

**THE**  
**FUTURE**  
**IS**  
**NOW**

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**SMART**



# Clark Ellis

Principal and Co-Founder  
Continuum Advisory Group



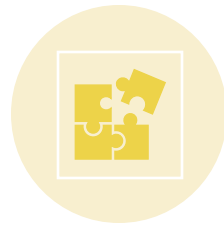
# Navigating the Future: One Member's Story



# What's the Story of Our Industry?



HARD WORK



INNOVATION



TRADITION

# What Influenced This Story?

Demographics

Economic  
Growth

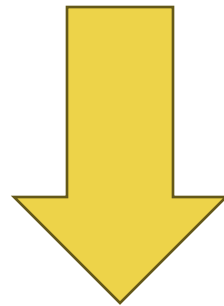
Economic  
Cycles

Technological  
Change

# What Factors Will Write the Story of the Future?

- I've chosen to illustrate the industry's possible future by writing a story.
- As you're listening to the story, think about what's there for the main character, Sarah, as she follows the journey of her life and career.
- What programs, processes, factors, cultural changes, and mindset changes helped enable her success?

Q1 2008 \$61.9B

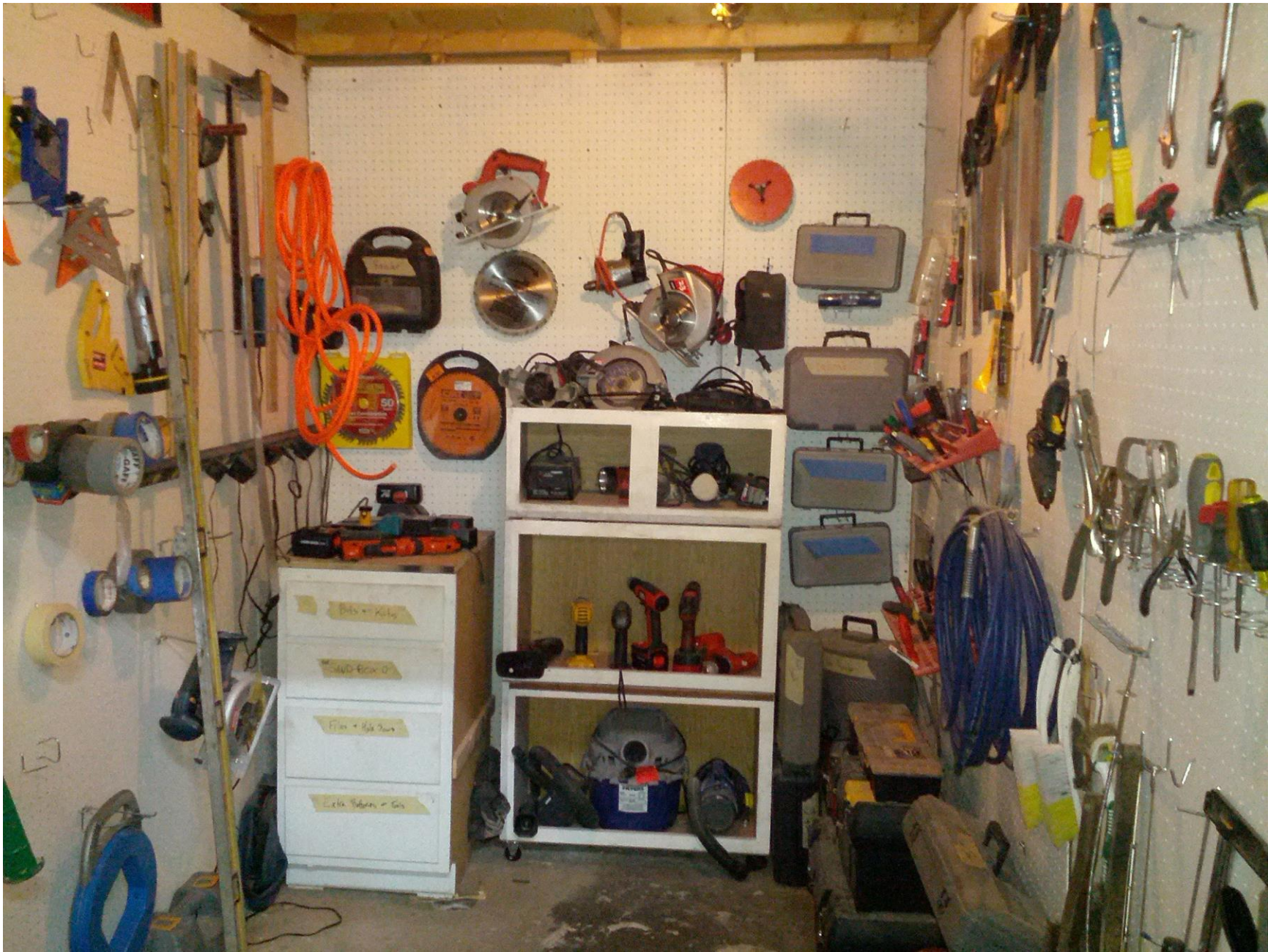


Q1 2023 \$1.77T

“The sheet metal industry can offer a career with a variety of paths to someone who may not be interested in the traditional 4-year degree path.”

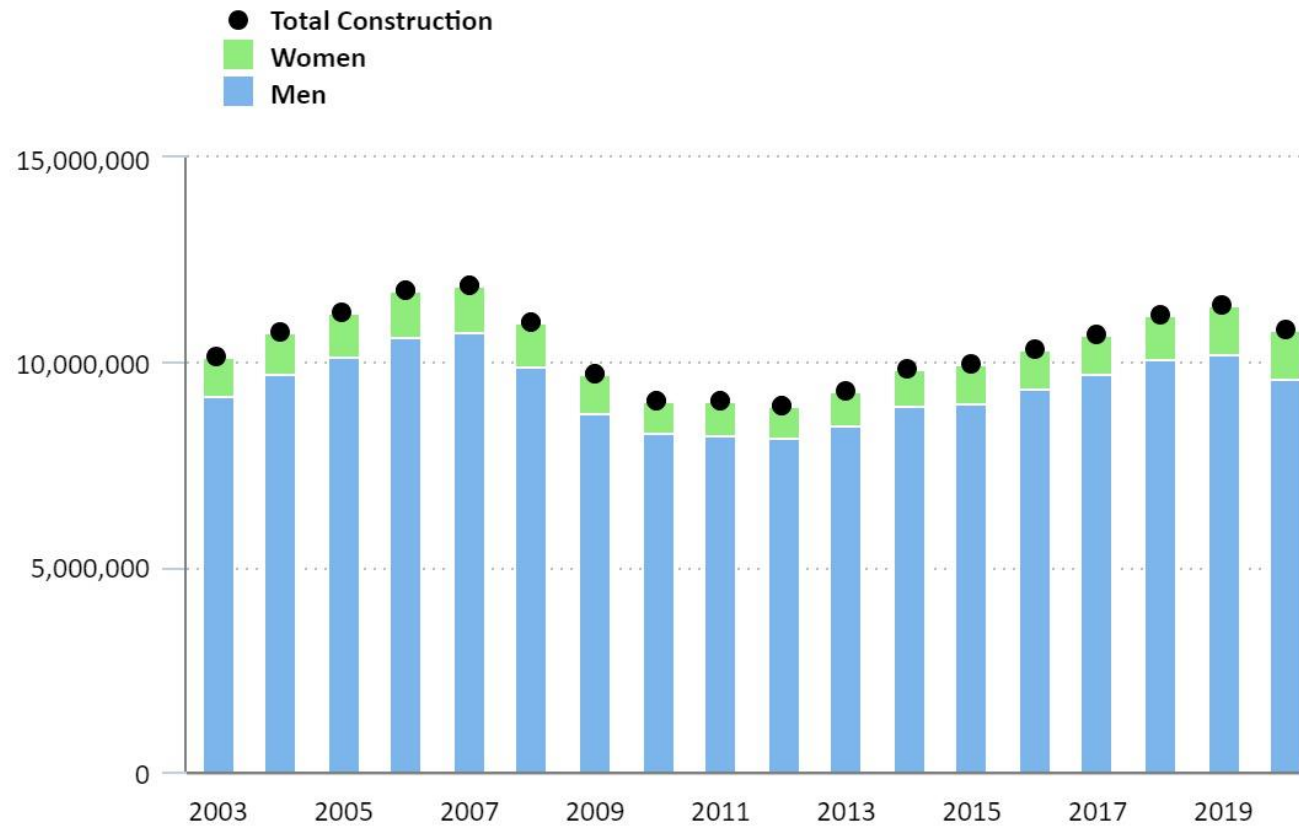
– PIP Emerging Leader





89%

## Construction industry employees by sex, 2003 to 2020



Click legend items to change data display. Hover over chart to view data.  
Source: U.S. Bureau of Labor Statistics.

