



# General Market Trends

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# FMI Forecast Methodology

*To derive a market forecast, FMI uses a triangulation method that utilizes multiple sources to develop and validate the market's size and direction. The following diagram represents the methodology used for developing construction put in place estimates.*

## Quantitative Market Model:

Utilizing multiple sources, both historical and forward looking, FMI generates a baseline forecast for construction put in place spending at a local level for each of the various segments examined in this study. For example, historical construction spending put in place is reported by the U.S. Census and is then forecast at a local level using local economic indicators, such as population growth, GDP, unemployment rate, etc.

## Anticipated Project Examination:

Utilizing FMI's proprietary project databases, CMD Reed, Industrial Info Resources, Dodge and other secondary sources, FMI adjusts the baseline, quantitative market model to reflect planned projects over the term of the forecast. Projects are vetted on likelihood of occurring based upon the known and anticipated market conditions.

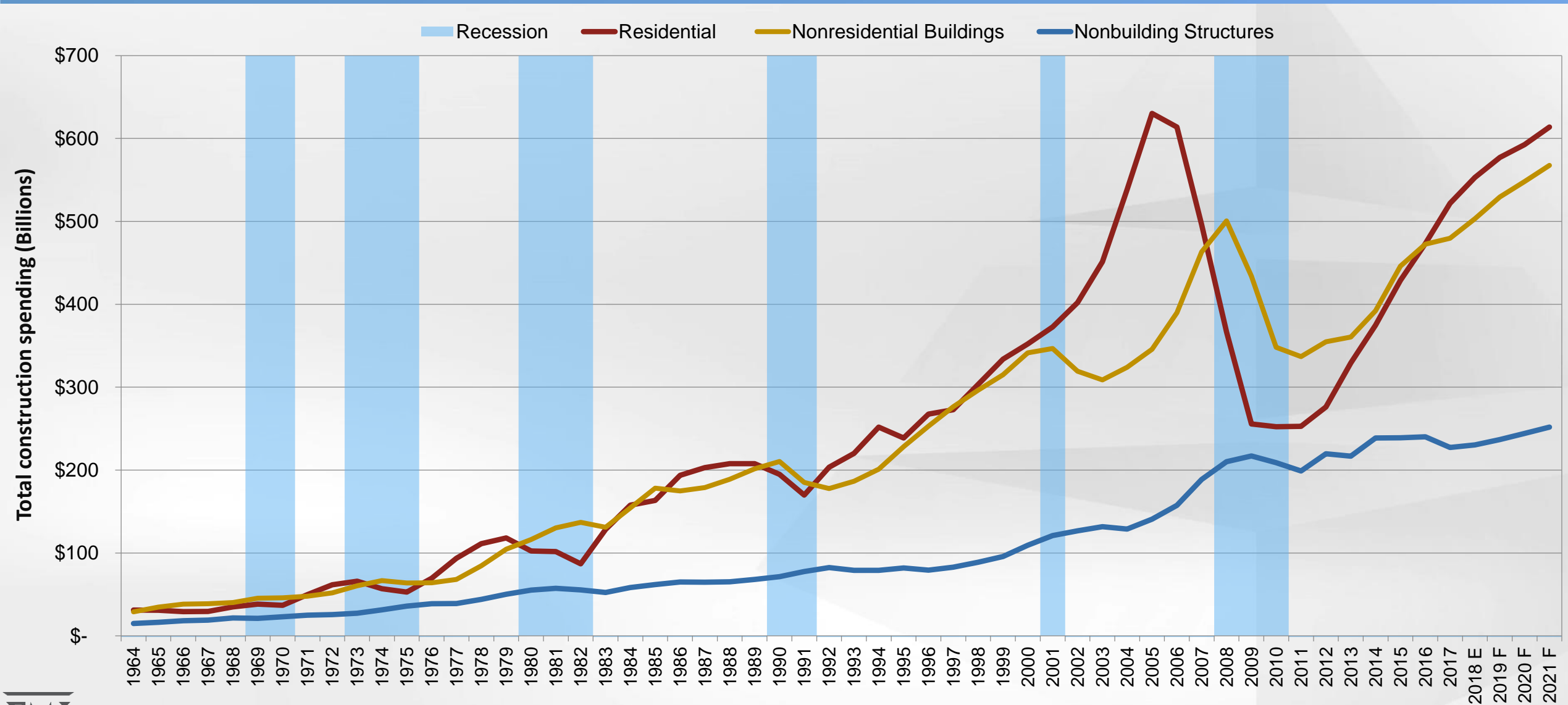


**Addressable  
\$XX billion  
2018-2021**

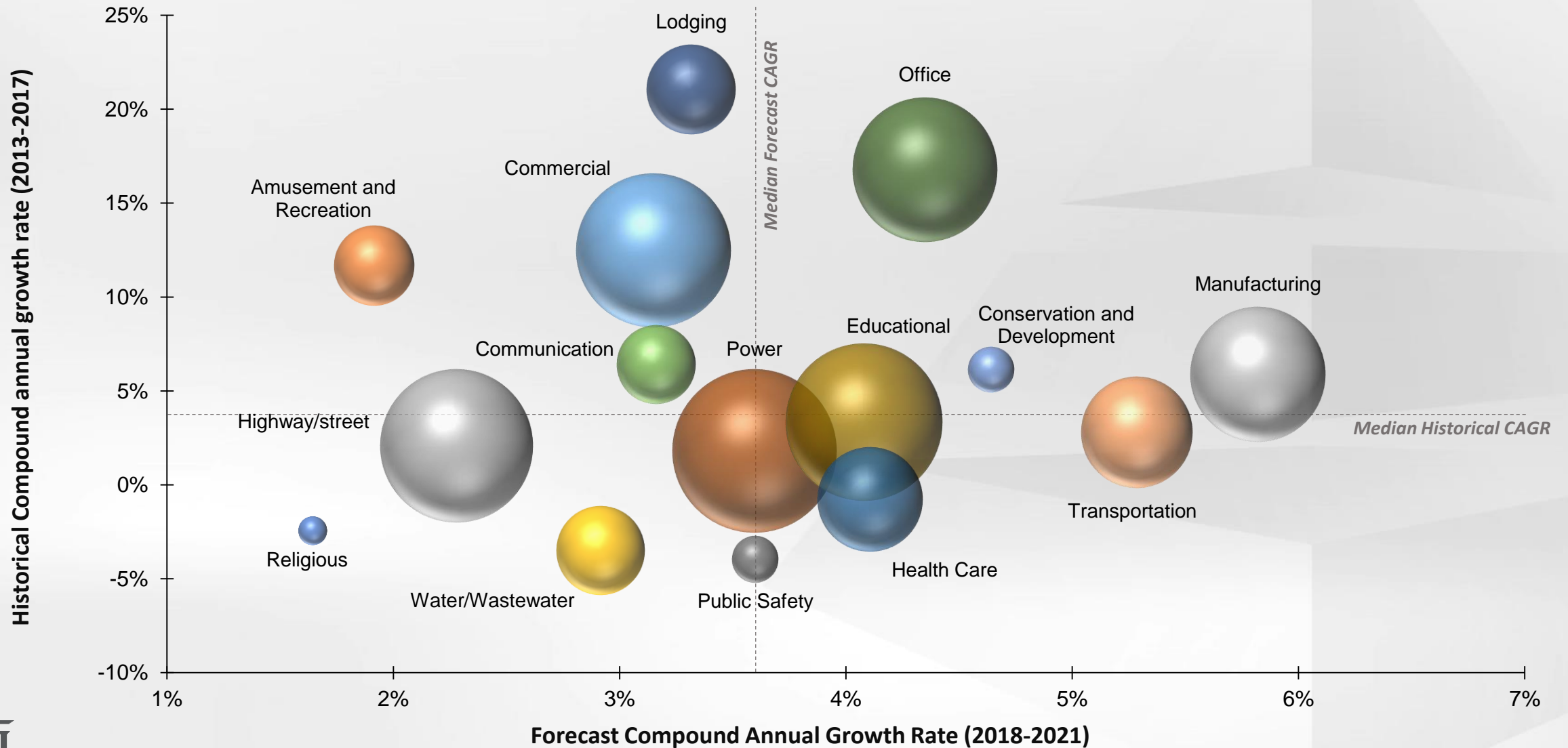
## Market-Driven Validation:

FMI then validates and adjusts as necessary the market sizing and forecast based upon primary research conducted with actual market participants and senior FMI consultants. These industry members can speak directly to market conditions and direction based upon their intimate knowledge of the individual market and segment.

