

A DECADE OF CHANGE: WHAT THE DATA TELLS US ABOUT THE CURRENT AND FUTURE OF ADOPTION OF DIGITAL LEARNING

13 AUG 2025

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PRESENTATION DETAILS

Research
background



Trends and
Results



Conclusions
& Q&A



RESEARCH QUESTIONS



What are the trends in adoption and awareness of digital course material options?



How have opinions and approaches to digital vs. print course materials changed?



RESEARCH BACKGROUND

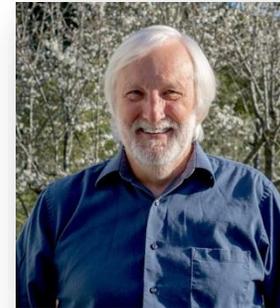


INTRODUCTION TO BAY VIEW ANALYTICS

Bay View Analytics offers a comprehensive suite of consulting services in survey design and statistical research. Our services build on nearly two decades of research and survey design, sampling, and statistical analysis expertise.



Julia Seaman, Ph.D.
Director of Research



Jeff Seaman, Ph.D.
Director

RESEARCH AND PROJECTS

OpenTextbookProject.org

Open Textbook Project

Welcome to the Open Textbook Project

The Open Textbook Project is a growing repository of surveys, studies, and data on course material affordability, and its impact on student success in U.S. higher education.

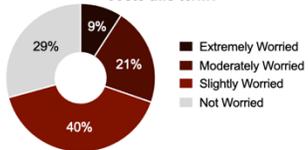
Our goal is to provide the most up-to-date, comprehensive source of information on the subject, as well as providing support and tools for states and organization that want to design their own research studies.

Majority of U.S. college students are worried about meeting their course material costs

Download report (PDF): https://www.bayviewanalytics.com/reports/2023_student_course_material_affordability.pdf.
Report as a webpage: https://www.bayviewanalytics.com/reports/2023_student_course_material_affordability.html.
Press release: [Majority of U.S. college students are worried about meeting their course material costs](#)

In a recent national survey, 71% of undergraduate students in the U.S. reported being worried about meeting their course material costs for the current academic term; 30% said they were "moderately" or "extremely" worried about meeting these costs. Over half of the students who participated in the survey say that their course material costs per term are over \$200.

How worried were you about meeting your course material costs this term?



Open Textbook Project

National and Regional

- Bay View Analytics
- Cengage
- Library Journal
- Midwestern Higher Education Compact
- Open Textbook Alliance
- PIRG

State Level

- Colorado
- Connecticut
- Florida
- Illinois
- Oregon
- Pennsylvania
- Tennessee
- Virginia
- Washington

Institutions

- Bentley University
- Gettysburg College
- Old Dominion University
- Randolph College
- SUNY Oneonta
- University of Hawaii at Manoa
- William & Mary

Contact Us

We welcome your feedback and questions. Please submit any questions or comments you may have.

BayViewAnalytics.com

Bay View Analytics Presentations



Bay View Analytics participates in multiple conferences focused on education research and online learning. Our presentations cover our most current research on distance learning and open educational resources in US K-12 and higher education, and offer an overview of trends over the last decade. The presentations reflect work with multiple partners, including the William and Flora Hewlett Foundation, the Online Learning Consortium, Cengage, Pearson, and the Western Interstate Commission for Higher Education (WICHE), among others.

Online Teaching Conference - 2025

National And California Trends In Online Teaching and Digital Courseware

Date: June 18, 2024

Presenters: Jeff Seaman, Ph.D. (Bay View Analytics), Julia Seaman, Ph.D. (Bay View Analytics), Michelle Pliat (Open Educational Resources Initiative)

This presentation examines the level of online teaching and the use of digital tools nationally and in California higher education classrooms. Using data from Bay View Analytics national surveys conducted between 2012 and 2023, the presentation examines course-making, current use rates for course materials regularly used with students, and their format (print or digital). Faculty also provided the source or creator for many materials, such as self-created, commercially purchased, or free online or OER. Finally, the presenter will discuss the implications for online teaching in California and nationally.

Download presentation slides (PDF)

AI/ML - 2025 Forum on Digital Innovation

Course material costs as a barrier for student success: local, state, and national efforts to assess the impact

Date: April 3, 2024

Presenters: Jeff Seaman, Ph.D. (Bay View Analytics), Julia Seaman, Ph.D. (Bay View Analytics)

This presentation reviews the statewide course material affordability research landscape from the local to the national level. These projects build upon the groundwork laid by the Florida Student Textbook and Course Materials Survey and were soon expanded to additional states. Each project engaged with students to understand their barriers and their impact on academic success. The presenter will highlight the significant commonalities among the results from all states and note any differences. The speakers will discuss project implementation and the impact of results and advise others who may want to follow in their footsteps.

Download presentation slides (PDF)

OpenStax Webinar

Trends on Digital Course Material Use and OER Awareness in K-12: Results from our National Survey of K-12 Teachers

Date: March 25, 2025

Presenters: Julia Seaman Ph.D. (Bay View Analytics), Jeff Seaman, Ph.D. (Bay View Analytics)

Did you know that just one-third of K-12 educators use open educational resources (OER)? Dr. Julia Seaman and Dr. Jeff Seaman will be sharing findings from the 2024 Bay View Analytics survey "Conflicted Digital Adoption: Educational Resources in U.S. K-12 Education, 2024", including:

- The challenges facing K-12 educators and learners in a post-pandemic educational environment
- The role of open educational resources (OER) in bridging the gap between print and digital
- The impact of adaptability - how open educational resources (OER) can serve all students digitally or in print

Download presentation slides (PDF)

Open Educational Resources

Approaching a New Normal? Educational Resources in U.S. Higher Education, 2024

Download report: [Approaching a New Normal?](#)

This is the 13th report in a series of surveys tracking curricula discovery, selection, and adoption processes in U.S. higher education. The survey responses for this analysis were collected in April 2024, from a total of 3,447 faculty. The respondents come from all 50 U.S. states, the District of Columbia, and the Virgin Islands.



Key takeaways from this year's survey are:

- Fully face-to-face courses remained the most common modality in 2024, with three-quarters of faculty teaching at least one such course. A smaller portion of faculty (40%) taught at least one course that was fully online.
- Digital options for required textbooks continue to grow. The majority of faculty (78%) have a required textbook for students for their largest enrolled course, and almost all required textbooks (92%) are offered in a digital format.
- Faculty sponsors on print versus digital materials remain confound and stable. The majority of faculty (79%) agree digital materials offer students greater flexibility, but a large number of faculty (41%) also agree that print materials are better for student learning.
- Faculty awareness for licensing varies by the type of license. Faculty have the highest level of awareness for copyright (91% aware in any level), followed by public domain (70%), and finally Creative Commons (58%).
- In 2023-24, more than half of faculty (56%) were aware of OER at any level. However, OER awareness dropped 8% compared to 2022-23, to a level seen two years ago, in 2021-22. For the most part, differences were seen evenly across faculty characteristics like teaching modality, discipline, and institution type.
- There was a 2% decline in the rate of use of OER as required materials for 2023-24 compared to 2022-23, paralleling the decrease in OER awareness. Overall, 26% of all faculty reporting that they use OER as a required material in their courses.

