

# HIGHER EDUCATION INDUSTRY AND FACILITIES TRENDS

Higher education professionals and architects share their views on current education developments and the outlook for the future.

Visual Arts Complex  
University of Colorado-Boulder  
Boulder, CO



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# Foreword

The U.S. education system faces many challenges. Technology is not only challenging traditional teaching methods, but is also altering the manner in which students choose to engage with educators. At the same time, new economic realities have placed strong pressure on institutions to reduce expenses and become more efficient.

Opportunities exist as well, as the very technologies that challenge traditional teaching methods hold the potential to deepen student knowledge and access.

To understand higher education issues, opportunities, and effective campus practices, we gathered feedback from 90 professionals over the latter half of 2012, including many at the Society of College and University Planning (SCUP) annual conference. The professionals we spoke to represent higher education planners and administrators as well as the architects who support them.

**Our findings highlight the meaningful changes that many anticipate for higher education, as well as the diverse priorities that must be managed by campus facilities professionals. Mortenson is committed to bringing knowledge, ingenuity, and expertise to bear on developments facing higher education, and we are pleased to share with you insights from this study.**



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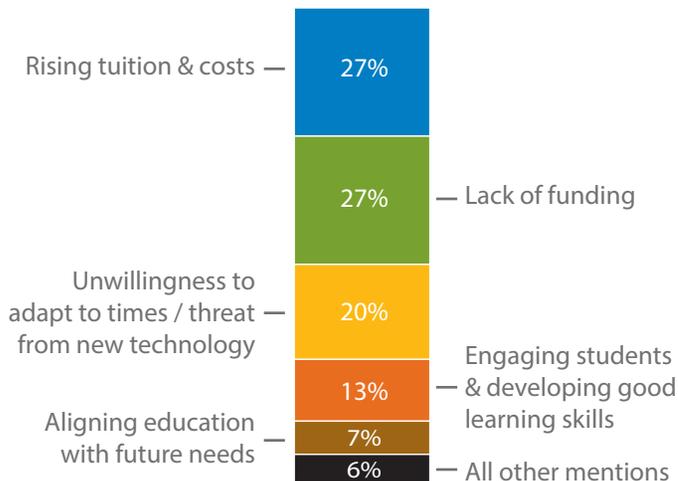
# Money, Technology & New World Pressures

The prolonged weakness of the U.S. economy and a steady increase in university costs is challenging the basic financial model of higher education institutions.

Rising tuition and diminished private and public funding were mentioned by the majority of higher education professionals as the greatest challenges facing higher education.

At the same time, 2 out of 10 professionals mentioned resistance to change as a hurdle. New information technologies and changes in student demographics and preferences are challenging educators to try different approaches.

The top 1 or 2 challenges facing higher education:



Select comments on industry challenges:

“Rising tuition costs.”

“Funding and the implications for right-sizing.”

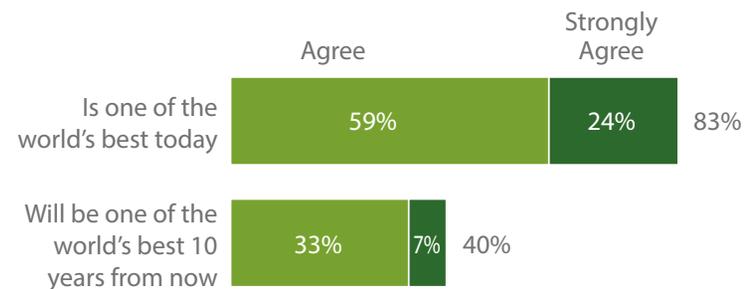
“Adapting new learning strategies related to cultural changes.”

“Engaging ‘digital society’ students.”

Increasing global competition is also expected.

Eighty-three percent of higher education professionals agreed that the U.S. has one of the best higher education systems in the world today, but only 40% felt the same way looking forward 10 years.

The U.S. higher education system...



Responses on this page are from higher education professionals only.