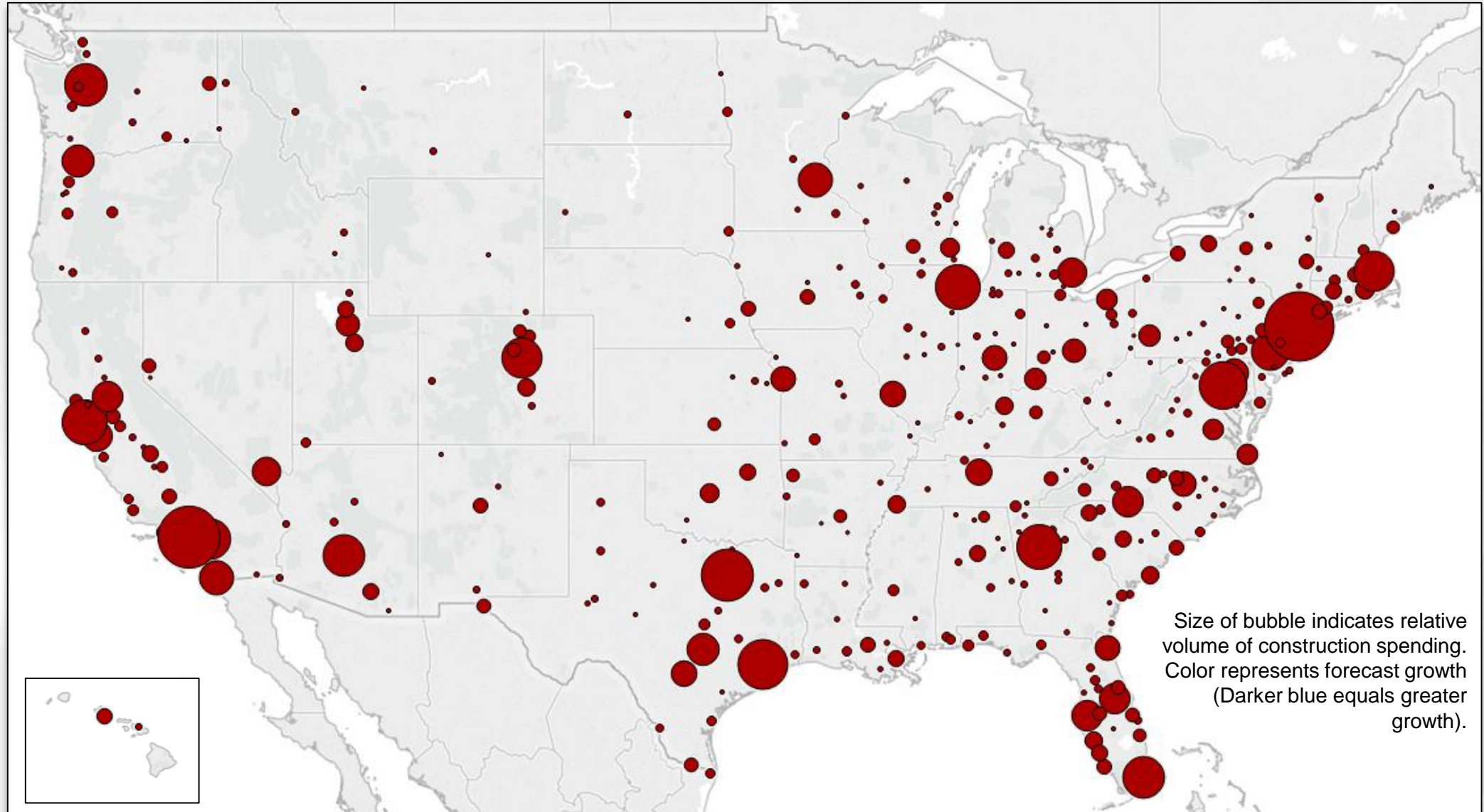
# Total Construction Spending



# Construction Spending by Segment



# Construction Spending by Metro Area





# Design-Build Trends

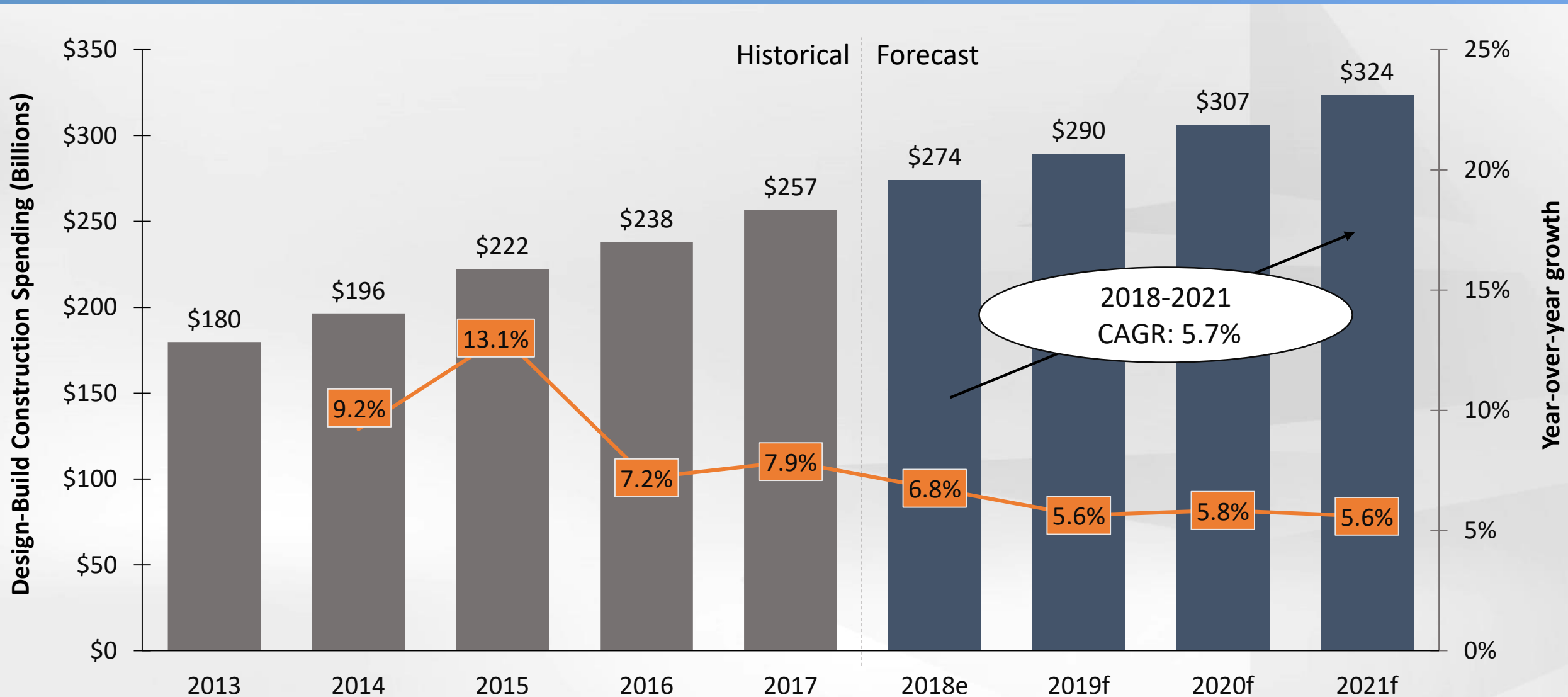
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# Defining Design-Build

