

THE STATE OF DESIGN-BUILD

Professionals at the 2010 Design-Build Institute of America Conference share their views on key issues facing today's design-build community.



DECEMBER 2010



Foreword

The design and construction industry has experienced few periods of change as significant as those we have seen in the past few years. Tools such as building information modeling (BIM) have revolutionized the delivery of projects, allowing for significant savings in cost and schedule while enhancing project quality; environmental concerns are challenging designers, engineers, and builders to create structures that minimize energy impact; and the weakened economy has created an uncertain environment and heightened the importance of delivering projects at the lowest cost.

To gain insight into how these dynamics are impacting the design-build community, we gathered feedback from 70 attendees at this year's Design-Build Institute of America (DBIA) annual conference. Survey participants included architecture, engineering, construction, development, and owner organization professionals from across the U.S. As a group, these professionals have experience in a multitude of project types, including healthcare, education, civil, transportation, energy and hospitality.

For this initial year of data gathering, our findings shed light on the challenges and opportunities being faced by design-build professionals. They also highlight the most impactful ways we can promote the effective integration of design and construction services in today's environment.



Contents

Current Environment and Impact on Design-Build	2
Benefits of Design-Build for Owners	4
Achievement of Green and Sustainability Goals	5
Preferences Across Delivery Methods.....	6
Impediments to Design-Build Adoption	7
The Importance of Education	8
Building Information Modeling	9
Mortenson is Listening.....	10

The Current Environment and Impact on Design-build

The weak U.S. economy has resulted in decreased demand for construction projects across all delivery methods. According to the U.S. Census Bureau, the value of nonresidential building construction put in place has declined 24 percent so far this year. Fortunately, design-build professionals do not anticipate continued significant declines in construction activity.

More than half of the respondents who took our survey expect modest improvement in design-build activity over the next 12-24 months, and only 19 percent foresee either no improvement or continued declines.

Fifty-two percent of respondents reported that government stimulus spending has brought new projects, contracts, and/or hiring to their organization, which has helped to bridge the gap in activity until the market improves.

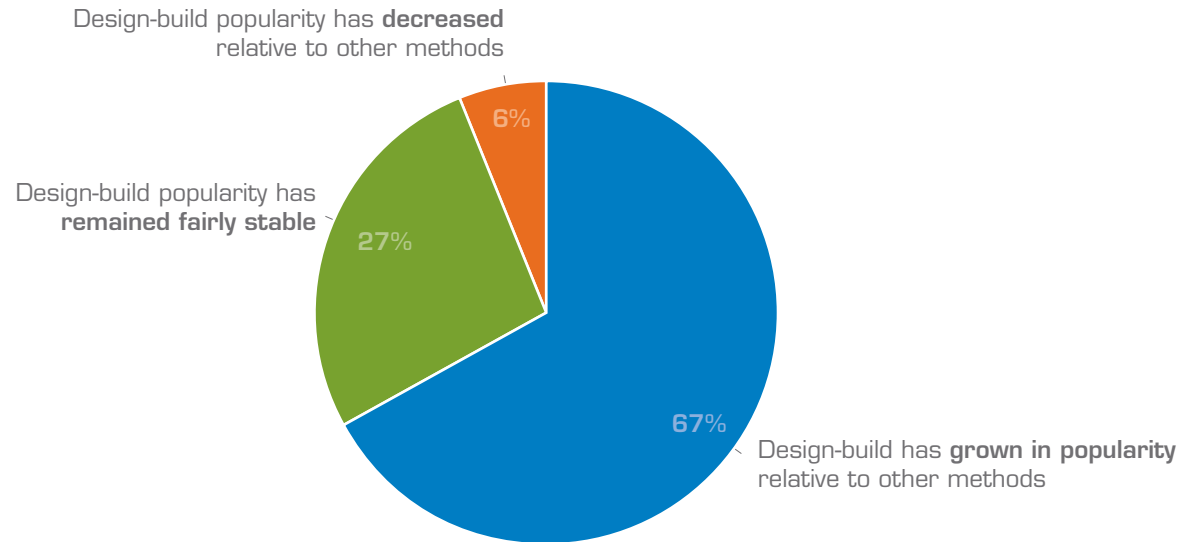
While the economy has created significant business challenges for many organizations involved in design-build, there is one silver-lining: The current environment has helped to increase design-build usage.

