

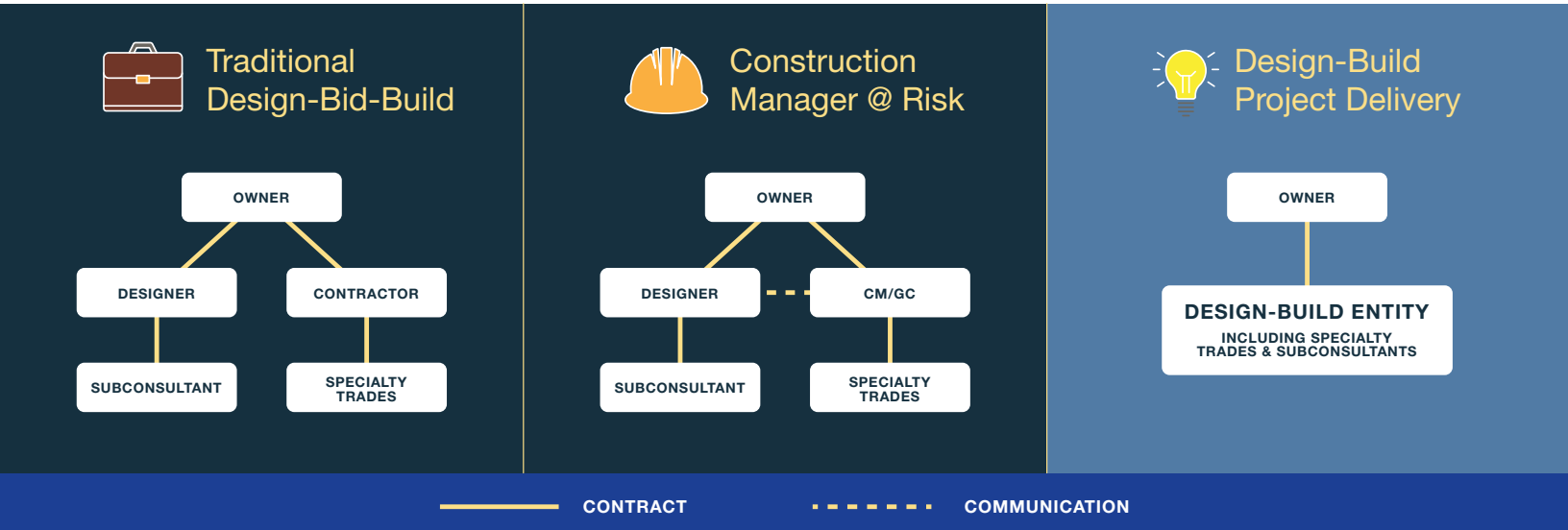
Design-Build Data Sourcebook



What Is Design-Build?

It's the fastest growing, most cost and time efficient method used to deliver construction projects in America.

Design-build saves time and money by encouraging innovation and collaboration. This Design-Build Data Sourcebook details how.



Traditional Project Delivery

The Owner must manage two separate contracts which all-too-often creates an adversarial relationship between the designer and the contractor. If something goes wrong or an unforeseen

circumstance requires changes, the designer and contractor blame one another for the cost overruns or schedule changes, often leading to litigation and delays which add to the project cost.

Design-Build Project Delivery

The Owner manages only one contract with a single point of responsibility. The designer and contractor work together from the beginning, as a team, providing unified project recommendations to fit the Owner's schedule and budget. Any changes are addressed by the entire team, leading to collaborative problem-solving and innovation, not excuses or blame-shifting. While single-source contracting

is the fundamental difference between design-build and the old ways, equally important is the culture of collaboration inherent in design-build.

Research over decades has consistently shown the innovation and collaboration inherent in design-build leads to faster project delivery, with more reliable performance and less cost and schedule growth.



The Big Picture

102%
faster

than traditional
design-bid-build (DBB)

61%
faster

than construction
manager at risk (CMR)

3.8% less cost growth
than traditional design-bid-build

1,200,000,000,000
(that's \$1.2 trillion)

in design-build total combined spending 2018–2021



Digging Deeper

PROJECT COST

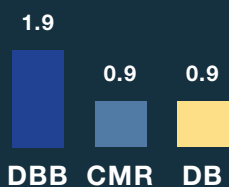
Projects using design-build (DB) **cost less** per square foot when compared to construction manager at risk (CMR) and design-bid-build (DBB). Design-build projects also average **less cost growth** than a comparably scoped project using CMR and DBB.

