



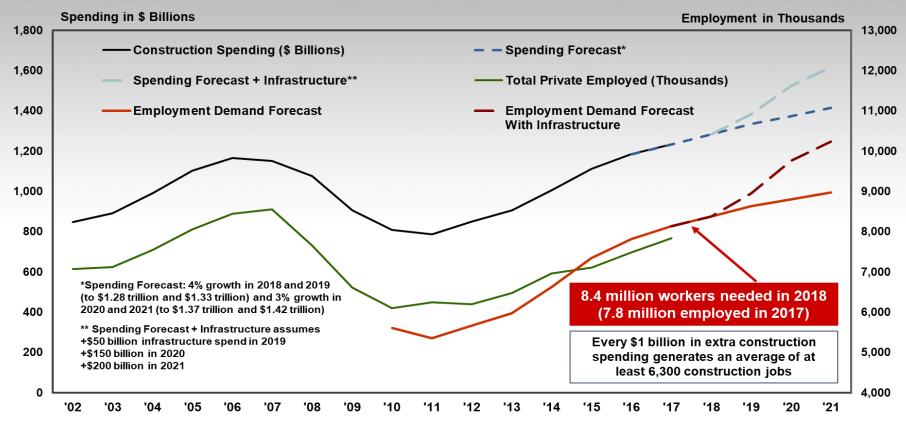
Craft Labor Shortages How Community-based Craft Training is Solving the Workforce Problem



The Workforce National Demand



Construction Spending and Employment History and Forecast (Excludes Self-employed Workers)



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

The Workforce Current Demographics



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.



CMEF Training Contributor Agreement



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 (\$.04) of Funds To Community Based Training

1/3 (\$.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



| | 2013 | 2014 | 2015 | 2016 | 2017 |
|----------------------------|-------|-------|-------|-------|-------|
| Participating High Schools | 22 | 30 | 38 | 43 | 55 |
| Participating ISDs | 12 | 14 | 18 | 22 | 23 |
| Participating Students | 1,446 | 2,791 | 3,436 | 4,776 | 6,312 |

CMEF Module Submissions



Module Submissions*

2014 2015 2016 2017

10,273 13,525 12,712 13,985

High School Module Submissions

2014-2015 2015-2016 2016-2017

3,425 6,611 7,348

^{*} Equivalent to approximately 2300 Level Completions and 600 Full Graduate Packages

CMEF Assessments and Verifications



NCCER Assessments Administered

 2014
 2015
 2016
 2017

 2,244
 2,947
 2,958
 2,298

Performance Verifications

 2014
 2015
 2016
 2017

 235
 170
 230
 321

Rigger/Signal Person/Crane Practicals

 2014
 2015
 2016
 2017

 631
 790
 945
 544



23,000+ Activities
Recorded Into NCCER
ANR (Automated
National Registry)
Related To Crafts/Safety
Knowledge &
Development

CMEF Training Contributor Agreement



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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LOUISIANA

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