

CONSTRUCTION CHALLENGES FACING SENIOR LIVING DEVELOPMENT

September 18, 2023 | 12:00 PM

Design for Aging
AIA Knowledge Community

WT
WHITING-TURNER

Design for Aging



The mission of the AIA **Design for Aging** (DFA) Knowledge Community is to foster design innovation and disseminate knowledge necessary to enhance the built environment and quality of life for an aging society.

CONTINUING EDUCATION CREDITS

Earn 1 AIA LU

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QUESTIONS?

Submit your questions through the Q&A pod at the bottom of your screen.

Content-related questions will be answered during the Q&A portion as time allows.
Any questions not answered during Q&A, will be answered and posted online within two (2) weeks.

Tech support questions will be answered by AIA staff.

WHITING-TURNER



60+
Locations
Nationally

114
Years in Business

4,200
Full-Time
Employees

5A-1
Dun & Bradstreet Rating
The only domestic builder with this rating

20+
Industries

\$4 B
Bonding
Capacity

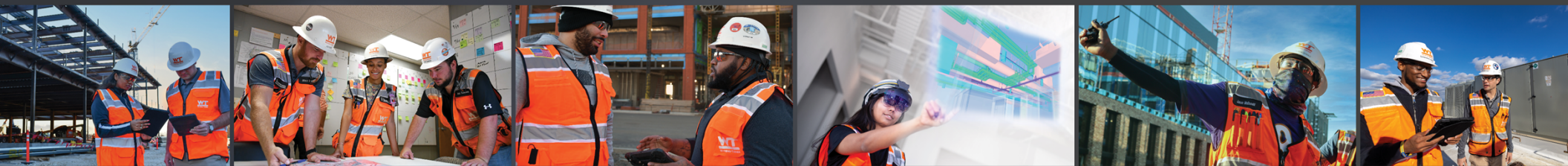
**SENIOR
LIVING** ▶
[last five years]

62
Senior Living
Projects

\$2+ B
Senior Living
Construction

10+ M SF
Senior Living
Construction

#1
Senior Living
Contractors
by BD&C



Integrity • Excellence • Experience • Leadership

★ Total Construction Spending: Nonresidential in the United States (TLNRECONS)

[DOWNLOAD](#)

Observation:
Jul 2023: 1,083,490
(+ more)
Updated: Sep 1, 2023

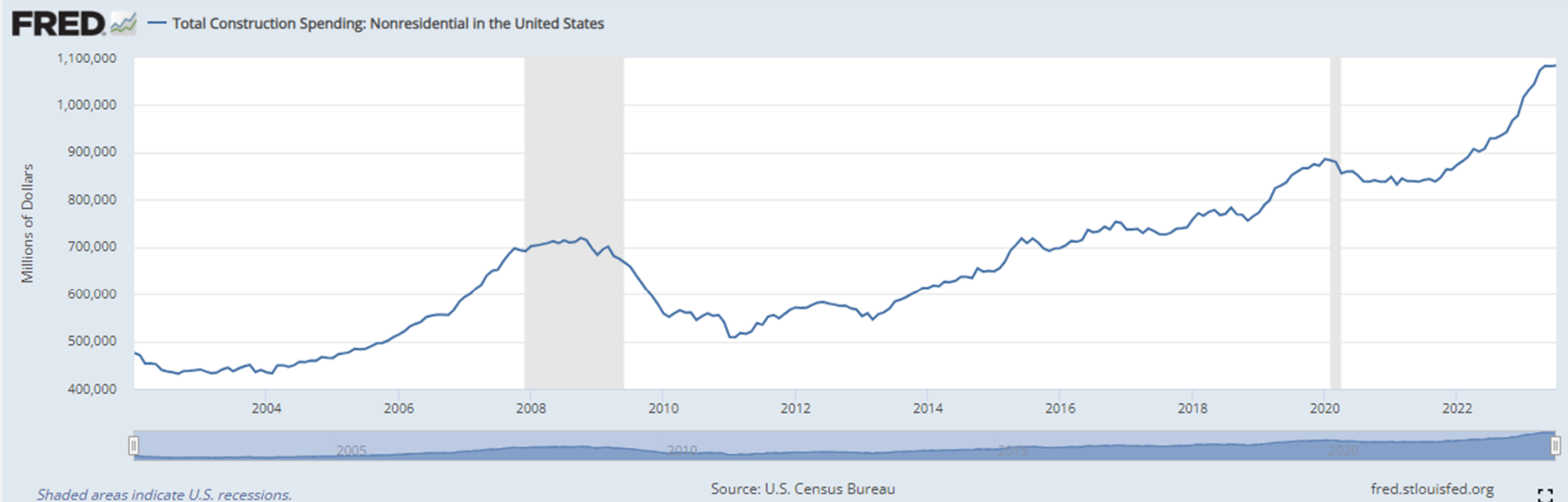
Units:
Millions of Dollars,
Seasonally Adjusted Annual Rate