PROJECT SCHEDULE

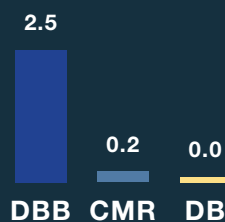
Design-build was also the **best performing** project delivery system in terms of schedule growth, delivery speed and construction speed.

Performance Measure	DB vs. CMR	CMR vs. DBB	DB vs. DBB
Unit Cost	1.9% less	1.6% more	0.3% less
Cost Growth	2.4% less	1.4% less	3.8% less
Schedule Growth	3.9% less	2.2% more	1.7% less
Construction Speed	13% faster	20% faster	36% faster
Delivery Speed	61% faster	25% faster	102% faster

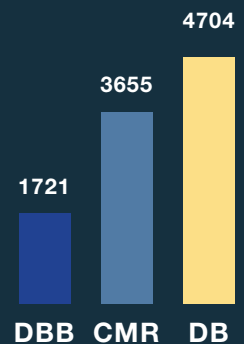
Cost Growth (%)



Schedule Growth (%)



Delivery Speed (ft²/mo.)



Behind the Numbers

These conditions are most influential in delivering both cost and schedule efficient projects.



LOWER UNIT COST

- Higher team chemistry among the Owner, designer and builder (GC, CM or design-builder)
- Open book contracting terms, such as a cost plus a fee with a guaranteed maximum price (GMP)
- Lower initial contracted unit cost



LESS COST GROWTH

- Use of a DB project delivery system
- Higher team chemistry among the Owner, designer and builder (GC, CM or design-builder)
- Earlier involvement of the builder



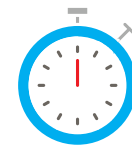
LESS SCHEDULE GROWTH

- Participation of the designer and builder (GC, CM or design-builder) in project goal-setting
- Earlier involvement of the builder
- Lower project complexity



FASTER CONSTRUCTION SPEED

- Use of a DB or CMR project delivery system
- Larger gross square footage of the project
- Higher initial contracted unit cost



FASTER DELIVERY SPEED

- Use of a DB or CMR project delivery system
- Larger gross square footage of the project
- Higher initial contracted unit cost



The Keys to Success

BEST PERFORMERS

Across the case studies of the most successful projects, there were two recurring themes:

- The Owner placed a high emphasis on creating a relational project culture
- Repeated use of the same designer and/or builder (GC, CM or design-builder)

WORST PERFORMERS

Across the case studies of the least successful projects, three themes emerged:

- Lack of experience with the project delivery system or project management in general
- Poor communication between the Owner and the builder
- Understaffing or turnover within the Owner, designer or builder's organization

THE LIKELIHOOD OF PROJECT DELIVERY SUCCESS CAN BE IMPROVED THROUGH PROCESSES WHICH ARE CENTRAL TO DESIGN-BUILD DONE RIGHT®.

