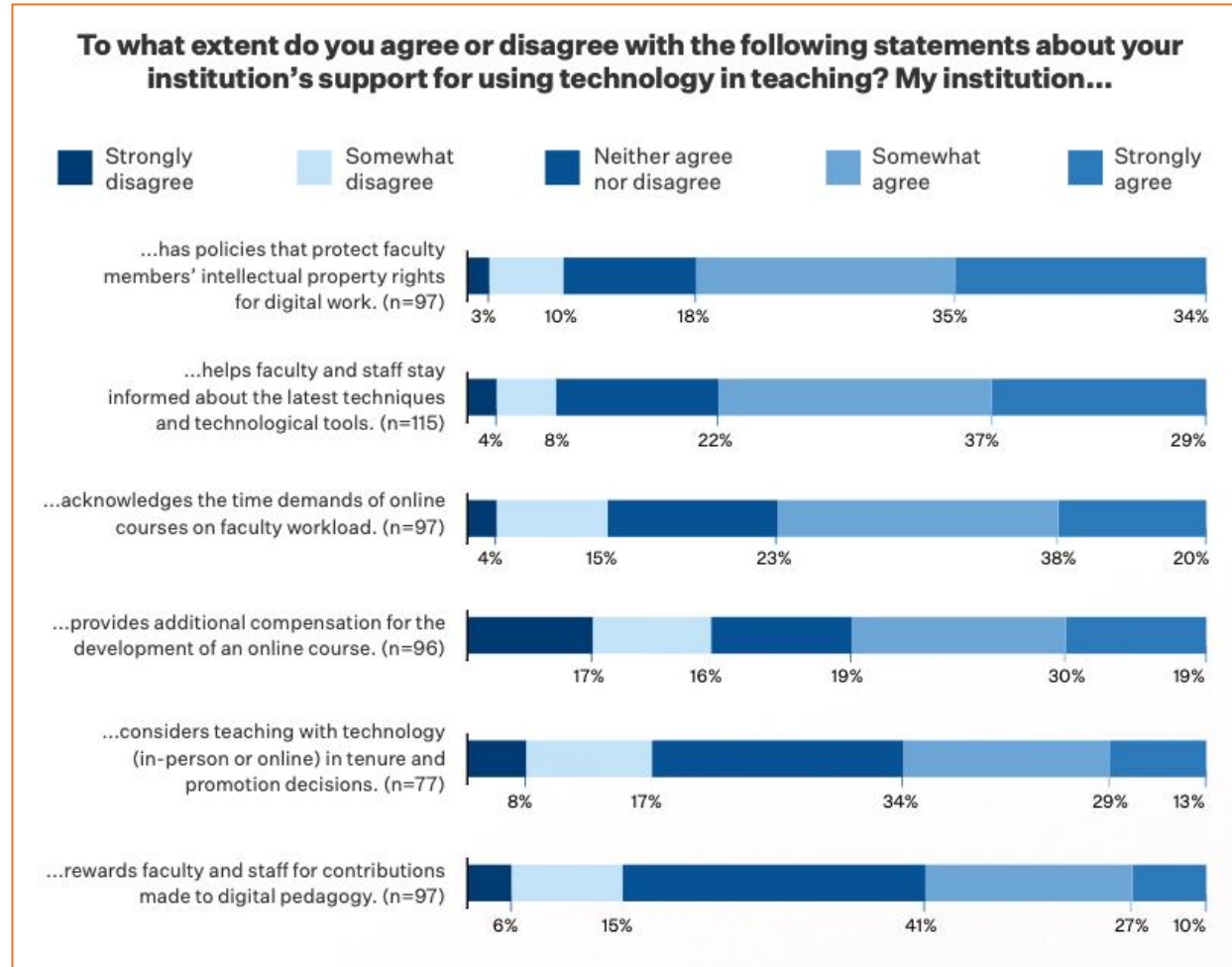
To what extent do you agree or disagree with the following statements about your institution's support for using technology in teaching? My institution...



