



UP**SKILL**HOUSTON

An Initiative of the Greater Houston Partnership

UpSkill Houston:

A BUSINESS APPROACH FOR DEVELOPING HOUSTON'S TALENT PIPELINE



Southwest Insulation Contractors Association

February 7, 2019

“We cannot solve our problems with the same thinking we used when we created them.”

- Albert Einstein



The Two Gap Challenge

Two Gap Challenge:

- **Skills Gap:** People lack the skills they need for the careers industry offers
- **People Gap:** Employers cannot find the workers they need, when and where they need them

Impact of the Challenge:

- Unfilled Job Openings
- Onboard and Upgrading Costs
- Turnover and Retention
- Increasing Diversity





Common Pain Points?

- Craft Professionals?
- Manufacturing Professionals?

Impact on Competitiveness?

- Overtime
- Rework
- Retrain replacement workers



Workforce Information

Insulation Craftworkers (BLS):

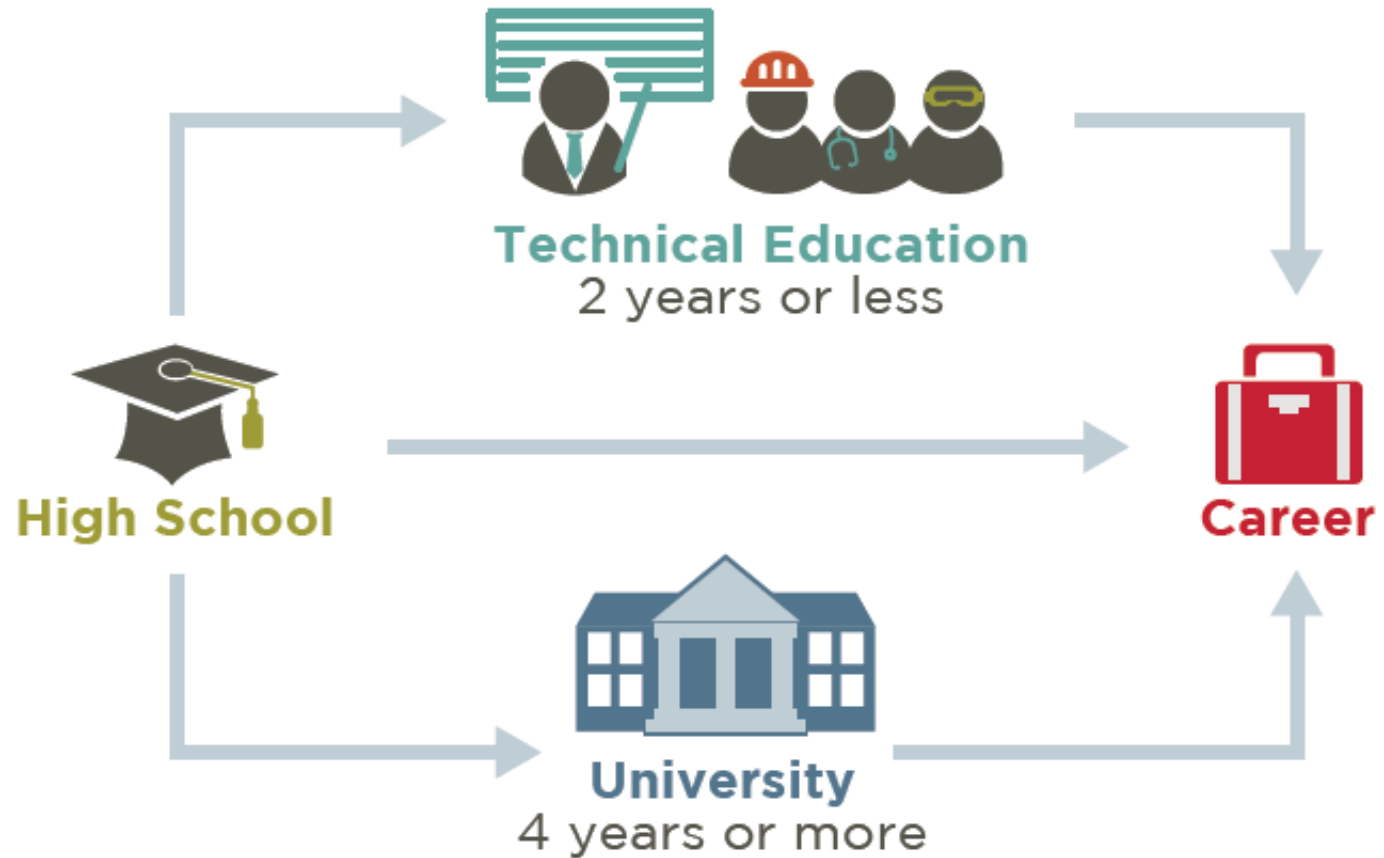
- 2016 Regional Workforce: 1,580 workers
- 2026 Regional Workforce: 1,863 workers
- Growth: 283 workers