1

Assembling the project team early

3

Communicating expectations

2

Developing a relational project culture

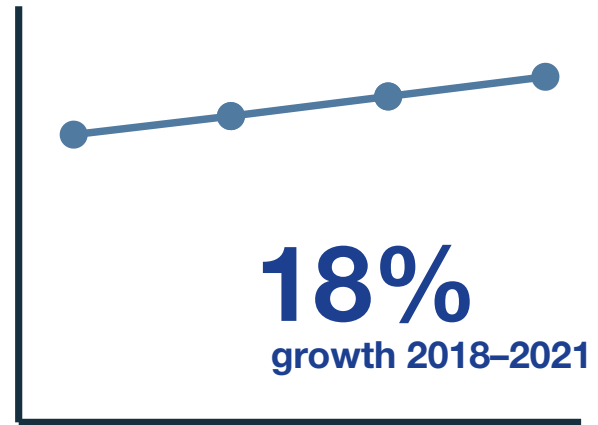
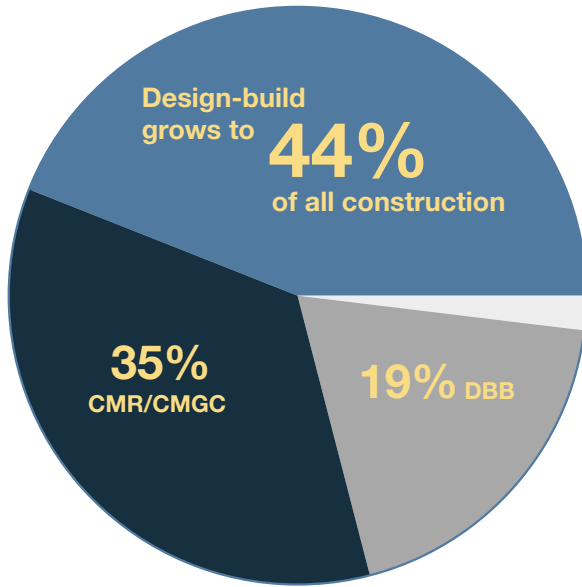
4

Engaging in succession planning

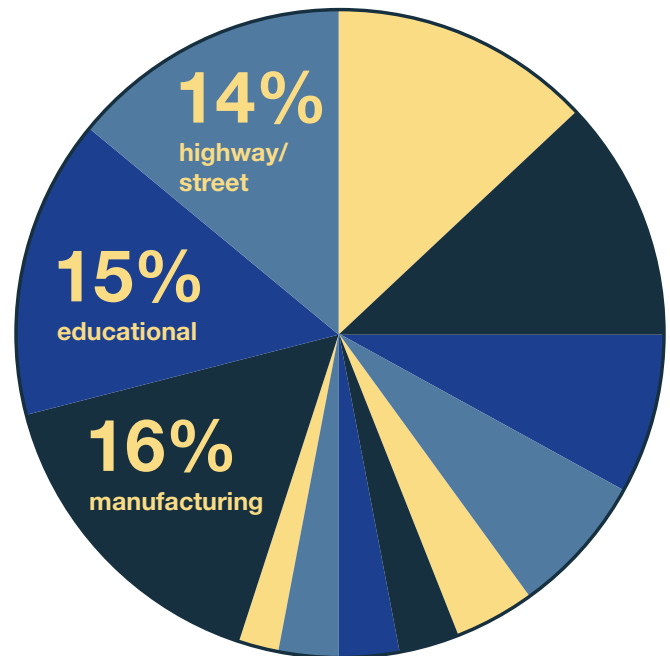


DESIGN-BUILD IS THE FASTEST GROWING, MOST POPULAR DELIVERY SYSTEM IN THE NATION

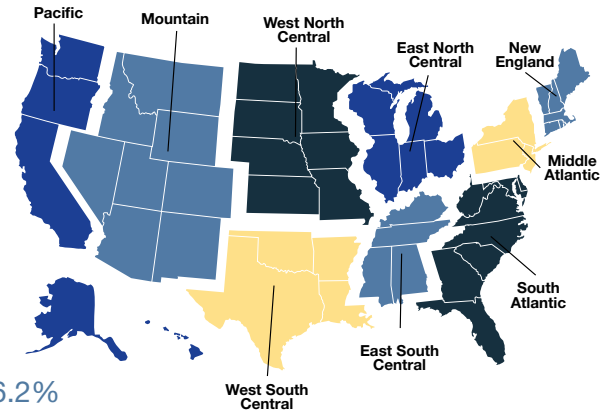
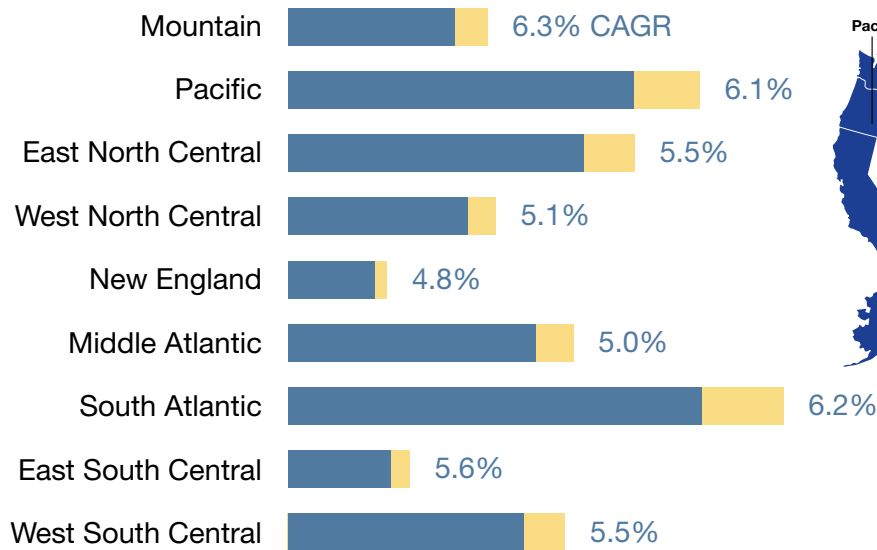
Design-build will account for nearly half of all construction spending by 2021 with spending increasing 18% over the 2018–2021 period.