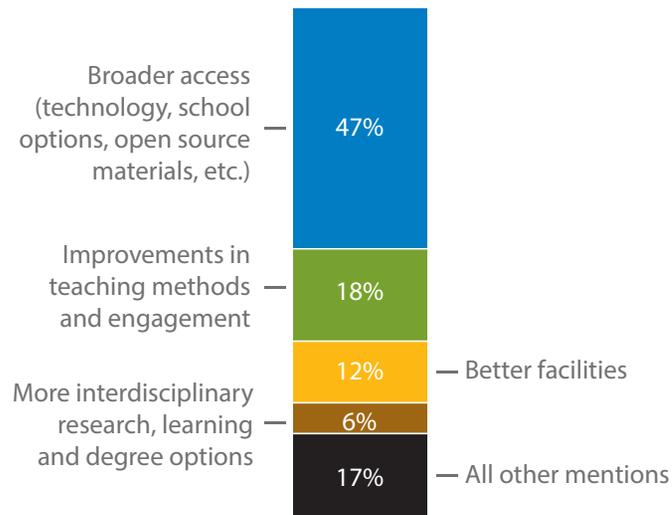
# Moving Forward

Despite challenges, meaningful improvements are taking place within higher education.

Nearly half of education professionals mentioned broader access as the most encouraging development in higher education today.

Professionals told us that students have easy access to information from a variety of sources. They are also able to better access educators and their peers through social media platforms that support collaboration and the development of ideas. Access to the higher education system itself has also been improved through better community college, technical school, and online choices.

## The most encouraging developments in higher education:



Responses are from higher education professionals only.

Eighteen percent of participants talked about improvements in teaching methods and philosophies. Improvements mentioned include:

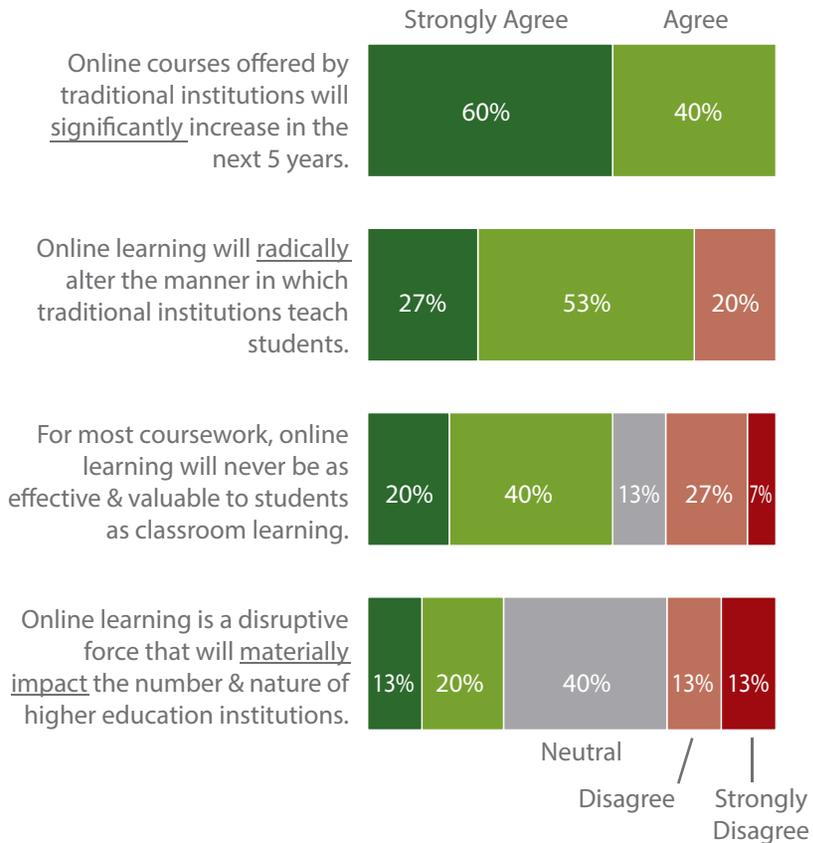
- > Active learning methods that de-emphasize lectures and accentuate student interaction.
- > A shift to more of a “service orientation” in meeting the educational desires of students.
- > Integrated assessment tools that better confirm and measure student success.
- > Active efforts to improve student engagement.

A number of participants mentioned better facilities as an important development. Updated facilities better leverage the power of technology and better accommodate new teaching approaches.