Conflicted Digital Adoption:

Educational Resources in U.S. K-12 Education, 2024

Download report: [Conflicted Digital Adoption: Educational Resources in U.S. K-12 Education, 2024](#)

This is the 8th report in a series tracking curricula discovery, selection, and adoption processes in U.S. K-12 education. This survey was conducted in April 2024, with a total of 1,377 teachers and 206 administrators participating. The respondents come from 48 states and the District of Columbia.



Key takeaways from this year's survey include:

- One third of K-12 teachers are aware of open educational resources (OER), the highest level since we started measuring in 2018-19. A similar percentage of teachers report using OER materials this year.

- State-focused research
- K-12 and Higher Education
- Students & course material affordability

We welcome your feedback and questions. Please use the form below to submit any questions or comments you may have.

What would you like to do?

Join the Bay View Analytics mailing list

Give feedback or make a request

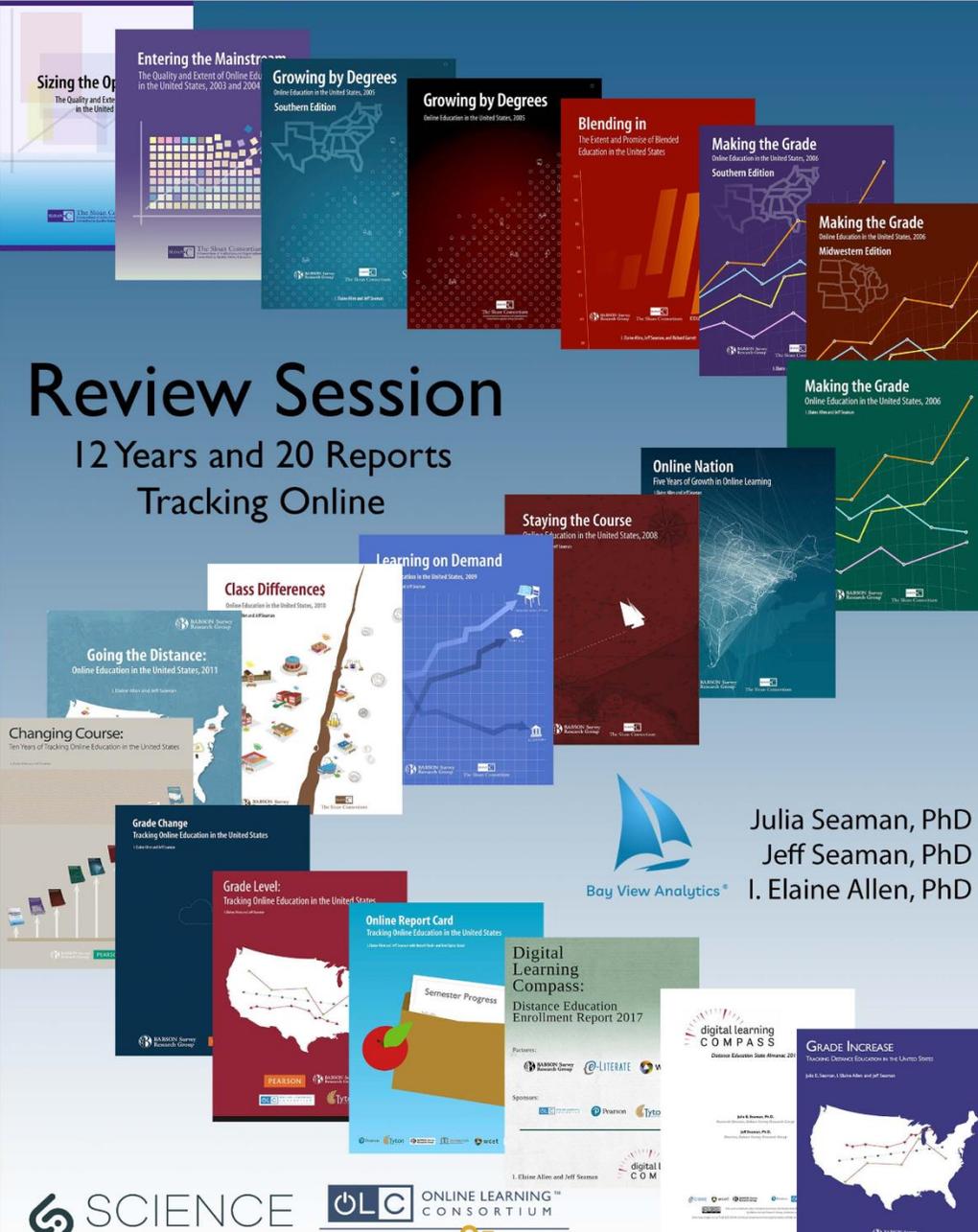
Participate in Bay View Analytics research projects

Your name (Optional) We only use your name to personalize emails to you. It is never shared.



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Review Session

12 Years and 20 Reports
Tracking Online



Julia Seaman, PhD
Jeff Seaman, PhD
I. Elaine Allen, PhD



Review Session: 12 Years and 20 Reports Tracking Online Learning



ONLINE LEARNING™
CONSORTIUM

CELEBRATING **25** YEARS



SCIENCE
INTERACTIVE

bayviewanalytics.com/reports/reviewsession.pdf

OVER A DECADE OF RESEARCH ON DIGITAL ADOPTION THROUGH OER AWARENESS

○ Survey asked about OER awareness

COVID-19



Higher Ed



First look at results with 2024-25 Reports in late Aug!

K-12



Over 40,000 respondents across all our reports.

Project supported by

A row of logos for the project's supporters: William + Flora Hewlett Foundation, Online Learning Consortium, Pearson, Alfred P. Sloan Foundation, and Kaplan University.

DIGITAL LEARNING PULSE SURVEY

April 2020: 897 faculty and administrators, 672 institutions.

August 2020: 887 faculty and administrators, 597 institutions.

December 2020: 1,702 faculty and administrators, 1,204 institutions.

April 2021: 1,286 faculty and administrators, 1,469 students, 856 institutions.

October 2021: 2,080 faculty and administrators, 2,266 students, 1,386 institutions.

April 2022: 1,283 faculty and administrators, 2,285 students, 1,181 institutions.

September 2022: 1,206 faculty and administrators, 2,358 students, 1,252 institutions.

September 2023: 1,126 faculty and administrators, 2,229 students, 201 Trustees. 1,423 institutions.