The largest design-build market shares will be the manufacturing, educational and highway/street sectors.

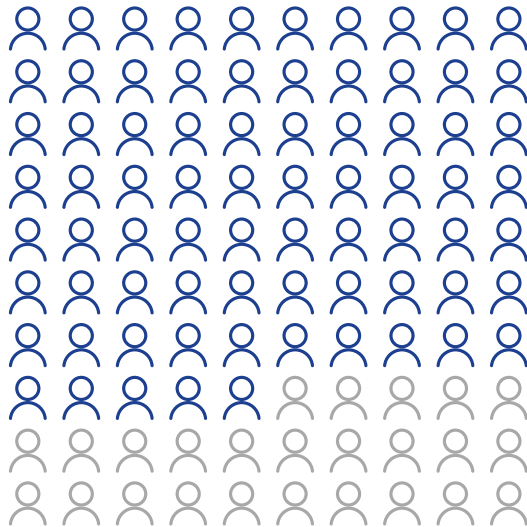


DESIGN-BUILD WILL CONTINUE TO GROW IN EVERY REGION



“Design-build is no longer an alternative method. It is a main part of how we deliver our program.”

—Public Owner



Highest rated experiences among delivery methods

76% very good & excellent

Experience with design-build was rated highest across all project delivery methods with 76% reporting very good and excellent experiences.



opportunities to innovate



ability to fast-track

Opportunities to innovate and the ability to fast track a project were identified as top benefits associated with design-build.

BENEFITS ASSOCIATED WITH EACH PROJECT DELIVERY METHOD

5 4 3 2 1
most → least

	DESIGN-BUILD	CMR	DBB
More opportunities to innovate	5	3	1
Ability to fast track project	5	3	1
Highest quality	4	3	1
More collaborative process for the Owner	4	3	1
Final cost closest to budget	4	3	2
Early knowledge of cost	4	3	2
Shorter procurement period	4	3	2
Fewer disputes	3	2	1

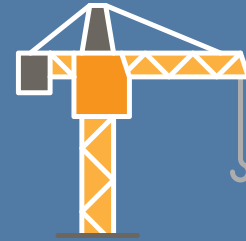
Design-Build at a Glance

LOWER UNIT COSTS



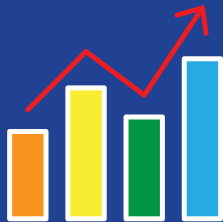
0.3% vs DBB **1.9%** vs CM@R

FASTER CONSTRUCTION



36% vs DBB **13%** vs CM@R

LESS COST GROWTH



3.8% vs DBB **2.4%** vs CM@R

LESS SCHEDULE GROWTH



1.7% vs DBB **3.9%** vs CM@R

FASTER DELIVERY SPEED



102% vs DBB
61% vs CM@R



Sources

[Revisiting Project Delivery Performance](#), CII/Pankow, 2018.

[Design-Build Utilization Combined Market Study](#), FMI, 2018



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