- For this research, design-build was defined as a method to deliver a project in which the design and construction services are contracted by a single entity.
- To account for all design-build spending, several variations of design-build were considered and assessed when developing the market-sizing model.

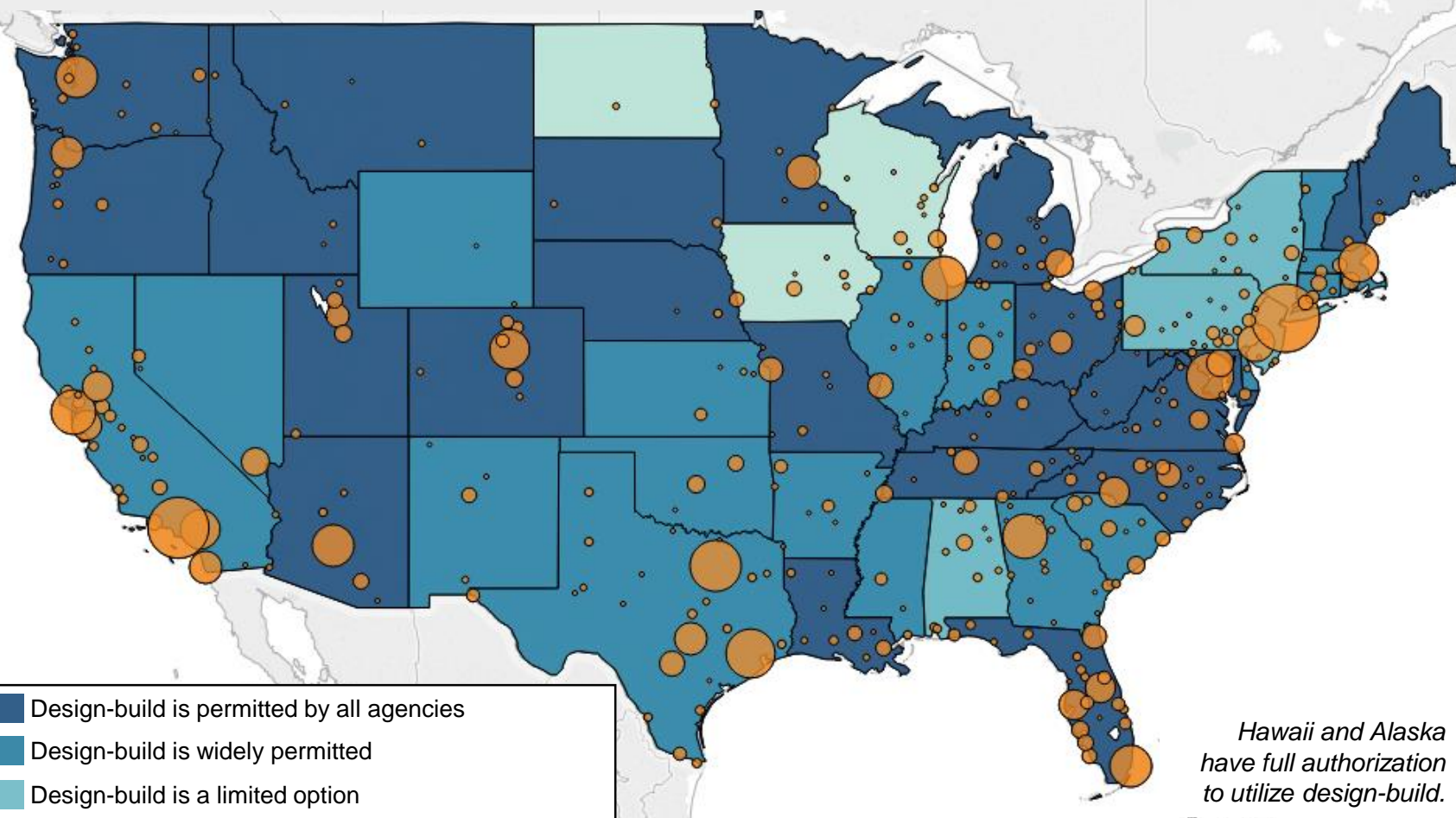
# Design-Build Spending for Nonresidential Construction





