

To: Gulf Coast Workforce Board Members

From: Mike Temple
David Baggerly
Michelle Ramirez
Brenda Williams

Date: February 1, 2017

Subj: Board Meeting Materials for Tuesday, February 7, 2017

The next meeting of the Gulf Coast Workforce Board is scheduled for **10:00 a.m., Tuesday, February 7, 2017** in H-GAC's second floor conference rooms A, B and C, 3555 Timmons Lane, Houston.

In contrast to our December meeting, we have substantial agenda with several actions items in February.

Reports. Chair Guthrie will provide a report to members on items of interest, and Audit/Monitoring Committee Chair Joe Garcia will report on the committee's January review of monitoring activities. Education Committee Chair Birgit Kamps will discuss the committee's review of the 2016 TEA/TWC/THECB report on integrating education and the workforce in Texas and possible resulting actions from the Board. Government Affairs Committee Chair Guy Jackson will brief members on public policy issues and legislative items of interest.

Action. In December we discussed the process for completing our local compliance plan – required by federal and state rules governing the funds which power our system. This month the Committee Chairs for the Employer Service and Career Office committees will bring you the completed plan for your consideration and adoption. Budget Committee Chair Willie Alexander will present a proposed 2017 budget to the Board – this year at \$214 million and a slight 1.4% more than last year's budget. Early Education Committee Chair Bobbie Henderson will bring recommendations to change five financial aid policies which affect parents seeking our assistance with early education/child care expenses. Finally, the Nominations Committee will present recommendations for 2017 Board officers.

Information. We will report on our performance/production and expenditures to-date and brief you on plans to procure the contractors that operate Workforce Solutions. Parker Harvey will update us on the employment numbers and provide an interesting analysis of the latest employment projections for the region.

At the close of the meeting, we would like to recognize Board members for their service and also recognize Tracey Short, who will be retiring as the director of our system staff training and development efforts later this year.

We look forward to seeing you on February 7th. As always, please call or email us if you have questions, or if we can be of assistance.

The Gulf Coast Workforce Board Tentative Agenda

Tuesday, February 7, 2017 at 10:00 a.m.

H-GAC Conference Room A/ B/C

3555 Timmons Lane, Second Floor, Houston, Texas 77027

1. **Call to Order and Determine Quorum**
2. **Adopt Agenda**
3. **Hear Public Comment**
4. **Review December 2016 meeting minutes**
5. **Declare Conflicts of Interest**
6. **Consider Reports**
 - a. *Chair's Report.* The Board Chair will discuss items of interest.
 - b. *Audit/Monitoring.* The Committee Chair will discuss the committee's January meeting.
 - c. *Education.* The Committee Chair will discuss the committee's review of the TEA/TWC/THECB report on integrating education and the workforce in Texas.
 - d. *Government Relations.* The Committee Chair will review materials on current legislative items of interest.
7. **Take Action**
 - a. *Employer Service/Career Office.* The Committee Chair will request consideration of the 2017-2020 local compliance plan for Workforce Solutions.
 - b. *Budget.* The Committee Chair will present results from the committee's January meeting and request consideration of a 2017 Board budget of \$214,944,634.
 - c. *Early Education and Care.* The Committee Chair will present results from the committee's January meeting and request consideration of revisions to financial aid policies.
 - d. *Nominations.* The Committee Chair will present the committee's recommendations for 2017 officers.
8. **Receive Information**
 - a. *Performance and Production.* Report on the system's performance and production.
 - b. *Expenditures.* Report on expenditures.
 - c. *Updates.* Staff will brief members on plans for the system procurement.
9. **Look at the Economy**

Report on current economic data and trends in the Houston-Gulf Coast region, including an analysis of employment projection data.

10. Take Up Other Business

Recognition

11. Adjourn



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**MINUTES OF
THE GULF COAST WORKFORCE BOARD
TUESDAY, DECEMBER 6, 2016**

MEMBERS PRESENT:

Ray Aguilar	Willie Alexander	Karlos Allen
Gerald Andrews	Betty Baitland	Peter Beard
Sara Bouse	Carl Bowles	Joe Garcia
Cheryl Guido	Mark Guthrie	Bobbie Henderson
Alan Heskamp	Eduardo Honold	Guy Robert Jackson
Sarah Janes	Tony Jones	Birgit Kamps
Doug Karr	Paulette King	Jeff Labroski
Ray Laughter	Linda O'Black	Dale Pillow
Allene Schmitt	Richard Shaw	Connie Smith
Evelyn Timmins	Shunta Williams	Sarah Wroblewski

H-GAC STAFF MEMBERS PRESENT

Mike Temple
David Baggerly
Michelle Ramirez
Ron Borski
Parker Harvey

Mr. Mark Guthrie, Chairman, called the meeting to order at approximately 10:00 a.m., on Tuesday, December 6, 2016, in the 2nd floor, H-GAC Conference Rooms A/B/C, at 3555 Timmons Lane, Houston, Texas. Chair Guthrie determined a quorum was present.

ADOPTION OF AGENDA

Chair Guthrie asked for adoption of the agenda as presented. A motion was made and seconded to adopt the agenda. The motion carried and the agenda was adopted as presented.

PUBLIC COMMENT

No one signed up for public comment.

MINUTES FROM OCTOBER 4, 2016 MEETING

Chair Guthrie asked if there were any additions or corrections to minutes for the October 4, 2016 Board meeting and if not, for approval of the minutes as presented. A motion was made and seconded to approve the minutes as presented. The motion carried.

DECLARE CONFLICTS OF INTEREST

Chair Guthrie asked for a declaration of any conflicts of interest with items on the agenda. No one declared a conflict of interest. Chair Guthrie reminded the members that they also were welcome to declare conflicts with items as they are considered.

CONSIDER REPORTS

Chair's Report

Chair Guthrie reported on two events he attended since the last Board meeting – the City of Houston White Cane Safety Day and the Red, White and You Hiring Fair for Veterans at Minute Maid Park. Chair Guthrie noted that both events were excellent and the Red, White and You was well attended by both employers and applicants.

Chair Guthrie announced that the Texas Workforce Commission (TWC) 20th Annual Conference held here in Houston at the Hilton Americas Downtown begins with the preconference activities today and will conclude at noon on Friday. The opening session will begin at 1:00 pm on Wednesday. He noted that several Board members and staff are registered to attend and said that a report on activities and items of interest from the conference would be provided at the next Board meeting. He also reported that during the conference, the Texas Association of Workforce Boards (TAWB) will hold their December meetings beginning this afternoon and continuing on the following day.

Chair Guthrie explained that everyone is curious what will happen in the upcoming Texas Legislature session. He noted that he did not have any information regarding bills related to workforce topics that had been filed early. He said that Legislative Committee Chair Jackson will keep abreast of filings and activities as they happen and report back.

Chair Guthrie recapped the story which was first reported in the Houston Chronicle a few months ago about the Texas Education Agency (TEA) imposing limits on school districts regarding providing special education. Chair Guthrie stated that he was happy to report the TEA had announced that it will no longer consider that metric in the performance accountability. He said that he heard that TEA issued a letter of “guidance” to the school districts informing them that it is important to comply with the federal laws concerning the provision of special education. Chair Guthrie noted that he heard that someone would file a bill to prohibit TEA future use of that performance metric.

Chair Guthrie concluded his report and no action was taken.

Audit/Monitoring Committee Report

Committee Chair Joe Garcia reported that the Audit/Monitoring Committee met on Thursday November 17, 2016 at the Harris County Department of Education Building, reviewed the information referenced below and received the following update on monitoring activity from Board staff:

Operations

Re-employment Placement Team – Interfaith of The Woodlands

The re-employment placement team is the primary contact with unemployment insurance claimants who have been tagged as not likely to return to work. The unit during the past year outreached to over 50,000 residents and provided an orientation to 44,000 residents either online, by phone or in person at a career office.

Monitors identified that the team is more process-focused than employment-driven and have made several recommendations. Board staff is working with Interfaith to improve service.

Northline Career Office – Neighborhood Centers, Inc.

Prior reviews had identified concerns regarding training and coaching for greeters and coverage in the resource area. The monitoring team conducted a follow-up visit and noted improvement in both areas.

Financial Systems

Interfaith of the Woodlands – a finding was noted regarding payroll costs that were incorrectly reported and accruals were under and over reported. Documentation was received to resolve the finding and a plan was provided on how these transactions would be handled in the future.

Dynamic Educational Systems, Inc. – the cost allocation plan did not include an organizational chart and copy of the financial statements as required. The information was received and the finding has been resolved.

Lone Star College – variances were found between the current and historical general ledger and the billing reports submitted for five billing periods. The variances were corrected and a plan was provided to correct variances in the future.

San Jacinto College – At the time of the review FY16 expenditure benchmarks were not on target. At the close of the contract 97% of the budget was expended. Resolved.

The committee was also briefed on the new Career Office Rating system as follows:

New Contractor Rating System

The current rating system for career offices includes a rating of Above Average, Average or Below Average. The rating for other entities is either Acceptable or Not Acceptable. The parties involved have commented that the definitive value of the current rating system was unclear. In response to these comments, Board staff identified a new rating system:

Levels for Rating			
<i>Rating Level</i>	<i>Common term</i>	<i>Point Scale</i>	<i>Previous Standard</i>
Leading Performance	Exceptional	3.5 – 4.0	
Strong Performance	Above Standard	2.5 – 3.49	Above Average
Solid Performance	Standard	1.5 – 2.49	Average
Building Performance	Below Standard	1.0 -1.49	Below Average

Definition of Ratings

Leading Performance - Performance consistently exceeds expectations in all areas reviewed and the quality of work overall is exceptional.

Strong Performance - Performance consistently meets or exceeds expectations in all areas reviewed and the quality of work overall is very good

Solid Performance - Performance consistently meets expectations in most areas reviewed and the quality of work overall is good.

Building Performance - Performance does not consistently meet expectations in most areas reviewed and overall quality of work is not at an acceptable level.

Categories for Review

The Board's Core Values were identified as the categories to be used in the rating system with the addition of Customer Service. Sub Categories were added under each category to be measured.

The Board's Core Values (Our Strongly Held Beliefs)

- Productivity
- Results
- Accountability
- Innovation
- Customer Service (added)

Key Categories to be Measured

- **Customer Service** – Weight 25%
 - Customer Satisfaction
 - Professionalism
 - First Impression
 - Complaints
- **Productivity** – Weight 25%
 - Placements
 - Production Measures
 - Policies and Procedures Implementation
 - Strategies

- **Results** – Weight 25%
 - Board Measures
 - Compliance Review
 - Accessibility
 - Security of Data
 - Posters
- **Accountability** – Weight 15%
 - Teamwork
 - Respect
 - Conflict Management
 - Vacancies
 - Training
- **Innovation** – Weight 10%
 - Quality Improvement
 - Collaboration
 - Efficiency
 - Change Management

Chair Garcia explained that standards were developed for each sub-category listed above. He noted that the new rating system will give more definitive measures for contractors to achieve and/or establish as a goal. Ratings will be based on input from the QA monitoring team and Board staff and will be issued in the final report. The rating system developed will apply to all contractors. Chair Garcia noted that Board staff were in the process of developing the standards for contractors who do not have the same responsibilities and requirements as the career offices.

The rating will require updates and adjustments as rules and policies change, as well as improvements within the system.

Chair Garcia concluded his report and no action was taken.

Career Office Committee - Customer Service Award

Committee member Cheryl Guido noted that as in prior meetings, our contractors regularly identify staff members they believe best exhibit the *I AM* Workforce Solutions principles of excellent customer service:

- *I AM* Workforce Solutions to my customer
- I use my customer's perspective to guide my work
- I understand the resources available throughout our system
- I can always help my customer even when I have to say "no"
- I learn from my mistakes and gain a better understanding of how to help my customer

Committee member Guido reminded the Board that the Regional Management Team comprised of Board staff and contractor management reviews nominations and selects one or more individuals for recognition. Ms. Guido announced the recipient of the:

I AM Workforce Solutions Customer Service Award

❖ **Benito Guzman**, Business Service Representative
Employer Service

Ms. Guido remarked that whether it is developing targeted recruitment strategies, providing industry specific labor market information, or designing customized training solutions, our Employer Services Division works closely with employers to help them fulfill critical business needs.