Over two-thirds of respondents experienced growth in design-build popularity as a result of current economic conditions.

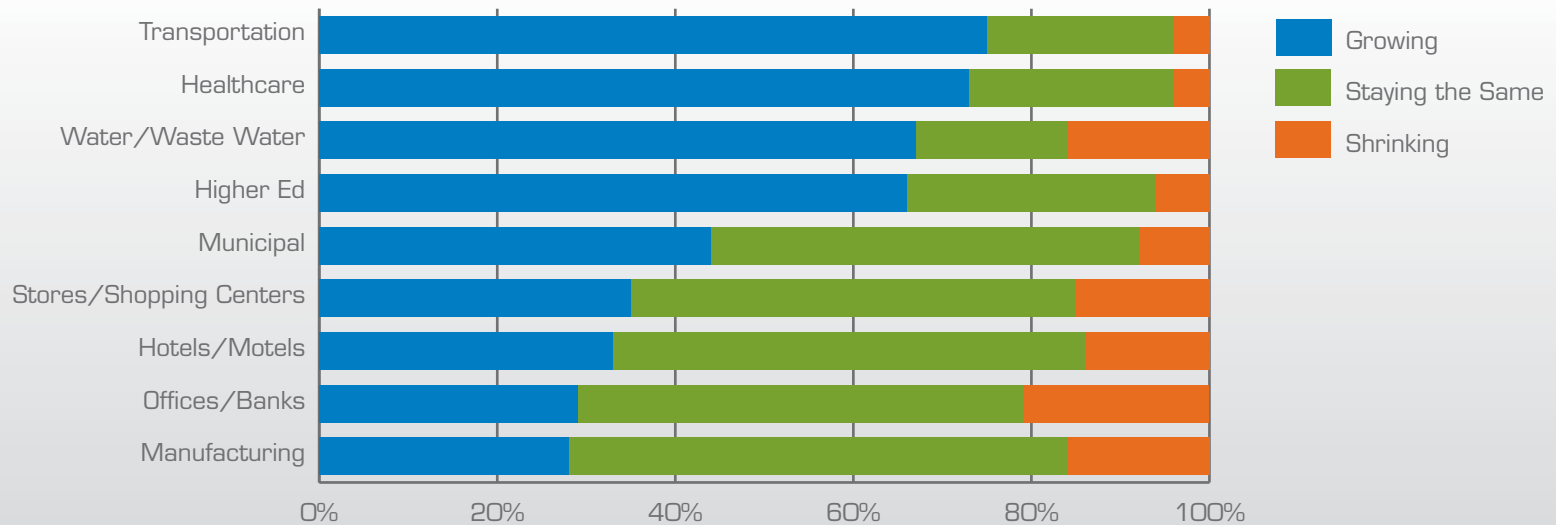
When asked which delivery method has seen the largest decline in popularity, more respondents said design-bid-build than any other methodology—indicating a shift away from traditional methods.

Healthcare, higher education, transportation, and water/waste water were seen as having experienced the most growth in preference for design-build.

How have recent economic challenges impacted the popularity of design build?



What has been the trend in preference for design-build delivery?



Benefits of Design-Build for Owners

The single point of responsibility for design and construction was identified by participants as the greatest perceived value of design-build to owners.

We asked participants to think broadly across design-build projects in which they have been involved and rank the major benefits of design-build. Forty-six percent of respondents chose “single point of responsibility” as the highest perceived value to owners—which is over twice the proportion who selected any other benefit. Single point of responsibility enhances the improvements in schedule, costs and communications that are trademarks of the methodology.