Frequency:
Monthly

1Y | 5Y | 10Y | Max

2002-01-01

to 2023-07-01

[EDIT GRAPH](#)



VS



ENR TOP 50 CONTRACTORS

GENERAL BUILDING		Share of Total	Cumulative	Share of Total
REVENUE*		Spending	Revenue	Spending
RANK	FIRM	(\$ MIL.)		
1	THE TURNER CORP.	10,076.8	0.93%	10,076.8
2	STO BUILDING GROUP INC.	8,502.0	0.78%	18,578.8
3	THE WHITING-TURNER CONTRACTING CO.	6,594.6	0.61%	25,173.4
4	AECOM	5,502.5	0.51%	30,675.9
5	GILBANE BUILDING CO.	5,034.6	0.46%	35,710.5
6	CLARK GROUP	4,998.5	0.46%	3.30%
7	PCL CONSTRUCTION	4,117.4	0.38%	
8	SUFFOLK CONSTRUCTION CO. INC.	3,818.3	0.35%	
9	RYAN COS. US INC.	3,808.0	0.35%	

GENERAL BUILDING			Share of Total	Cumulative	Share of Total
REVENUE*			Spending	Revenue	Spending
RANK	FIRM	(\$ MIL.)			
1	THE TURNER CORP.	10,076.8	0.93%	10,076.8	0.93%
2	STO BUILDING GROUP INC.	8,502.0	0.78%	18,578.8	1.71%
3	THE WHITING-TURNER CONTRACTING CO.	6,594.6	0.61%	25,173.4	2.32%
4	AECOM	5,502.5	0.51%	30,675.9	2.83%
5	GILBANE BUILDING CO.	5,034.6	0.46%	35,710.5	3.30%

29	OKLAND CORP.	1,531.5	0.14%
30	AUSTIN INDUSTRIES	1,528.5	0.14%
31	LENDLEASE	1,526.4	0.14%
32	BIG-D CONSTRUCTION	1,494.0	0.14%
33	HARVEY HARVEY-CLEARY	1,440.0	0.13%
34	BUSKATZ-GOS. INC.	1,288.6	0.12%

TOTAL REVENUE OF TOP 50 OF ENR 400 130,849.9 12.1% of Total Construction Spending

Total Non-Res. Const. \$ in the US (July 2023) 1,083,490.0 millions of dollars

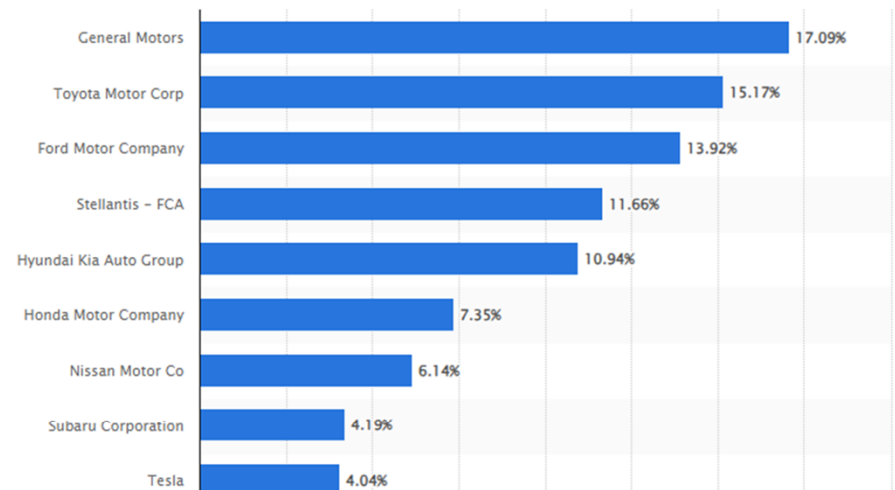
43	BL HARBERT INTERNATIONAL	1,202.4	0.11%
44	GRAY CONSTRUCTION	1,187.7	0.11%
45	E.E. REED CONSTRUCTION LP	1,157.0	0.11%
46	CROSSLAND CONSTRUCTION CO. INC.	1,136.8	0.10%
47	ADOLFSON & PETERSON CONSTRUCTION	1,110.4	0.10%
48	THE MCSHANE COS.	1,107.9	0.10%
49	MESSER CONSTRUCTION CO.	1,080.0	0.10%
50	BNBUILDERS INC.	1,075.0	0.10%