Construction Labor Market Analyzer (CLMA)

- BLS Regional Supply of Insulators: 780
- Peak Headcount Q1 2021: 5,000
- Range of Projected Demand (2019 to 2022): 1,900 to 5,000



A Regional Labor Economy





Houston: The Skills Gap is Real

By **2022**, Between **60-70%** of jobs in Houston will require training beyond high school.

Nearly **1 MILLION** high-paying jobs in Houston can be attained with 2 years of training or less!



THOUSANDS of these jobs are in the key industry sectors that drive Houston's regional economy

Half of these pay more than **\$40,000**.

Some starting salaries reach **\$70,000!**





Key Industry Sectors with Careers Available



CONSTRUCTION



PETROCHEMICAL



HEALTH CARE



PORT AND MARITIME



ADVANCED
MANUFACTURING



OIL AND GAS



UTILITIES



TRANSPORTATION



Up**Skill** Houston Action Plan

Blueprint to establish collective action and impact to build a quality regional workforce and **talent pipeline**

- Focus on key Industry Sectors that drive Houston's regional economy
- Demand Driven and Employer Led—to meet the needs of employers
- Supply Quality—to help residents become aware of, connect to training, and obtain good-paying jobs



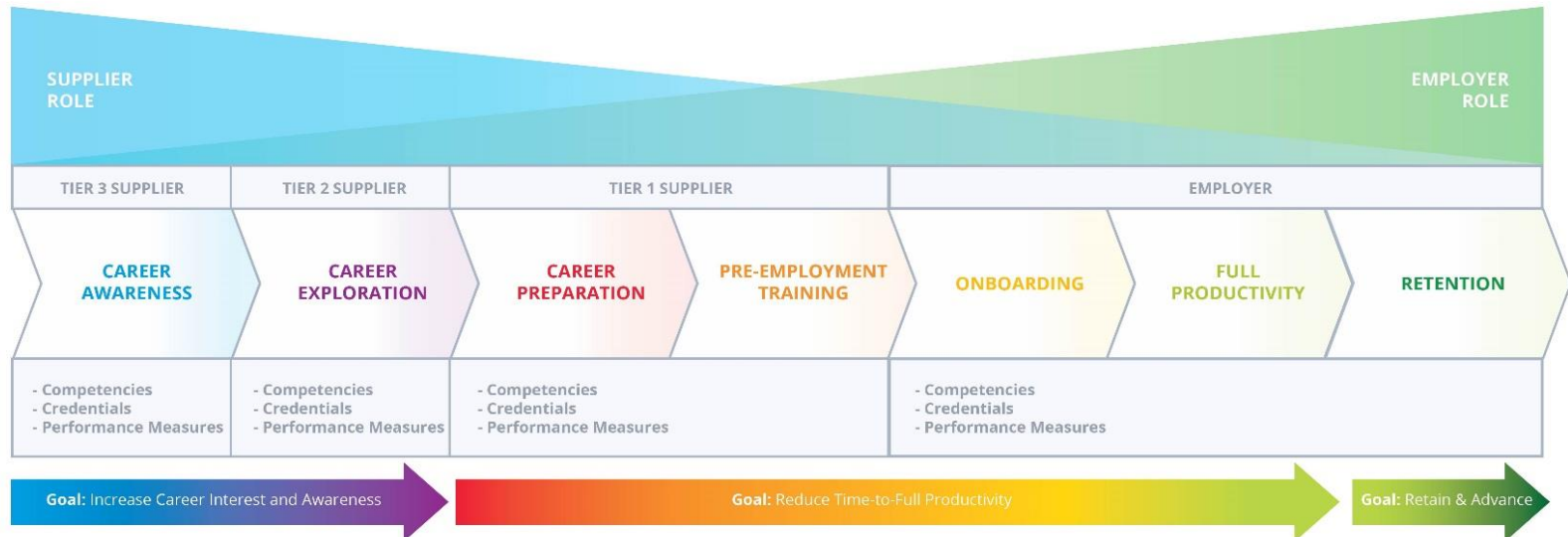
UpSkill Houston: Elements & Challenges

- **Employer Leadership:** Focus on key sectors and work with business leadership to develop the collaborative strategies that address common workforce needs and challenges
- **Collective Solutions:** Strong collaboration among employers, educational institutions, social service organizations, and public sector
- **Awareness Challenge:** Increase awareness about the industries and careers and Inspire students to explore careers in UpSkill Houston's high-growth industries
- **Improve Employability Skills:** Improve the skills and mindsets of potential workers to be successful in industry





Skills Gap: A Supply Chain Problem



Suppliers

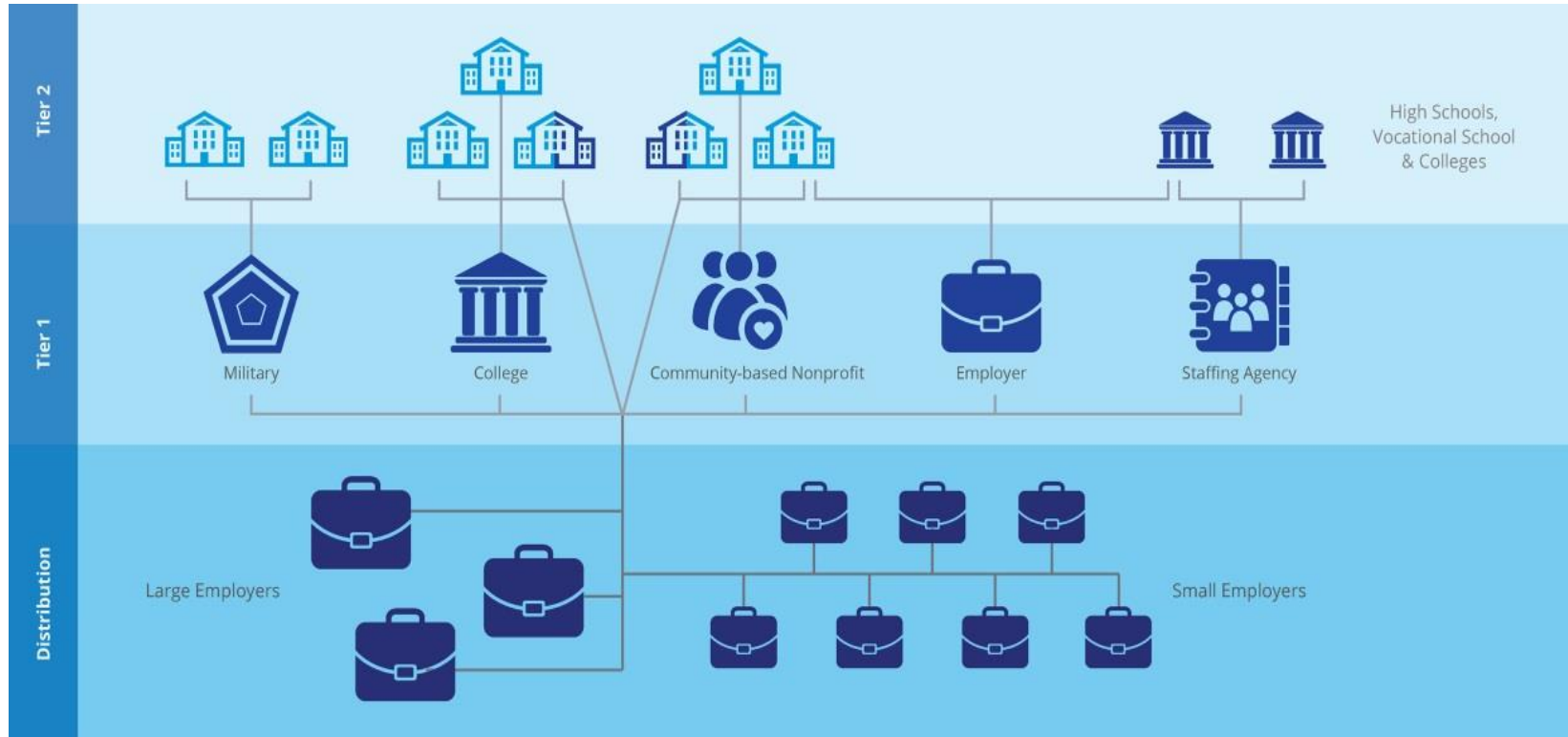
- Community Colleges
- School Districts
- Community Organizations
- Family and Friends