The time savings of design-build were seen as more valuable to owners than the ability to lower overall project costs—indicating the premium placed by owners on moving efficiently from project conception to project completion.

Improved relationships have helped design-build participants deliver greater benefits to owners.

Eighty-five percent of survey participants stated relations between design, engineering and building partners is better now than it was several years ago. Although just 12 percent of participants described working relationships as fully “integrated,” 58 percent of participants described current relationships as collaborative—compared to just 27 percent who described relationships as cordial, and three percent who said adversarial. These sentiments bode well for the continued growth of design-build.

Participant rankings of the benefits of design-build to owners, in order:

#1

A single point of responsibility for design and construction.

#2

The ability to fast track the delivery of a project.

#3

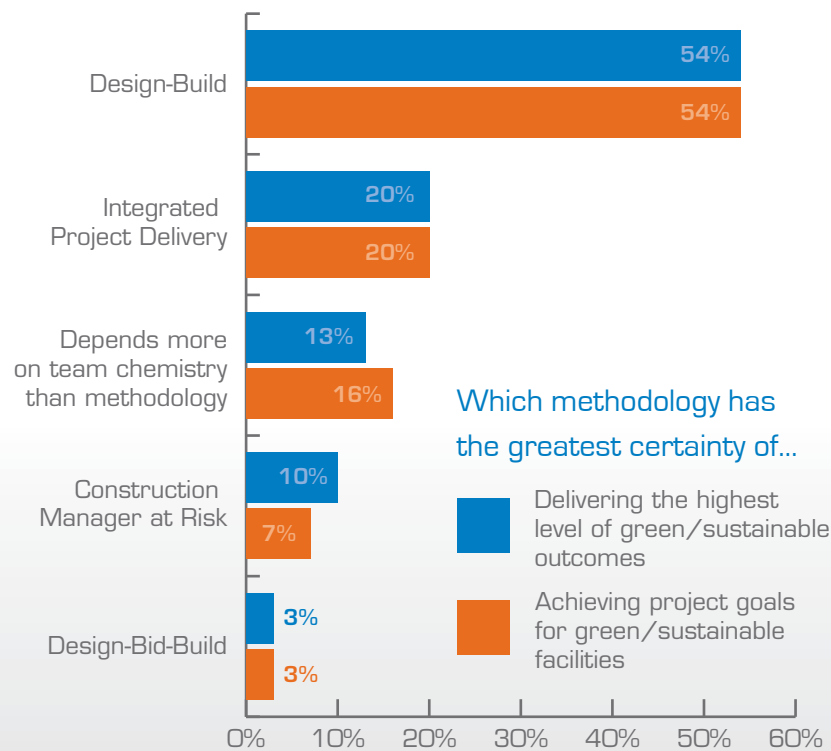
The ability to lower overall project costs.

#4

Greater focus on overall project quality.

Achievement of Green and Sustainability Goals

Participant responses on sustainability:



*Blue bars and orange bars each sum to 100%.

Interest in green building continues to increase despite the recession. According to the U.S. Green Building Council, the number of new commercial projects applying for LEED certification is on-track to reach 7,300 this year—or approximately 150 new green projects in each state.

Design-build is well positioned to take advantage of the growing interest in green and sustainability.

Fifty-four percent of participants who took our survey felt green/sustainable project goals are achieved with greatest certainty utilizing design-build construction.

The same proportion also felt that design-build offers the greatest levels of overall green/sustainable outcomes. There is a great opportunity for advocates of design-build to more clearly promote the process as an integral component of successful green building. This will enhance both the quality of green building outcomes and the adoption of design-build.