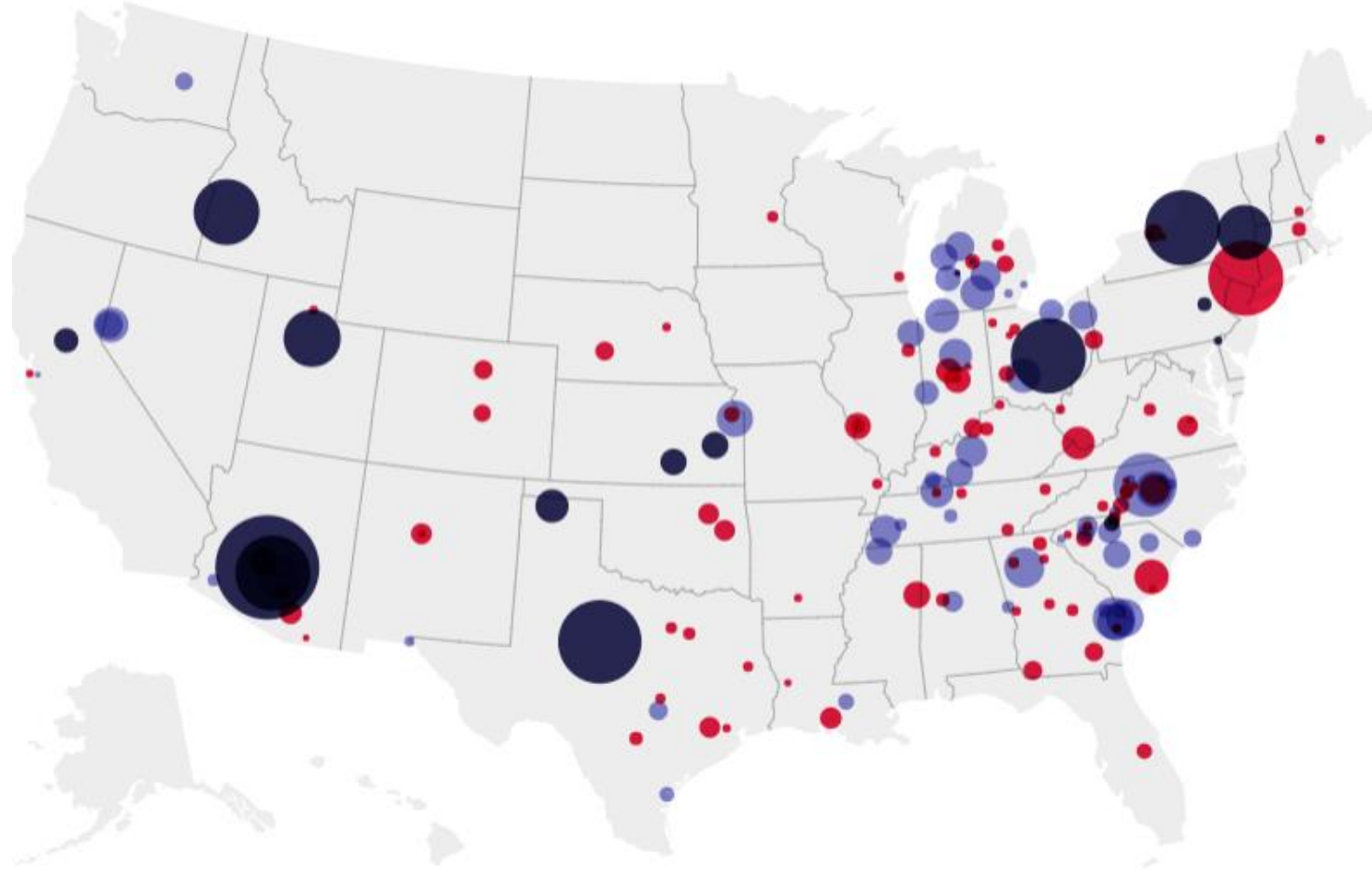


- “I believe there are so many different career paths that revolve around the sheet metal industry that no matter which route I end up going there will be a place for me.”
- “I think promoting and advancing the training opportunities is going to be key to retaining motivated young people.”
- “Again, everything is changing. however, HVAC and sheet metal is still an important and required service to maintain and manage human comfort.”