TOTAL REVENUE OF TOP 50 OF ENR 400 130,849.9 12.1% of Total Construction Spending

Total Non-Res. Const. \$ in the US (July 2023) 1,083,490.0 millions of dollars

U.S. AUTO MARKET

Body text

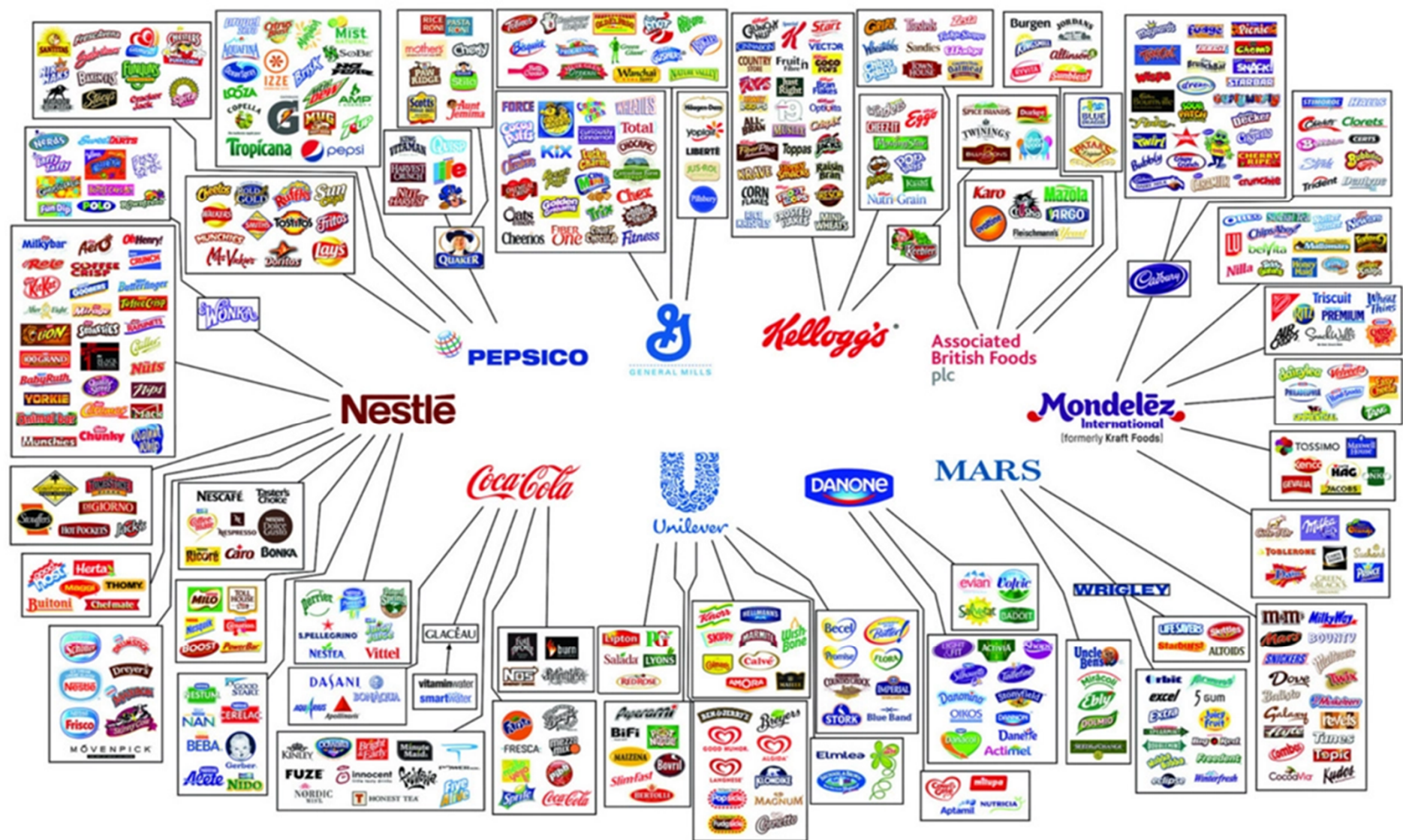


13 Manufacturers above total 99.86% of the market in automobiles.



Source: Statista.com - Estimated US Market Share Held by Selected Automotive Manufacturers in 2022