Spring 2020

Summer 2020

Fall 2020

Spring 2021

Fall 2021

Spring 2022

Fall 2022

Fall 2023



SURVEYS AIM TO UNDERSTAND THE ROLE OF DIGITAL MATERIALS IN HIGHER EDUCATION

Goals of Surveys

- To understand the role of OER in Higher Education
- To quantify perceptions and adoption of digital course materials

Respondents

- Faculty
- Administrators
- Nationally representative for geography and type of institution



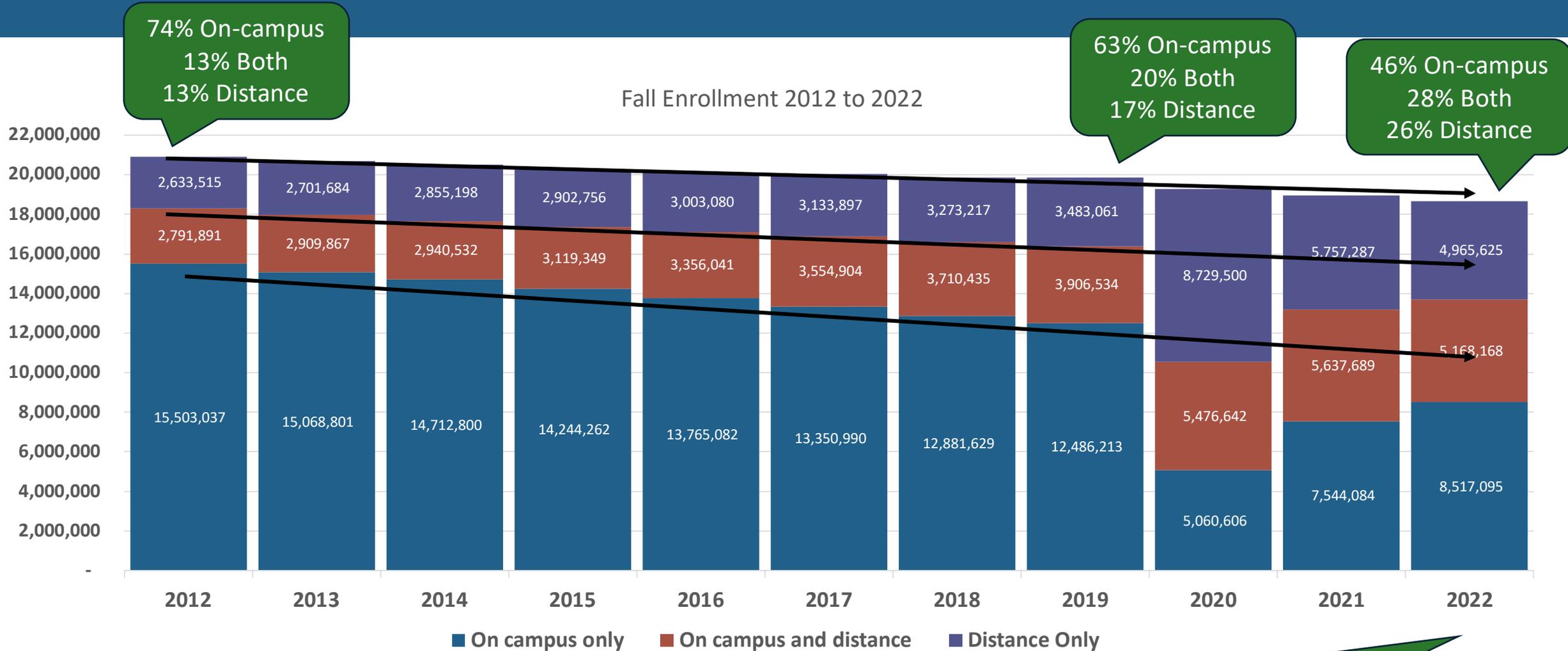
SURVEY DETAILS



RESULT TRENDS TOPICS

- Student Enrollment
- Teaching Modality
- Opinions on Print and Digital
- Textbook Formats
- AI [for the future trends]