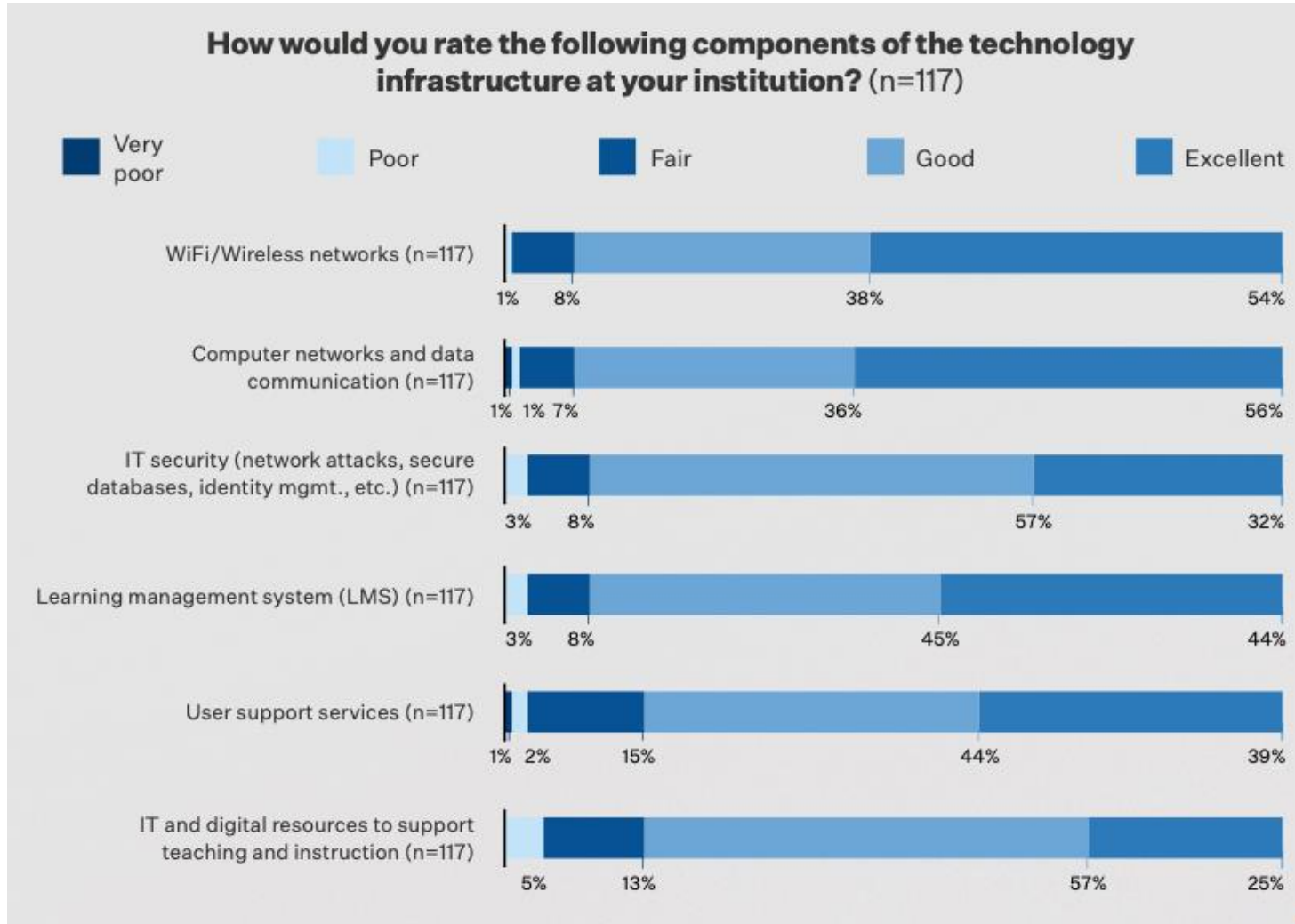
- 84 percent of CIOs say their institution provides the technical support needed for creating and teaching online courses.

Online Learning & Infrastructure

- But fewer than half of the institutions (49%) provide additional compensation for the development of online courses.
- When it comes to tenure and promotion decisions, only 42 percent of institutions consider experience teaching with technology.
- And only four in 10 CIOs (37%) say institutions reward faculty and staff for contributions made to digital pedagogy.