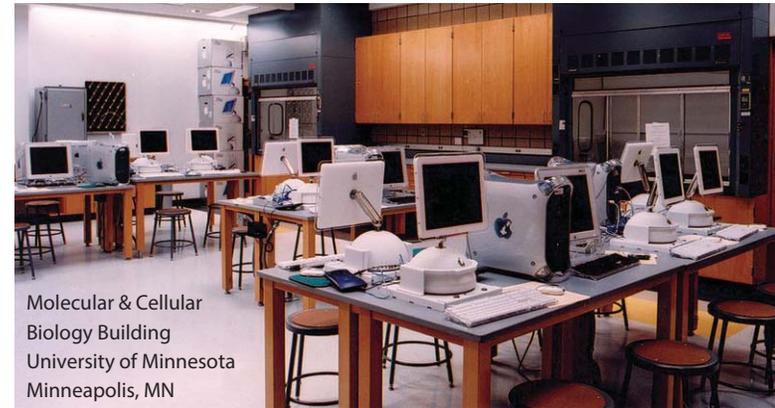
# Online Revolution

Regarding online learning...



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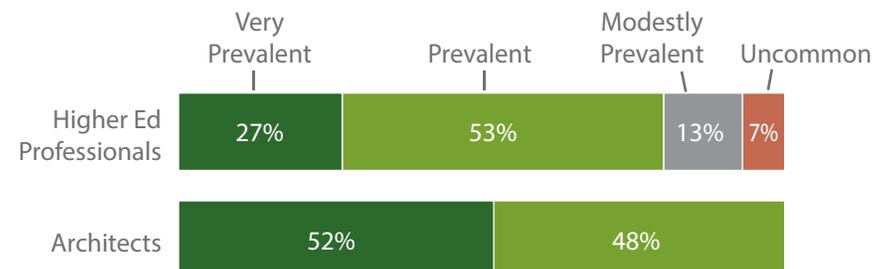
The majority of higher education professionals agree that online coursework will increase significantly and radically alter how students are taught. They are divided and uncertain how this will impact the nature of higher education institutions themselves.



Half of higher education professionals felt that college campuses will get smaller as a result of online learning and a diminished need for students to spend time on campus.

Information technologies not only increase teaching opportunities outside of the classroom, but also transform the nature of in-classroom learning. Professionals believe that technology-intensive classroom spaces will become prevalent throughout college and university campuses.

In 10 years, how prevalent will technology-intensive classrooms be that transform the very nature of classroom learning?



# Design Matters

Institutions recognize the important role that design plays in the achievement of educational priorities.

Eighty-seven percent of higher education professionals believe the designs of campus facilities have a substantial impact on recruiting students. They believe design also enhances other outcomes, such as school image and student engagement.

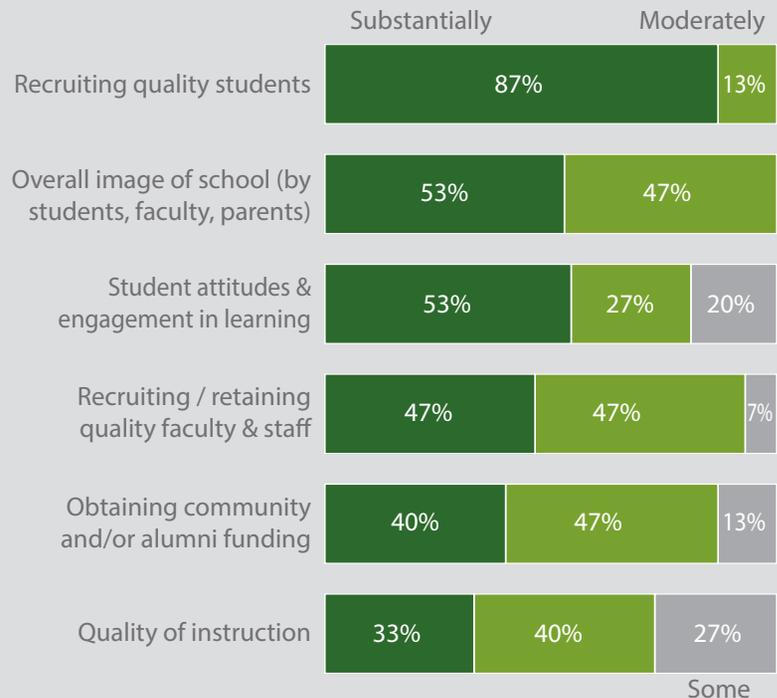
Higher education professionals were somewhat more likely than architects to say that design substantially improves student recruiting and attitudes toward learning, while architects felt design more strongly impacts other areas (see below).