WHAT ACTUALLY HAPPENED VS. WHAT MIGHT HAVE



74% On-campus
13% Both
13% Distance

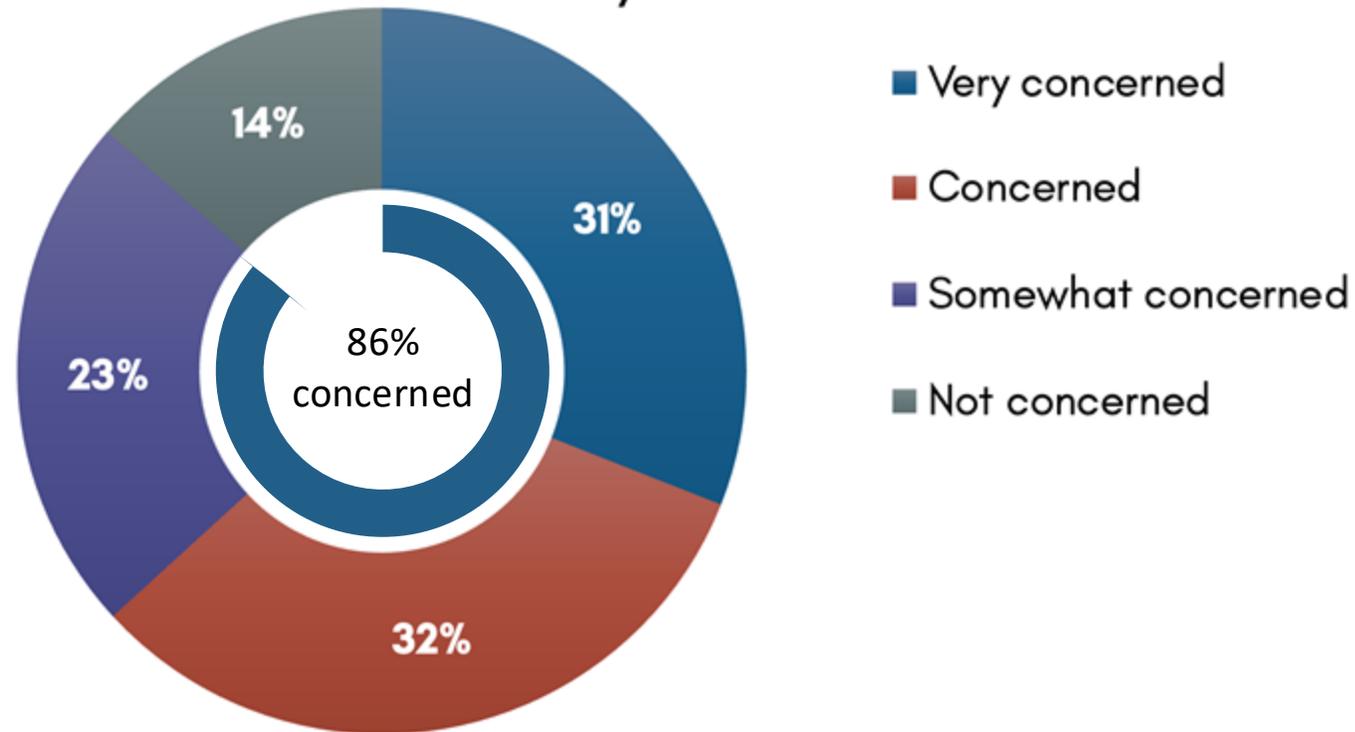
63% On-campus
20% Both
17% Distance

46% On-campus
28% Both
26% Distance

Overall enrollment close to expected
but many more distance students

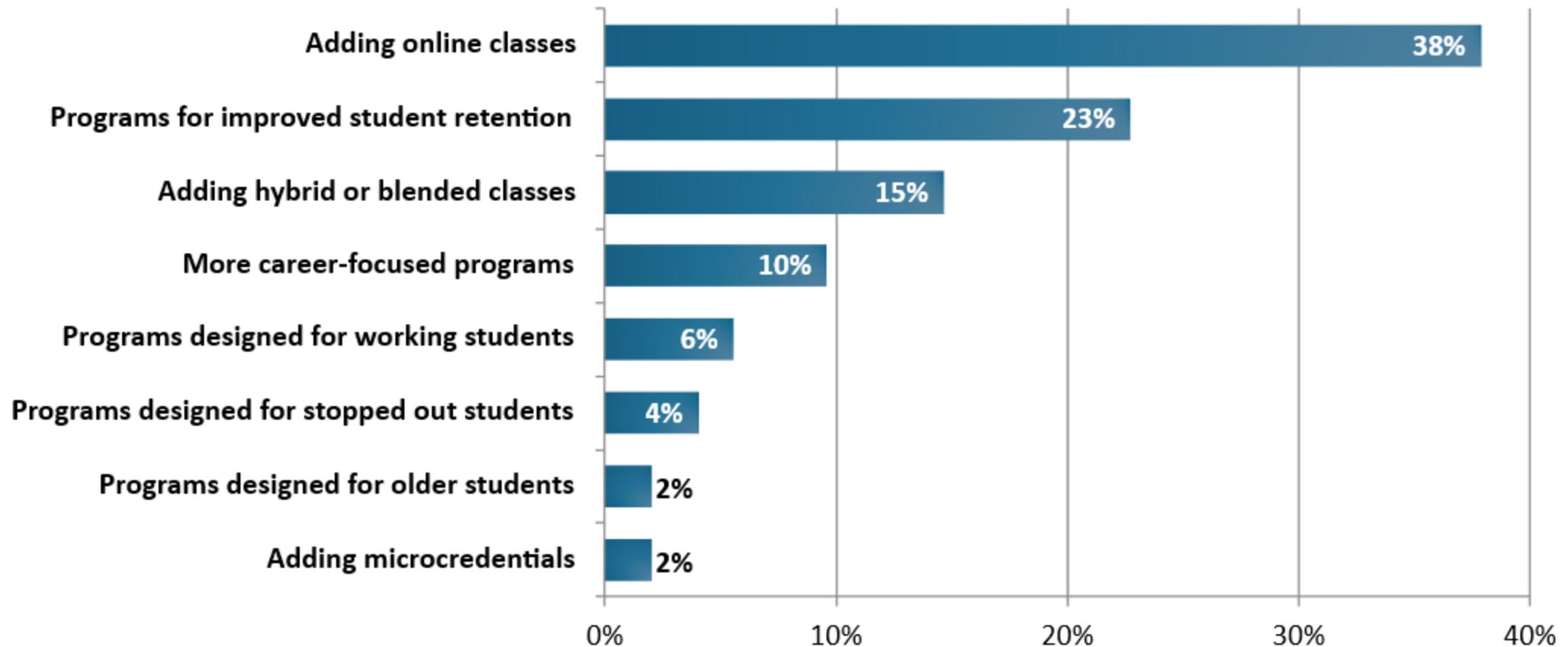
ONLINE: BEST ENROLLMENT SOLUTION

How concerned are you about the level of future enrollments at your institution?



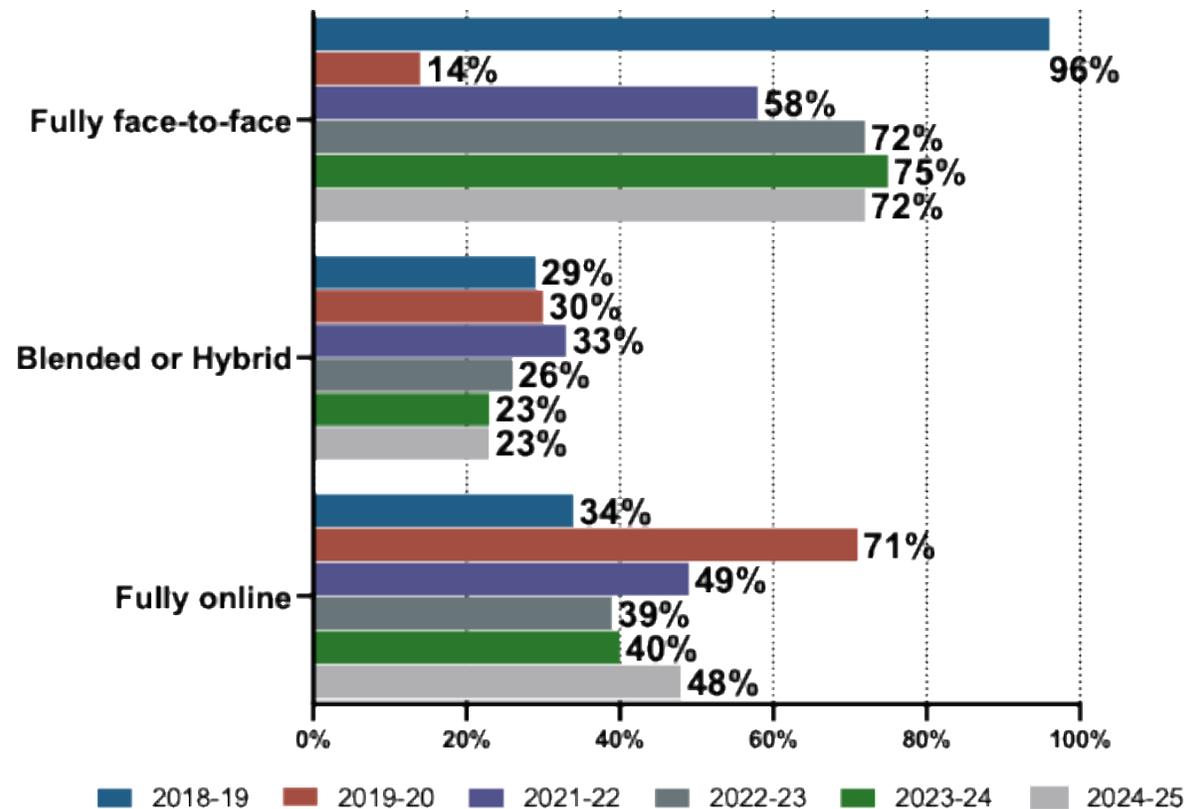
ALMOST EVERYONE IS CONCERNED ABOUT ENROLLMENTS

What has been most effective in addressing enrollment concerns?