All quotes from PIP Emerging Leaders



# Major US Construction Projects



Map: Sebastian Obando/Construction Dive • Created with [Datawrapper](#)

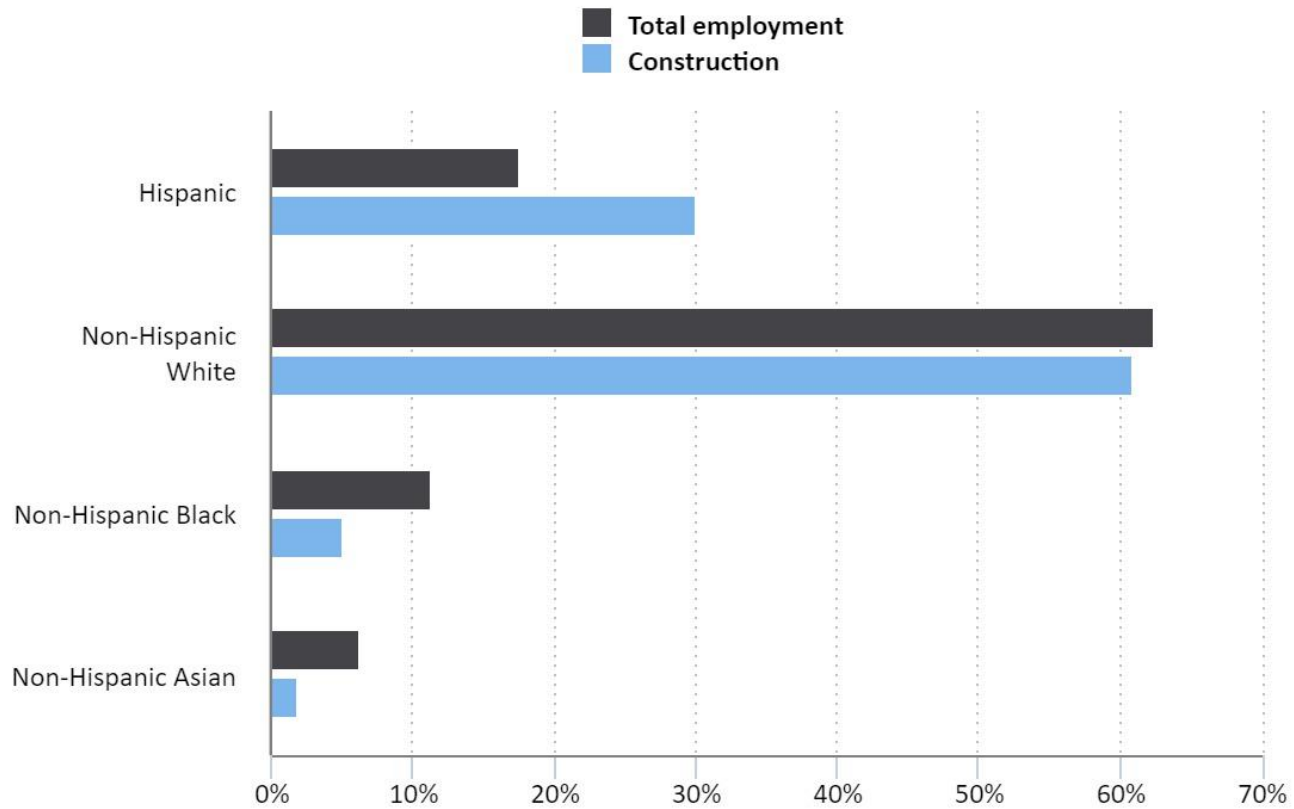
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## Construction and total employment by race and ethnicity, 2020