Several participants mentioned involving faculty, students, and project team members as a design best practice:

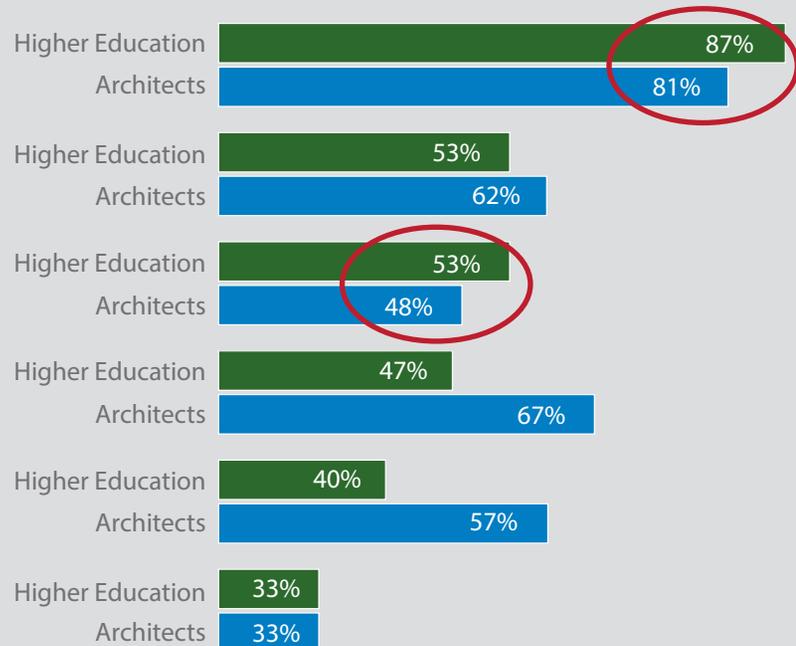
*“We develop designs through user group involvement and value added reviews.”*

*“We facilitate pre-design workshops with all parties as involved stakeholders.”*

College and university facilities designs improve...



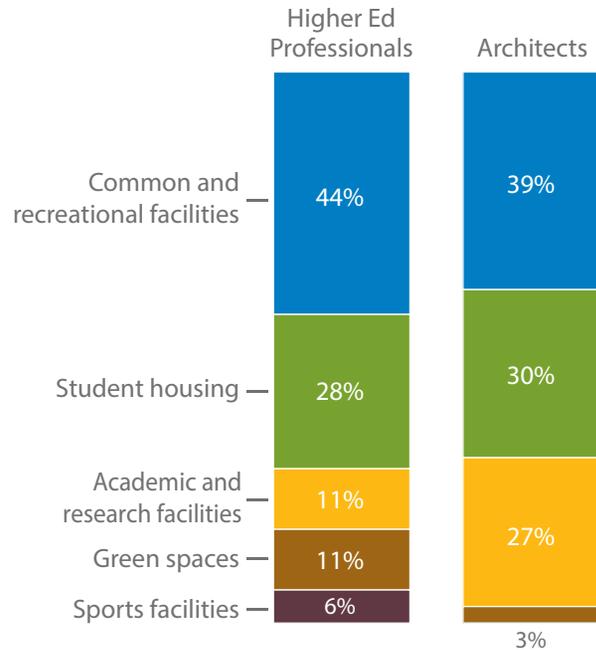
Percent who believe design can substantially improve...



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# Common Areas Are Key

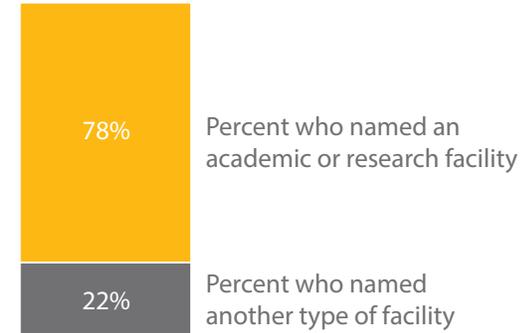
Which campus facilities have the greatest impact on attracting quality students?



Recreational and common area facilities are most important when it comes to attracting quality students. Housing is important as well.

This can present a challenge to campus facilities planners, who recognize the appeal to students of updated student centers and dormitories, but who must also ensure that research and academic facilities best support the mission of their institutions.

Name the campus facility you would most like to improve:



Responses are from higher education professionals only.