IN-PERSON STILL MOST COMMON, BUT ALMOST HALF OF FACULTY TEACH FULLY ONLINE TOO

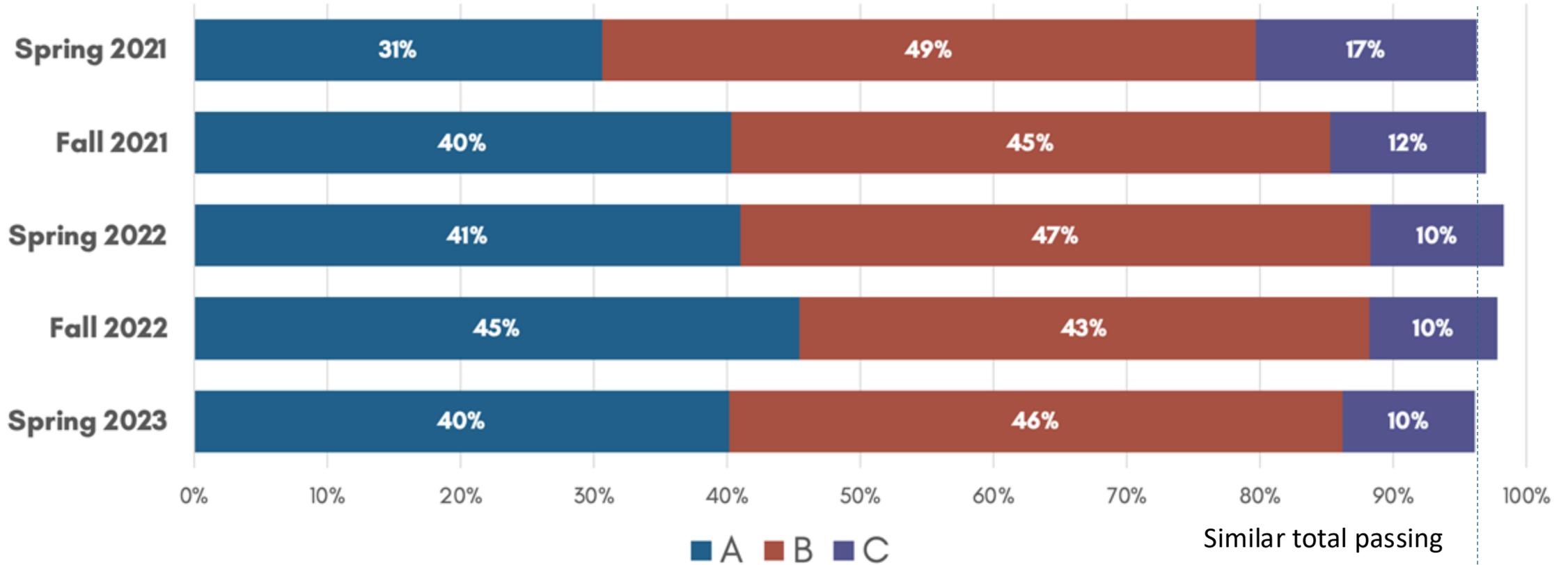
Faculty: Teaching Modality by Year (Select All)