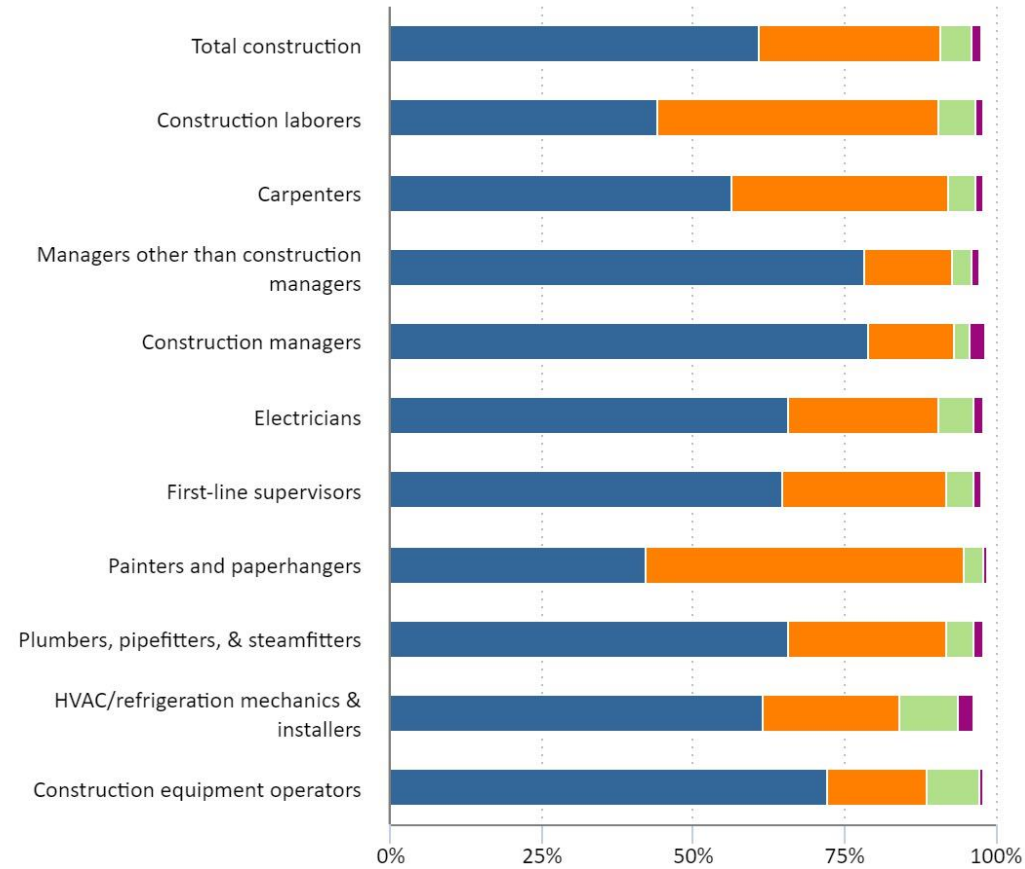


Click legend items to change data display. Hover over chart to view data.  
Source: U.S. Bureau of Labor Statistics.



## Race and ethnicity distribution in the top ten construction occupations, 2020

■ Non-Hispanic White
 ■ Hispanic
 ■ Non-Hispanic Black
 ■ Non-Hispanic Asian



Click legend items to change data display. Hover over chart to view data.  
 Source: U.S. Bureau of Labor Statistics.





- “We are still struggling from Covid. People are not as interested in moving into leadership positions. It’s hard to get people interested in becoming forepersons.” – Union Trade Contractor
- “The challenge for a lot of us is leadership within our companies. Identifying future forepersons, shop forepersons, superintendents, project managers, etc. We are having to really convince young men and women to pursue these opportunities.” – Union Trade Contractor
- Soft skills, particularly leadership skills were identified as the number one development need for the trades in a recent workshop of BT Union Officials, Union Trade Contractors, Owners, Building Tech Companies and Tool Manufacturers.