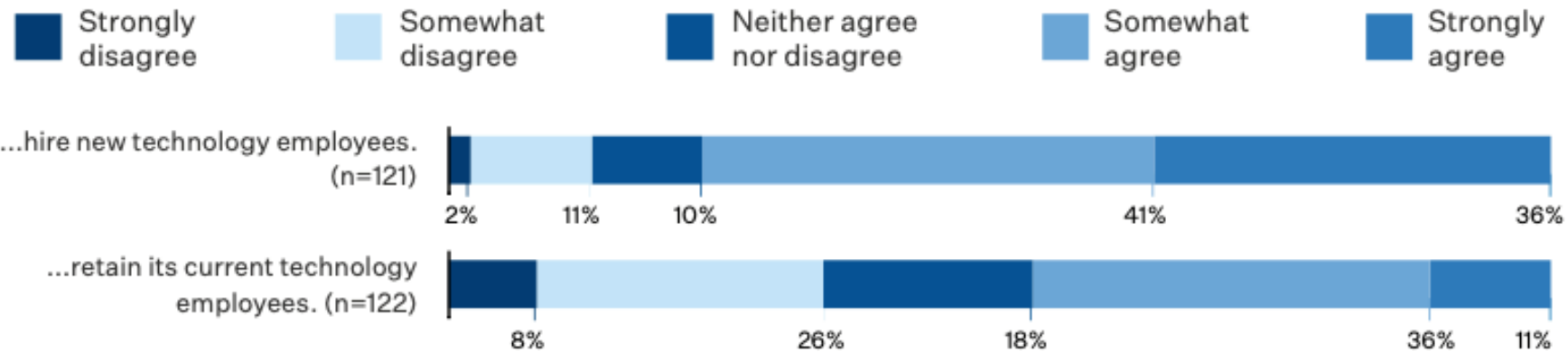
Online Learning & Infrastructure



- Most CIOs are satisfied with their technology infrastructure.
- Nearly every respondent (92%) rated their Wi-Fi and wireless networks as “good” or “excellent.”
- Nearly as many (89%) said their learning management system was also “good” or “excellent.”
- Much more detail on infrastructure in the full report.

Staffing

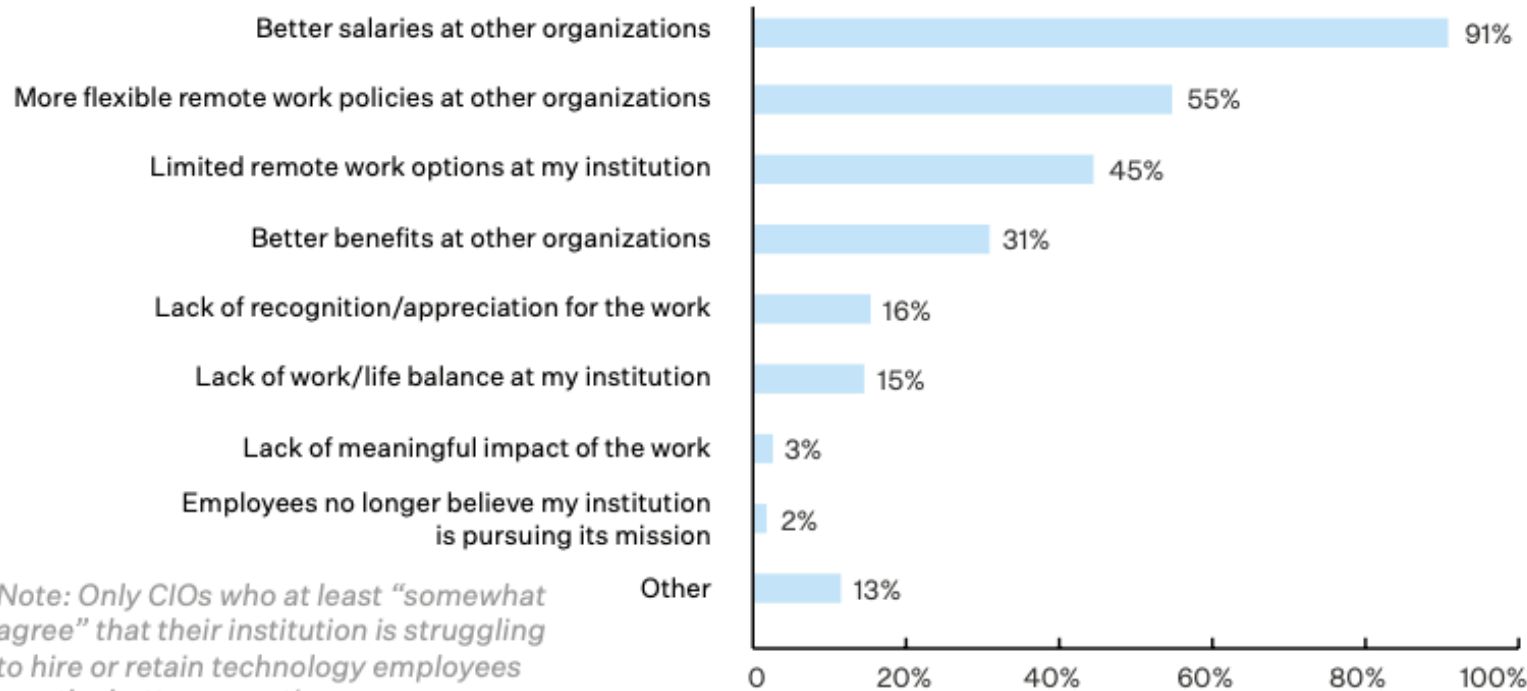
To what extent do you agree or disagree with the following statements related to hiring and retention at your institution? My institution is struggling to...