Employers

- Companies
- Staffing Firms
- Trade Associations



Skills Gap: A Supply Chain Problem





Collective Employer Leadership



INEOS

JACOBS®



ExxonMobil

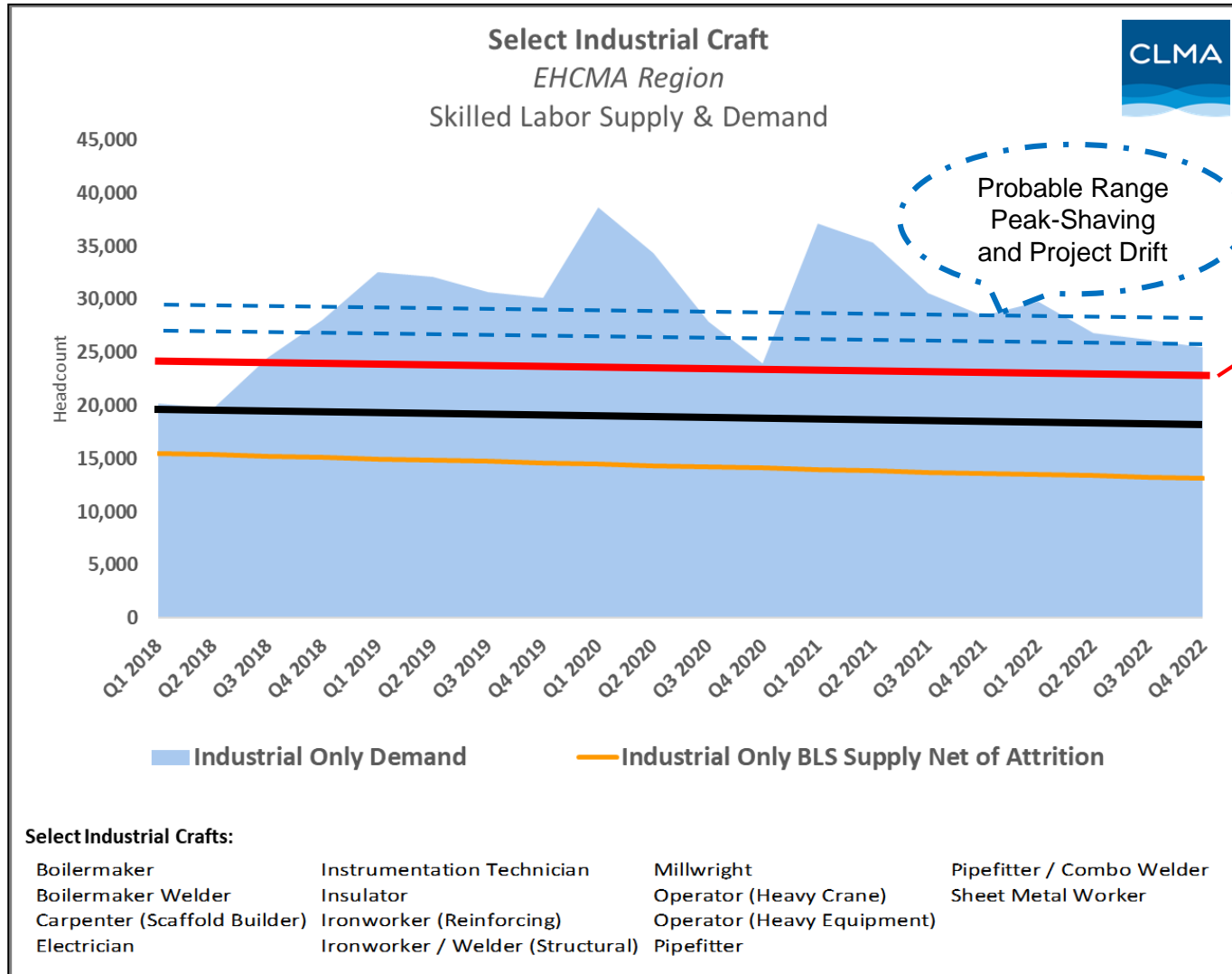


- **Demand Planning:** Getting the facts for decision-making
- **Competency Mapping:** Agreeing on skills and competencies
- **How Talent Flows into the Industry:** Where do we get our best talent





