



NATIONAL
MULTIFAMILY
HOUSING
COUNCIL

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A Whole New Ball Game: Construction and Design in a Time of Changing Rules and New Technology

2017 NMHC Spring Board of Directors Meeting
May 16-18, 2017

AGENDA

- Introductions
- Construction Labor and Shortage of Skilled Workers
- Fire Proposals and Impact on Development
- Technology and Modular Construction

PANELISTS



Mike Schlegel
Bozzuto Construction
Company



Rohit Anand AIA
KTYG Architecture +
Planning



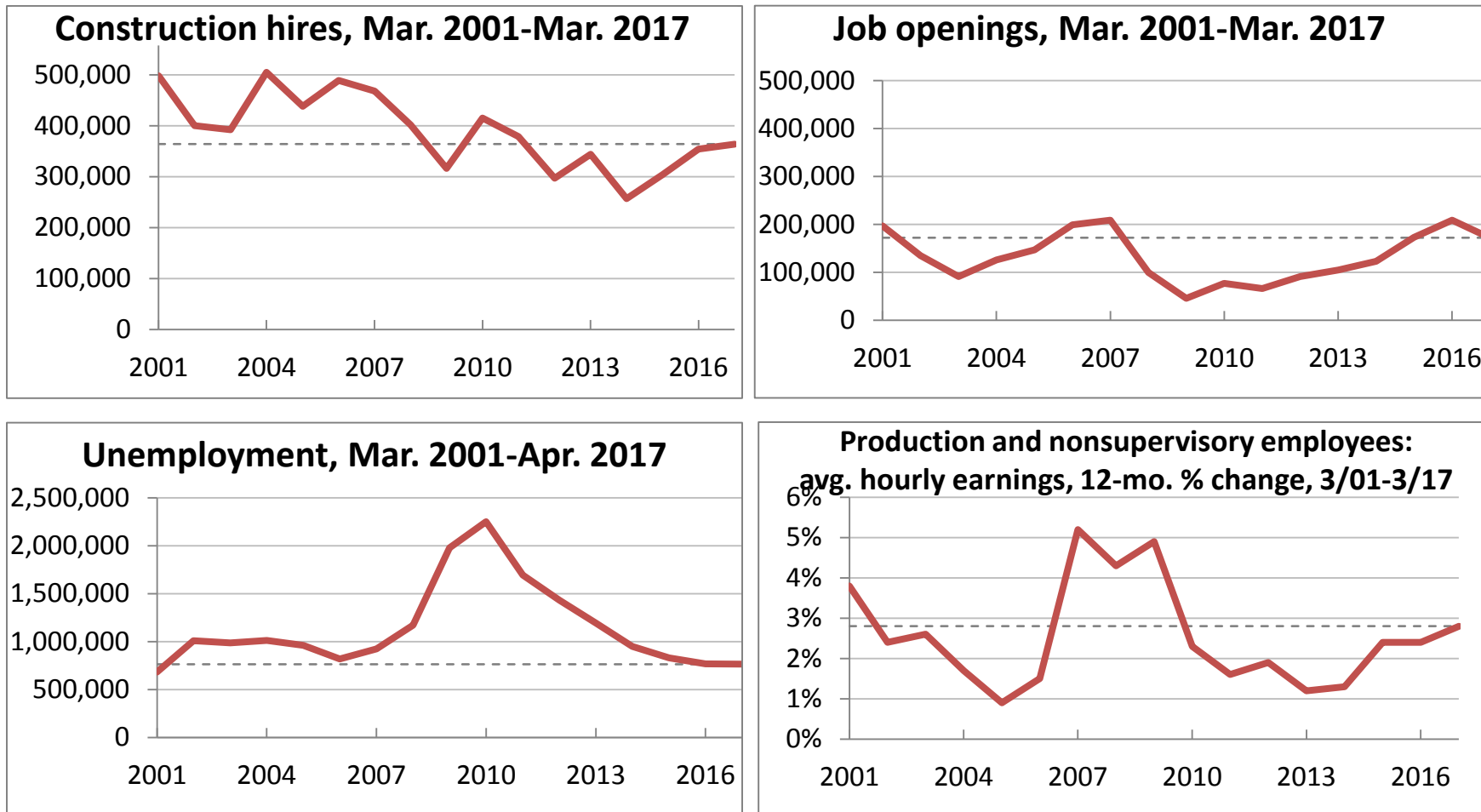
Brice Leconte
iUnit



Ken Simonson
Associated General
Contractors of
America

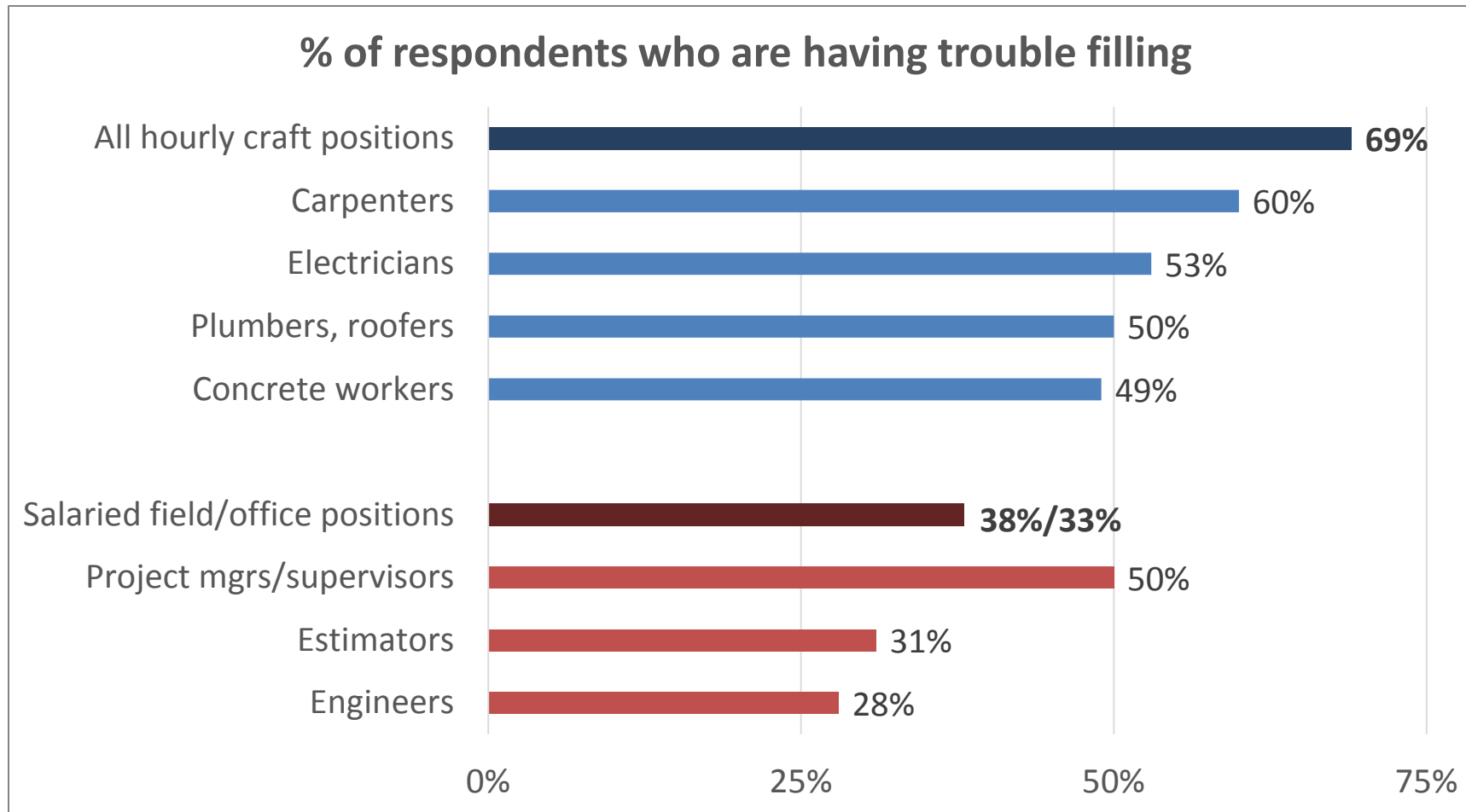
CONSTRUCTION WORKFORCE INDICATORS

(NOT SEASONALLY ADJUSTED)