As a Business Consultant, Benito markets Workforce Solutions' services to businesses throughout our region, with the goal of helping these employers find qualified candidates. Employers and colleagues alike have exclaimed that Mr. Guzman's high-energy, strong work ethic, dependability and professionalism are unparalleled. He treats everything and everyone as a priority and frequently goes above and beyond to ensure internal and external customers are satisfied.

Working with both businesses and individual customers, Mr. Guzman exudes tremendous passion for helping them get what they want and need and embodies the principles of quality customer service. He truly cares about the businesses he serves and is committed to helping people find jobs.

Mr. Benito Guzman *IS* Workforce Solutions

Committee member Guido concluded her report and no action was taken.

TAKE ACTION – ITEM 7

- a. Employer Services/Career Office. The Committee Chair will brief the Board on development of the Workforce Solutions compliance plan document and request consideration for standard for eligible training providers.

Employer Services Committee Chair Gerald Andrews reported that the Employer Service and Career Office Committees met together on November 30, 2016 at the Houston-Galveston Area Council offices. The Committee members received information on the recently released regional employment projections as well as the forthcoming State Compliance Plan that the Board is required to submit. Additionally, the Committee took action to adopt performance expectations for providers in our Education and Training Vendor Network.

Chair Andrews asked that Mr. Parker Harvey give a brief presentation overview from the meeting of the draft Board Targeted Industries and Occupations, which included

2014 -2024 Projections Highlights, Where the Jobs Are, Targeted Industries, Targeted Occupation Criteria and Targeted Occupations Results. Mr. Harvey gave the presentation and concluded his report.

Next, Chair Andrews asked Ms. Michelle Ramirez to report on the state compliance plan.

Ms. Ramirez reported that the Board periodically submits an operating plan to the state which includes our strategic plan and details on how our system operates. This year that plan has been slightly altered in content by requirements in the Workforce Innovation and Opportunity Act.

- The compliance plan will be for a four-year period: 2017 through 2020.
- We have the opportunity to amend the compliance plan after two years of this cycle.
- As usual, this plan requires approval from the Board and the H-GAC Board of Directors, representing the region's local elected officials.
- As in the past, we will publish the compliance plan for at least 30 days prior to the Board's consideration of it to seek comment from the community.

Key Dates

Ms. Ramirez reported that Board staff proposed the following schedule for reviewing and approving the compliance plan:

- | | | |
|--------------------------|--------------|---|
| <input type="checkbox"/> | November 30: | Employer Service/Career Office Committee initial review |
| <input type="checkbox"/> | December 6: | Information item for Workforce Board meeting |
| <input type="checkbox"/> | December 15: | Plan published for comment |
| <input type="checkbox"/> | January 5: | Public meeting to solicit comment |
| <input type="checkbox"/> | January 13: | Public comment period closes |
| <input type="checkbox"/> | February 7: | Workforce Board considers adopting plan |
| <input type="checkbox"/> | February 21: | Local elected officials consider adopting plan |
| <input type="checkbox"/> | February 28: | Submit plan to the state |

The compliance plan will include the following elements:

1. **Strategic** – The Board's existing strategic plan in its entirety and our regional economic/labor market data and analysis, including the key regional industries and targeted occupations.
 - New for this year in the strategic section is a narrative description of the how the Board's system addresses the needs of employers for skilled workers and the needs of individuals for education and skill training.

2. **Operational** – The majority of this plan is a description of our operating system, including its design and its interaction with partners and workforce providers in the region, including workforce development institutions.

- Staff will describe the Workforce Solutions system – how it is structured and works; what kind of services it provides; how it interacts with customers (both employers and individuals); how it is connected to education and training efforts in local education institutions, organized labor, and community organizations; and how it connects with economic development organizations and institutions.
- Staff will show how Workforce Solutions’ operations align with elements in the Texas Workforce Commission’s state plan
- Staff will describe how we work with contractors to ensure continuous improvement in Workforce Solutions’ operations and meet performance expectations
- Staff will discuss how we provide: services for youth, veterans and individuals with disabilities, including youth with disabilities; and coordination of secondary and postsecondary education activities in the region with the Board’s goals.
- Staff will include information about the integration of Workforce Solutions service with the adult education and vocational rehabilitation systems.
- Staff will include a description of various administrative functions, including how grant funds are received and disbursed and how we procure contractors.
- Staff will include our agreements with other workforce and workforce development organizations in the region to demonstrate how we leverage our investments with their activities to expand the range of services for our customers.
- Staff will describe how we ensure equal opportunity and physical and service accessibility, including technology and materials for individuals with disabilities and staff training and support for addressing the needs of individuals with disabilities.

New for this year:

- Staff will include a description of how Workforce Solutions will encourage and support the development and expansion of registered apprenticeship programs and opportunities; and
- Staff will describe how they will provide priority of service for public assistance recipients, low-income individuals and individuals who are basic-skill deficient.

Ms. Ramirez concluded her report.

Next Chair Andrews explained that TWC requires Boards to set a level of performance for vendors registered on the state’s provider list – this includes all of the occupational skills training vendors in our network.

Vendors must meet these performance levels for each course of training they wish to register. Vendors must also maintain performance at these levels for courses to continue to be registered.

Chair Andrews noted that Boards may adopt the TWC’s recommended performance or set higher levels. TWC’s recommended levels for this year are:

Measure	Performance Level
Student Completion Rate	60%
Completers Entered Employment Rate	60%

The Employer Services Committee recommended as in prior years that the Board adopt the state levels.

A motion was made and seconded to adopt performance levels for vendors on the statewide Eligible Training Providers List as shown above. The motion carried.

Chair Andrews concluded his report and no further action was taken.

RECEIVE INFORMATION

System Performance

Mr. David Baggerly reviewed the Year End System Performance measures for October 2015 through September 2016. These measures gauge progress toward meeting the results set out in the Board’s strategic plan. There are two sets of measures: one for the entire regional workforce system and one for the Board’s operating affiliate, Workforce Solutions.

For Workforce Solutions More Competitive Employers –

Employers Receiving Services (Market Share) – We expected to provide services to 25,757 employers this year. We provided services to 23,591 employers through September 2016.

Employer Loyalty – Our performance indicates our employer customers value our services and return to us for additional services. Of a possible 24,080 employers, 13,473 returned to The Workforce Solutions for additional services through September 2016.

More and Better Jobs –

New jobs created – New jobs created in the region as a result of Workforce Solutions partnering with economic development organizations. This information is captured quarterly and reflects a two-year average through September 2016.

Customers employed by the 1st Quarter after exit – 242,311 of the 301,652 customers who exited service in the three quarters ending September 2015 were employed by the quarter after exit.

Higher Real Incomes –

Earnings Gains of at least 20% - 97,548 of the 291,704 customers who exited in the three quarters ending March 2015 had earnings gains of at least 20%.

A Better Educated and Skilled Workforce –

Customers pursuing education diploma, degree or certificate who achieve one - 1,862 of 2,511 customers pursuing an education diploma, degree or certificate attained a diploma, degree or certificate by the end of the quarter after exit. Data is from July 2015 through June 2016.

In addition to the Board's measures, Workforce Solutions works to meet the state's expectations for performance on indicators related to the money we received from the Texas Workforce Commission.

For the performance year that began October 1, 2015, we are meeting or exceeding the target for seven of nine common measures. The common measures we are not meeting are:

- # of Employers Receiving Workforce Assistance – The target for this measure is 25,522. Our performance through September 2016 was 23,595.
- Youth Literacy/Numeracy – The target for this measure is 53%. Our performance through June 2016 was 44.4%.

These are measures for the Adult Education and Literacy Funded services. The performance period began July 1, 2016.

- Total enrollments are the number of individuals who begin an adult education class. There is no target.
- 12+ hour enrollments count the number of individuals who are in class 12 or more clock hours.
- Transitions enrollments count the number of individuals in adult education classes designed to lead to further post-secondary training.
- Career Pathways enrollments counts the number of individuals in contextualized learning (basic education and occupational skills at the same time) classes.

- Integrated English Language and Civics courses will be integrated with some workforce training that result in a job and/or certificate/credential.

	Target	Year to Date Actual
<i>Total Enrollments</i>	N/A	13,726
<i>12+ Hour Enrollments</i>	19,131	12,820
<i>Transitions</i>	883	624
<i>Career Pathways</i>	807	294
<i>Integrated English Language & Civics Ed.</i>	665	8
<i>TWC Accelerate Texas</i>	220	45

Mr. Baggerly concluded his report and no action was taken.

Expenditure Report

Mr. Mike Temple reviewed the Financial Status Report for ten months ending October 31, 2016 and stated that we are target and doing well. Mr. Temple noted that expenditures are running slow, but we should be at or near the budget target at the end of the year.

Mr. Temple concluded his report and no further action was taken.

Updates

Ms. Michelle Ramirez explained that December 7 – 9, 2016 is the Annual Texas Workforce Conference which will be hosted in Houston this year with preconference meeting starting this afternoon (12/6/16) – with the conference starting Wednesday afternoon (12/7/16). Ms. Ramirez mentioned that staff will be presenting two workshops at the conference – the Workforce Report Card and UpSkill Houston presentations. Gulf Coast will be recognizing Jacobs as the Local Employer of Excellence.

Ms. Ramirez noted that on January 5, 2017 we will host a public meeting regarding the compliance plan.

Ms. Ramirez reported that early next year staff will work with the community colleges on registered apprenticeship programs – more information coming.

Ms. Ramirez gave a recap on the 5th Annual Red, White and You Job Fair held this year on November 10, 2016. This was the most successful event to date and also a record for the states with over 150 employers, over 20 veteran service organizations and over 4,000 people in attendance. We actually have more available jobs than veterans in the region – this year over 1,700 veterans and over 2,400 qualified applicants attended the job fair.

Ms. Ramirez reported that prior to the Job Fair we hosted a VSO Summit with Judge Marc Carter as the keynote speaker – who is nationally recognized for his work with Veterans Court. Judge Carter offered his support to help gather together many veteran

service organizations in our region which together helped provide many different types of services to the veterans, even helping to provide some with new interviewing clothing.

Ms. Ramirez concluded her report and no action was taken.

LOOK AT THE ECONOMY

Mr. Ron Borski explained that the rate of unemployment in the Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (H-W-S MSA) fell six-tenths of a percentage point to 5.1% in October, four-tenths of a percentage point higher than one year earlier. The state's rate of unemployment had a similar decline in October, down one-half of a percentage point, while the U.S. rate only fell one-tenth of a percentage point.

Total nonagricultural employment in the Houston-The Woodlands-Sugar Land MSA added 18,400 jobs over the month. October's 0.6 percent increase was the weakest on record since 2011 when the H-W-S MSA rose 0.2 percent. Seasonal hiring in Local Government Educational Services, Retail Trade, and Financial Activities were responsible for most of the increase. Other sectors reporting substantial gains were Heavy & Civil Engineering Construction, Manufacturing, and Professional & Business Services. Mining and Logging was reporting a loss for the second consecutive month following a slight revision to September job estimates.

The pace of job growth in the H-W-S MSA fell from 0.6 percent to 0.5 percent with payrolls up 13,400 jobs over the year. Job gains continue to be positive in industry sectors that serve the H-W-S MSA's growing population. The two largest contributors of jobs have been Education and Health Services, up 13,600 jobs or 3.6 percent, and Leisure and Hospitality, up 13,400 jobs or 4.4 percent. Declines in sectors with ties to oil and gas exploration & production continue but are improving with Mining & Logging down 8,400 jobs or 8.9 percent, Manufacturing down 6,800 jobs or 2.9 percent, and Professional and Business Services down 5,300 jobs or 1.1 percent. In October 2015 Construction reported its largest one-month increase on record, up 9,200 jobs. As a result, over-the-year losses in Construction spiked in October from 0.8 percent to 4.3 percent representing a loss of 9,700 jobs.

Seasonally adjusted data for the H-W-S MSA and U.S. seen in figure 3 provides an additional view of employment removing the erratic month-to-month seasonal patterns. Seasonally adjusted employment rose for the fifth consecutive month in October, up 4,900 jobs. The pace of job growth fell slightly to 0.4 percent over the year, well below the nation's 1.7 percent pace. Although seasonally adjusted job gains are currently much weaker than the nation's, overall growth of total nonfarm employment in the H-W-S MSA has outperformed the nation since the Great Recession with payrolls up 13.8 above the prerecession high compared to 4.7 percent at the national level.

Mr. Borski concluded his report and no action was taken.