- Most CIOs (77%) agree that their institution is struggling to hire new technology employees while fewer (47%) agree that it is struggling to retain its current technology employees.
- CIOs in the South (89%) are more likely than those in the Midwest (69%) to agree that their institution is struggling to hire new technology employees, and more respondents in the South (61%) than in the West (33 %) agree that their institution is struggling to retain employees.

Staffing

Which of the following factors do you believe are responsible for your institution's difficulties retaining or hiring technology employees?
Please select all that apply. (n=94)



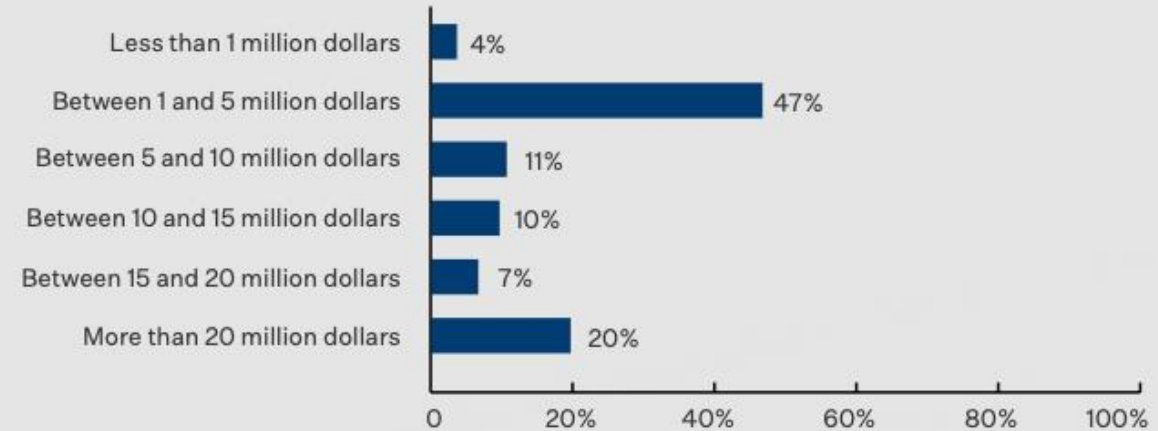
Note: Only CIOs who at least "somewhat agree" that their institution is struggling to hire or retain technology employees saw the bottom question.

- Salary is the top concern when it comes to hiring, with 91 percent of CIOs stating it is the No. 1 issue when it comes to recruiting, and keeping, employees.
- More flexible remote work policies at other organizations also make it harder to compete, according to 55 percent of CIOs.

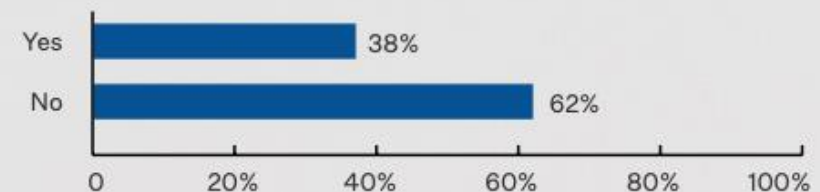
Budgets

- Most CIOs (62%) report their institutions did not cut back on the central IT budget during the 2022–23 year.
- And 47 percent of respondents had a budget between \$1 million and \$5 million.

What was the total budget for central information technology operations and services (e.g., personnel, equipment, operations, projects, software) at your institution for the 2022-23 fiscal year? (n=137)