# Design-Build Authorization and Construction Spending

## Concentration of Construction Spending by Metro Area



## Design-Build Spending by Region

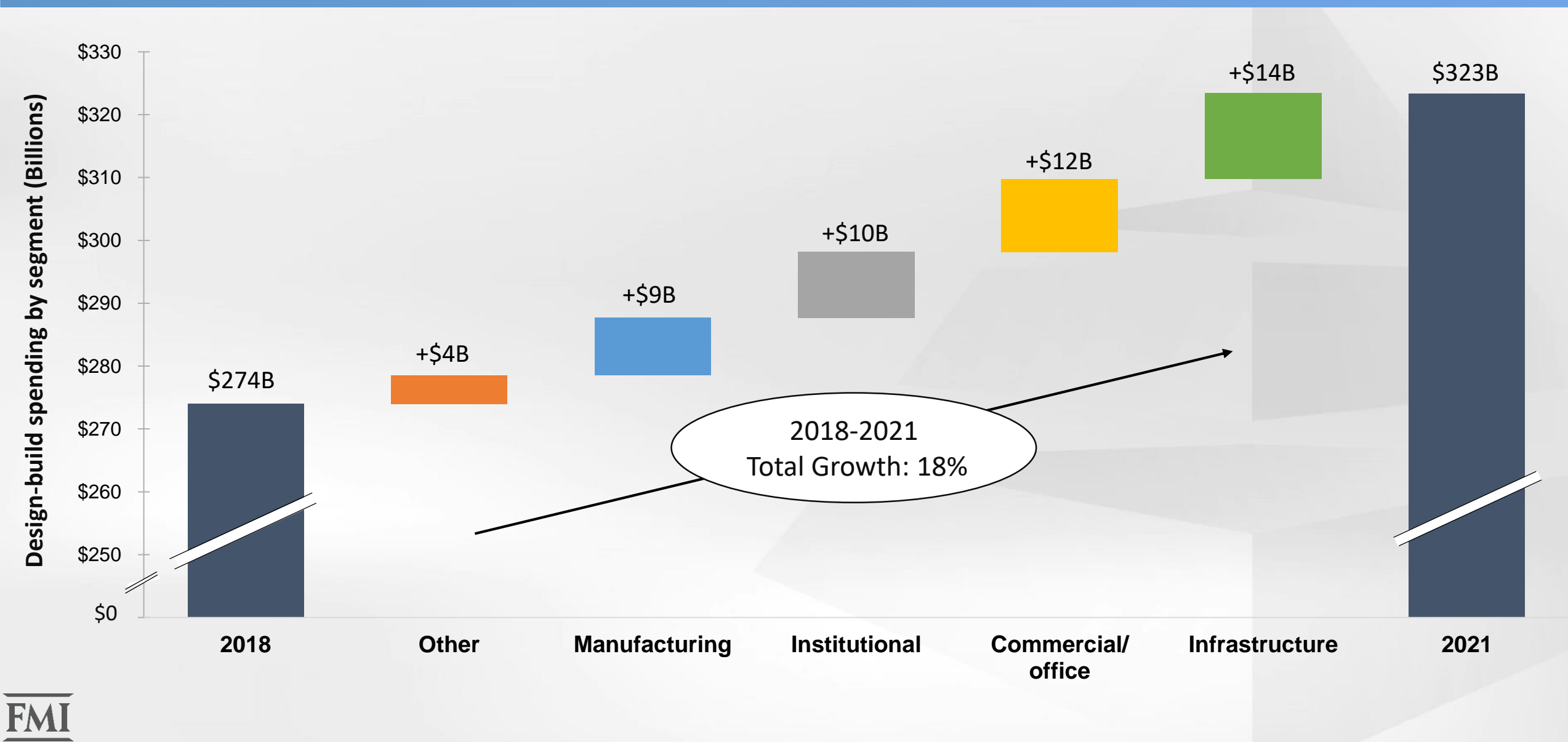
Region	2018e	2021f	CAGR (18-21)
South	\$101	\$118	6.0%
West	\$67	\$82	6.2%
Midwest	\$62	\$72	5.1%
Northeast	\$44	\$51	4.9%
U.S. Total	\$274	\$323	5.7%

- Forty-three states have full or widely permitted authorization to utilize design-build for public agency projects
- Three states indicated limited use of design-build for construction project delivery.