OTHER BUSINESS

Chair Guthrie announced that Mr. Guy Robert Jackson has agreed to Chair the Nominating Committee which will convene prior to the February 2017 meeting to make recommendations for 2017 Board officers.

Chair Guthrie announced this was Mr. Ray Laughter's last meeting as a Board member. Chair Guthrie noted that Mr. Laughter was one of the long-serving "Board Pioneers" recognized by TWC last year, was a great asset to our Board and will be missed.

Mr. Laughter noted that he enjoyed his service on the Board, will be joining a commercial real estate and development firm and will still be involved in economic development in the region.

Chair Guthrie gave the floor to Mr. Temple who announced that the Education Committee has planned a meeting for Wednesday, January 25, 2017 with details forthcoming. The Early Education Committee will schedule a meeting for early next year. Also the Career Office and Employer Service Committees will meet to review the final version of the plan. The Legislative Committee will also meet to follow the legislative activities next year.

Mr. Temple next explained that as noted in the Board packet – Ms. Carol Kimmick will be retiring after 24 years with H-GAC. Mr. Temple gave her a plaque and a gift from the Board in recognition of her service.

Mr. Temple wished all Board members and guests a safe and happy holiday season.

Chair Guthrie thanked Ms. Kimmick for her support and assistance to the Board and wished her a happy retirement.

Chair Guthrie wished all present a Merry Christmas, Happy Holidays and a Happy New Year.

ADJOURN

There was no further business to come before the Board, and Chair Guthrie adjourned the meeting at approximately 10:55 am.

Audit/Monitoring Committee Update for February 2017

The Audit/Monitoring Committee met Monday, January 23, 2017 at the H-GAC office, Committee Chair Joe Garcia, Committee Vice Chair Guy Jackson, and members Carl Bowles, Cheryl Guido, Dale Pillow Allene Schmitt, Evelyn Timmins and Shunta Williams attended the meeting. Willie Alexander and Mark Guthrie also attended.

Rating System – the definitions for the levels are listed below:

Leading Performance - Performance consistently exceeds expectations in all areas reviewed and the quality of work overall is exceptional.

Strong Performance - Performance consistently meets or exceeds expectations in all areas reviewed and the quality of work overall is very good

Solid Performance - Performance consistently meets expectations in most areas reviewed and the quality of work overall is good.

Building Performance - Performance does not consistently meet expectations in most areas reviewed and overall quality of work is not at an acceptable level.

Operations

- Committee members reviewed data from quality assurance monitoring reports from September through November
- Westheimer Career Office – Interfaith was rated Solid Performance. The office is performing well over many of the criteria reviewed. All findings have been resolved.
- Staffing Unit – Neighborhood Centers, Inc. was rated Solid Performance. Monitors recommended customer service and sales training focused on service to employers. *Contractor staff and Board staff are working together to identify appropriate training.*
- Staffing Unit – Interfaith of The Woodlands was rated Solid Performance. Monitors recommended housing of staff at the career office rather than centralization. *Interfaith is reviewing staffing to determine how this can be accomplished.*

Financial Systems

We contract with outside audit firms to conduct financial system reviews for all our contractors that include: accounting policies and procedures, accounting systems, procurement, accounts payable, personnel (human resources and payroll), cash management, property management and inventory, cost allocation and budget, financial reporting, complaints, subcontracts and insurance. We also review a sample of billings for each contractor.

At least once a year, we also conduct a review of financial aid payments that is separate from the annual systems review. This review tests financial aid payments made on behalf of customers.

Reviews were conducted for the contractors listed below and findings identified have been addressed and resolved.

- Brazosport College – Adult Education and Literacy
Findings were identified in the areas of cost allocation, travel expenses, accruals and obligations and a subcontractor contract.
- Neighborhood Centers, Inc. – Financial Monitoring and Billing Review
Findings were identified in the areas of cost allocation, travel expenses, timeliness of payment of invoices, inventory listing and variances in the general ledger.

Education Committee

Integrating Education and the Workforce

The Education Committee met on January 25, 2017 at the Houston-Galveston Area Council (H-GAC) offices. Committee Chair Birgit Kamps led the meeting with the following members in attendance: Board Chair Mark Guthrie, Committee Co-Chair Allene Schmidt, Bill Crouch, Cheryl Guido, Eduardo Honold, Dale Pillow, and Richard Shaw.

The Committee reviewed and discussed the Tri-Agency report on Education and the Workforce.

Background

In November 2016, representatives from the Texas Education Agency, Texas Higher Education Coordinating Board, and Texas Workforce Commission released a report titled *Prosperity Requires Being Bold: Integrating Education and the Workforce for a Bright Texas Future*.

The report is the result of a call from Governor Greg Abbott for the three agencies to collaboratively find better ways to link education and business for the economic prosperity of Texas. The Governor laid out five charges for the joint task force:

- **Charge 1.** Commissioners should identify and advance public and higher education initiatives that make college more affordable for families and help students enter the workforce more quickly with marketable skills.
- **Charge 2.** Commissioners should work with industry and local stakeholders to assess local workforce needs and identify innovative workforce development models that directly coordinate with industry partners and promote postsecondary success. The Commissioners should include career and technical education (CTE) and science, technology, engineering, and mathematics (STEM) education models in their assessment.
- **Charge 3.** Commissioners should evaluate current agency efforts, as well as state and local web-based education and career awareness systems in an effort to better link students, parents, and educators to the broad array of high-demand jobs in this state and the educational requirements to secure those opportunities.
- **Charge 4.** Commissioners should identify gaps in services to Texas veterans, advance strategies to enhance their education and employment opportunities, and develop solutions to ensure a seamless and accelerated transition back into the Texas workforce.
- **Charge 5.** Commissioners should make recommendations that build the skills of the Texas workforce and advance regional economic expansion, job creation, and the goals of 60x30TX.

The Governor's charges are based in a number of variables affecting the labor force in Texas, including an increasing number of students from economically disadvantaged backgrounds in P-12 public education, the largest number of rural P-12 students in the nation; and, an increasing number of adult students who are not recent high school graduates (who also enter Texas institutions of higher education). All of these challenge the skills gaps that exist across many occupations in the State and the Gulf Coast region.

The Tri-Agency report includes four prime recommendations:

- Identify statewide initiatives for the next generation that will make Texas the clear leader in targeted fields and position the state for economic pre-eminence.
- Strengthen prekindergarten through high school academic instruction to establish students' foundational skills in math, science, language arts, and social studies so that students graduate high school career or college ready and are prepared for lifetime learning.
- Build a proactive, ongoing partnership among the TEA, THECB, TWC, and other stakeholders to align the educational goals of Texas with the state's higher education plan of 60x30TX, which aims for 60 percent of 25- to 34-year-olds to hold either a certificate or degree by 2030, with the goal of growing the state's workforce, industry, and the economy.
- Identify services for Texas veterans and advance strategies to enhance their education and employment opportunities, while developing solutions to ensure a seamless and accelerated transition back into the Texas workforce.

The Dallas Federal Reserve Bank report – *Regional Talent Pipelines* – offers examples of how workforce boards and other actors in the workforce system can further the integration of education with business to address workforce challenges throughout the state. This report concludes with several recommendations for action at the state level.

Current Situation

The report details specific concerns within each recommendation. Many of the suggested actions align with the Board's strategic goals and create opportunities to create new or expand existing Workforce Solutions efforts.

Following are five areas we suggest the committee and Board might invest in specific action.

1. 60 by 30 Texas

Report: *To meet the goals of 60x30TX, Texas must improve student outcomes and maximize the potential of every child in its public school system.*

- Opportunity: With the increasing number of disadvantaged (and minority) students in Texas, achieving 60x30TX is potentially more difficult as these students often exit secondary not prepared for postsecondary work. To better prepare secondary students for postsecondary work, identify the schools and districts in our region that are the most disadvantaged and provide:
- labor market information about in-demand careers and educational pathways;
 - enhanced and increased work-based learning, including internships, apprenticeships, and on-the-job training opportunities; and,
 - connections to business to provide speakers, field trips, and insight as pathways and work-based learning opportunities are developed.

2. Community College Workforce Certificates

Report: *Level 1 workforce certificates (as defined in the THECB's Guidelines for Instructional Programs in Workforce Education manual) also have grown from 13,353 to 32,007 from 2000 to 2015.*

- Opportunity: While the number of certificates has increased, it is unclear if the credentials are aligned with employer needs. To best serve business needs, identify the Level 1 workforce certificates offered in our region (including within adult education programs) and perform a gap analysis versus those credentials requested by employers; then:
- inform the colleges of the needed credentials to obtain jobs; and,
 - consider a priority credentials list for the region.

3. Computer Science Teachers

Report: *Only 55 computer science teachers were produced statewide in 2015.*

- Opportunity: To build a more and better qualified teacher workforce while also bolstering STEM education, support upskill training for Secondary Computer Science teachers, and partner with districts to guarantee placements of completers.

4. Stacking Credentials

Report: *Build credentials at each educational level with the aim of reducing coursework duplication and time to obtain subsequent degrees.*

- Opportunity: To help build more efficient workforce educational pathways from secondary to postsecondary, chart stacked credentials by most needed occupations and indicate which credentials are obtainable at which educational level(s).

5. More and Better Teachers

Report: *Improve the state's teacher ranks through better recruitment (including alternative certifications), preparation, and in-service training (e.g., Teacher Academies), and highlight the value of the profession in both P-12 schools and in colleges and universities.*

Opportunity: The Gulf Coast region will need 24,7000 additional teachers by 2024. To improve the state's teacher ranks, coordinate a regional recruiting campaign and information hub for local school districts and charter schools, focusing on the benefits of teaching in the Gulf Coast region, pathways to teaching certification (including Alternative Teacher Certification Programs or ATCPs), the most needed certifications, and the positive aspects of a career in teaching. This is currently a strategic priority of the Board's Education Industry Workgroup, comprised of local school district Human Resource leadership.

Next Steps

The Committee asked Board staff to develop recommendations for efforts that support 60x30TX with a focus on providing good labor market information and efforts to connect business to education, particularly in the most economically disadvantaged schools in the region.

The Committee will meet again on Wednesday, March 8, 2017 at 1 pm to review staff recommendations. All Board members are welcomed to attend.



Prosperity Requires Being Bold: Integrating Education and the Workforce for a Bright Texas Future

The Tri-Agency Report to the Office of the Governor from the

Texas Education Agency

Texas Higher Education Coordinating Board

Texas Workforce Commission

November 2016



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Executive Summary

Prosperity and innovation in Texas depend on extensive and meaningful collaboration among the prekindergarten through 12th grade (P-12) school system, institutions of higher education, and industry. In March 2016, Governor Greg Abbott established the Tri-Agency Workforce Initiative and tasked the Commissioners of the Texas Education Agency (TEA), the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC) to work together on five charges centered on developing strong links between education and industry, with the goal of helping Texas grow in economic prosperity. Specifically, the governor laid out these charges:

- **Charge 1.** *Commissioners should identify and advance public and higher education initiatives that make college more affordable for families and help students enter the workforce more quickly with marketable skills.*
- **Charge 2.** *Commissioners should work with industry and local stakeholders to assess local workforce needs and identify innovative workforce development models that directly coordinate with industry partners and promote postsecondary success. The Commissioners should include career and technical education (CTE) and science, technology, engineering, and mathematics (STEM) education models in their assessment.*
- **Charge 3.** *Commissioners should evaluate current agency efforts, as well as state and local web-based education and career awareness systems in an effort to better link students, parents, and educators to the broad array of high-demand jobs in this state and the educational requirements to secure those opportunities.*
- **Charge 4.** *Commissioners should identify gaps in services to Texas veterans, advance strategies to enhance their education and employment opportunities, and develop solutions to ensure a seamless and accelerated transition back into the Texas workforce.*
- **Charge 5.** *Commissioners should make recommendations that build the skills of the Texas workforce and advance regional economic expansion, job creation, and the goals of 60x30TX.*

To begin addressing the charges, the commissioners of the three agencies held regional meetings across Texas in Midland, San Antonio, Houston, Dallas, El Paso, McAllen, Tyler, and Austin from April through June 2016. The commissioners met with regional leaders from education, industry, government, and nonprofits to understand the state's workforce needs at a regional level.