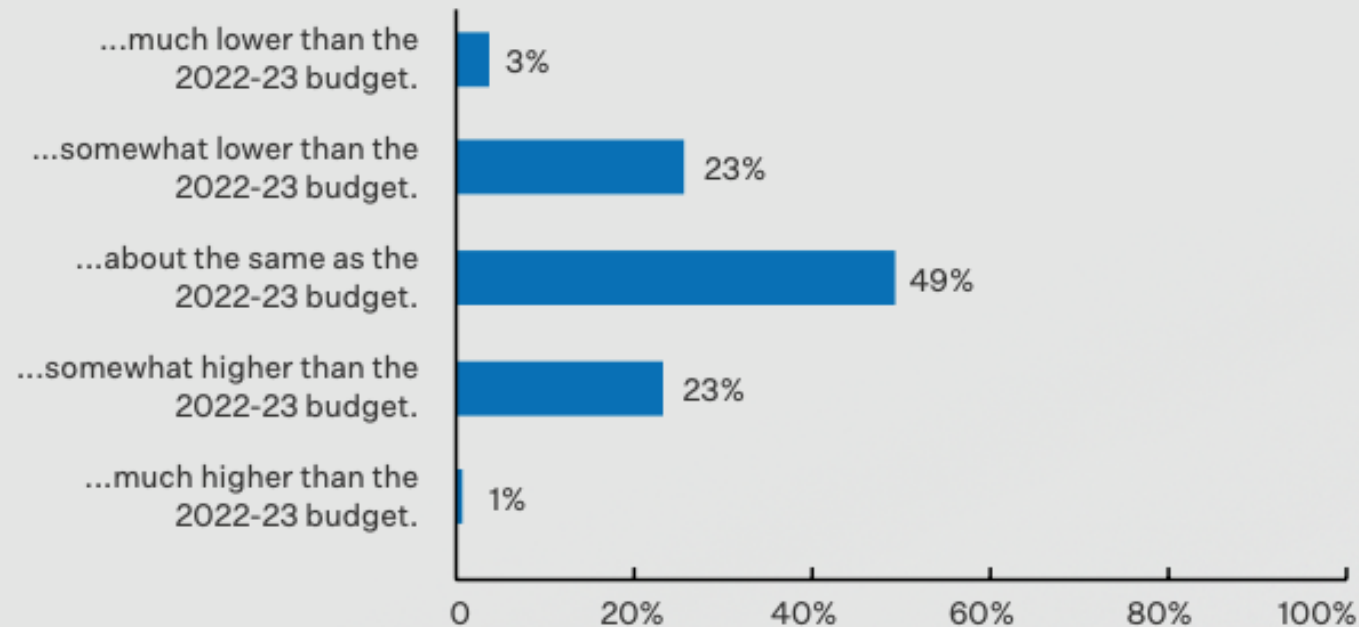


Did the central IT budget have any cutbacks during the course of the 2022-23 year? (n=137)



Budgets

I expect the 2023-24 central IT budget to be... (n=137)



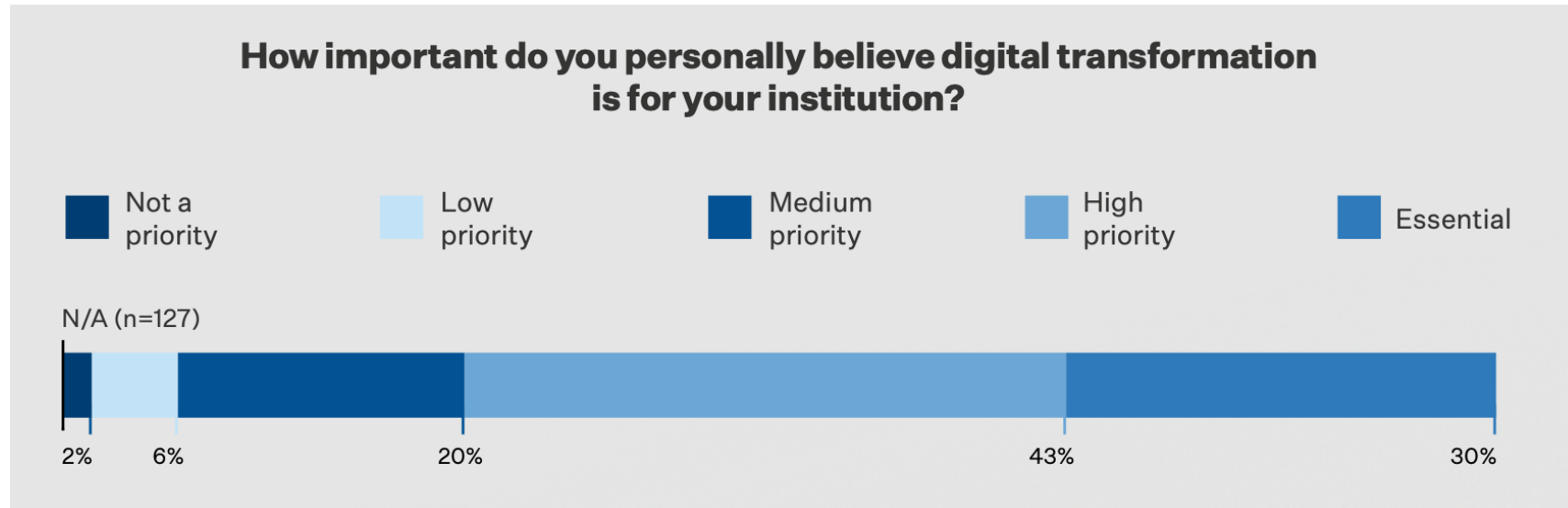
- About half (49 percent) of respondents said their 2023–24 central IT budget should stay the same as the prior academic year.
- 23 percent expected their budget to be somewhat higher.
- The remaining 23 percent expected it to be somewhat lower.
- More on specific investments in the full report.