- 1970s

35%

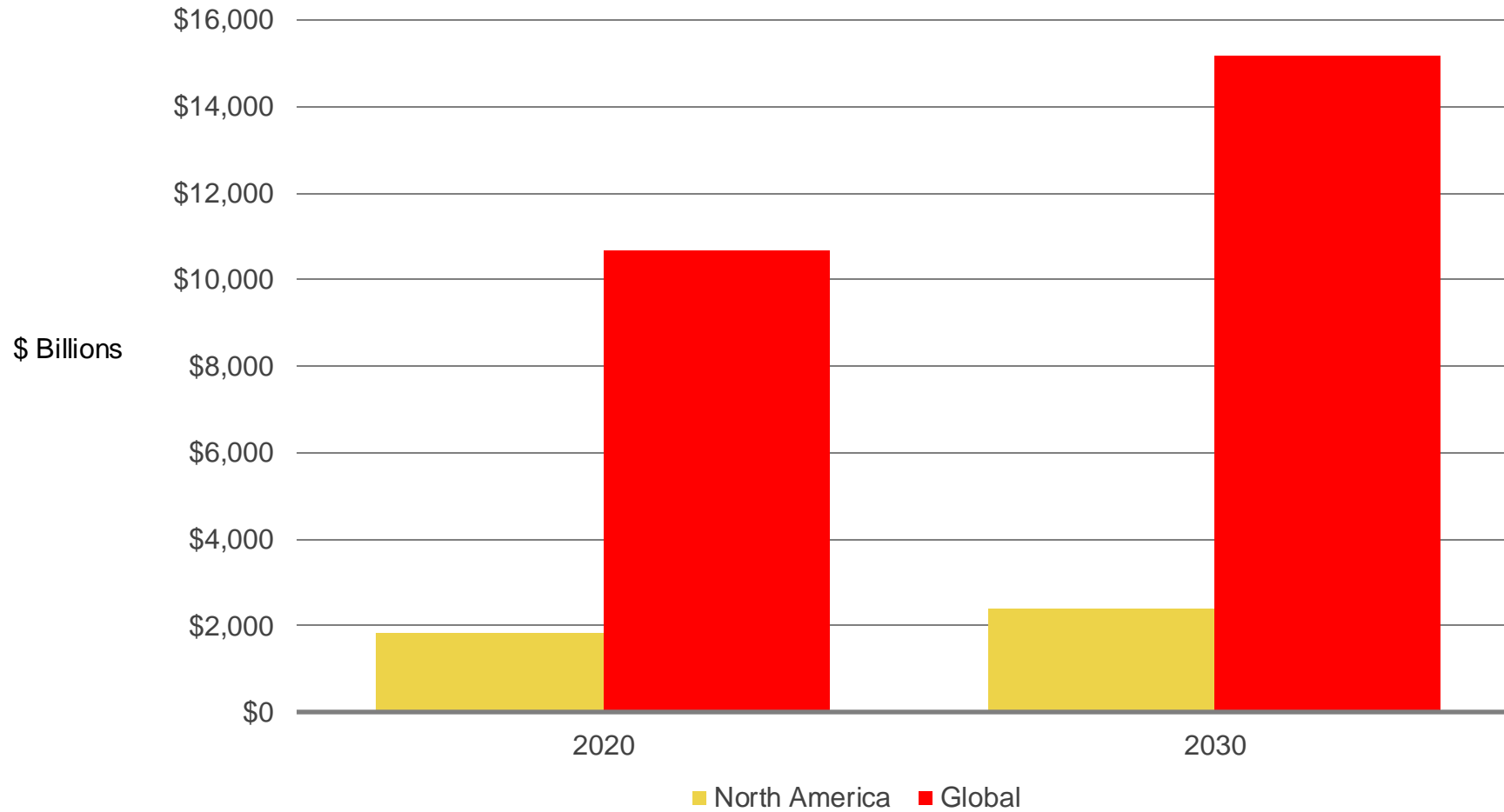
- 2023

<15%

- Private Room for Breast Feeding Mothers.
- Clean, Safe Space.
- Convenience, Ease of Use, and Dignity.