Regional leaders suggested placing greater emphasis on critical STEM fields in P-12, creating more access to higher education for economically disadvantaged and underrepresented students, creating more public/private partnerships, and increasing paid internships, apprenticeships, and mentorships. They also proposed expanding and improving student advising, training and hiring people with disabilities, mentoring and guiding foster youth into higher education, helping students in rural areas gain the skills to support their families, encouraging entrepreneurship programs (including in rural areas), and better transitioning veterans into the workforce. The commissioners learned more about exemplary regional models among high schools, colleges, universities, and industry for educating and training students in high-demand fields. They heard concerns about unfilled jobs in high-demand fields and about closing the gaps in the educational pipeline needed to fill those jobs.



Based on the conversations at regional meetings and conversations with community leaders, the commissioners addressed the governor's charges by developing several comprehensive statewide prime recommendations to help Texas achieve pre-eminence in our global economy. The recommendations hinge on aligning current P-16 education to workforce development and encouraging the state and each region to envision how to build local economies, industries, and jobs of the future. Building tomorrow's industries begins with developing a vision, then strengthening the P-16 education pipeline to support those industries.

Fifteen years ago, graduates did not seek careers as information security analysts, cloud computing specialists, or social media managers. Those careers did not exist then. Developing and acting on strategic programs that meet current workforce needs while focusing on building the economy of the future will help regions create the educational pipelines and private/public partnerships to meet future needs. As part of moving in this new direction, P-16 educators will need to ingrain in students the expectation of several careers in one lifetime and the need for lifelong learning.

The state's new higher education plan, *60x30TX*,¹ will play a key role in linking education and the workforce while supporting efforts to help more Texans achieve a higher education and boost Texas in the global economy. The overarching goal of the plan is for 60 percent of 25-34 year olds in the state to hold a certificate or degree by 2030. When *60x30TX* was written, only 38 percent of Texans in this age group had met this goal, and only 35 percent had an associate degree or higher.

During the recovery period from January 2010 to January 2016, the U.S. economy added 11.6 million jobs. Of those jobs, 11.5 million went to workers with some college education. Of the 7.2 million jobs lost during the recession, workers with only a high school education or less lost 5.6 million and recovered only about 1 percent of the 11.6 million new jobs.² These sobering numbers make reaching the overarching goal of *60x30TX* vitally important if Texas is to enhance its prosperity and achieve pre-eminence in a global economy.

To address the governor's charges and reap benefits for all Texans, the commissioners developed the following four prime recommendations to ensure the future economic competitiveness of Texas:

- ▲ Identify statewide initiatives for the next generation that will make Texas the clear leader in targeted fields and position the state for economic pre-eminence.
- ▲ Strengthen prekindergarten through high school academic instruction to establish students' foundational skills in math, science, language arts, and social studies so that students graduate high school career or college ready and are prepared for lifetime learning.
- ▲ Build a proactive, ongoing partnership among the TEA, THECB, TWC, and other stakeholders to align the educational goals of Texas with the state's higher education plan of *60x30TX*, which aims for 60 percent of 25- to 34-year-olds to hold either a certificate or degree by 2030, with the goal of growing the state's workforce, industry, and the economy.
- ▲ Identify services for Texas veterans and advance strategies to enhance their education and employment opportunities, while developing solutions to ensure a seamless and accelerated transition back into the Texas workforce.

¹ A PDF of [60x30TX](#) is available here

² From [America's divided recovery: College haves and have nots](#).



Texas faces a significant challenge in helping all students in P-12 schools become career and college ready in areas that address both current and future workforce needs. The state also must help workers quickly retool their skills when their jobs are affected by ever-changing technology. This report addresses the governor's charges with an eye toward meeting those challenges and preparing Texans for future careers and industries.

This report discusses new models for integrating P-12 education and higher education's academic goals with technical workforce needs and for meeting the goals of *60x30TX*. The common thread among the report's recommendations and initiatives is the commitment of the TEA, THECB, and TWC to enter into an ongoing and long-term partnership for the purpose of making Texas the best place to learn, work, and do business.



Introduction

Prosperity and innovation depend on extensive and meaningful collaboration among the P-12 school system, institutions of higher education, and industry. In March 2016, Governor Greg Abbott tasked the Commissioners of the Texas Education Agency (TEA), the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC) to work together on five charges centered on developing strong links between education and industry, with the goal of helping Texas grow in economic prosperity. Specifically, the governor laid out these charges:

- **Charge 1.** *Commissioners should identify and advance public and higher education initiatives that make college more affordable for families and help students enter the workforce more quickly with marketable skills.*
- **Charge 2.** *Commissioners should work with industry and local stakeholders to assess local workforce needs and identify innovative workforce development models that directly coordinate with industry partners and promote postsecondary success. The Commissioners should include career and technical education (CTE) and science, technology, engineering, and mathematics (STEM) education models in their assessment.*
- **Charge 3.** *Commissioners should evaluate current agency efforts, as well as state and local web-based education and career awareness systems in an effort to better link students, parents, and educators to the broad array of high-demand jobs in this state and the educational requirements to secure those opportunities.*
- **Charge 4.** *Commissioners should identify gaps in services to Texas veterans, advance strategies to enhance their education and employment opportunities, and develop solutions to ensure a seamless and accelerated transition back into the Texas workforce.*
- **Charge 5.** *Commissioners should make recommendations that build the skills of the Texas workforce and advance regional economic expansion, job creation, and the goals of 60x30TX.*

The Regional Meetings

To begin addressing the charges, the commissioners of the three agencies held eight regional meetings in Midland, San Antonio, Houston, Dallas, El Paso, McAllen, Tyler, and Austin from April through June 2016. Andres Alcantar, Commissioner Representing the Public (TWC); Ruth Hughs, Commissioner Representing Employers (TWC); Julian Alvarez III, Commissioner Representing Labor (TWC); Mike Morath, Commissioner of Education (TEA); and Raymund Paredes, Commissioner of Higher Education (THECB) attended the meetings. They posed questions and listened to responses and concerns from industry leaders, business executives, and entrepreneurs, including leaders from historically underutilized businesses; ISD superintendents; economic and workforce development leaders; directors of community and nonprofit organizations; elected officials; higher education administrators; and other stakeholders.



The commissioners heard about exemplary regional models among high schools, community colleges, universities, and industry representatives for educating and training students in high-demand fields. The models represent many public/private partnerships and include such efforts as building the educational workforce for the aerospace and aviation industry, teaching elementary school students computer programming languages to encourage future development of innovative products and entrepreneurship, and developing a two-year nursing program concurrent with high school that allows students to receive high school diplomas and sit for nursing board examinations in the same month.

The commissioners also heard concerns about unfilled jobs in technology, manufacturing, the financial sector, construction, transportation, engineering, nursing, and other in-demand and high-demand fields. Commissioners heard about the need to close gaps in the educational pipeline in order to fill in-demand jobs, as well as the need to retrain workers and ensure students graduate with the marketable skills necessary to succeed in business and industry.

Commissioners listened to the successes and recommendations of leaders from organizations that help veterans transition from active military service to civilian life. In short, the responses, concerns, and models mentioned in this report represent only a sampling of what commissioners heard at regional meetings and in conversations and other meetings surrounding those events. Some ideas suggested by regional leaders include:

- Placing greater emphasis on computational reasoning and critical STEM fields in P-12
- Creating more access to higher education for economically disadvantaged and underrepresented students
- Promoting more public/private partnerships to provide regions future employees
- Increasing paid internships, apprenticeships, and mentorships
- Expanding and improving student advising in middle school, high school, and college
- Training and hiring people with disabilities
- Mentoring and guiding foster youth into higher education
- Helping students in rural areas gain the skills to support their families

The regional meetings represented formal collaborations between industry and education. At the meetings, education and industry representatives began discussing ways to create a seamless system for developing a skilled Texas workforce that will drive local, regional, and statewide economies and encourage innovation and lifelong learning. Ideas and discussions centered on better linking education to the workforce in regions and throughout the state as a whole.

The Challenge of 60x30TX

The state's new higher education plan, *60x30TX*, will play a key role in linking education and the workforce and supporting efforts to help more Texans achieve a higher education credential. The overarching goal of the plan is for 60 percent of 25- to 34-year-olds in the state to hold a certificate or degree by 2030. When *60x30TX* was written, only 38 percent of Texans in this age group had a higher education credential, and only 35 percent had an associate



degree or higher.³ Developed with input from school administrators, higher education representatives, community leaders, private industry partners, elected officials, former faculty, and other stakeholders, *60x30TX* establishes goals for higher education that will help Texas secure its place in a global economy and attract new revenue, spurring innovation, research, and job growth and bettering the lives of Texas families from all backgrounds.

Ambitious and bold, the overarching goal of *60x30TX* equates to an educational moonshot. In November 2015, when Governor Abbott endorsed the plan at Collin College, he said, “Texas will become the home for innovation and intellectual capital. The standard that this group [higher education] sets does set high expectations. But I’ve come to believe that people live up to the expectations that are set.” The governor’s comments and other efforts across the state, including the tri-agency meetings, signal that work is underway to propel Texas toward greater prosperity.

To meet the goals of *60x30TX*, Texas must improve student outcomes and maximize the potential of every child in its public school system. The proportion of school-aged children who are economically disadvantaged in Texas is currently 58.8 percent, 12 percentage points higher than 20 years earlier.⁴ Texas faces a challenge in helping this growing population of

economically disadvantaged students graduate career and college ready from high school in areas that prepare them for current workforce needs and the jobs of the future.

Bolstering the Texas Workforce

Texas has one of the most robust and diverse economies in the nation. Indeed, Texas is home to industries in advanced technologies and manufacturing, energy and petroleum refining, aerospace and defense, and information and computer technology, and the state is making strides in the healthcare industry, including biotechnology and life sciences. The state’s continued growth in the demand for housing and infrastructure also has increased demand for skilled labor in the construction and transportation industries.

Texas has the advantage of a workforce that is comparatively younger than other states and growing in numbers. The P-12 public school system is an enormous human resource, with the potential to support both existing and burgeoning industries. It serves more than 5.23 million students,⁵ roughly two and a half times the population of neighboring New Mexico. The potential of that number cannot be ignored, which makes a case for building the best educational systems in P-16, as well as the best public and private partnerships to benefit all students. The state has extraordinary opportunities to advise and serve all Texas students, including economically disadvantaged students, rural students, foster children, students with disabilities, dropouts, and other at-risk student populations. Increased and enhanced counseling and mentoring for all students from prekindergarten through higher education will be a key component to unlocking students’ potential, along with teaching them marketable skills and providing paid internships, apprenticeships, and mentorships.

Each of those options is needed to serve the greatest number of students. Internships, for example, often co-exist with coursework or occur during the summer. Apprenticeships often last longer than internships and are accompanied by coursework leading to a license in a specific

³ Source: THECB data. As of 2015, the baseline data for *60x30TX*, 40.3 percent of 25-34 year olds had a higher education credential.

⁴ TEA’s [Pocket edition 2014-15 Texas public school statistics](#). [single-page edition], TEA’s [1995 Pocket edition](#). Source: PEIMS data.

⁵ From TEA’s [Pocket edition 2014-15 Texas public school statistics](#) (see footnote 4). Source: PEIMS data.



field or trade, and mentorships allow professionals working in a field to guide and advise students about their career paths. Through industry partnerships with education, these experiences can help even the most economically disadvantaged students gain essential workplace experience.

In addition to its vast number of students, Texas is home to another valuable resource. In fall 2014, the U.S. Department of Veterans Affairs data showed there were nearly 1.7 million veterans in Texas, second only to California.⁶ The skills that veterans acquire in the military – discipline, teamwork, and a strong work ethic – make them ideal candidates for many Texas employers. Better assistance for veterans transitioning from military service to the civilian workforce is good for Texas and good for Texas businesses.

Many positive efforts to address the range of populations in Texas is already underway among the P-12 school system, institutions of higher education, industry, and the state and is borne out, in part, by the data:

- Undergraduate awards in Texas increased every year from 2001-2015. By fiscal year 2015, the state had exceeded the final target by nearly 49,000 awards, or 23 percent.⁷
- African American, Hispanic, Asian, and white participation rates in Texas for students taking the SAT and ACT is at or near all-time highs.⁸
- In 2015, in fourth-grade mathematics, Texas ranked 11th nationally, up from 27th in 2013. According to The National Report Card, “Texas fourth and eighth grade students taking the 2015 National Assessment of Educational Progress (NAEP) in mathematics posted scores higher than the national average ... Scores for white, African American, and Hispanic students also exceeded scores by their national counterparts in NAEP fourth-grade mathematics.”⁹
- Level 1 workforce certificates (as defined in the THECB’s *Guidelines for Instructional Programs in Workforce Education* manual) also have grown from 13,353 to 32,007 from 2000 to 2015. These certificates are a good option for students looking to get into the workforce quickly and to develop marketable skills.¹⁰
- As of July 2016, the state had experienced job growth in 14 of the past 15 months.¹¹

These positive indicators provide more reasons to build greater links between education and the workforce for greater numbers of Texans.