13 Manufacturers above total 99.86% of the market in automobiles.



CONSTRUCTION SKILLED LABOR

HIRING

- 546,000 additional workers on top of normal pace of hiring in 2023
- 342,000 additional workers on top of normal pace of hiring in 2023
 - IF CONSTRUCTION SLOWS SIGNIFCANTLY NEXT YEAR
- Construction employment increased by around 230,000 workers in 2022
- Application rate dropped by 49% from 2020 to 2022 for technical/skilled construction jobs

CONSTRUCTION SKILLED LABOR

AND RETIRING

- 25% of current construction workers are older than 55
- For every 4 people that leave construction, only one enters
- The average age of a construction worker is 42.5 years old

Source: Associated Builders and Contractors

★ All Employees, Construction (USCONS)

Observation:
Aug 2023: 7,993
(+ more)
Updated: Sep 1, 2023

Units:
Thousands of Persons,
Seasonally Adjusted

Frequency:
Monthly


1Y | 5Y | 10Y | M


2005-01-01

to

2023-01-01

DOWNLOAD 

EDIT GRAPH 

FRED  — All Employees, Construction

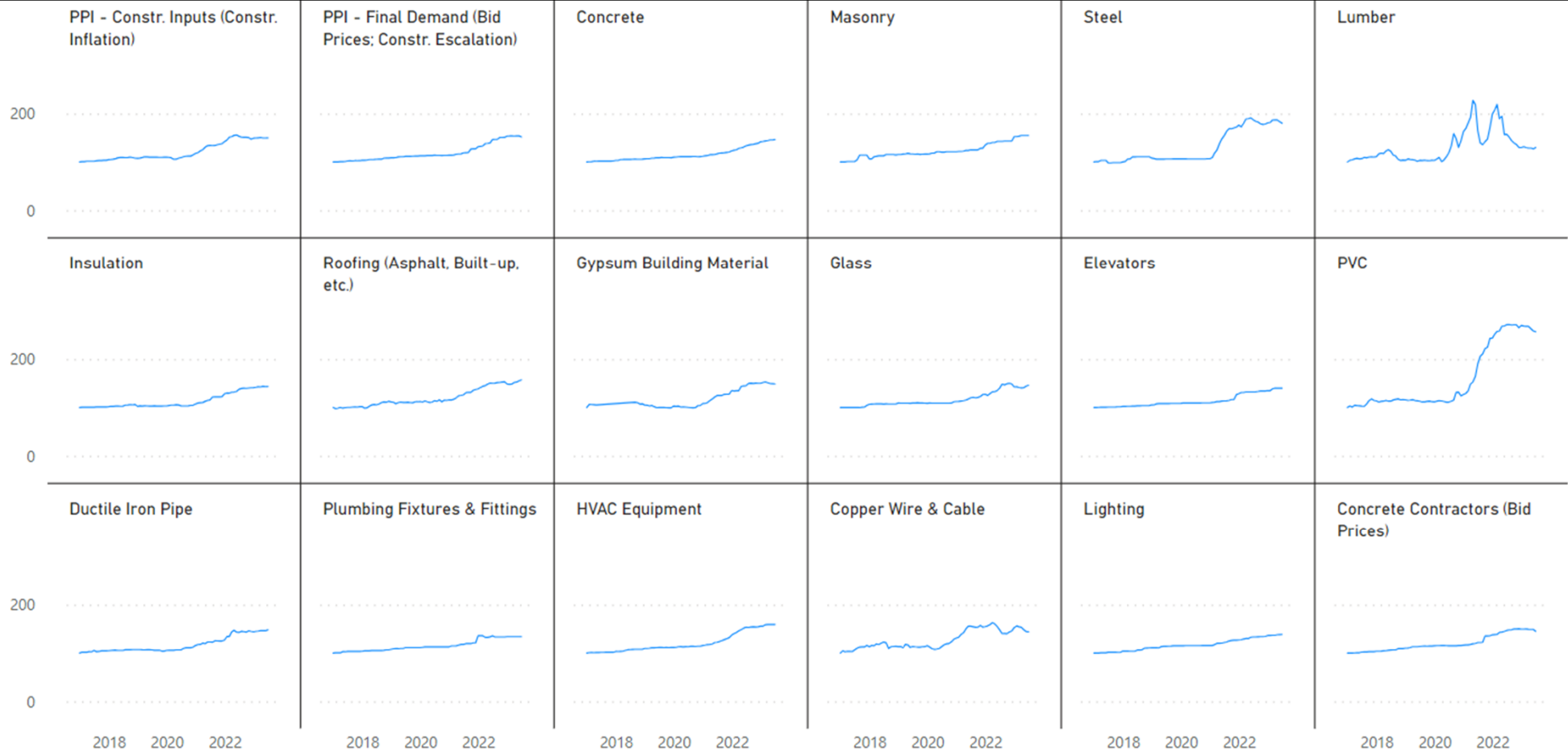


Source: U.S. Bureau of Labor Statistics

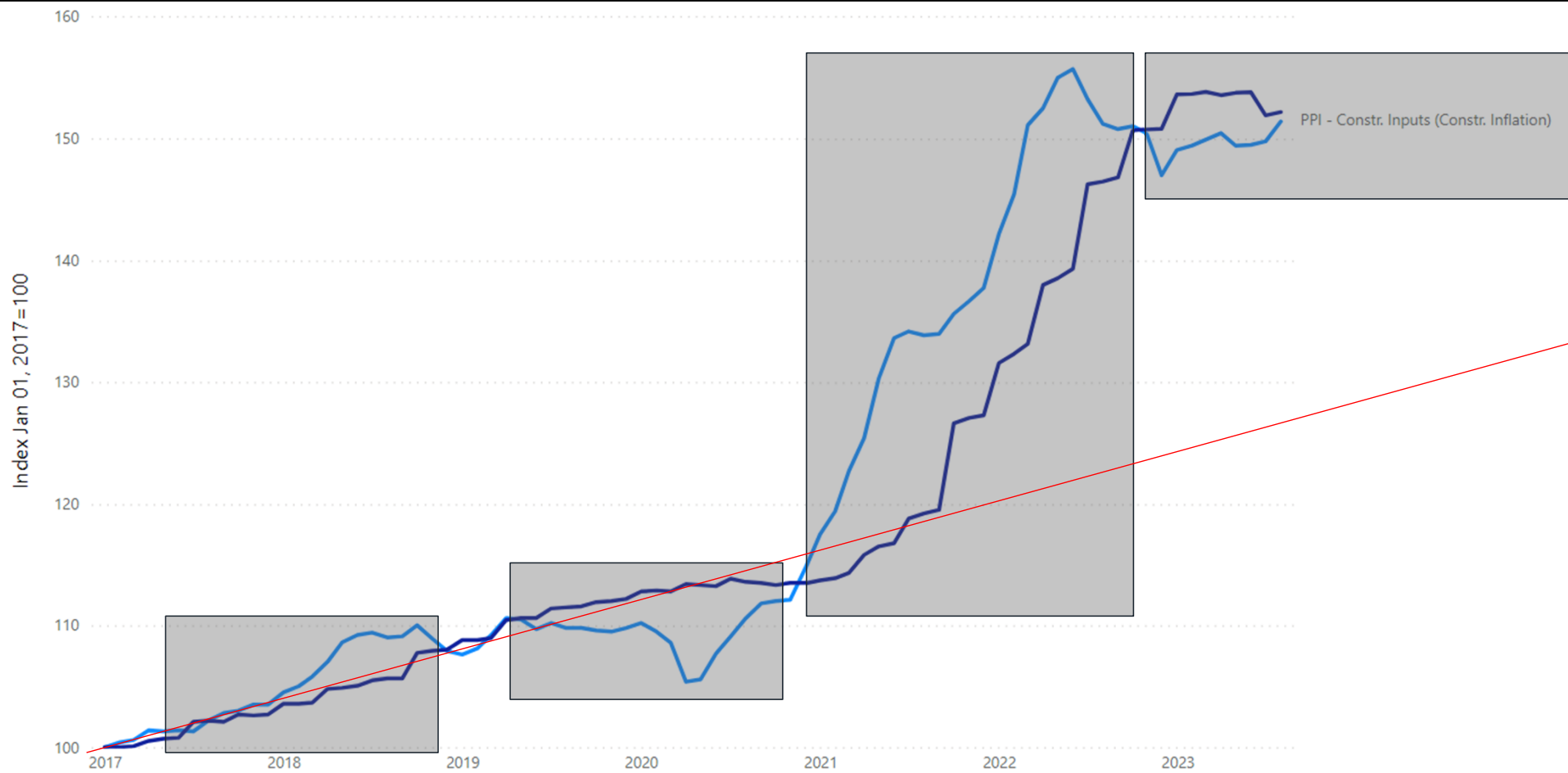
fred.stlouisfed.org



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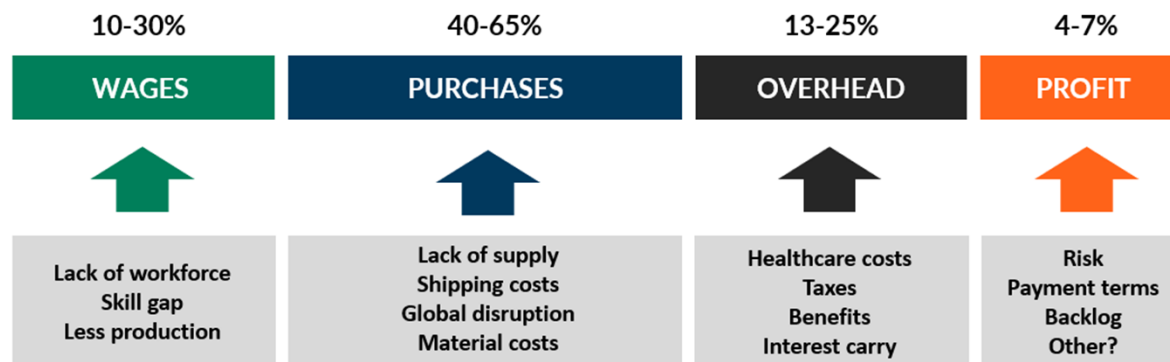


Retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org>. August 24, 2023.



Retrieved from FRED, Federal Reserve Bank of St. Louis: <https://fred.stlouisfed.org>, September 15, 2023.

