Craft Labor Shortages
How Community-based Craft Training is Solving the Workforce Problem
Construction Spending and Employment History and Forecast
(Excludes Self-employed Workers)

*Spending Forecast: 4% growth in 2018 and 2019
(to $1.28 trillion and $1.33 trillion) and 3% growth in
2020 and 2021 (to $1.37 trillion and $1.42 trillion)

**Spending Forecast + Infrastructure assumes
+$50 billion infrastructure spend in 2019
+$150 billion in 2020
+$200 billion in 2021

8.4 million workers needed in 2018
(7.8 million employed in 2017)

Every $1 billion in extra construction
spending generates an average of at
least 6,300 construction jobs

Source: History – U.S. Census Bureau and Bureau of Labor Statistics (BLS); Employment Demand and Forecast – Markstein Advisors
Aging Workforce

- The U.S. construction craft labor workforce is currently aging more than three times faster than it was from 1994 to 2001.
- 16 to 19 year-olds were 2.9% of the workforce in 2002, while the share was just 1.8% in 2017.
- Workers 55 and older were only 11.0% in 2002, yet 21.1% in 2017.
# The Workforce: Future Demographics

## Gen Y: the optimists
- **Gen Y (1981-1994)**
  - Raised on the web
  - 2 screens
  - Communicate with text
  - Share things
  - Present-focused
  - Want to be discovered
  - Luxury shoppers
  - Digital-savvy
  - Will take on side gigs and juggle multiple careers
  - Retention driver: money

## Gen Z: the realists
- **Gen Z (1995-2010)**
  - Raised on social web
  - 5 screens
  - Communicate with images
  - Create things
  - Future-focused
  - Will work for success
  - Frugal shoppers
  - Digital-centric
  - Want to work for themselves (entrepreneurial)
  - Retention driver: career advancement
The Workforce
Potential Supply

- **Unemployed/Underemployed**
  - Unemployment (U-3) figures have been dropping recently. Down to 3.9% in July 2018
  - Real Unemployment (U-6) is higher at 7.5% but people in the gap between U-3 and U-6 can be difficult to capture

- **High School Students**
  - Image Problem
  - HB 5 and current efforts

- **Veterans**
What is the solution to our workforce problem?
Community Based Training
Benefits

- Cost effective - not duplicating training
- NCCER standardized curriculum & credentials
- Quality instruction from certified instructors
- Continuous audit process of all providers
  - High Schools and Colleges
- Single national data base (NCCER)
- Allows for portable/stackable credentials
- Allows for cost sharing of training
- A sustainable model with appropriate support
Implementing Community Based Training

• ABC Greater Houston was founded in 1969 to support Merit Shop Contractors.
  • Today, ABC represents nearly 500 members who include General Contractors, Specialty Contractors, Suppliers and Associates.
  • ABC focuses on five priorities to support members: Networking; Training & Education; Safety; Political Advocacy; and Industry Information.

• CMEF is a 501 (c)(3) founded in 1995 as the educational affiliate of ABC Greater Houston.
  • CMEF is dedicated to serving the workforce development needs of the industry through community based training programs and workforce development initiatives.
  • CMEF provides: NCCER Craft Training, On-Demand Training, High School Outreach, Leadership Programs, and 3rd Party Performance/Written Skills Verification.
Per the HBR Key Tenets, as well as noted in the Best Practice Documents Created by the PetroChem Works Steering Team, Owners and Contractors Agree to Sign a Pledge via the TCA (Training Contributor Agreement) to Contribute:

- **$0.06 per OSHA 300 log work hour** to help fund community-based craft recruiting, training and placement programs
  - In addition, commit to:
    - **Preference** - given to contractors who develop and train craft employees.
    - **Crew Mix** - Owners commit to maintaining a balance of at least 20% apprentices/trainees
CMEF Training Contributor Agreement

2/3 ($0.04) of Funds To Community Based Training

1/3 ($0.02) of Funds To High School Programs & Workforce Development Initiatives
CMEF Community College Partners

- San Jacinto College North and Central
- Lee College
- Galveston Community College
- College of the Mainland
- Lonestar College
- Alvin Community College
- Houston Community College (4 campuses)
- Wharton Community College
- Lamar Institute of Technology

In Addition:
CMEF in La Porte is also a training, testing, and verification center
Onsite specific training also available – We come to you

In 2017 these colleges combined to have 8,400 students in CMEF sponsored classes
### CMEF High School Partners

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<tr>
<th></th>
<th>2013</th>
<th>2014</th>
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<td>Participating High Schools</td>
<td>22</td>
<td>30</td>
<td>38</td>
<td>43</td>
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<td>Participating ISDs</td>
<td>12</td>
<td>14</td>
<td>18</td>
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<td>Participating Students</td>
<td>1,446</td>
<td>2,791</td>
<td>3,436</td>
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## CMEF Module Submissions

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<th>Year</th>
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<tr>
<td>Value</td>
<td>10,273</td>
<td>13,525</td>
<td>12,712</td>
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## High School Module Submissions

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<tr>
<td>Value</td>
<td>3,425</td>
<td>6,611</td>
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*Equivalent to approximately 2300 Level Completions and 600 Full Graduate Packages.
### NCCER Assessments Administered

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<td>2,244</td>
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### Performance Verifications

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### Rigger/Signal Person/Crane Practicals

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<td></td>
<td>631</td>
<td>790</td>
<td>945</td>
<td>544</td>
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88% of all TCA Funding comes from the following 10 Contractors:

- Austin Industrial, Inc.
- Jacobs
- Brand Energy & Infrastructure
- Turner Industries Group, LLC
- Brock Services, Ltd.
- Performance Contractors, Inc.
- ISC Constructors, LLC
- S&B Engineers and Constructors, Ltd.
- Ref-Chem L.P.
- Repcon, Inc.

77% of all TCA Funding comes from the following Owner Sources:

- EOM Complex
- Shell Refinery
- LyondellBasell
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<td>9901 Pecue Lane</td>
<td>27002 Hwy. 288</td>
<td>7516 Highway 63</td>
<td>8093 Padgett</td>
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<tr>
<td>70810</td>
<td>77583</td>
<td>39562</td>
<td>Irvington, AL</td>
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<tr>
<td>(225) 751-4156</td>
<td>(832) 241-4400</td>
<td>(228) 285-7900</td>
<td>36544</td>
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<tr>
<td>261 Hood Road</td>
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