Demand Planning





Competency Mapping

PETROCHEMWORKS COMPETENCY MAPS BY SKILL SET - PIPEFITTING

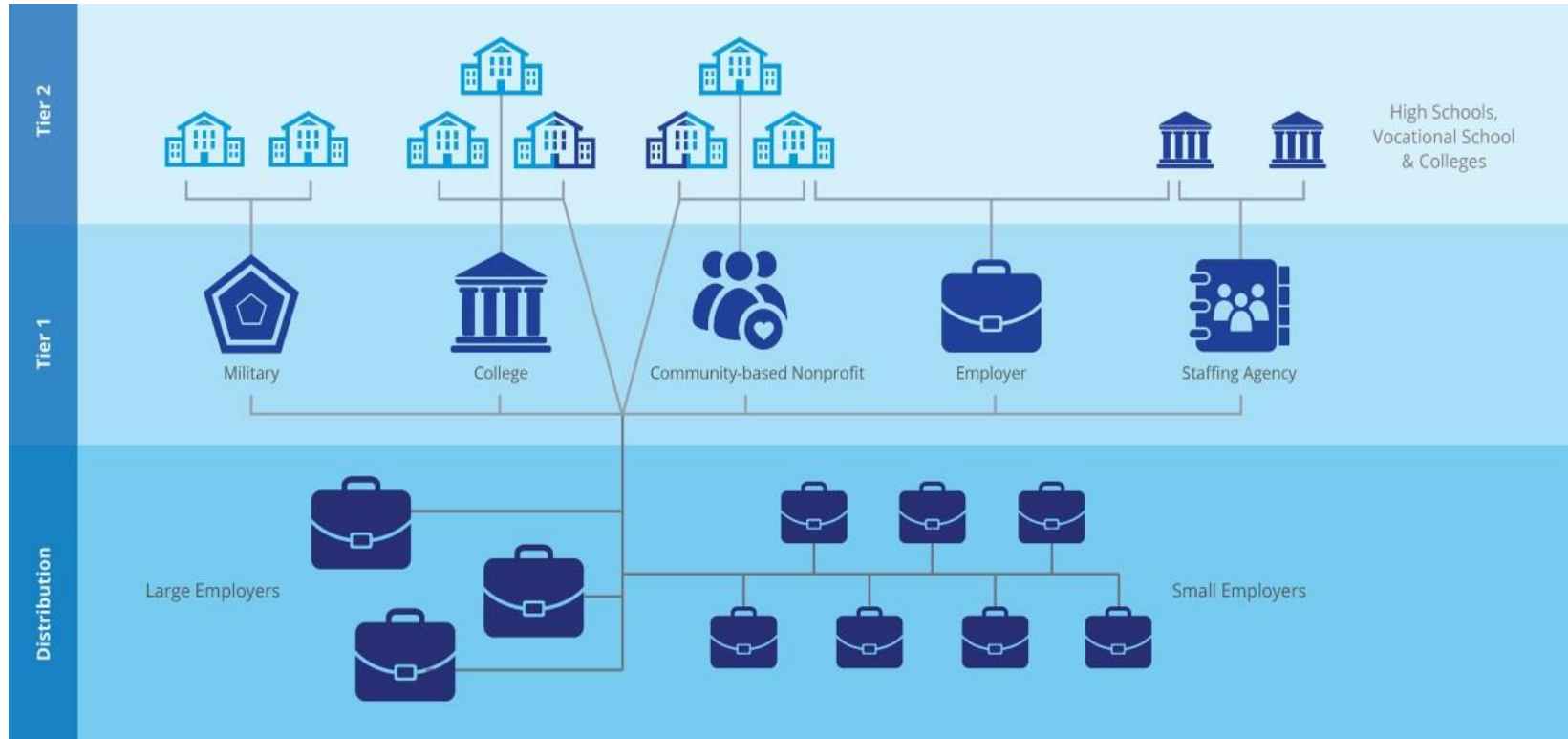
PATHWAYS: Industry Based, High School CTE, Community College, Military, Community Based, Other Industry