Digital Transformation

What exactly is Digital Transformation?

- Means many different things to different people and organizations
- **Educause:** “A series of deep and coordinated culture, workforce and technology shifts that enable new educational and operating models and transform an institution’s operations, strategic directions, and value proposition.”
- **Science and Information Organization:** “Organizational change realized by means of digital technologies and business models with the aim to improve.”

Digital Transformation



- 73 percent said they personally believe digital transformation is a “high priority” or “essential” for their institution.

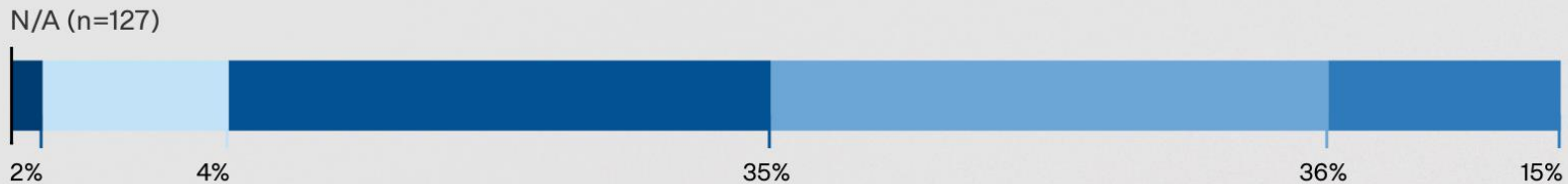
Digital Transformation

How important do you personally believe digital transformation is for your institution?



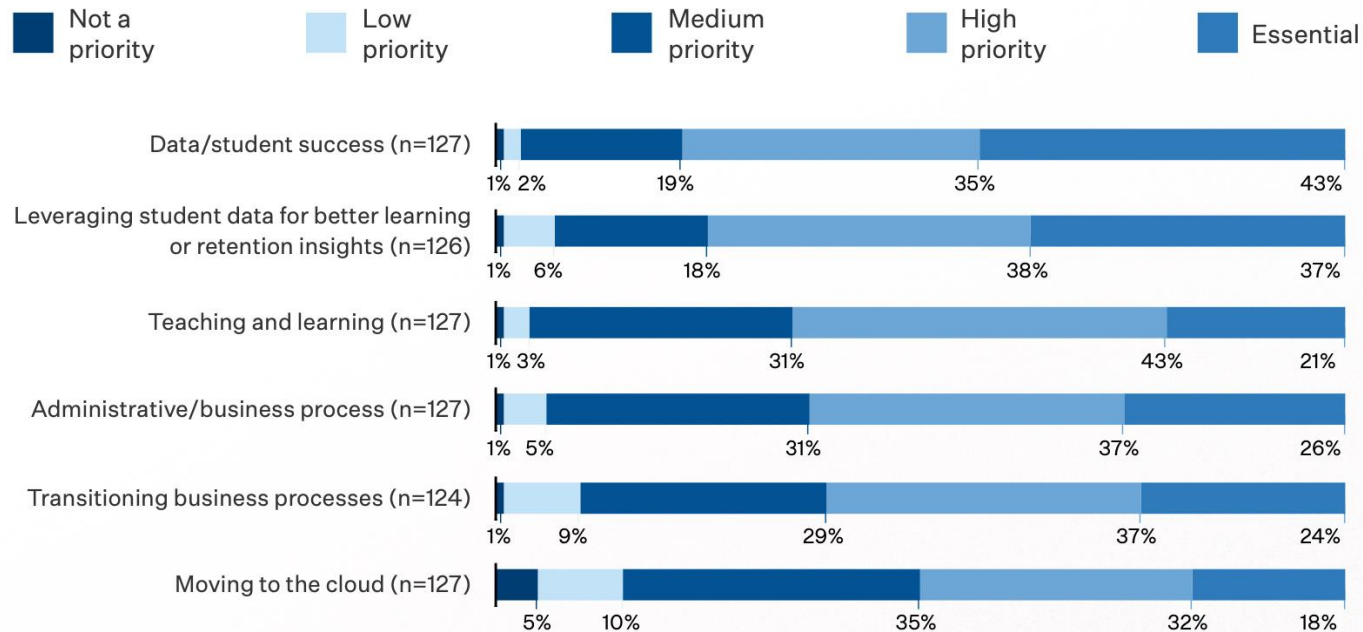
• *But ...*

How important do you believe digital transformation is for senior leaders at your institution?



Digital Transformation

How much of a priority are the following focal areas in terms of digital transformation efforts?



- Nearly four in five of respondents (78%) said their institutions are focusing on using digital transformation efforts for student success, citing it as a “high” or “essential” priority.