HIGH GRADES FOR TECHNOLOGY

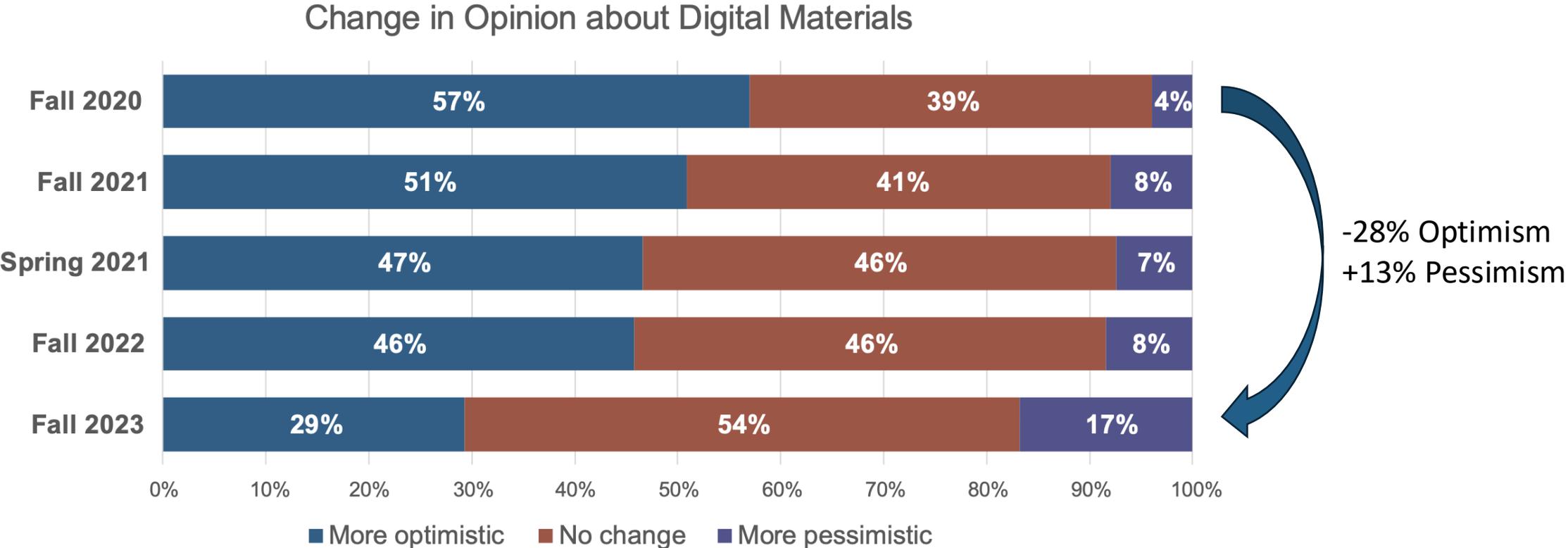
How effectively the technology worked

+9% A grades

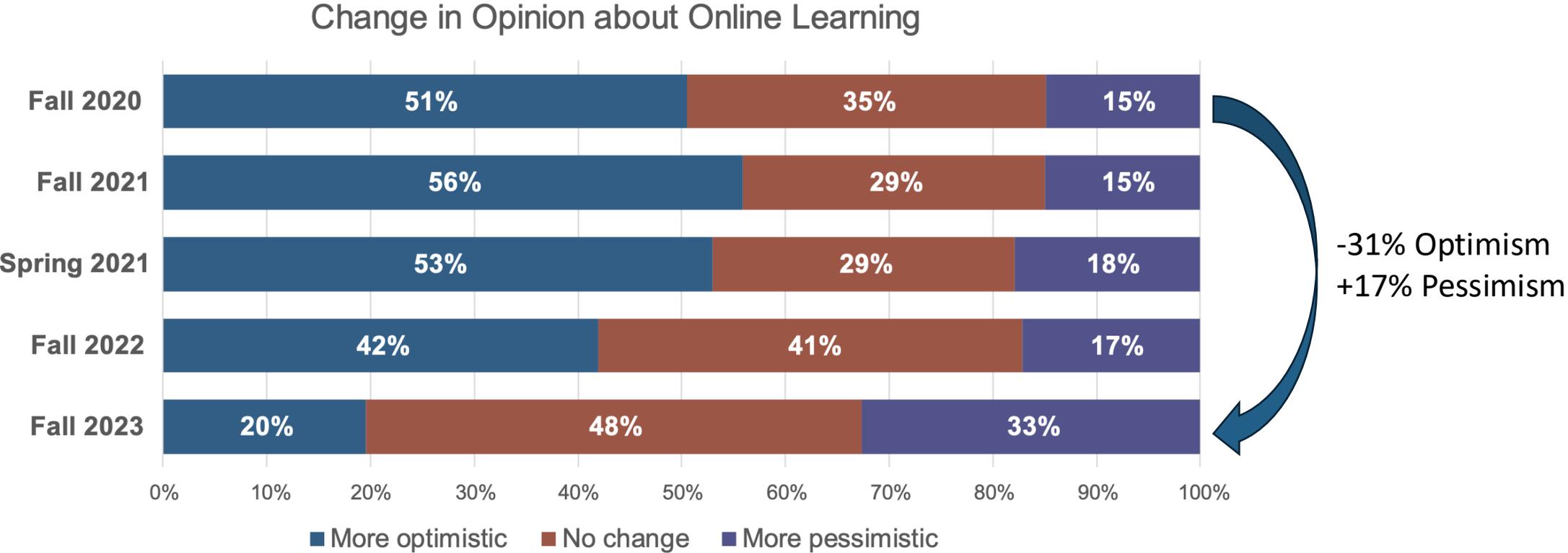


Similar total passing scores across years

FEELINGS ON DIGITAL MATERIALS SHIFT NEGATIVE AS NOVELTY WEARS OFF?



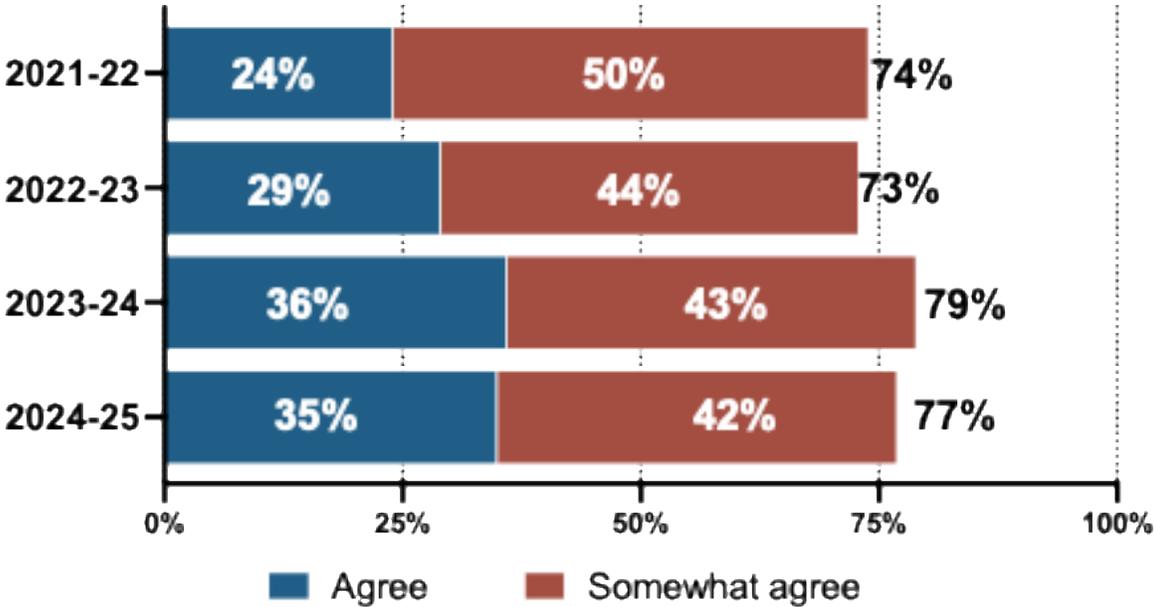
ONLINE LEARNING OPINION ALSO MORE NEGATIVE



FACULTY ARE AWARE AND AGREE OF DIGITAL BENEFIT

Agree = pro-digital

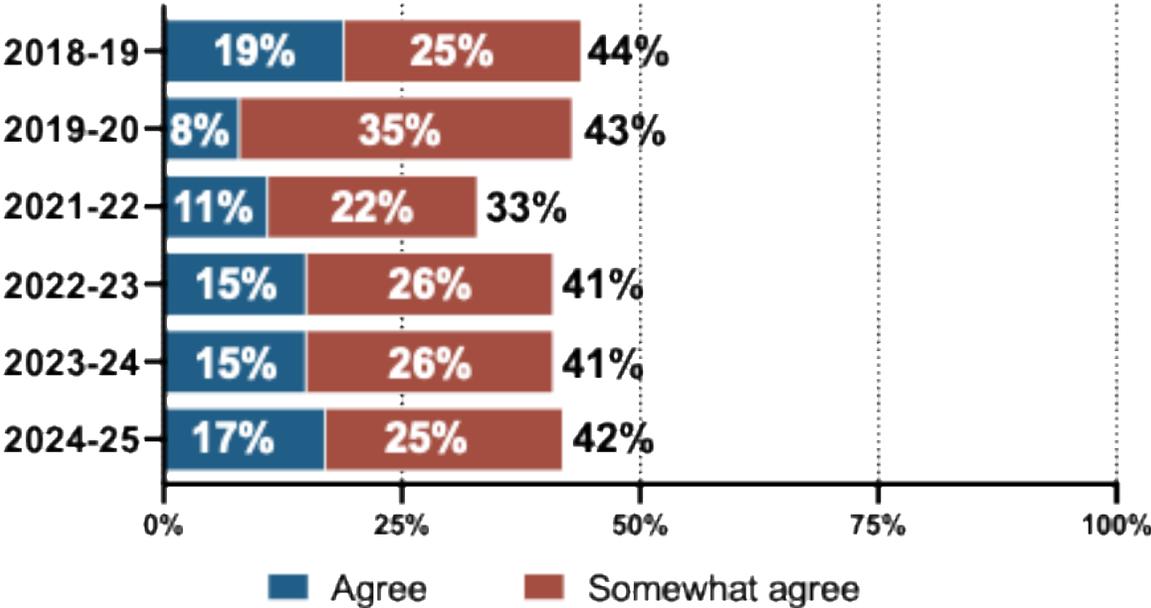
Faculty: Agreement with “Digital materials provide greater flexibility for students” by Year