⁶ Department of Veteran Affairs [data](#) from the National Center for Veterans Analysis and Statistics.

⁷ *Closing the Gaps* final progress report, THECB, 2016.

⁸ TEA press release “[SAT, AP exam rates continue to climb](#),” Sept. 3, 2015; *Texas Education Today* newsletter article, “[Number of Texas students taking ACT sets new mark](#),” Sept. 2015. Source: College Board and ACT data.

⁹ TEA press release: “[2015 NAEP math scores strong for Texas students](#).” Source: NAEP data.

¹⁰ [Adult learners and non-traditional students](#), June 21, 2016, THECB presentation (slide 6). Source: THECB data.

¹¹ TWC press release, July 22, 2016: “[Texas economy adds 7,200 jobs in June](#).” Source: TWC and U.S. Department of Labor data.



A Growing and Changing Student Population

Over the last 20 years, the number of students coming from economically disadvantaged backgrounds has risen in the state's public P-12 schools. For Texas eighth graders qualifying for free or reduced-price lunches, only about 11 percent go on to attain a postsecondary credential within 11 years after leaving eighth grade.¹²

For the state to remain competitive both now and in the future, the leaders of the TEA, THECB, and TWC agree that the P-12 school system, two- and four-year colleges, adult education literacy (AEL) services, and industry-led workforce training programs will need

to make substantial efforts to ensure all students – including those who are economically disadvantaged or in rural areas – have access to a wide variety of educational and workforce programs, especially in high-demand occupations.

Texas has the largest number of rural P-12 students in the nation, more than the combined total rural enrollments of 17 other states. Among the roughly 834,000 rural students, more than 43 percent are considered economically disadvantaged.¹³ Helping economically disadvantaged students across the state succeed is paramount to helping Texas reach its economic goals and to becoming a national and world leader in new and emerging – and even yet-to-exist – sectors and industries. Establishing new regional centers of education in rural areas and across the state based on the Early College High School model will help low- and middle-income students acquire skills valued by employers. The centers could help accelerate completion in high-demand fields and make postsecondary credentials more accessible and affordable and could include transfer agreements with regional colleges and universities.

Greater numbers of adult students who are not recent high school graduates are also entering Texas institutions of higher education. In fall 2015, 17.8 percent of university students and 29.1 percent of technical and community college students fell into this category,¹⁴ suggesting that undergraduate education in Texas is undergoing dramatic change. In addition to serving older students, higher education increasingly serves a student population that is poorer and more diverse. This enrollment trend toward greater numbers of economically disadvantaged and traditionally underrepresented students in higher education is expected to continue as demographics shift in the state.

Texas must appropriately prepare all students for our diverse workforce by providing them with strong foundational skills in math, science, language arts, and social studies in order to graduate them career and college ready and prepared for lifelong learning. Helping those students enter community colleges and universities while supporting them through the completion of certificates and degrees will mean demonstrating that higher education is one of the best paths toward greater social and economic mobility. Striving toward educational parity between economically disadvantaged students and their non-disadvantaged counterparts is important for developing a Texas workforce that is adaptable, innovative, and diverse.

¹² Eighth grade cohort rates (2004-2015) found in 2016 [Texas public higher education almanac](#), (p. 14). Source: TEA and THECB data.

¹³ 2012 Rural and Community Trust' report "[Why rural matters: The condition of rural education in the 50 states](#)" (p. 70). Source: National Center for Education Statistics and U.S. Census Bureau data.

¹⁴ [Adult learners and non-traditional students](#), June 21, 2016, THECB presentation (slide 5). Source: THECB data.



A Vision for the Future

In *The Industries of the Future*, innovation expert Alec Ross describes the industries that will dominate the 21st century. Sectors such as genomics, big data, and artificial intelligence will create many new jobs for the states and countries that recalibrate their economies and incubate those industries. For Texas to be among those that achieve pre-eminence in the global economy, regional and statewide leaders will need a bold vision for industries that currently may not exist.

Fifteen years ago, newspapers employed thousands of people in pressrooms and printing plants, car mechanics used hand tools and mechanical skills to perform diagnostics, and phone repair workers serviced landlines. Fifteen years ago, postsecondary graduates did not seek careers as information security analysts, cloud computing specialists, or social media managers because those careers did not exist. Today, many pressrooms produce news solely online, mechanics perform high-tech diagnostics with computers and install software updates to accommodate sophisticated automobiles, and phone repair workers assist customers through cellular retail centers and virtual customer service guides. Those changes and the many that will follow, including driverless vehicles, robotic devices, and materials written by natural language machines, signal a strong need for individuals who possess skills in information technology and automation.

Developing visions and producing action plans that meet current needs while also looking to the future will enable regions to create the educational pipelines and private/public partnerships to better adapt to a rapidly changing world. Tools such as the “future state vision” process - a method for determining what and where an organization or area wants to be by a future date - could help regional planners to select new industries to pursue. For its part, the state will need to continually evaluate emerging trends or sectors such as robotics, cybersecurity, genomics, and big data, and find ways to foster and implement solutions that support those emerging industries. Texas will need to develop a statewide vision, as well as discover new ways to support its diverse geographic areas to develop regional visions for the future that support new industry and job creation objectives. Those combined efforts will ensure that Texas is the best place to learn, work, and do business.

Through regional visions that connect to a larger statewide vision, leaders will need to help Texas address the statistics that follow. These statistics – some statewide and some national – call for charting new and innovative educational paths to workforce success in a highly competitive global economy:

- In the report *America’s Divided Recovery: College Haves and Have Nots*, national workforce expert Anthony Carnevale writes that, during the recovery period from January 2010 to January 2016, the U.S. economy added 11.6 million jobs; of those jobs, 11.5 million went to workers with some college education. Of the 7.2 million jobs lost during the recession, workers with only a high school education or less lost 5.6 million and recovered only about 1 percent of the 11.6 million new jobs.¹⁵
- Of Texas high school students in 2014 who took the ACT, SAT, and Texas Success Initiative (TSI) Assessment, only 26 percent (ACT), 32 percent (SAT), and 29.9 percent (TSI) were college ready.¹⁶

¹⁵ [America’s divided recovery: College haves and have nots](#) (p. 3). Source: U.S. Census Bureau, Current Employment Statistics data

¹⁶ West Texas legislative summit – The future of higher education, August 4, 2016, THECB presentation (slide 18). Source: 2015 THECB data.



- Industries that employ managerial and professional workers, such as consulting and business services, healthcare services, financial services, education services, and government services, accounted for 28 percent of the workforce in 1947 and have grown to encompass 46 percent of the workforce today.¹⁷
- The first and overarching goal of *60x30TX* calls for at least 60 percent of Texans ages 25-34 to have a certificate or degree by 2030. As mentioned, when *60x30TX* was written only about 38 percent of Texans in this age range had a certificate¹⁸ or degree.
- A total of 58.8 percent of Texas public school students qualify for free or reduced-price lunches.¹⁹
- About 3.8 million or 15 percent of the state's total population are adults who lack a high school diploma.²⁰
- According to the Texas Workforce Investment Council's Report, "People with Disabilities: A Texas Profile," of Texas youth attending secondary school in 2014, 6 percent had a disability; of students attending colleges or universities in 2014, 3.4 percent had a disability. The same year, among Texas youth not participating in the labor force, 8.4 percent had a disability.²¹
- Only 55 computer science teachers were produced statewide in 2015. The state should train and certify computer science teachers with a state-level computer science certification aimed at doubling the number of instructors who utilize industry-standard tools and resources.²²
- More students enrolled in higher education have financial need, as determined by Pell eligibility – 32 percent in 2000, 49 percent in 2014.²³

The state has challenges. Texas needs many more workers with Level 1 and 2 certificates, associate degrees, bachelor's degrees, and master's degrees to meet workforce needs, especially in critical, high-demand careers. Preparing those workers to attain certificates and degrees starts with guiding students from P-12 into higher education and through to successful completion.

For the next generation, as well as the one currently entering the workforce, knowing how to adapt and retool one's skills will be as important as the knowledge and skills initially acquired to get a better job. For current and future workers who lose jobs as the result of new technology or other advances, the state needs to expand the number of accelerated retraining programs intended to help laid-off workers move into new careers quickly. The 2008 recession hugely affected workers without postsecondary credentials, and the recovery that followed largely forgot them.²⁴ Helping those workers retool and learn new

¹⁷ [America's divided recovery: College haves and have nots](#) (p. 4). Source: U.S. Census Bureau, Current Employment Statistics data, and Current Population Survey.

¹⁸ Certificates refer to those defined in the [Guidelines for instructional programs in workforce education](#) (GIPWE).

¹⁹ TEA's [Pocket edition 2014-15](#) Texas public school statistics (p. 1). Source: PEIMS data.

²⁰ [Adult learners and non-traditional students](#), June 21, 2016, THECB presentation (slide 4). Source: U.S. Census data.

²¹ http://gov.texas.gov/files/twic/Disabilities_Profile.pdf, June 2016 Update, (pp. 29-30). Source U.S. Census data, American Community Survey.

²² From TEA [data](#) discussed at commissioners' meeting at TEA, July 2016.

²³ [Adult learners and non-traditional students](#), June 21, 2016, THECB presentation (slide 6). Source: THECB data.

²⁴ [America's divided recovery: College haves and have nots](#) (p. 4).



skills is essential for maintaining a strong Texas economy. As Governor Abbott stated at the Tri-agency Education and Workforce Summit in September 2016, “For Texas to be the undisputed center for innovation and intellectual capital in this decade and beyond, we need to accelerate learning to the speed of business and technology.” The state has an opportunity to become not only the best place for efficiently preparing students for postsecondary credentials but also for providing accelerated training programs for adults who need to retool or learn new skills to reenter the workforce.

While there is much to be proud of in Texas P-12 schools, at colleges and universities, and within the partnerships among industry, community organizations, and Workforce Solutions Offices, data show there is also much to accomplish. Fortunately, Texans love a challenge.

Teaching Marketable Skills

Creating more paid internships, apprenticeships and other applied learning opportunities is critical to the state’s future success and is a centerpiece of this report. The need to provide training opportunities that coincide with the P-12 systems and institutions of higher education was discussed at every regional meeting, not only as a way to engage students and provide them with the skills they need to succeed, but also as a way for employers to gain skilled employees who can fill in-demand and high-demand jobs and help businesses grow. Paid internships also allow students – especially those who cannot afford to take on unpaid learning opportunities – to gain job skills before graduation and to expand opportunities for success after graduation. The state must focus on providing meaningful career training and work for all students, including those with disabilities, so that all students gain the marketable skills employers desire.

In addition to paid internships, P-12 schools and institutions of higher education have a key role to play. Clearly, many students in Texas are graduating from high schools, two-year colleges, and four-year universities with marketable skills. Students, however, are not always aware of the value of these skills nor able to articulate them to employers. P-12 schools and two- and four-year institutions of higher education can help make students more aware of the skills they learn. Some marketable skills learned in P-12 and higher education will include work habits and knowledge not easily aligned with a specific job or industry. For example, many industry-recognized curricula and liberal arts studies hone lifelong job skills, such as critical thinking, and help create more flexible and resourceful individuals, which will allow them to adapt nimbly to the jobs of the future while meeting the needs of today.

More Affordable Higher Education

A 2012 national Pew survey found that 57 percent of prospective students believed universities were no longer a good value because of the cost, and 75 percent deemed college unaffordable.²⁵ Texas can reduce the cost of higher education for students and families and help ensure students graduate more quickly and with marketable skills.

At the regional meetings, much discussion focused on students graduating college and career ready from high school. Many high school students assume that if they graduate from high school they are ready to attend college. When they arrive at college, however, data from the THECB from 2013-14 show that, among all high school graduates attending two- or four-year colleges directly from high school, about 27.3 percent of students need remediation, which adds time and cost for courses that do not count toward degrees. Encouraging students

²⁵ [College graduation: Weighing the cost ... and payoff](#). Source: Pew Research Center data.



to reach college-ready goals, take rigorous high school classes, and graduate career and college ready could reduce higher education costs and the time it takes to graduate. One way to ensure students graduate career and college ready is to continue to transparently hold P-12 school districts and schools accountable in the state's P-12 accountability system and implement the state's new A-F campus accountability system.