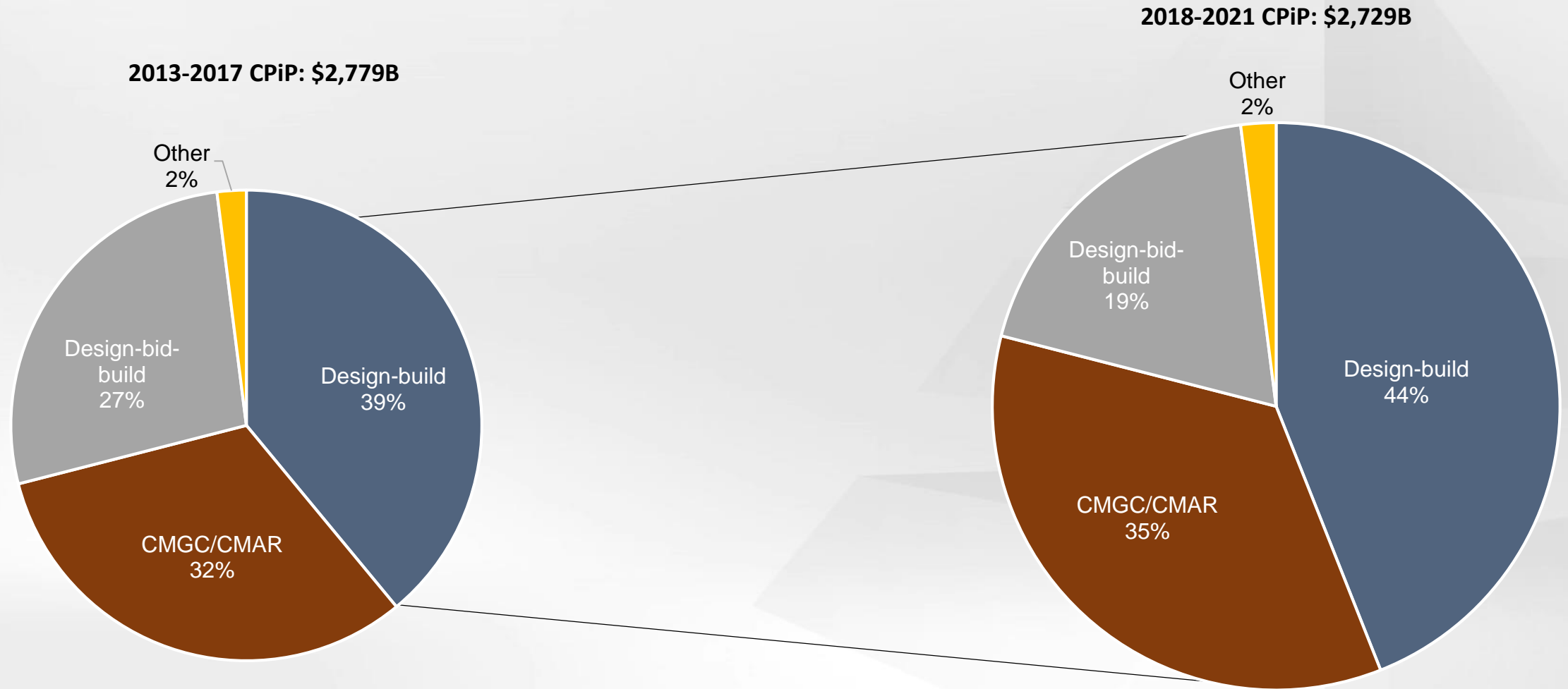
*Hawaii and Alaska have full authorization to utilize design-build.*

■ Design-build is permitted by all agencies
■ Design-build is widely permitted
■ Design-build is a limited option
■ Design-build is limited to one political subdivision, agency or project