BUT ALSO HOLD PRINT AS A LEARNING STANDARD

Agree = pro-print

Faculty: Agreement with “Students learn better from print materials than they do from digital materials” by Year



HOWEVER, STUDENTS HOLD MORE PRO-PRINT VIEWS FOR THEIR PERSONAL USE OF MATERIALS

Opinion	Faculty	Students
Digital materials provide greater flexibility for students/me	78% Agree	66% Agree (-12%)
Students/I learn better from print materials than they/I do from digital	42% Agree	52% Agree (+10%)

Agree = pro-digital

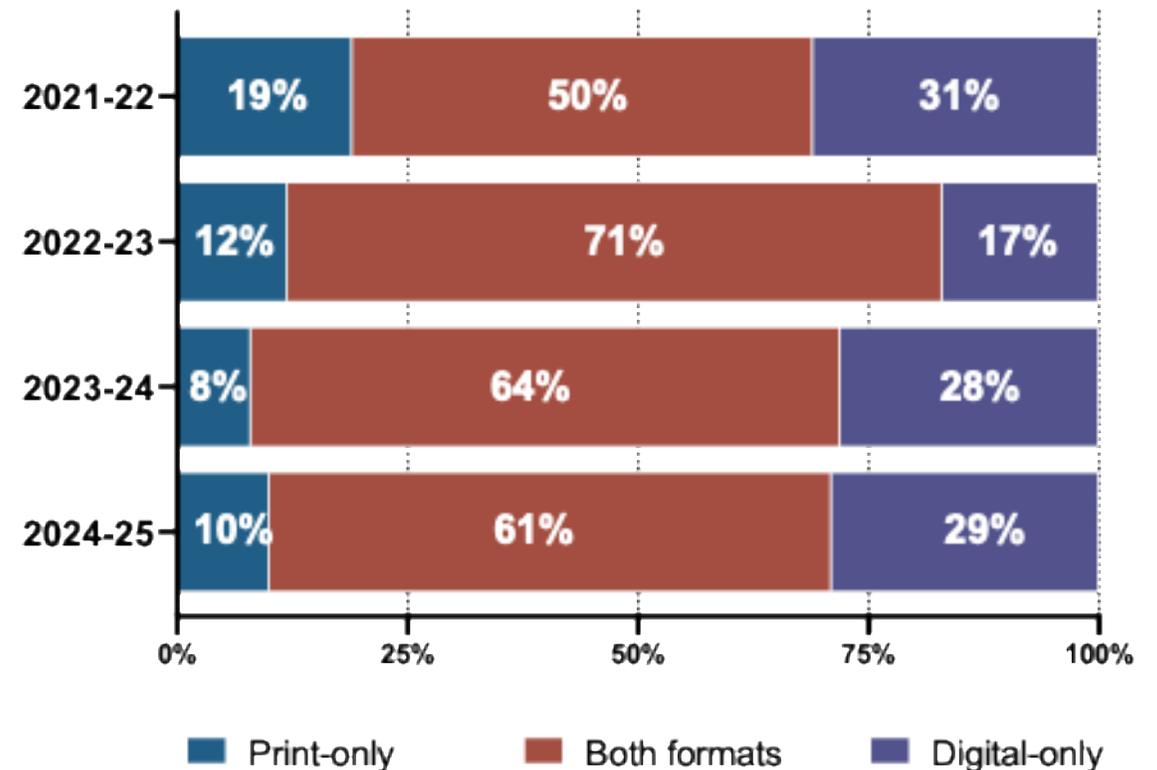
Agree = pro-print



TEXTBOOKS ARE PRIMARILY DIGITAL

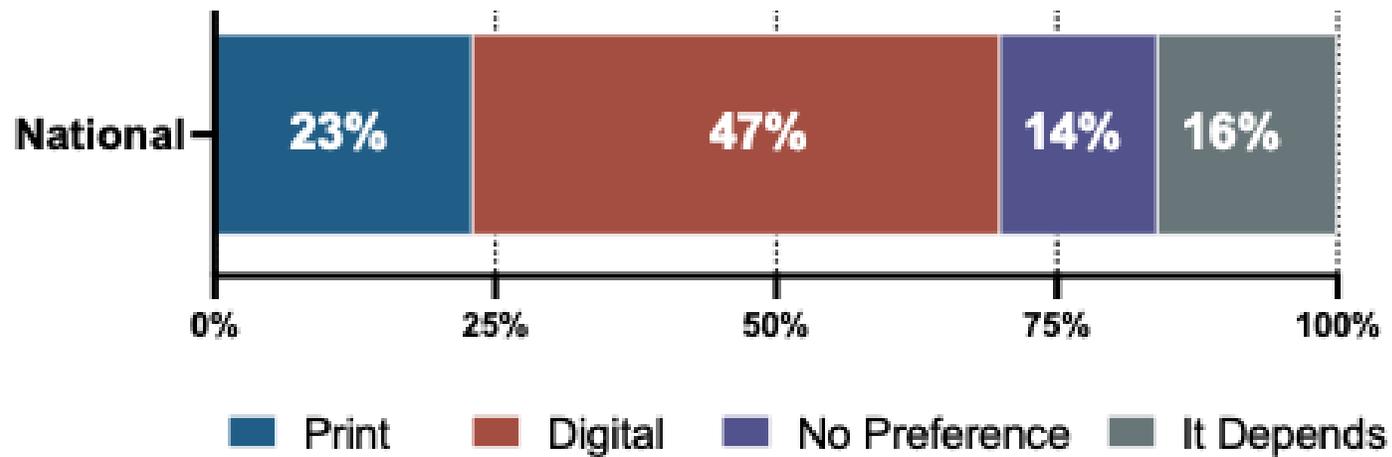
- Nationally, 9 out of 10 courses that require textbooks make them available in a digital format
- Majority of courses offer the textbook in both print and digital formats
- Proportion of digital textbooks similar year over year

Faculty: Required Textbook Format by Year



STUDENTS ARE MIXED ON FORMAT PREFERENCES

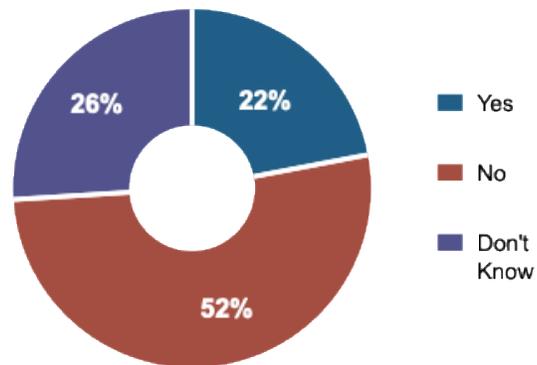
2024-25 Students: What format do you prefer?