To address rising college costs, the state could expand its offerings of low- or no-cost options for taking college-level coursework in high school. Under the authority of Texas Education Code (TEC), Section 29.908(b) and Texas Administrative Code (TAC), Section 102.1091, Early College High Schools (ECHS) require a partnership between a high school and a college to allow students facing socioeconomic barriers to earn a high school diploma and 60 college semester credit hours (SCHs) before graduation. ECHS also provide counselors and other academic and social support services to help students succeed. For the 2015-16 school year, there were 154 ECHS operating in Texas, with four designated as career and technical education ECHS.²⁶

Using the ECHS model as a starting point, TWC, TEA, and the THECB are currently making grants available for Texas Industry Cluster Innovative Academies, a next-generation ECHS. The Innovative Academies leverage the efficiency of the existing ECHS frameworks in Texas but add an additional industry component. To receive an Innovative Academy grant, a high school must have a partnership that includes a regional employer and a community college or university. As part of the new model, industry will be able to contribute to curriculum content and design, as well as employ students through paid internships, externships, mentorships and apprenticeships. Innovative Academies will support efforts to better align educational opportunities with market activity in different industry sectors.

Dual credit enrollment also provides high school students with college credit by allowing students to enroll in a single course and earn credit that counts for both high school and college. Dual credit courses provide an opportunity to lower the cost of higher education for students by allowing them to graduate from college earlier. To ensure that more dual credit courses not only transfer to institutions of higher education but also count toward students' degrees, more information – especially online – needs to be easily accessible for students, parents, guardians, and other stakeholders to help avoid lost time and money. Improved and enhanced advising and more easy-to-access online information will help counselors, parents, students, and other stakeholders receive pertinent information about dual credit courses. While dual credit courses promise excellent value to students, it is important to note that the quality of academic dual credit courses must be rigorous and college-level for students to benefit. If academic dual credit courses expand to the point that rigor decreases, then Texas colleges and universities may not accept those courses as credit toward a degree.

Advising and more targeted information will help students and the state save money on the number of semester credit hours (SCHs) students in Texas take to complete a degree. In 2015, THECB data showed that students in Texas averaged 90 SCHs to complete a two-year degree and 139 SCHs to complete a four-year degree, though most programs of study require only 60 and 120 SCHs, respectively. Excessive SCHs for degree completion in Texas – some of it due to courses that do not transfer – contribute to student debt, fewer students graduating with postsecondary credentials, and students taking longer to graduate. This report proposes expanding and enhancing advising at all levels of P-16 to address this issue.

Expanded and enhanced advising and easy-to-find online information about colleges and careers and the transferability of college courses that count toward degrees must be considered

²⁶ TEA press release, "[TEA announces early college high school designations](#)," April, 7, 2015.



throughout the educational pipeline. Better communication among ISDs, institutions of higher education, parents, students, and other stakeholders will help students decrease the SCHs they take to earn a degree, thereby reducing time to degree while saving money for families and the state. Expanding higher education Fields of Study (FOS) and Programs of Study (POS) also would result in cost savings for students and the state because they establish *de facto* statewide articulation agreements between two- and four-year institutions. Both FOS and POS create seamless curricular pathways from high school to postsecondary institutions and between two-year and four-year institutions for students pursuing specific career fields and academic disciplines.

Advanced Placement (AP) courses and exams also may provide students with college credit while in high school and help save money. Students and parents must be made more aware that, starting in fall 2016, Texas colleges and universities must grant college credit for a score of 3 or higher on most AP exams.

Adult students who wish to return to higher education and complete degrees can save money by entering a competency-based program, such as the Texas Affordable Baccalaureate (TAB) program, which allows students to pay a set fee per term and to progress through as many modules in that term as their competencies allow. A student with many years of experience in technology or management may be able to complete a related course in those areas within weeks, barring the need to take a semester-long course. As a result, the TAB program can reduce the cost of higher education by thousands of dollars.

Competency-based education or other alternative pathways could meet the needs of students who are working full-time. Studies show that a high percentage of two-year college students are supporting families and working full-time. Additionally, many individuals transitioning from different careers need more opportunities to acquire skills efficiently and transition back into the workforce. Given the ever-changing global economy and technological advances, students of all backgrounds and ages must be educated with the expectation of having several careers over a lifetime and the necessity of lifelong learning.



The Prime Recommendations for Sustaining Texas Economic Competitiveness

In the recommendations and initiatives that follow, the commissioners have addressed the governor's charges by developing four prime recommendations that cut across all five charges, enabling the three agencies, educators, industry leaders, and other stakeholders to work toward common goals that reap benefits for all Texans. As part of this effort, the three agencies must commit to the Texas Competitive Workforce Partnership Compact, requiring mutual establishment of strategic goals, the development of statewide initiatives, and high levels of support and coordination on initiatives such as *60x30TX*. The *prime recommendations* are followed by multiple *major initiatives* that are perceived as the most impactful to the larger prime recommendation. A second layer of *recommendations* and *initiatives* follow that will help to support the prime recommendation and major initiatives.

Prime Recommendation 1

- ▲ **IDENTIFY STATEWIDE INITIATIVES FOR THE NEXT GENERATION THAT WILL MAKE TEXAS THE CLEAR LEADER IN TARGETED FIELDS AND POSITION THE STATE FOR FUTURE ECONOMIC PRE-EMINENCE.**

Major Initiatives to Support This Recommendation

- 1. Advance a statewide vision that establishes Texas as the world leader in research and development and drives the Texas economy to greater heights in the future.** Consider, for example, expanding and linking the university medical and science research platforms across the state, forming an Innovation Triangle in Texas. This statewide coordination could launch Texas research hospitals into fields already identified as key industry sectors. (<https://texaswideopenforbusiness.com/industries/advanced-tech-manufacturing>). The state could also identify other areas of targeted pre-eminence, driving the economy into the next century and making Texas the best place to learn, work, and do business.
- 2. Promote statewide and regional industry clusters and objectives that support a variety of businesses and regional job creation.** Launch the Texas Industry Clusters and Careers marketing campaign to promote the state's industry clusters through industry-aligned partnerships and industry-specific campaigns to continuously build and maintain a world-class workforce. Establish Texas as a leader in accelerated retraining programs, as well as building and expanding high-demand occupational pathway opportunities for students.
- 3. Encourage statewide and regional creativity and innovation to attract venture capital to the state to help foster the development of new business and industries in Texas.** The state has seen a large drop in venture capital investments since the late 1990s and early 2000s and has an opportunity to regain ground and compete with other populous states and countries. Through collaborative education and workforce efforts, the state has an opportunity to found new industries that position Texas as the premier investment place for future venture capital.



4. **Develop and deploy specific strategies, leveraging regional best practices, to increase entrepreneurial activity and increase small business expansion.** Focus on advancing efforts for growth of women-owned businesses and promote entrepreneurial activity in rural regions of the state to continue to spur job creation.

Additional Recommendations

- a. **Identify and replicate successful public/private partnership (P3s) models and focus on developing more industry-aligned career pathways, credentials with marketable skills, and efficient stackable program opportunities.**

Initiatives to Support Recommendation

- **Substantially increase paid internships, apprenticeships, externships, and other meaningful applied workplace learning opportunities** for students in both colleges and high schools. In addition, launch the Texas Industry Internship Challenge to significantly increase the number of high school and college internships, such as paid internships and externships, that augment apprenticeships – including during the summer – in high-demand industry clusters and occupations that provide students with course credit and emphasize strong work habits. Work to more uniformly grant academic credit for those workplace learning opportunities.
 - **Launch the Transition Foster Youth initiative** to form a partnership among Texas Foster Care Transition Centers, local workforce development boards, community or technical colleges, schools, and industry to assist the approximately 30,500 current foster children,²⁷ as well as former foster children, and help them complete a high school diploma or its equivalent, obtain a high-demand skills certification, and receive career guidance. Ensure students in, or formerly in, foster care are aware of the Texas tuition and fee waiver program to help them enroll in a postsecondary institution (TEC, Section 54.367). It is important that students in, or formerly in, foster care know that they are part of 60x30TX and the state's aspirations.
 - **Build credentials at each educational level** with the aim of reducing coursework duplication and time to obtain subsequent degrees. **Streamline credential pathways through the P-16 continuum** to ensure that secondary education graduation plans, including endorsement coursework, prepare high school graduates for completing a postsecondary credential. Also, create pathways such as apprenticeship programs to Texas' two year community, technical and four year institutions via articulation agreements for college credit.
- b. **Determine supply-demand skill challenges in each region of the state – especially in STEM and CTE – and establish partnerships among employers, the public, and higher education to implement solutions that address skills gaps and improve STEM and CTE education. The Jobs and Education for Texans (JET) Grant program is an example of a program that is working to address in- demand skills.**

²⁷ [KidsCount.org data center](https://kidscount.org/data-center). Source: Texas Department of Family and Protective Services data.



Initiatives to Support Recommendation

- **Require regional workforce entities to identify in-demand skills by enhancing supply and demand tools and capabilities.** Publish periodic Top 10 and Top 25 Hot Jobs lists in each region and statewide.
 - **Ensure students with disabilities acquire specific training and certification opportunities in high-demand occupations.** Launch a statewide campaign to promote the hiring of people with disabilities, e.g., starting with a month focused on hiring people with disabilities and supported by other promotional efforts. Work in partnership with the Governor’s Committee for People with Disabilities, the Texas School for the Blind, and the Texas School for the Deaf.
 - **For students not planning on pursuing a postsecondary credential, such as full-time working students, adult learners, and others, emphasize information about Level 1 certification and increase Level 1 certification attainment.** Level 1 certifications are affordable and achievable in one year, allowing students to enter the workforce quickly with greater earning power to support themselves and their families.
 - **Initiate regional 60x30TX projections, which highlight state and local efforts to meet the goals.** Create a 60x30TX calculator portal that can be used by each region to establish and monitor 60x30TX goals and attainment matrices. Regional P-16 councils could be a mechanism for achieving the 60x30TX regional projections.
- c. **To accelerate connections between workers seeking jobs and growing businesses seeking employees, WorkInTexas should be replaced with a robust, leading-edge tool that reflects current technology and is customized to the needs of the Texas workforce and economy. Though best in class when built over a decade ago, WorkInTexas needs enhancements that are responsive to business and job seeker requirements in today’s economy.**

Prime Recommendation 2

- ▲ **STRENGTHEN PREKINDERGARTEN THROUGH HIGH SCHOOL ACADEMIC INSTRUCTION TO ESTABLISH STUDENTS’ FOUNDATIONAL SKILLS IN MATH, SCIENCE, LANGUAGE ARTS, AND SOCIAL STUDIES SO THAT STUDENTS GRADUATE CAREER AND COLLEGE READY AND ARE PREPARED FOR LIFETIME LEARNING.**

Major Initiatives to Support This Recommendation

1. **Raise student computational skills to make Texas No. 1 in mathematics in the nation.** Building upon Texas’ Math Academies – the new teacher professional development tool passed by the Legislature in 2015 and established by TEA in summer 2016 – Texas should provide Math Innovation Zone grants to incentivize school districts to adopt comprehensive, proven, high-quality, and blended-learning math programs for all K-8 classrooms.



2. **Hold P-12 schools accountable for student performance using measures that include college readiness and closing student achievement gaps.** Transparently and consistently provide student outcomes on key student performance measures, including college readiness, to all stakeholders. Update the College and Career Readiness Standards (CCRS), with an awareness of how college readiness and career readiness connect and intersect. Emphasize career and technical education standards and Level 1 certificates to address the ever-changing economic environment. To help address workforce needs that require both college ready and career ready students, involve members of the business community in the CCRS updating process. Incorporate the updated CCRS into the Texas Essential Knowledge and Skills (state's P-12 curriculum).
3. **Improve the state's teacher ranks through better recruitment (including alternative certifications), preparation, and in-service training (e.g., Teacher Academies), and highlight the value of the profession in both P-12 schools and in colleges and universities.** In higher education, employ High-Impact Practices (HIPs), which are evidence-based teaching and learning practices shown to improve learning and persistence for postsecondary students from many backgrounds. Also, improve and expand professional development for K-20, and develop expertise among faculty in higher education about the best practices for student learning.