# Design-Build Spending by Segment



# Growth in Design-Build Utilization





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

*- Public owner*

# Top Factors Influencing Design-Build Delivery

**Project Schedule**

**Project Complexity**

**Project Size**

**Outside Experience**

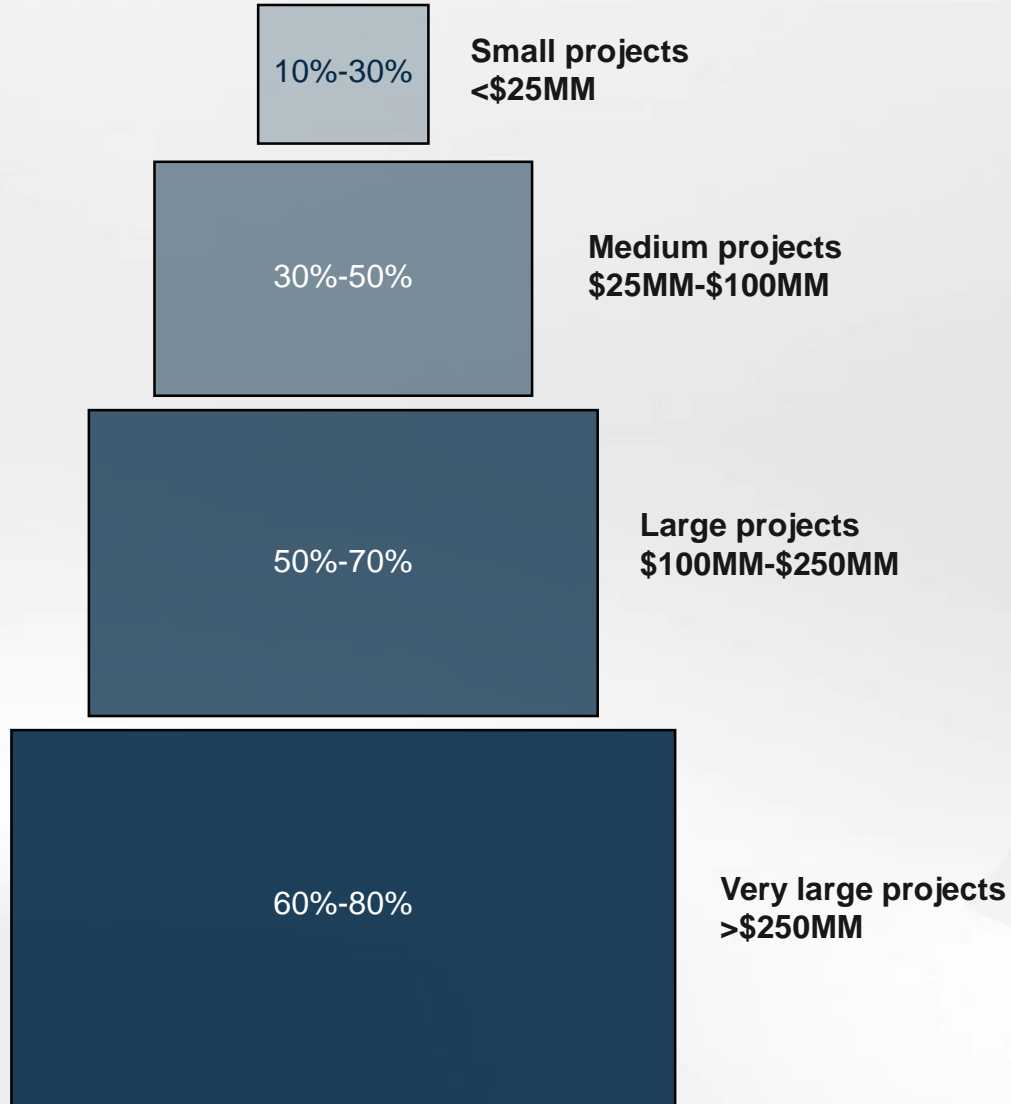
**Staff Experience**

*“Acceleration is one of the more governing factors for selecting design-build. We want to get the work out on the street fast and create jobs.”*

*“Projects going design-build tend to be more complex and schedule driven.”*

*“As project size increases so does our likelihood to utilize design-build. Also, we feel there is a higher quality of project participants when we utilize design-build.”*

# Design-Build Utilization by Project Size



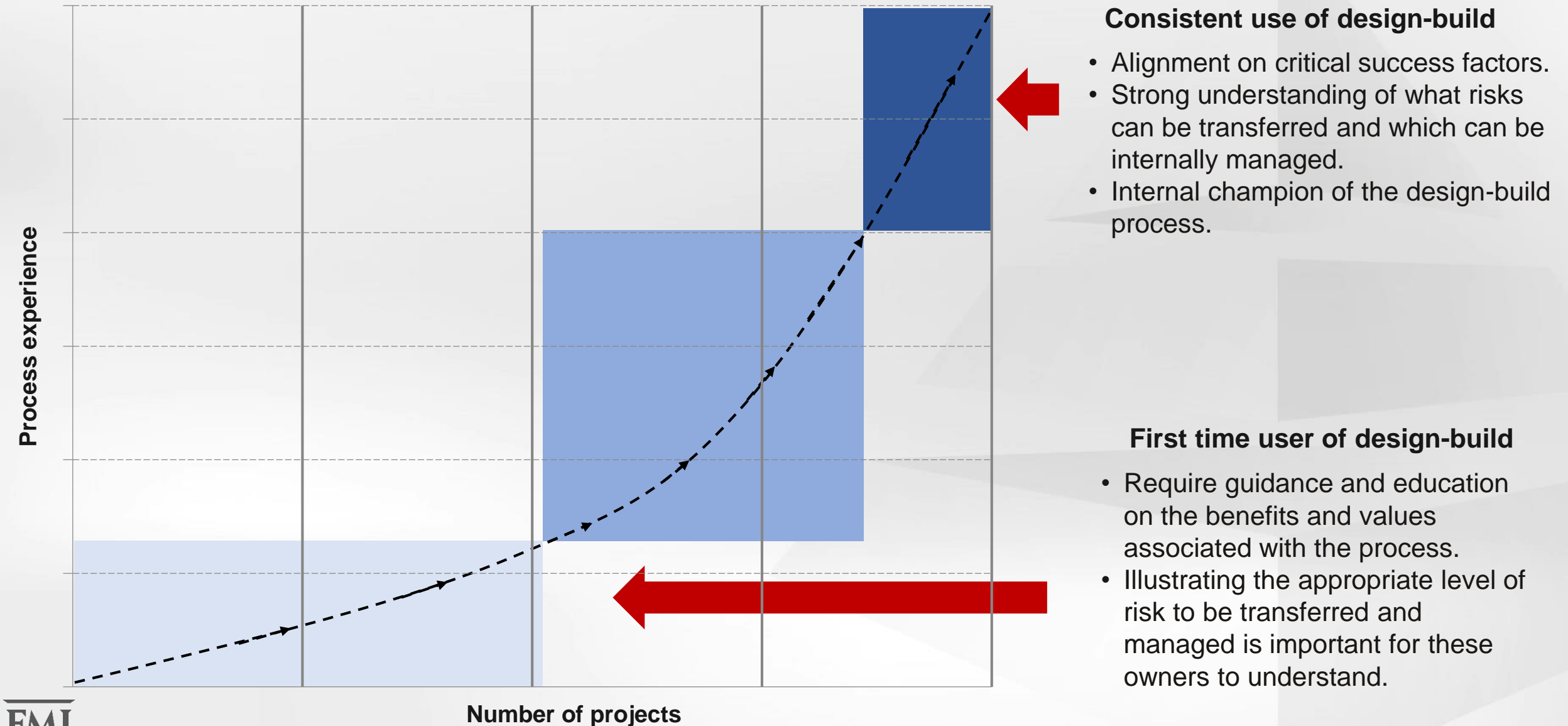
*“Historically, design-build has been used on large projects. Recently, we have seen a growing use of design-build on smaller projects. ”*

*“When we have a multimillion-dollar project we look towards design-build. Generally, we believe that we get a better value for the investment with design-build.”*

*“The trend is for larger and more complex projects to be design-build. We will continue to see bigger projects going design-build.”*



# Design-Build Education Process



# Key Team Member Characteristics

1

## Personnel

Importance of key individuals and the availability of these individuals.