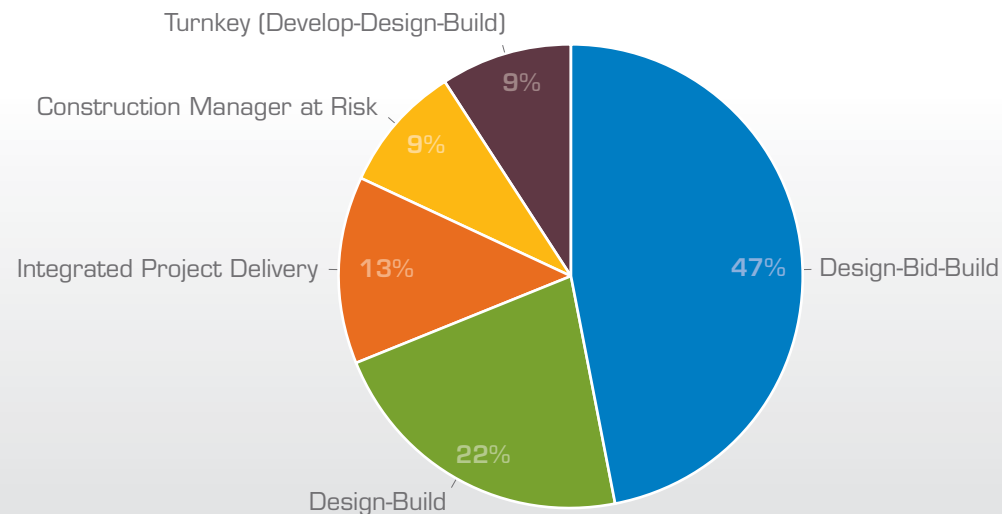
Preference Across Delivery Methods

Despite growing popularity of design-build, current economic conditions have shifted the perception that design-bid-build is the most preferred delivery method in the eyes of owners.

Forty-seven percent of respondents perceived that design-bid-build is the most preferred construction method among owners, compared to

22 percent who felt design-build was most preferred, and 13 percent who felt integrated project delivery was most preferred. Survey respondents reported that one-third of their firm's current work is design-build, suggesting there is room for growth in terms of increasing design-build preference and utilization.

What is the most preferred project delivery method in the eyes of owners?*



* Perceived owner preference among all participants.

Impediments to Design-Build Selection

Participant rankings of issues which can discourage owners from choosing design-build, in order:

- #1** Owner is unfamiliar with design-build and perceives it as risky.
- #2** Owner perceives a loss of control over process/project.
- #3** Owner perceives a cost advantage from design-bid-build.
- #4** Utilization of design-build is difficult under current laws.

Lack of familiarity was identified as the biggest factor which discourages owners from utilizing design-build on a new project.

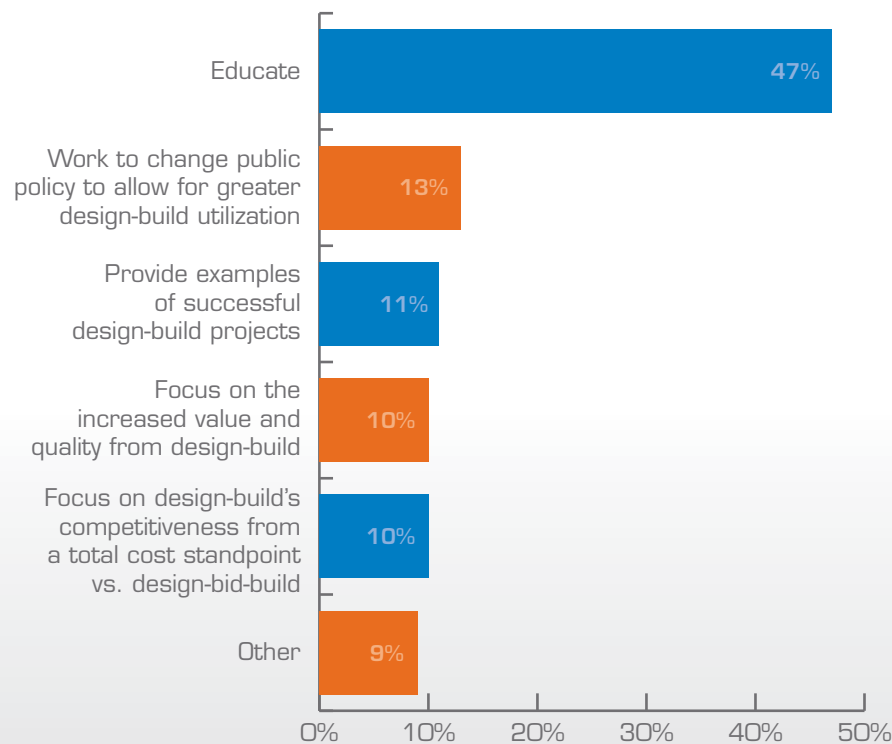
Construction projects represent a major capital investment on the part of an owner organization, which can cause owners to become risk adverse and unwilling to consider a delivery method different from their traditional approach. Advocates for design-build may want to focus on constructive ways to overcome owner reluctance and emphasize the proven track record that design-build has in reducing owner risk and undesirable outcomes.