Additional Recommendations

- a. **Ensure P-12 students have access to rigorous and high-demand dual credit, career and technical education (CTE), and advanced placement (AP) courses. Also work to ensure that courses count toward students' certificates or degrees. Access is especially important in rural and economically disadvantaged communities.**

Initiatives to Support Recommendation

- **Expand access to dual credit and AP courses for rural and economically disadvantaged students** through teacher AP incentive programs and the Texas Virtual School Network to increase the participation of those high school students in dual credit and other college-level courses. Evaluate current dual credit courses for an appropriate level of rigor, and provide strong incentives in the state's school accountability system for offering high-quality dual credit, CTE, and AP courses. Develop ways (e.g., websites) for students and parents to receive information about dual credit options that will *transfer* and *count* toward specific certificates or degrees at institutions of higher education, similar to "truth-in-lending" statements.
- b. **Improve, expand, and replicate innovative STEM and CTE programs in P-12, and expand STEM and CTE course sequences and student pathways, especially in rural areas. Encourage schools, higher education, and industry to collaborate and expand sequenced course offerings in high-demand fields.**



Prime Recommendation 3

- ▲ **BUILD A PROACTIVE, ONGOING PARTNERSHIP AMONG THE TEA, THECB, TWC AND OTHER STAKEHOLDERS TO ALIGN THE EDUCATIONAL GOALS OF TEXAS WITH THE STATE'S HIGHER EDUCATION PLAN OF 60x30TX, WHICH AIMS FOR 60 PERCENT OF 25- to 34-YEAR-OLDS TO HOLD EITHER A CERTIFICATE OR DEGREE BY 2030, WITH THE GOAL OF GROWING THE STATE'S WORKFORCE, INDUSTRY, AND THE ECONOMY.**

Major Initiatives to Support This Recommendation

- 1. Focus on providing thorough education and career guidance through enhanced opportunities for students in middle school through college:** (1) Develop a statewide online advising tool for counselors, students, parents, and other stakeholders that will help P-16 students – especially students who are struggling, students who are economically disadvantaged, students with disabilities, or students in foster care – make meaningful and achievable college or career plans; (2) expand high school student advising programs such as Advise TX, which works to increase the number of low-income, first-generation college, and underrepresented high school students who enter and complete a postsecondary education; (3) advise students entering institutions of higher education more effectively to drive course selection and completion tied to specific careers, educational endpoints, and high-demand occupations; (4) encourage career exploration opportunities for all students by exposing them to labor market information related to jobs in the STEM and IT sector to encourage student attainment in high-demand occupations; and (5) demonstrate strategies to co-locate Texas Workforce Specialists at high school campuses to provide guidance and information regarding high-demand careers, including middle skills jobs and training opportunities with apprenticeships, trade schools, community colleges, and employers.
- 2. Expand the development of adult learners, high school dropout recovery programs, and achievement models** (e.g., adult charter schools), **and develop practices to encourage higher education “stop outs” with more than 50 semester credit hours to return and complete a degree or certificate.** Expand Grad TX, which helps stop outs to return to universities to finish their bachelor's degrees. Partnerships with current employers also may help advance completion opportunities.
- 3. Launch and fund grants for Texas Industry Cluster Innovative Academies.** These academies build on the existing Early College High School model and require key partnerships among high schools, regional employers and industry, and four-year universities to provide opportunities for students to acquire dual credit, certifications, and degrees, as well as internship and mentorship opportunities, in high-demand occupations in key regional industry clusters.

Additional Recommendations

- a. Promote innovation in P-16, through mechanisms such as Early College High Schools with a CTE focus (e.g., Industry Innovative Academies), competency-based education, experiential learning, and alternative pathways.**



Initiatives to Support Recommendation

- **Develop strategies to ensure that courses, credentials, experiential learning, and military training transfers and count toward degrees** at community colleges, technical schools, career schools, and postsecondary institutions, and develop regional articulation agreements that include high schools and the military, in addition to community colleges and regional universities. Make higher education more *affordable*, flexible, and *stackable* through instructional models and schedules that support students, especially working students and adult learners, and respond to the current needs of industry. Use innovative approaches for content delivery and scheduling (e.g., block scheduling) and higher education assessment to improve completion and reduce student cost.
 - **Make higher education more affordable for students by:** (1) supporting innovative approaches for more affordable credentials, (2) funding grants for eligible students in higher education, and (3) reducing the time it takes to complete a degree, e.g., through alternate degree pathways such as Texas Affordable Baccalaureate programs.
- b. Improve the marketable skills of students graduating from high school and college to include those necessary for workforce success, such as teamwork, critical thinking, personal responsibility, and problem-solving. Communicate acquired marketable skills to students, families, and the workforce.**

Initiatives to Support Recommendation

- **Embed marketable skills into the Texas Essential Knowledge and Skills** (state P-12 curriculum) from prekindergarten-12th grade, and **expand marketable skills in the Texas Core Curriculum** (higher education curriculum) and coursework.
 - **Ensure marketable skills are integrated into P-12 curricula** so that students can demonstrate and communicate those skills through established mechanisms, e.g., classroom assignments, projects, grades, etc.
 - **Align the P-12 accountability system with the 60x30TX accountability system.**
- c. Through a tri-agency collaboration among TEA, TWC, and THECB, develop a comprehensive, complementary, and aligned suite of technology tools and applications to communicate education and workforce data in an audience-appropriate manner to a variety of stakeholders.**

Initiatives to Support Recommendation

- As part of a collaborative technology plan, **develop a statewide online education and career advising tool for counselors, students, and parents, and other stakeholders, that will help P-16 students** – especially students who are struggling, economically disadvantaged, foster children, or children with disabilities – **make meaningful and achievable postsecondary or career plans**. In addition, encourage student attainment in high-demand occupations and help students select dual credit courses based on future plans. Include the



following information: (1) an individualized career pathway generator that helps students select a career and then helps them determine the P-16 courses required to be successful, earn a certificate, or enter a college or university, (2) existing and anticipated employment opportunities in local communities and across Texas, which directly align with state and regional objectives; (3) anticipated earnings in different careers; (4) local, regional, and statewide career training and certification programs, requirements, costs, and options; (5) local, regional, and statewide high school to career and college articulation agreements and efficient stackable degrees; (6) endorsements under the Foundation School Program offered by school districts related to postsecondary college and/or career options and (7) the cost, time, and expense of different career and educational options.

As a complement to the technology offerings, **the state should also continue career fairs sponsored by local workforce development boards and offered in partnership with local employers** as a means to highlight the broad array of occupations available to Texas students. The technology plan, coupled with applied learning opportunities and related campaigns to highlight careers and industries in Texas, will provide a stronger basis for students, parents, and teachers to understand the opportunities available.

d. Improve academic preparation and academic support for students to enter and complete higher education.

Initiatives to Support Recommendation

- Scale up and share practices that **support students in their academic preparation for postsecondary education.**
- **Expand high-quality education programs for educationally underserved adults**, including people with disabilities.
- Scale up and share practices that **support underprepared students to increase persistence and completion and reduce their time to degree.**

Prime Recommendation 4

▲ **IDENTIFY SERVICES FOR TEXAS VETERANS AND ADVANCE STRATEGIES TO ENHANCE THEIR EDUCATION AND EMPLOYMENT OPPORTUNITIES, AND DEVELOP SOLUTIONS TO ENSURE A SEAMLESS AND ACCELERATED TRANSITION BACK INTO THE TEXAS WORKFORCE.**

Major Initiatives to Support This Recommendation

1. **Ensure a seamless transition of service members into the civilian, education, and employment communities by providing enhanced employment services.**
 - **Create the *Operation Welcome Home* program to better meet the needs of transitioning service members at military installations in Texas by providing enhanced employment services.** The goal will be to build strong partnerships between Military Transition Centers and the Texas Workforce Commission's Local Workforce Development Boards (Boards) to assist in referring transitioning service



members who are within 180 days of separation. The program will enhance the ability of the local Boards and community partners to provide Texas specific employment services or services in one of the specified tracks – education, career technical training, or entrepreneurship.

- **Establish the *Welcome Home Transition Alliance* to promote a partnership with military installations.** The Alliance will be comprised of TWC and representatives from the 11 Boards with military installations, the Texas Veterans Commission, and the Texas Department of Licensing and Regulation. The Alliance will encourage the participation of military installations. They will collaborate on addressing the needs of transitioning service members and facilitate ongoing coordination to improve employment outcomes.
- **Enhance Skills Development opportunities for transitioning service members by establishing the *Skills for Transition* program.** The *Skills for Transition* program will work with separating service members who plan to remain in Texas. The *Skills for Transition* program will complement the efforts of existing transition programs and provide training opportunities to service members focused on skills associated with employment in high-growth, high-demand occupations. Boards will work together to ensure they are aware of opportunities throughout the state, and through the Workforce Solutions network, and will assist them in transitioning to any community in Texas. The Skills for Transition program will be a resource for the Workforce Solutions Office and workforce partner staff working with service members 180 days prior to their separation, and post-transition.
- **Support for military families.** This initiative will focus on providing employment assistance to military spouses who are experiencing challenges in obtaining employment, obtaining the appropriate licensure or certifications, or obtaining new skills to compete in the job market. Local Workforce Development Boards will provide job search assistance, assessment of skills, labor market information, resume writing and interview skills, and support training in targeted occupations.

Additional Recommendations

- a. **Replicate models on a statewide level that assign mentors to veterans to help them translate military resumes/experience into civilian resumes/experience.**
- b. **Expand College Credit for Heroes – a partnership between the Texas Workforce Commission and the Texas Higher Education Coordinating Board – that helps active duty, former, and retired military personnel receive college credits for their service.** As part of this initiative, transition veterans into competency-based education and affordable baccalaureate programs that offer academic credit for experiential learning.
- c. **Expand Troops to Teachers, and develop Troops to Teaching Assistants.**
- d. **Encourage veterans to test their college readiness by taking the Texas Success Initiative (TSI) assessment and waiving the fees for the test.**



Conclusion

Texas must continue to look for ways to develop skilled workers to support all sectors of its economy, as well as develop near- and long-term visions based on new and emerging industries. To support this vision, Texas will need to strike the right balance of hope and urgency as it forges new statewide and regional models for workforce development and educational achievement. Regional leaders across the state will need to collaborate and make careful decisions about the future, then collaboratively plan and implement the necessary educational pipelines to make the statewide and regional visions a reality.

To support those visions, industry partners and companies of all sizes will need to help align P-12 and higher education with the workforce. These collaborations will be especially important for places with fewer opportunities for advancement and/or with large populations of economically disadvantaged families.

The governor's charges make it clear that the state must focus on all Texans and all regions as it looks at strategies for workforce development and economic growth. Solutions for a bright and prosperous Texas future will come from educators, employers, government officials, communities, and others working together. Those stakeholders must dedicate resources to invest in skills that are meaningful for current and future jobs. Their investments – our investments – will advance the statewide goals of *60x30TX*, expand the Texas economy, create job growth, and help build a prosperous future for every family that is proud to call Texas home.



Acronyms Used in This Report

ACT	American College Testing Program
AP	Advanced Placement
CBO	Community-Based Organization
CCRS	College and Career Readiness Standards
CTE	Career and Technical Education
ECHS	Early College High School
FOS	Fields of Study
HIPs	High-Impact Practices
ISD	Independent School District
JET	Jobs and Education for Texans
LWDB	Local Workforce Development Boards
PEIMS	Public Education Information Management System
POS	Programs of Study
SAT	Scholastic Assessment Test
SCHs	Semester Credit Hours
STEM	Science, Technology, Engineering and Mathematics
TAB	Texas Affordable Baccalaureate
TAC	Texas Administrative Code
TEA	Texas Education Agency
THECB	Texas Higher Education Coordinating Board
TEC	Texas Education Code
TSI	Texas Success Initiative
TWC	Texas Workforce Commission



Regional Talent Pipelines:

Collaborating with Industry to Build Opportunities in Texas

December 2016



Federal Reserve
Bank of Dallas

CENTER *for* **PUBLIC POLICY PRIORITIES**



“It is critical for industry to actively engage in programs that promote workforce development. I applaud efforts by companies to partner with educational institutions, industry peers, regional workforce boards and chambers of commerce in order to foster these programs. These efforts will help create career pathways to middle- and highly-skilled jobs that pay attractive wages and help build our middle class. The engagement of business and community leaders in this effort is critical to our economic vitality, resilience and competitiveness.”