COMPOSITION OF A SUBCONTRACTORS BID



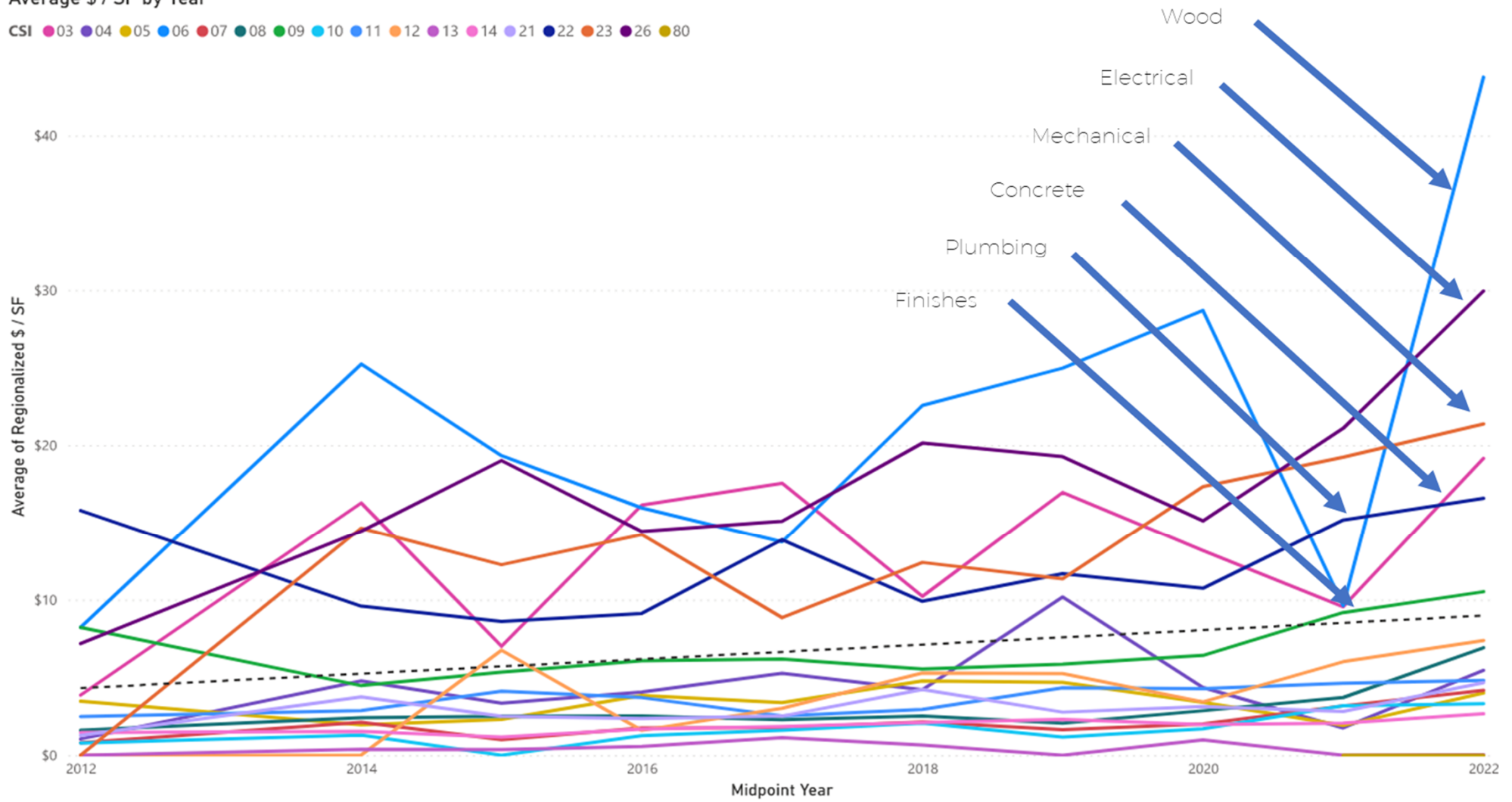
*Source: Procurement IQ - December 2022

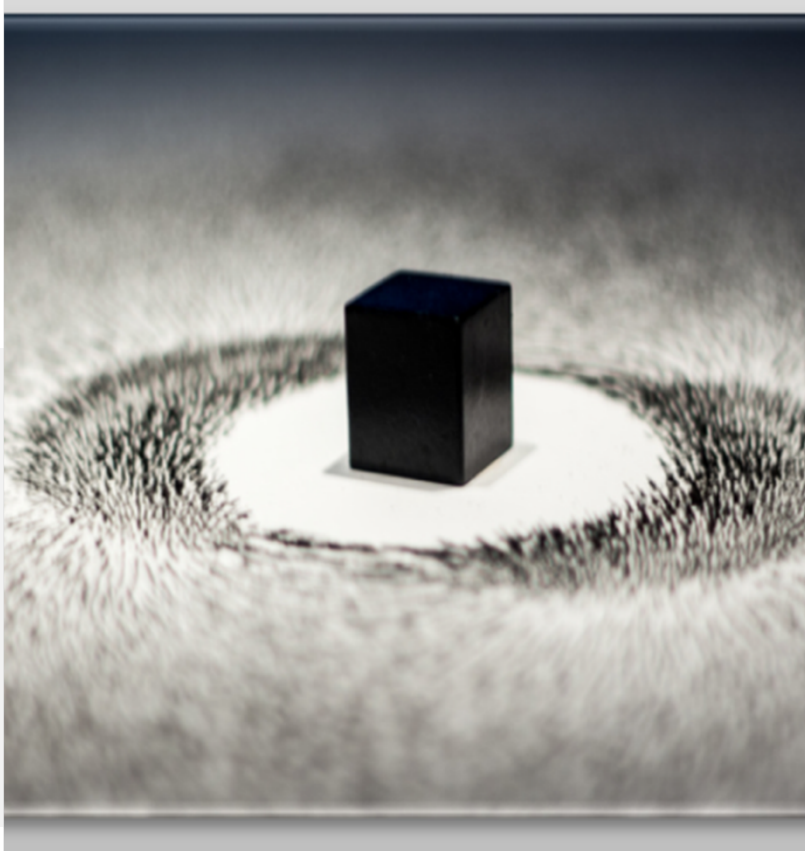
THE IMPACTS

- Trade Partners are being more selective on the work they pursue.
- Less Skilled Workers = More Supervision = Potentially Higher Bids
- Less Skilled Workers = Potential Rework = Potentially Higher Bids
- Unqualified Labor = Added Risk on Safety & Quality
 - + Insurance Premium Increase
 - + Subcontractor Default Claims
 - = Potentially Higher Bids