The loss of perceived control over the project was also rated high in terms of discouraging owners from utilizing design-build. Having an integrated process and single point of contact brings great benefits to project owners who choose design-build. At the same time, however, this model can make some owners feel they have relinquished important control over the project.

Advocates for design-build need to recognize the desire of owners to maintain project control, and present processes that ensure the level of involvement and direction desired by the owner.

The Importance of Education

What could design-build advocates do to encourage greater utilization of design-build?



Education of the design-build process and its many benefits is seen as the most effective way to enable further adoption of design-build.

We asked our survey participants what advocates can do to encourage greater utilization of design-build. Education was the overwhelming response cited by nearly half of respondents.

Education is key to addressing the unfamiliarity many owners feel regarding design-build. "Teach design-build done right," one participant told us. "This will help convince owners that design-build is competitive and the best value." Others emphasized the need to get owners familiar not only with the design-build methodology but also with the selection process. "Help the owner feel competent and comfortable in reviewing design-build proposals," one respondent said.

Owners also mentioned the importance of providing examples of successful design-build projects. One participant emphasized that leading by example and "delivering a quality project" often has the biggest impact on achieving conversion to the design-build methodology.

It is also important to remember the need for effective lobbying and public policy initiatives in order to change statutes that make utilization of design-build difficult for public projects.

Building Information Modeling

Building information modeling (BIM) is a construction technology which, if well managed, has the potential to favorably influence cost and schedule outcomes. All respondents in our survey were familiar with BIM, and nearly 7 out of 10 have participated in projects that utilized this technology.

Participants believe BIM offers meaningful benefits to the overall design and building processes. Seventy-one percent of respondents stated they would recommend the use of BIM on every future project, and nearly a quarter stated that they would not do another project without the use of this tool.

“BIM results in a better coordinated job with less changes and more value,” stated one participant.

The ability of BIM to enhance efficiency within the design process and the increased collaboration this tool facilitates between owners, designers, and builders were seen as the two biggest benefits of BIM. These were also seen as the areas where the greatest additional value can be gained moving forward.

Participant rankings of the greatest benefits of BIM, in order:

#1

Enhanced efficiency within the design process.

#2

Enhanced collaboration/integration between owners, designers, and builders.

#3

Improved productivity within the construction process.

#4

Value added tool for owner's use in facility management.

Mortenson is Listening



We sincerely thank the many professionals who offered their time to participate in this industry 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 facility development experience.

In today's difficult economic climate, we are continually examining our construction processes with an eye to reducing waste and eliminating costs. We are also inviting our customers to tap our knowledge of capital markets and our development expertise to explore creative financing solutions and turn-key development alternatives.