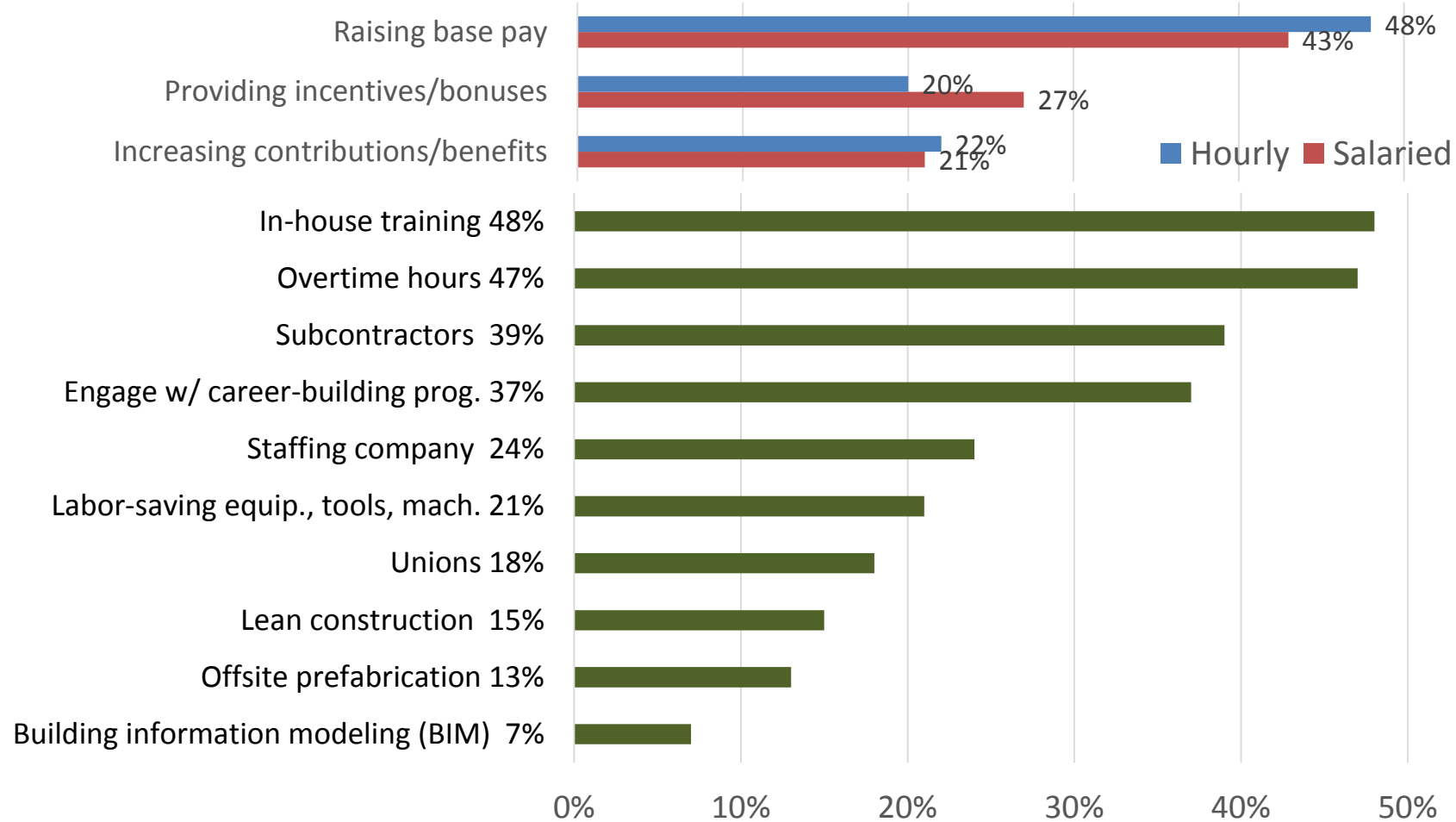
Source: Bureau of Labor Statistics

HARDEST POSITIONS TO FILL⁵



Source: AGC Member Survey, August 2016

HOW CONTRACTORS ARE COPING WITH WORKER SHORTAGES



WHAT DO FIRE PROPOSALS MEAN FOR NEW CONSTRUCTION?

State Legislative Proposals:

- More stringent Building and Fire Codes
- Ban wood construction 4 stories or higher