PIPEFITTER HELPER

ENTRY LEVEL	MID LEVEL	TOP LEVEL
OJT: 6 Months - 1 Year	OJT: 1 Year - 2 Years	OJT: Until ready for Independent Work confirmed by Site Supervisor
PRACTICE SAFETY AWARENESS	APPLY BASIC PIPEFITTING TRADE MATH	APPLY ADVANCED PIPEFITTING TRADE MATH
IDENTIFY BASIC TOOLS	READ AND INTERPRET A TAPE MEASURE	COMPLETE PROPER VALVE INSTALLATION
PRACTICE SAFE HOUSEKEEPING	PERFORM PROPER OXYFUEL CUTTING	READ, INTERPRET, AND DESCRIBE A PLAN OF WORK FROM A BASIC ISO
APPLY BASIC CONSTRUCTION MATH	IDENTIFY COMMON FITTINGS	REFERENCE THE GRAVES BLUEBOOK TO COMPLETE A PIPING SYSTEM LAYOUT
	IDENTIFY BASIC COMPONENTS OF AN ISO	INSTALL AND CONNECT A PROPER FLANGE ASSEMBLY
	IDENTIFY AND USE BASIC PIPEFITTING HAND AND POWER TOOLS	IDENTIFY COMMON COMPONENTS OF PIPE/ VESSEL TRIM (Pipe to gauges)
	PERFORM PROPER GRINDING AND BEVELING OF PIPE	
	CUT, REAM AND THREAD PIPE	



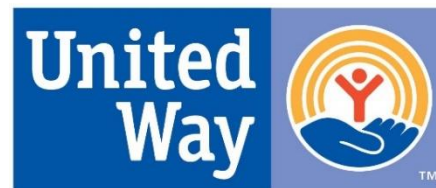
Flows of Talent



- Petrochemical?
- Industrial Construction?



Align and Coordinate



United Way of Greater Houston



Helping families **THRIVE**





Prototypes

- **Women in Construction:** S&B Engineers and Constructors and United Way of Greater Houston THRIVE Network
- **JumpStart:** Jacobs and Lee College



Trio Electric: Program for pre-apprenticeships: Trio Electric, Spring Branch ISD, HCC



Awareness:



Awareness: The Challenge

- Mission Completed: We have convinced America that the only pathway to success is a four-year college degree
- Advanced and technical careers confront an awareness and perception challenge
 - Dirty, hard, and unsafe
 - Menial and not challenging
 - No opportunity for advancement
- Parents and Students have trusted sources
 1. Family, friends and neighbors
 2. School counselors and teachers
 3. Faith institutions



Awareness: The Campaign

- Inspire students to pursue the many good careers in our region's critical industry sectors.
- Raise awareness about the great careers that require two years of education or training beyond high school but less than a four-year college degree.
- Support schools and their staff as they encourage students to consider these careers.
- Continuously improve the campaign.



Findings: The Opportunity

- Industry-specific overviews
 - Messages around safety, stability, and growth
 - Company can be a proxy for stability and growth
 - Resources about careers, salaries, and pathways to get to them
- Stories about young people in successful these careers—put a face to the careers
 - Why they enjoy the careers
 - How it makes a difference
 - What they get to do
- Opportunities to meet with industry leaders
- In-person observation of the careers



My Life As . . .



www.UpSkillMyLife.org



Key Learnings

- **Collective Mindset**: Go to where Employer Leaders already meet with the mindset that they share a workforce
 - Petrochem Works steering team
 - AGC and ABC
- **Collective Learning**: Help stakeholders translate how employers and others think
 - Student and Parent focus groups on awareness and perceptions
 - Competency Mapping
- **Collective Doing**: Prototyping to address a meaningful pain point
 - S&B's Women in Construction program
 - Awareness Campaign





UP**SKILL**HOUSTON

Thank You



GREATER HOUSTON
PARTNERSHIP.

Making Houston Greater.



UP**SKILL**
HOUSTON

WHAT ARE YOU UP FOR?

A REWARDING CAREER IN ONE OF HOUSTON'S THRIVING
INDUSTRIES COULD BE YOURS IN TWO YEARS OR LESS.

CONSTRUCTION OIL AND GAS HEALTH CARE ADVANCED MANUFACTURING UTILITIES PETROCHEMICAL PORT AND MARITIME