Average \$ / SF by Year

CSI 03 04 05 06 07 08 09 10 11 12 13 14 21 22 23 26 80





OTHER COST DRIVERS

- Building Code Changes
- Energy Code Changes
- Local Jurisdictional Requirements
 - Stormwater
 - Life Safety
 - Sustainability
- Technology

GETTING THE DOORS OPENED FASTER

- Partnering
- Integrated Delivery
 - Early Trade Contractor Involvement
 - Early Trade Contractor Award
- Quick Decision Making
- Design Flexibility
- Efficient Program
- Project Scale & Size
 - Smaller = Faster to Design
 - Smaller = Faster to First Delivery
- Potential for Future Expansion



COST CONSCIOUS MATERIALS & DECISIONS

- "Curves" & "\$'s" are synonymous
- Custom = Premium \$
- Flexibility in Materials & Product Specifications
- Early Procurement & Storage
 - High \$ Components
 - Long Lead Items
- Realistic Expectations
- Refresh / Update Timeline



NET ZERO AND CARBON NEUTRALITY

- 100% Electric Buildings
 - New Buildings – not necessarily a cost increase
 - Retrofits – Tax Credits – offset conversion costs
- Code Minimum Building Envelopes – Priced into the market now.
- High Efficiency HVAC & LED Lighting – Built into the market now

MODULAR & OFF-SITE BUILDING

- Full Volumetric Construction
 - Potentially controls the timeline, not necessarily the cost (yet)
 - Still limited in options for scaling
- Supports sustainability efforts with less waste

ARTIFICIAL INTELLIGENCE

- How is it going to be leveraged?
 - More efficient planning of manpower
 - Schedule Analysis
 - Constructability and Code Compliance
 - Estimating & Quantifying
- Automated / Robotic Construction techniques are still far off for any mass scaling

WT



WHITING-TURNER

FEEDBACK SURVEY

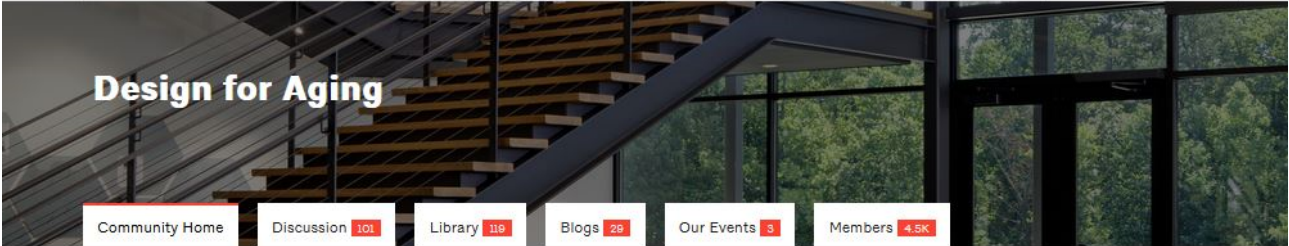
We encourage all attendees to complete the post course survey at <https://www.surveymonkey.com/r/7BPNTYZ> by **Friday, September 22, 2023**, at 5pm ET.

Please email knowledgecommunities@aia.org if you have any questions.

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Design for Aging

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Quick Links

Who we are

The mission of the AIA **Design for Aging** (DFA) Knowledge Community is to foster design innovation and disseminate knowledge necessary to enhance the built environment and quality of life for an aging society. This includes relevant research on characteristics, planning and costs associated with innovative design for aging. In addition, DFA provides outcome data on the value of these design solutions and environments.

COVID resources

Strategies for Safer Senior Living Communities
This resource includes strategies for dining facilities, amenity spaces, and individual units. [Download >](#)

Manage Your Communities

Upcoming Events

9 Sep

DFA: Call for leadership applications
Sep 9 - Oct 17, (ET)

19 Sep

Live course: Intergenerational Living, Inclusive Communities: Strategies for Planning and Design
Sep 19, 12:00 PM - 01:00 PM (ET)

[See All Events →](#)