When asked to name a specific facility they would change if they could change just one, nearly 8 out of 10 professionals mentioned an academic or research facility.

These facilities are often among the oldest on campus and have received less refurbishment. Whereas 32% of higher education professionals said their housing and common spaces were better than those at competing institutions, only 14% felt the same way regarding their academic facilities.

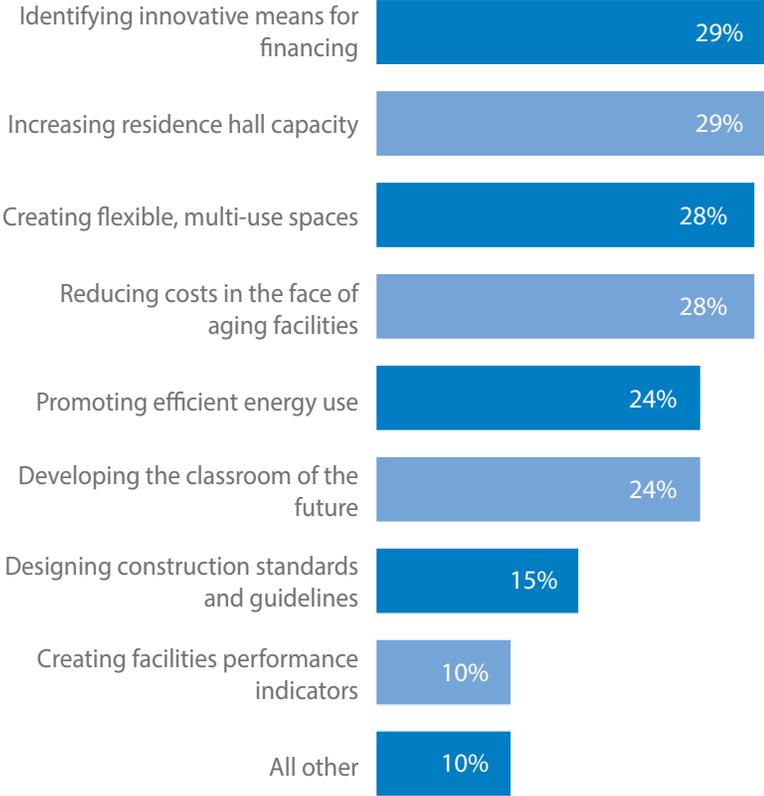


# Diverse Facility Priorities

When asked to select their top two facilities priorities, campus planners' responses were diverse, with six separate items receiving votes from 24% or more of higher education professionals. Campus facilities planners must balance many objectives!



Percent of higher education professionals who selected the following areas as “top 2” facilities priorities for their institution:



Construction standards and performance indicators can help organize and guide priorities. These areas were offered as examples of facility best practices by several participants:

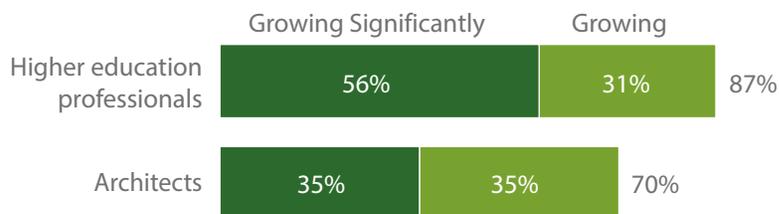
“We developed building standards for our multiple university campuses.”

“What you measure during design and construction gets better results.”

# LEED and Beyond

The majority of higher education professionals said interest in LEED is growing significantly. More higher education professionals than architects report growing interest in LEED.

What is the trend in interest in LEED  
(Leadership in Energy and Environmental Design)?



The majority of both higher education professionals and architects believe LEED meaningfully improves the performance of buildings. However, some participants expressed concern that LEED is being misused as a promotional tool rather than a methodology to improve efficiency (see upper right-hand chart).