2

## Project Experience

Proven past experience delivering design-build projects and understanding of the process.

3

## Owner Understanding

Understanding and alignment with the local community and project stakeholders.

4

## Prior Partnership

High level of comfort with and complimentary skillsets.

# Importance of Team Chemistry

## Project Approach

- A company's decision-making process, operational priorities and attitudes towards dispute resolution.

## Management Alignment

- How the individuals representing a company are able to come to decisions in a compatible manner.

## Communication style

- The frequency of communication and involvement of all stakeholders.

## Corporate Culture

- Entrepreneurial vs. conservative – operational vs. innovative.



*Progressive design-build is particularly interesting to us. We see this as a continued trend moving forward.”*

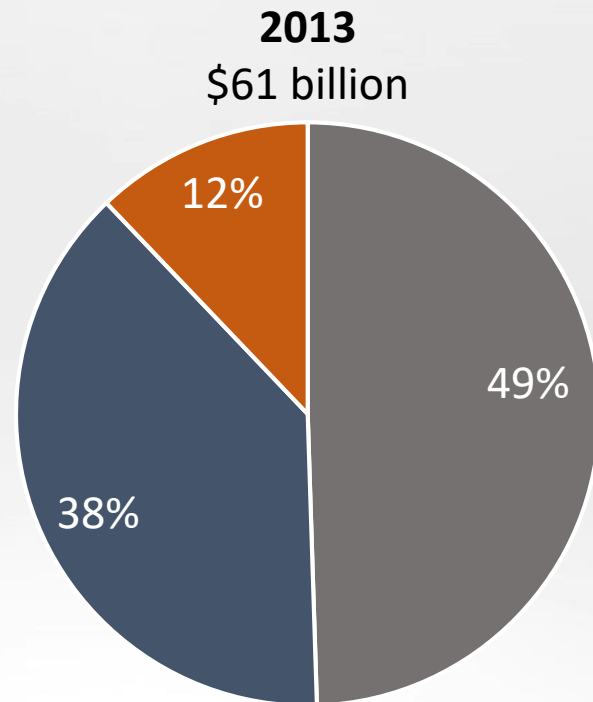
*-Public Owner*

# Common Roadblocks of Design-Build Utilization

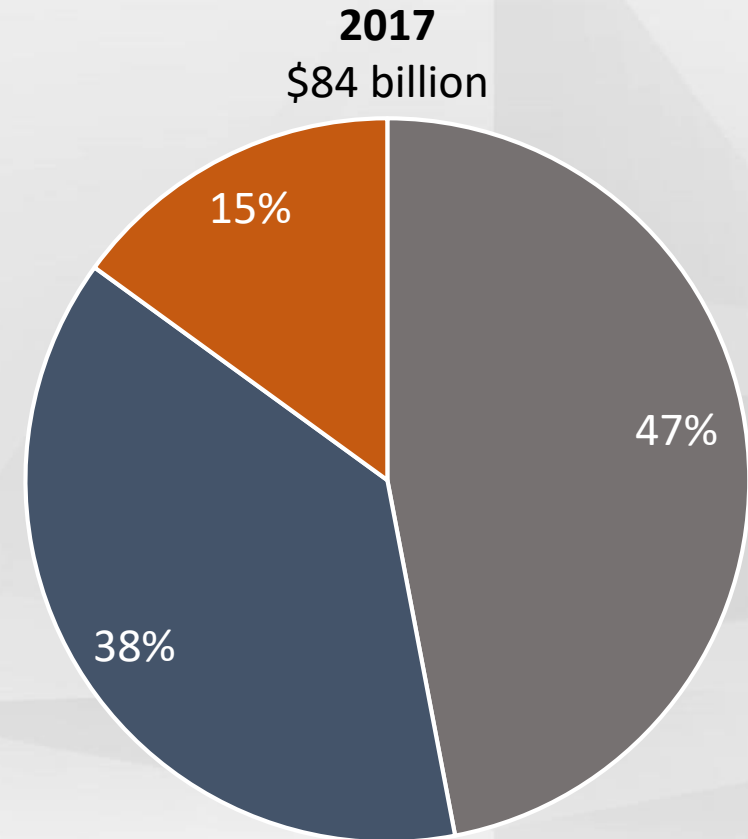


- *Education/understanding*
- *Alignment of procurement*
- *Consistency across regions*

# ENR Top-100 Domestic Design-Build Firm Revenue



38% increase



Growth 2013-2017

Top-10 firm revenue  
33%

Firms 11-50 revenue  
37%

Firms 51-100 revenue  
66%



# Questions?

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