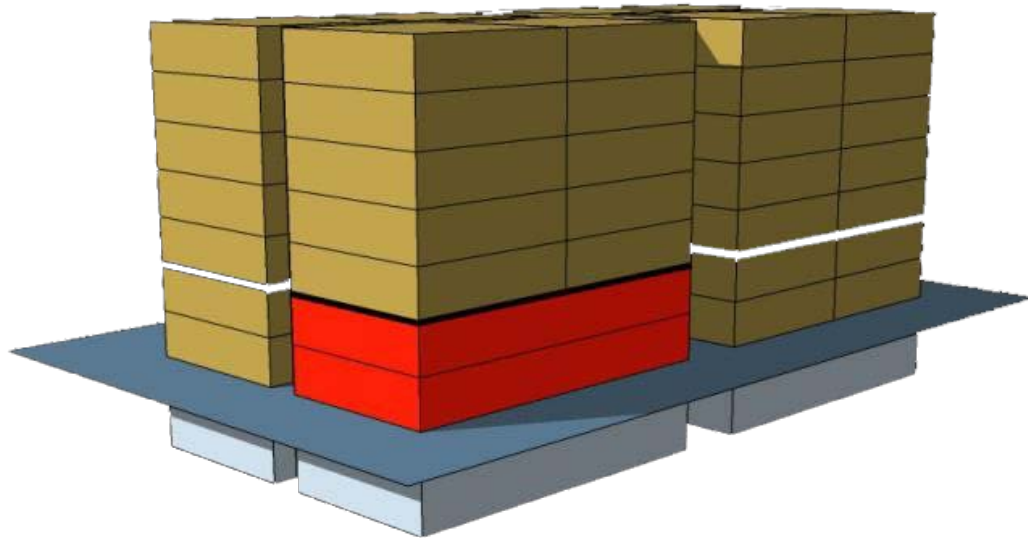
Proactive Initiatives to consider:

- White Paper on current fire safety
- Enhanced construction site recommendations/best practices for fire safety
- Leverage coalition relationships with other industry partners
- Explore design and product alternatives in wood-framed construction
- Develop talking points and promote a consistent industry message