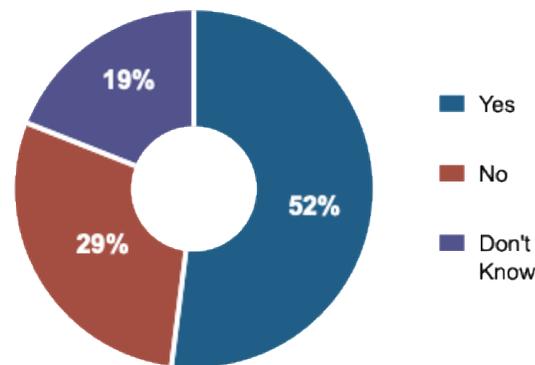
PERCEPTIONS ON AI-IMPACT TO INSTITUTIONS IS MIXED

Do you think that your institution is prepared for AI-related changes?

2024-25 National Faculty



2024-25 National Students

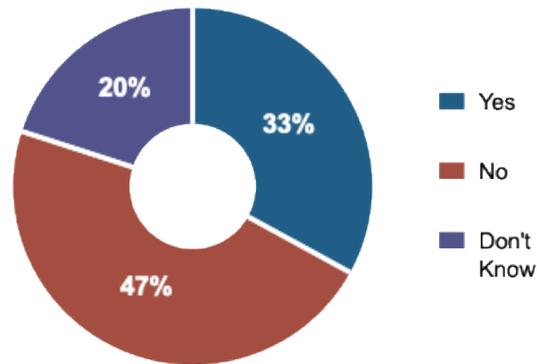


- More than half of all faculty do not believe their institution is prepared for AI-changes
- Students are a lot more optimistic with over half believing their institution is prepared

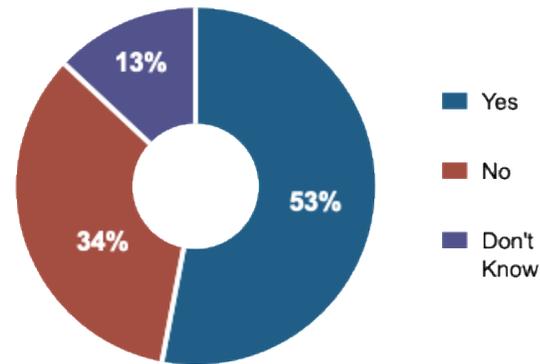
PERCEPTIONS ON AI-IMPACT PERSONALLY ALSO MIXED, LESS UNDECISIVE

Do you think that you are personally prepared for AI-related changes?

2024-25 National Faculty



2024-25 National Students

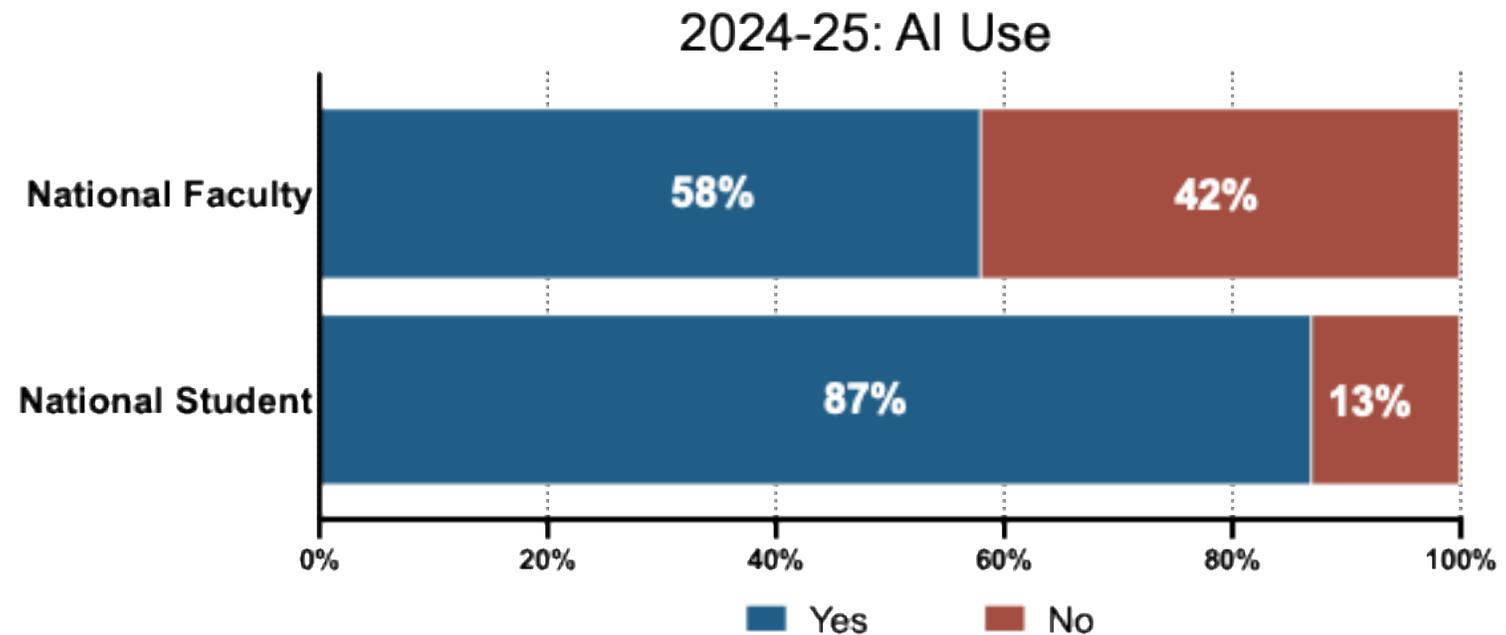


- Many more faculty are positive about their own preparedness compared to their institution
- Students are similarly optimistic about their own preparedness
- Both groups had lower rates of “Don’t Know”

AI USE IN COURSES IS COMMON, AND HIGHLY PREVALENT FOR STUDENTS

Most common use is for preparation of materials, then grading, then administrative tasks

ChatGPT is the most commonly AI cited tool; only 5% of students report professors are unaware of their usage though also report the use is not usually assigned



Faculty: Do you currently use Artificial Intelligence (AI) tools or products in your job?

Student: Have you used any of the following student resources for your coursework this academic year (2024-25)?



CONCLUSIONS



WHAT WE KNOW

- **Tracking online learning enrollment and perceptions is useful** to understanding the current, past, and future trends in higher education.
- **Online education is here to stay**: over 50% of enrolled students take at least one online course, and almost every institution offers some online instruction.
- Online education is **no longer a new strategy for institutions**, but part of their overall plan for education.
- The move to fully online courses during **COVID-19 accelerated the use and acceptance of online materials and course offerings**.
- But there is **growing negativity** towards the current state of digital and online learning



CONCLUSION

Adoption of digital is here and growing and now AI as part of it...

What's Next

Will technological improvements finally mean digital materials are greater than print analogs?

Students vs. Faculty

Overall student preferences lean more towards print but with quicker adoption of AI (though ignores cost factor that can have a big impact).

...but print is not going away.

QUESTIONS?





THANK YOU

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