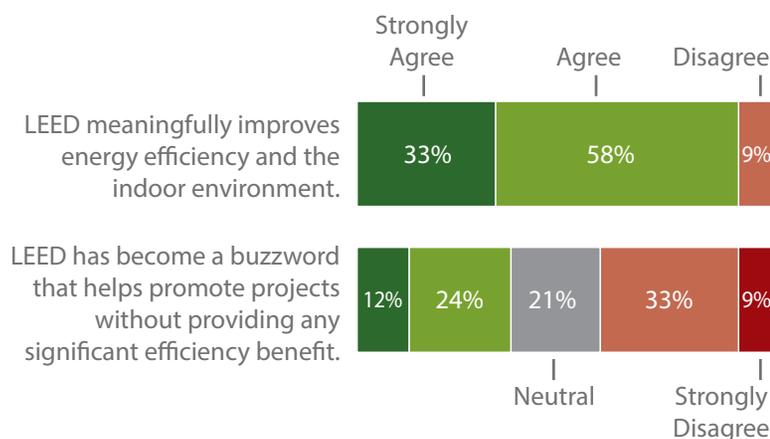
Many institutions have moved their energy reduction and sustainability focus beyond just LEED certification to a commitment that extends throughout their organizations.

“We have incorporated LEED practices outside of LEED certification efforts.”

“We focus on overall energy reduction rather than just LEED.”

“We strive to use local and recycled materials.”

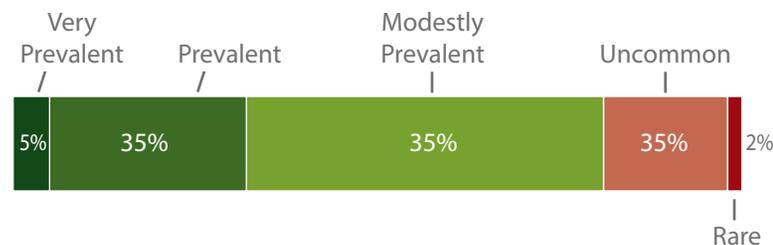
All respondents’ opinions of LEED:



Higher education and architect responses were similar.

The outlook was mixed from respondents regarding net zero buildings, which obtain needed energy from on-site or local renewable sources. Whereas one-third of architects and higher education professionals felt net zero buildings will be prevalent or very prevalent 10 years from now, the rest felt these buildings will be uncommon or only modestly prevalent.

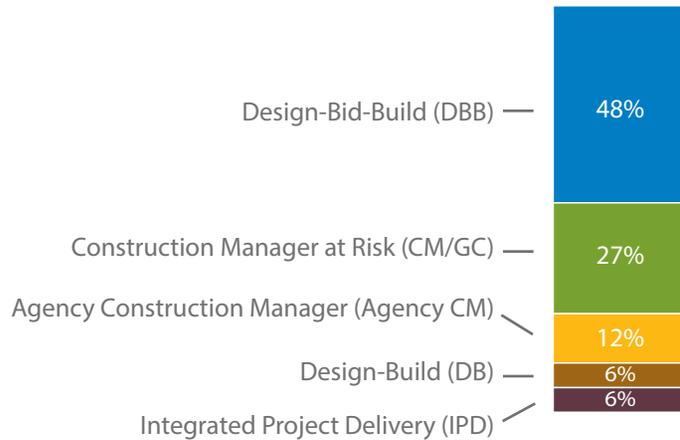
All respondents’ opinions of how prevalent “net zero” campus buildings will be 10 years from now:



Higher education and architect responses were similar.

# Poised for Change

All respondents' opinions of the most popular delivery method at higher education institutions:



*Higher education and architect responses were similar.*

Design-bid-build remains the most popular delivery method on campuses. While some public institutions are required to use it, comfort and familiarity also play a role in DBB popularity:

*"We have always utilized Design-Bid-Build."*

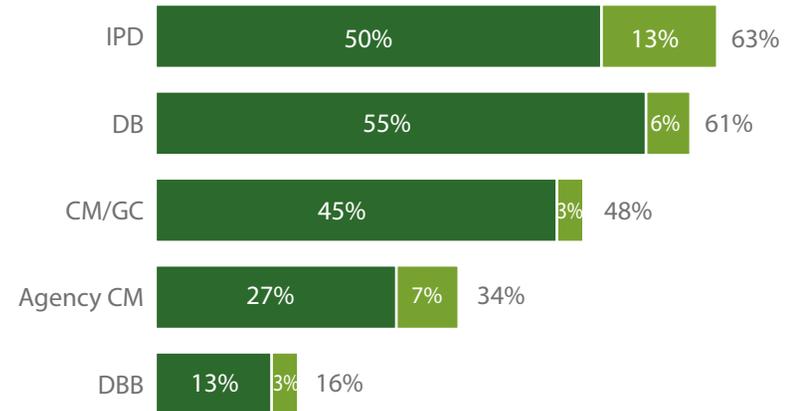
*"We are most familiar with this."*

*"Fear of change."*

Nonetheless, over a quarter of participants named Construction Manager at Risk as the most popular method:

*"CM/GC provides the ability to qualify contractors and modify the project scope as circumstances change."*

All respondents' opinions of the trend in preference for project delivery methods:



*Higher education and architect responses were similar.*

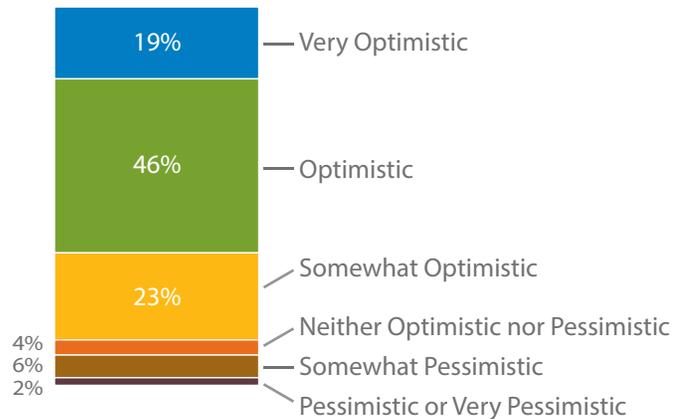
The majority of participants see growing interest in both Design-Build and contractual Integrated Project Delivery (IPD). It is too early to tell how well IPD will be received by institutions.

Design-build and IPD are designed to enhance project outcomes by aligning team goals. Familiarity with the IPD methodology is low at this time. Seventy-five percent of higher education professionals said they only know of IPD as a concept. Just one has utilized the practice. It also remains unclear how well the application of IPD will be received. Less than half of architects who have used IPD would recommend it on a future project.

Thirteen percent of participants who have never used a formal IPD contract nonetheless said they have employed behaviors and functions associated with IPD. This "behavioral" IPD approach may offer a viable option to achieving integrated project goals.

# Committed to a Changing Future

When you think of the future of U.S. higher education, are you:



The majority of participants are optimistic about the future of higher education, with many expressing confidence that institutions will rise to meet their challenges.

One thing on which nearly all participants agreed was that significant changes lie ahead for colleges and universities:

“Momentum is building for truly revolutionary change. I think the challenges will be substantial.”

“The changes we are seeing will bring a much needed invigoration of a system that is outdated.”

There is also a recognition of the importance of education to our society, which drives a desire among professionals to strengthen our higher education system:

“I believe we will rise to the many challenges and understand that we cannot lose the incredible asset and advantage we built.”

“While there will be much change, learning remains a critical need.”

“Education is the guiding force to our future success.”

*Responses on this page are from all respondents.*



# Mortenson is Listening



We sincerely thank the professionals who offered their time to participate in this study. Input from studies like this and from active listening to customers and business partners in day-to-day dialogue form the basis for the strategic direction of Mortenson Construction. Our aim is to be in lockstep with our customers and partners, resulting in a far superior experience that's second-to-none.

Participants in this study described a heightened focus on cost reduction and efficiency. They also talked about the importance of communication, collaboration, and ideas that add value to projects.

Mortenson is continually examining our processes with an eye to reducing waste and improving efficiencies. We are dedicated to working in an open and integrated manner with all of our business partners and customers. We strive to bring ingenuity, expertise, and exceptional people to each and every project.

Mortenson welcomes the opportunity to share more with you about our higher education expertise, delivery methods, and unique capabilities to provide world-class quality, innovation, and service to our customers.

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A U.S.-based, family-owned business since 1954, Mortenson Construction is a leading builder in North America and one of the only domestic builders with capabilities in Asia. With services in general contracting, construction management, design-build, EPC/BOP, and project development, Mortenson has maintained a steady presence in education for nearly five decades. Some of our most enduring customer relationships have been with learning institutions.

From top of the line education facilities, cutting-edge stadiums, and state-of-the-art LEED-certified mission critical projects to some of the most innovative renewable energy projects on the planet, Mortenson is building structures and facilities for the advancement of modern society. With offices across the U.S. and operations in Canada and China, Mortenson is a global company poised to continue *building what's next*.

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For questions regarding this survey, contact:  
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