Telecounseling Talk: What Students Say
 Student Voice data offer insight into students' experiences with telecounseling. What can college leaders do to help ensure students are getting quality virtual care?

Data-Based Decisions Tip: Removing Barriers to Completion With Policy Revision

To boost completion rates among students, the University of California, Irvine, used data to work collaboratively with institutional divisions to reimagine major-change policies.

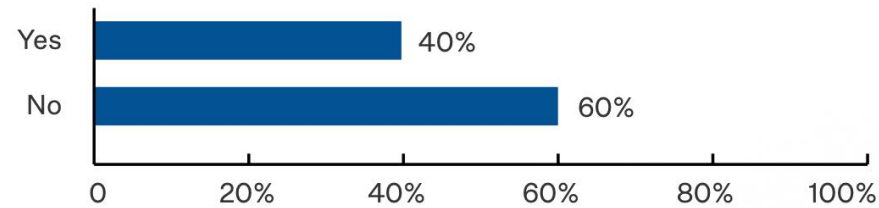
Campus Engagement Tip: Connecting Online-Only Learners
 Fort Hays State University gave the reins of website Tiger-2-Tiger, initially a digital learning community, to students to share, inspire and motivate one another asynchronously and synchronously.

Data-Based Decision Tip: Disaggregate Data to Spot Underserved Populations

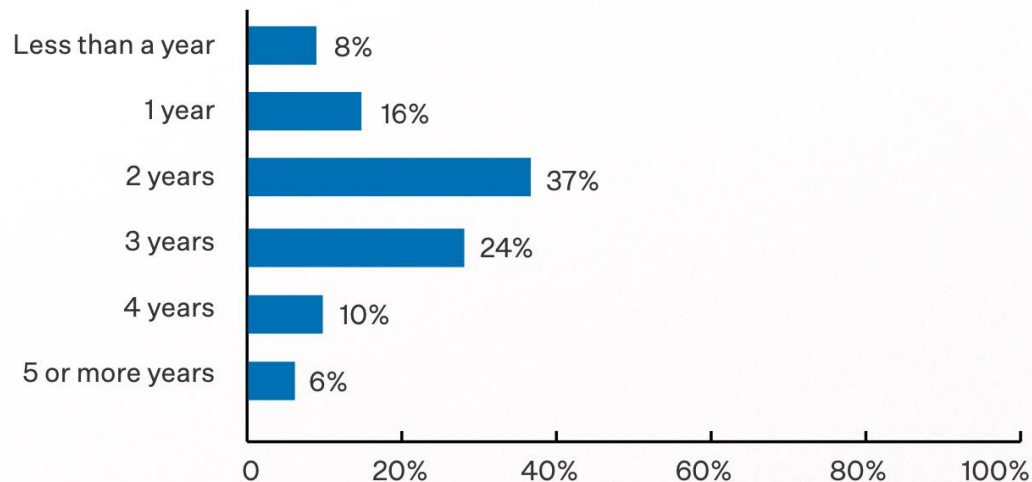
Muhlenberg College's career center administrators use participation and engagement data to better understand its underserved student populations and reframe its services.

Digital Transformation

Has your institution set specific goals for digital transformation? (n=127)



How long will it take to make progress on the most pressing goals? (n=51)