DENSITY COMPARISON

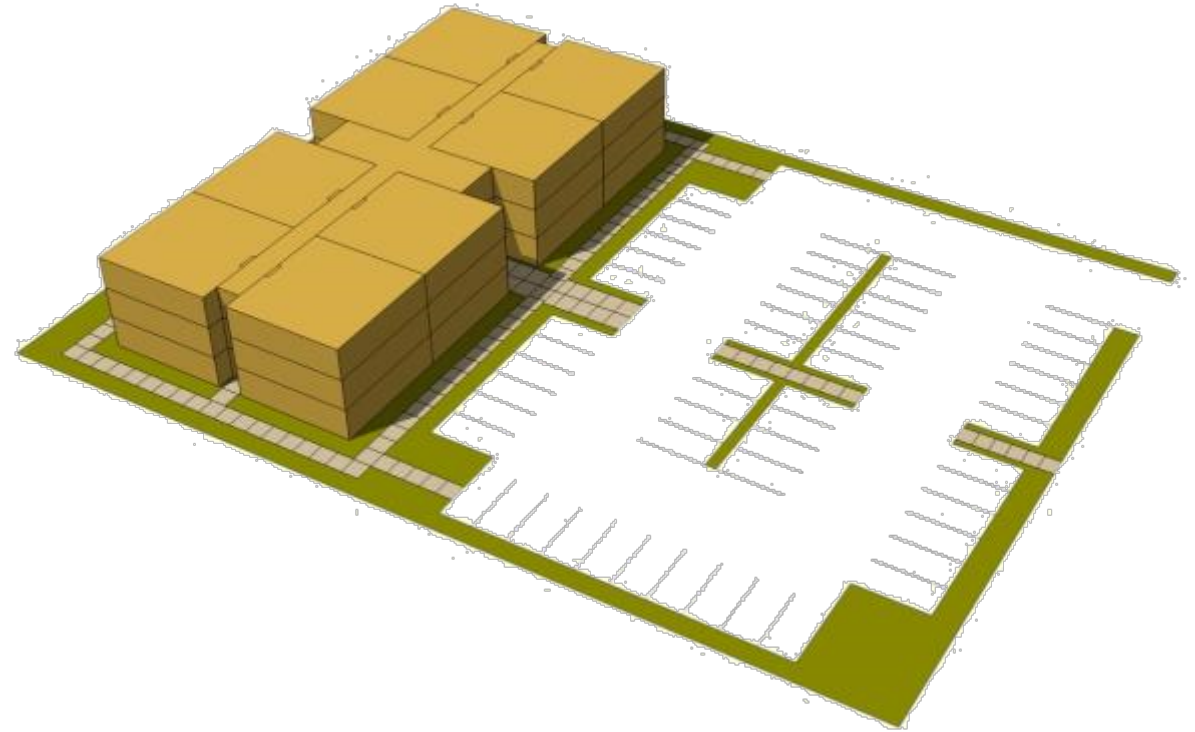
5-over-2 Podium

Type III Construction: 150-225 DU/AC



3 Story Walk-up

Type V Construction: 20-40 DU/AC



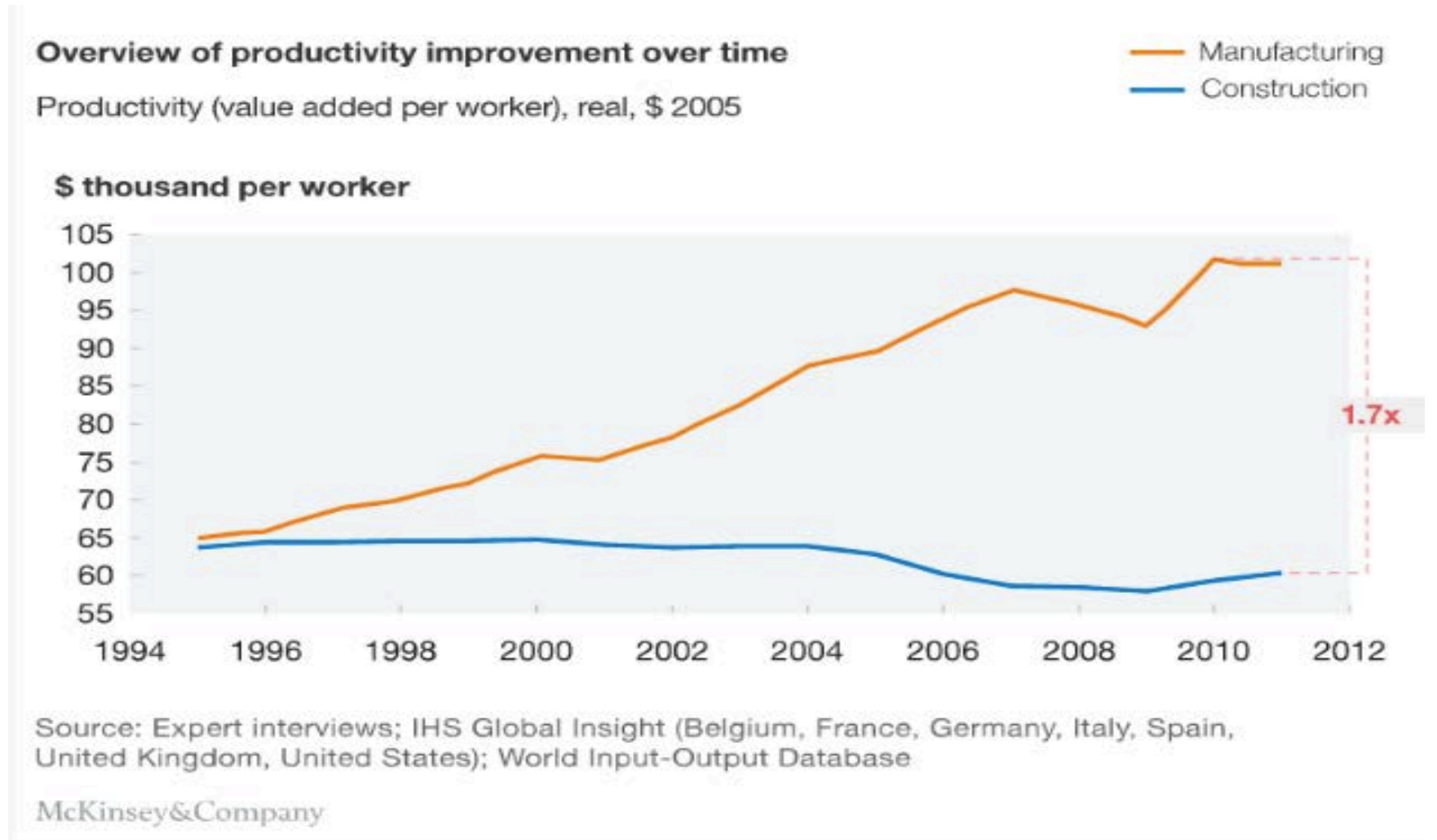
COST COMPARISON PRICING, SAME BUILDING BUILT THREE DIFFERENT WAYS

Construction Type	Cost per SF	Cost per Dwelling Unit with Underground Parking
6-story (5 wood frame + podium)	\$120 per SF	\$200,000 per DU
6-story metal composite building	\$145 - \$150 per SF	\$225,000 per DU
6-story concrete building	\$145 per SF	\$230,000 per DU

COST COMPARISON PRICING, SAME BUILDING BUILT THREE DIFFERENT WAYS



- Productivity in manufacturing has nearly doubled, whereas in construction it has remained flat



FACTORY BUILT PRODUCT IMPROVES QUALITY

- **Better:** Factories give iUnit a controlled environment to achieve a NetZero capable envelope
- **Repeatable:** Factories help iUnit create economies of scale and a repeatable product
- **Faster:** Factories allows iUnit to build communities faster