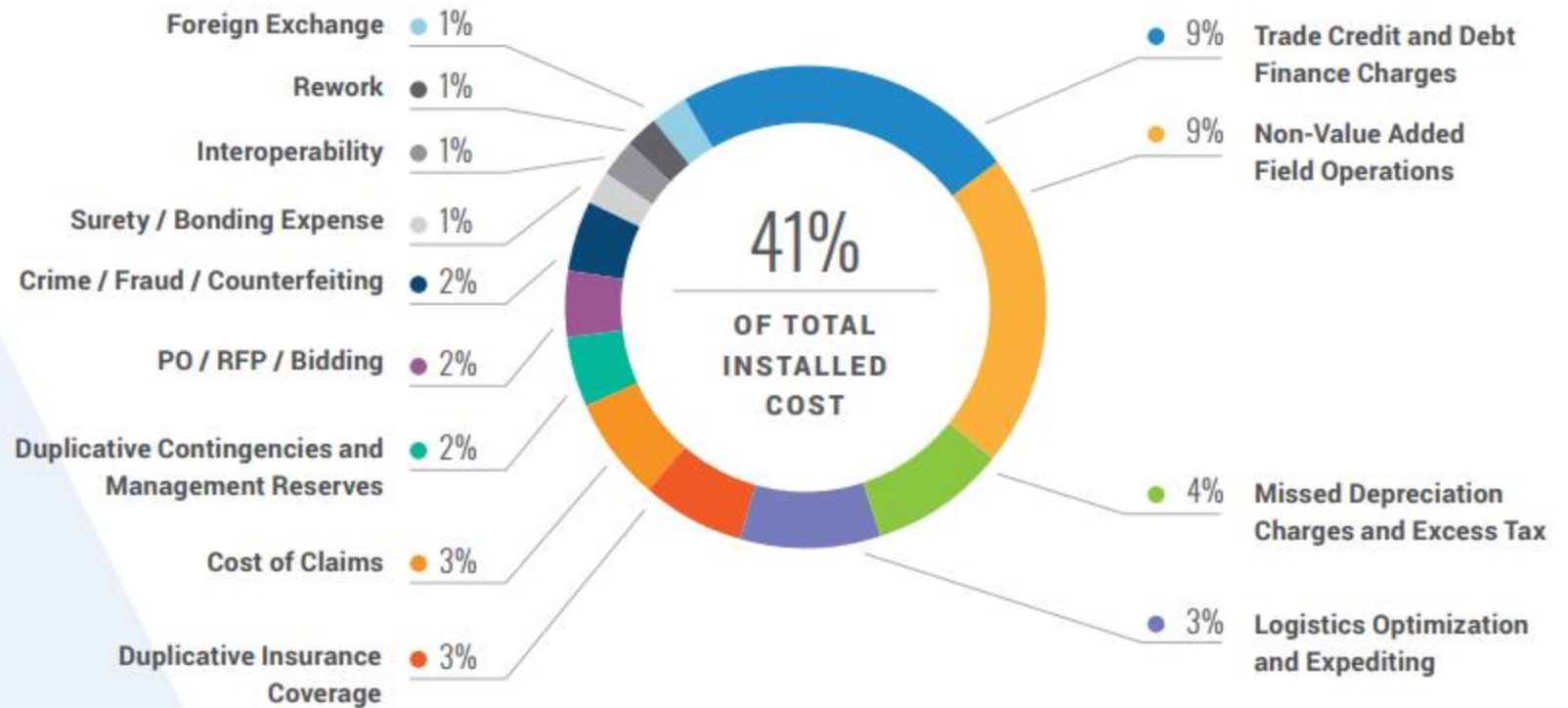
# Construction Demand



# Improving Business Process Waste

There are **significant** opportunities to remove waste from the business process side of construction. This can reduce cost, increase profits, and reduce risk.

Typical Sources of Transactional Waste



Source: CII Working Paper - Transactional Waste

- The Construction Industry's suicide rate has remained at approximately 4 times the national average for years.
- We are beginning to provide the help that is needed.
- A culture change is ultimately necessary.

- A Major Life Science Owner announced in 2020 a goal to have 80% of construction labor on their projects offsite by 2025.
- A Major Healthcare Owner has implemented a goal to have 60% of construction labor on two major projects in TX offsite.
- Offsite Construction/Prefab/Modular/Componentized is growing.
- MEP is leading the way.

# How has our Heroine Succeeded?

- Hard Work, Determination, Perseverance...with a lot of support.
- The leaders in this room and in our industry developed great support structure so that the opportunities for careers in our industry became more widely known and were accessible.
- They also took on deep industry problems and created solutions.
- They successfully changed the culture of our industry.



# Collaboration is the Foundation!

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