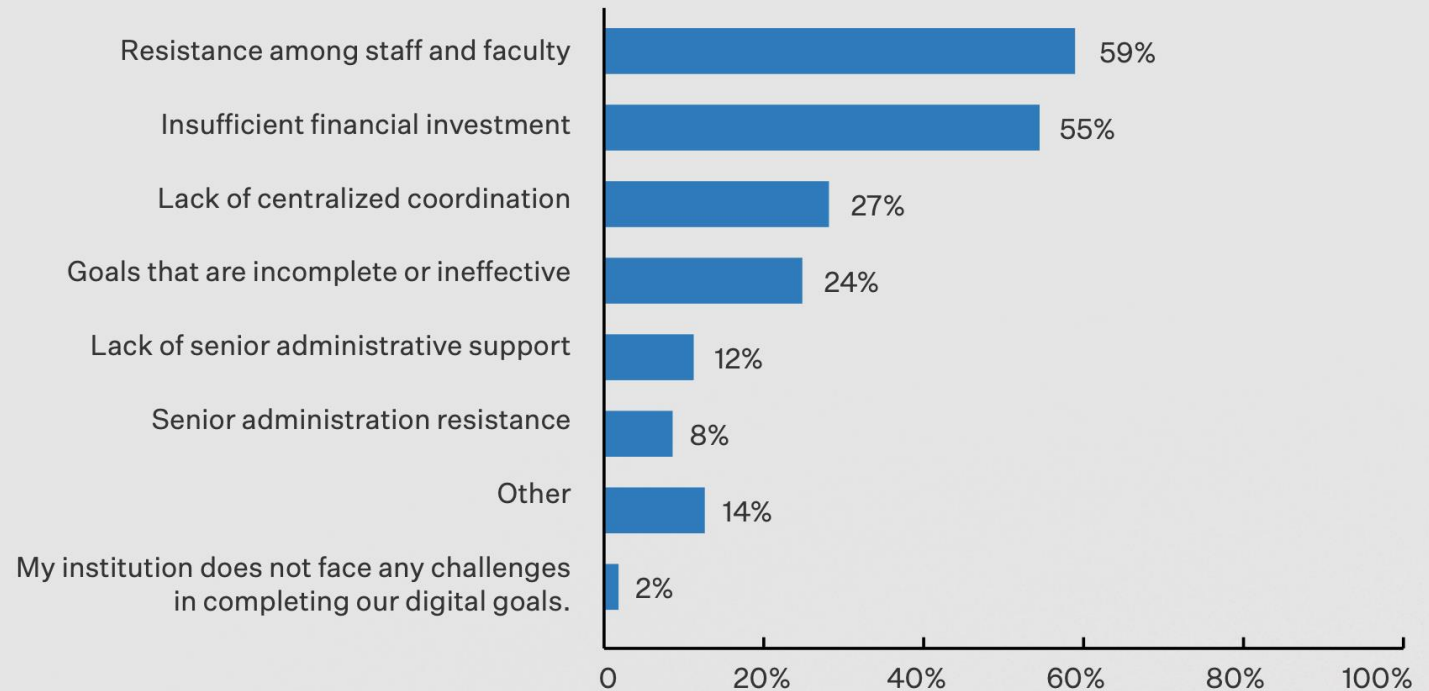
We know it's important but ...

- 60 percent CIOs said their institution has not set specific digital transformation goals.
- Of those with goals, most indicate it will take one to three years to make progress on the most pressing ones.

Digital Transformation

- The biggest challenges are resistance among staff and faculty and insufficient financial investment.

What are your institution's biggest challenges when it comes to achieving its digital goals? Please select all that apply. (n=51)

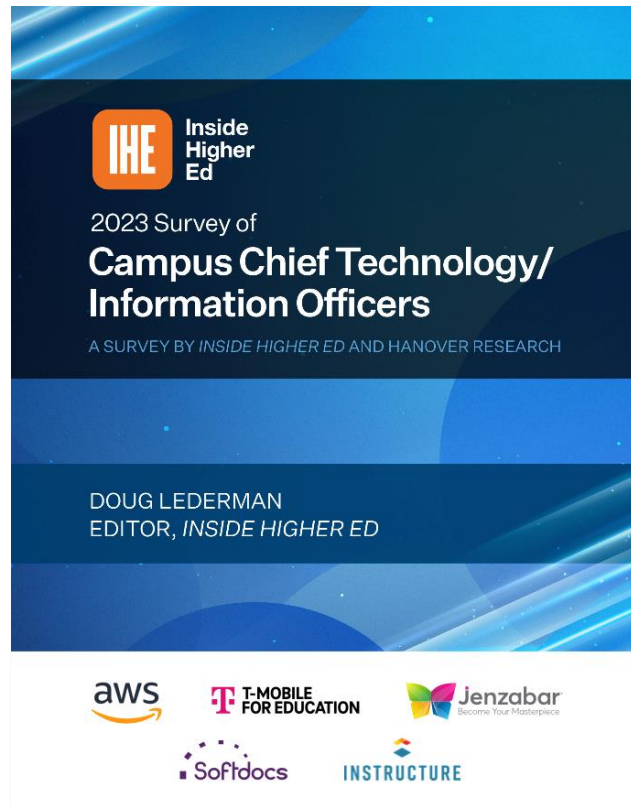


Note: Only CIOs whose institution set specific goals for digital transformation saw this question.

Other Findings

- Nearly half (48%) of CIOs agree that senior administrators at their institution treat the central technology unit more like a utility than a strategic partner, a slight decrease from the 52 percent that somewhat or strongly agreed with that sentiment in 2022.
- Nearly two-thirds of CIOs are in the president's cabinet, similar to 2022, and 94 percent said they expect to remain in the cabinet. Of the CIOs in those positions, 71 percent were added to the cabinet before 2020.
- More CIOs from public institutions (35%) than those from private institutions (12%) indicate that more than 100 employees are managed by their institution's central IT department.

More on the Survey



- *Inside Higher Ed* [article on the survey](#)
- [Download](#) the survey report.
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