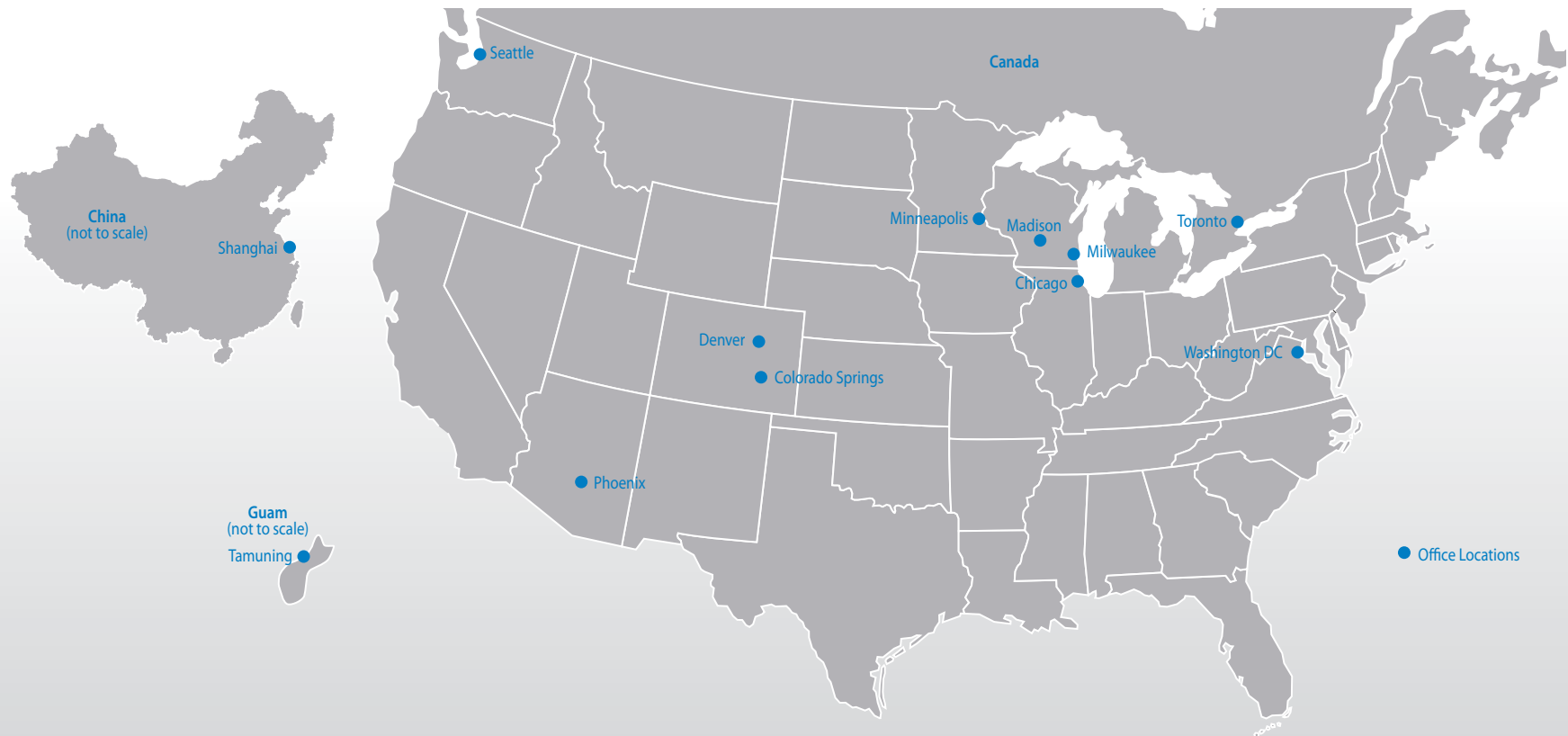
Most importantly, we are committed to working with others in the industry to demonstrate the many benefits of collaborative building approaches such as design-build. These approaches help owners achieve goals and save time and money in any climate, but are particularly important in today's economy. We are dedicated to working in an open and integrated manner with all of our business partners and customers.

We welcome the opportunity to share more with you about project delivery options and our unique capabilities to provide world-class quality, safety, and service to our customers.

To learn more, contact the office nearest to you:

Chicago 847.981.8600	Denver 303.295.2511	Milwaukee 262.879.2500	Phoenix 480.839.5944	Washington, D.C. 703.553.2521
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