Robert S. Kaplan

President and Chief Executive Officer
Federal Reserve Bank of Dallas

“The jobs story in Texas has always been more complex than some folks claim. The shrinking middle class helps explain why strong job growth in Texas hasn’t led to equally strong reductions in poverty and inequality. Instead of hoping for miracles, we need to work together to enact smart public policies that make Texas the best state for hard-working people and their families.”

Ann Beeson

Executive Director, Center for Public Policy Priorities



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Abstract

Over the past three decades, the share of middle-skill jobs has been shrinking in the U.S. economy. These are jobs that require workers to perform repetitive and procedural tasks, such as those performed by assembly line workers at a manufacturing company or typists at an accounting office. This form of job polarization has forced millions of American workers to make a choice: either get more education and workforce training to develop the skills and build the knowledge required for new middle- and high-skill occupations, settle for a lower-wage job in a low-skill service or manual labor occupation, or drop out of the labor force. Across the U.S., regional workforce development systems are responding to this pressing issue by building career pathways that create advancement opportunities for lower-skilled workers and help job seekers maximize their value in the changing labor market.

To assess how Texas communities are addressing this challenge, the Federal Reserve Bank of Dallas and Austin-based nonprofit Center for Public Policy Priorities reviewed national best practices to provide a guiding framework for analysis and then, in partnership with the Texas Association of Workforce Boards, surveyed the 28 regional workforce boards in Texas. The workforce boards were selected for the survey because their mission places them at the center of much of the activity in their regional workforce system. The purpose of the survey was to identify the most innovative and robust efforts to align workforce development activities across each region in the state, and all 28 workforce boards responded to the survey.

This report concludes with a set of recommendations on how some of Texas' state-level entities can help guide and support world-class career pathways to middle-skill, middle-wage jobs and beyond. The recommendations are intended as a resource to complement Governor Greg Abbott's Tri-Agency Workforce Initiative, led by the Commissioners of the Texas Education Agency, Texas Higher Education Coordinating Board and Texas Workforce Commission.

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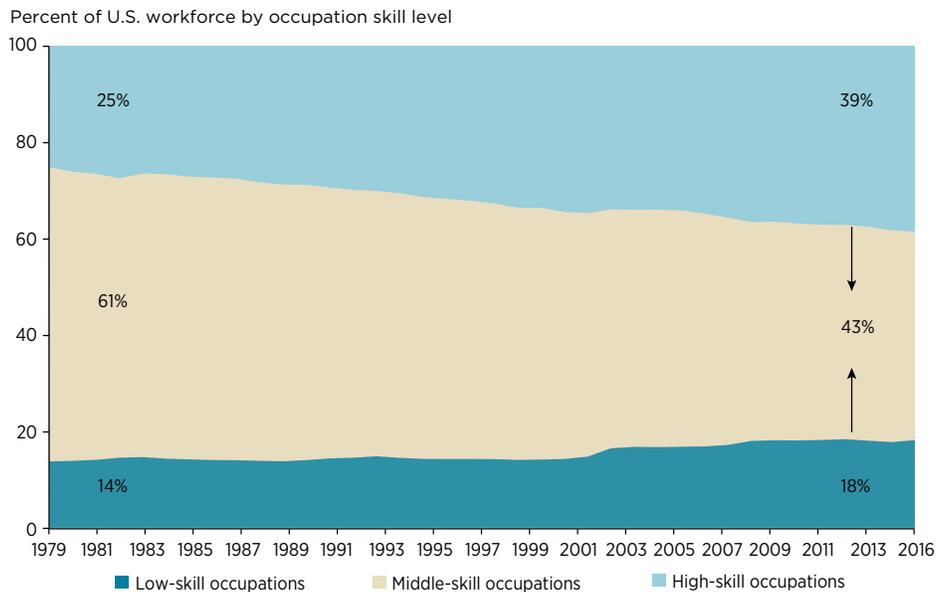
SECTION ONE

Labor Market Trends

Over the past three decades, the share of middle-skill jobs has been shrinking in the U.S. economy. These are jobs that require workers to perform repetitive and procedural tasks, such as those performed by assembly line workers at a manufacturing company or typists at an accounting office.¹ While the share of middle-skill jobs is still the largest share of jobs in the economy, job growth for middle-skill jobs is slowing. This is happening largely because computers and other machines are increasingly doing these routine tasks more efficiently and effectively and because some of these jobs are moving overseas.²

A result is increasing job polarization. The U.S. economy's share of middle-skill jobs is shrinking while its shares of low- and high-skill jobs are growing. High-skill occupations require analytical ability, problem-solving and creativity, while low-skill occupations require service-oriented and manually intensive labor. Chart 1 illustrates the shifting share of occupations by skill level since 1979.

Chart 1
Employment Shifts from Middle-Skill Occupations



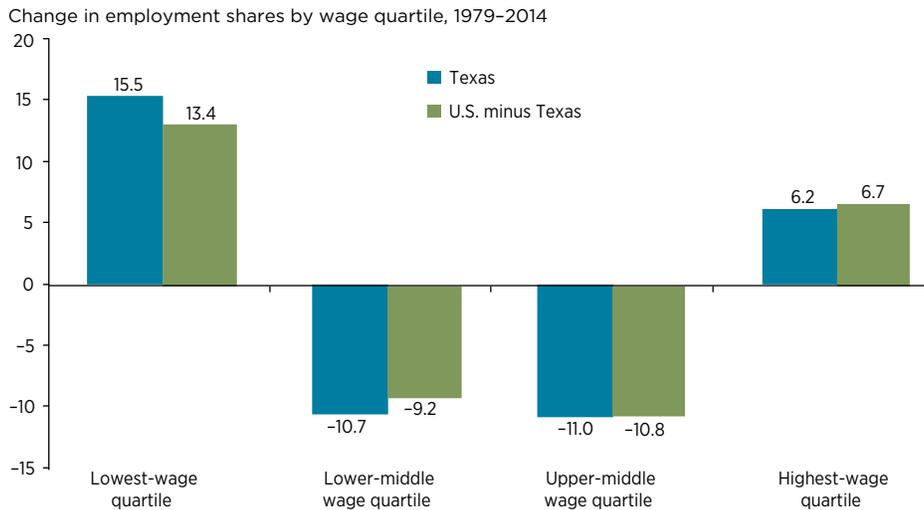
NOTE: Data are restricted to workers ages 16 to 64 who are not self-employed and are not employed in military or agricultural occupations.

SOURCE: The original chart is from "The Vanishing Middle: Job Polarization and Workers' Response to the Decline in Middle-Skill Jobs," by Didem Tüzemen and Jonathan Willis, Federal Reserve Bank of Kansas City, *Economic Review*, First Quarter 2013. The original chart has been updated to begin in 1979 and end in September 2016. Data were provided by Didem Tüzemen.

The Shrinking Middle Class

The narrowing share of middle-skill occupations is shrinking the middle class in Texas and the rest of the U.S. Chart 2 shows that from 1979 to 2014 the share of jobs in the lowest-wage quartile grew by 15.5 percent in Texas and 13.4 percent in rest of the U.S.³ At the same time, the share of jobs that paid middle wages dropped in Texas and the rest of the U.S., and the share of jobs in the highest-wage quartile increased by 6.2 percent in Texas and 6.7 percent in the rest of the U.S.

Chart 2
Wage Polarization, 1979–2014

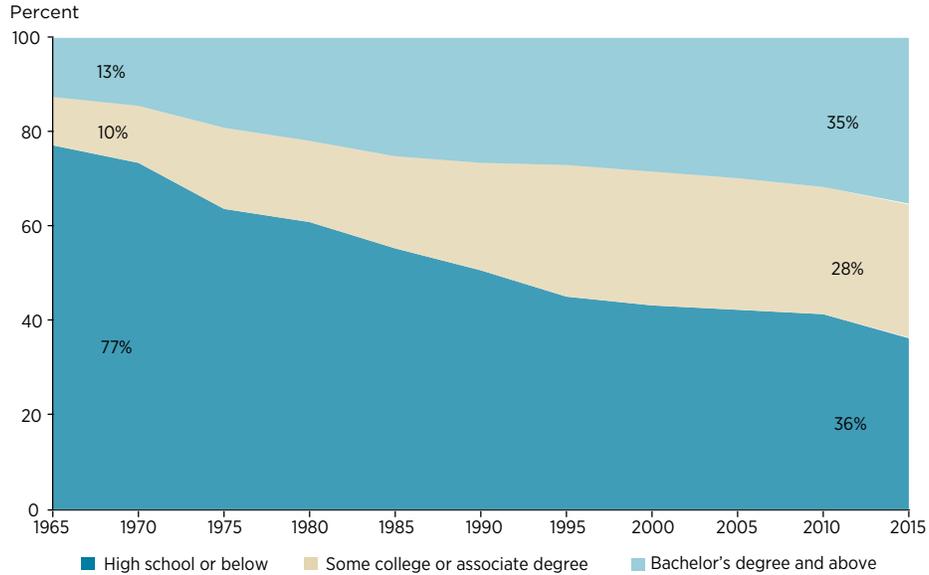


NOTES: Calculations include workers over age 15 with positive wages and exclude the self-employed. Quartiles based on the Texas and U.S. wage distributions from the 1980 decennial census, which refers to 1979 wages. SOURCES: 1980 Census; 2015 American Community Survey; "Employment Growth and Labor Market Polarization," by Melissa LoPalo and Pia Orrenius, in *Ten-Gallon Economy: Sizing Up Economic Growth in Texas* by Pia M. Orrenius Jesús Cañas and Michael Weiss, eds., New York: Palgrave MacMillan, 2015, pp. 91–105.

The decline of middle-skill jobs requiring routine tasks and the growing demand for analytical, critical-thinking and creative tasks in the labor market have occurred at the same time as an increase in levels of educational attainment—in Texas and the rest of the U.S. Chart 3 shows the increase in educational attainment among the Texas civilian workforce. Half a century ago, less than a quarter of Texas workers aged 25 and older had more than a high school diploma. By 2015, almost two-thirds of Texas workers aged 25 and older had more than a high school diploma.

A higher education has become paramount to getting higher-wage jobs. For example, according to the Georgetown University Center on Education and the Workforce, "the economy has added 11.6 million jobs since the recession bottomed out—11.5 million, or 99 percent of them, have gone to workers with at least some college education."⁴

Chart 3
Majority of Texas Workers Continue Their Education After High School



NOTE: These data refer to the civilian workforce aged 25 and older.
 SOURCE: Center for Public Policy Priorities' analysis of Current Population Survey iPUMS data, IPUMS-CPS, University of Minnesota, www.ipums.org.

One result of these trends in job polarization and educational attainment is that low-, middle- and high-skill occupations are increasingly defined simply by the level of educational attainment required rather than the skills, knowledge and abilities those credentials are intended to convey. Low-skill occupations typically represent jobs that do not require more than a high school diploma. High-skill occupations are those that require a bachelor's degree or more. In the middle are occupations that require education beyond a high school diploma—such as an associate degree, industry-recognized certification, apprenticeship program, on-the-job training or other workforce credential—but not a bachelor's degree.⁵

Ongoing Debate Among Some Labor Economists

There is disagreement among some labor economists about how employers are driving increases in educational attainment among the civilian U.S. workforce. Do more employers need a greater share of their employees to have postsecondary levels of education?⁶ Or, do employers find it difficult to assess the knowledge, skills and abilities that their workforce needs, so they use a bachelor's degree, for example, as a proxy for a job candidate's qualifications even when this degree is not necessary? A consequence of unnecessarily inflating job qualifications is that some employees and job seekers respond by pursuing potentially unnecessary degrees, credits or training.⁷

This debate highlights that businesses, workers, job seekers and the workforce development system would benefit from:

- Employers communicating their talent needs more precisely—in terms of knowledge, skills and abilities
- Educational institutions and training providers precisely communicating how their services align with employers' job requirements
- Students and job seekers easily identifying the return on investment of their training and educational choices to help decrease their opportunity costs.⁸

Given the growing need to seek educational and training opportunities beyond a traditional high school diploma—in large part to earn higher wages that can provide a family-sustaining wage—many job seekers are deciding to spend their savings, take out student loans and/or forego time that could be spent earning a wage and gaining valuable work experience. These are opportunity costs. And while it is important that all students receive a well-rounded education, it is essential that they also increase their value in the labor market and decrease their opportunity costs.

SECTION TWO

Building Regional Talent Pipelines in Texas: A Guiding Framework

Regional workforce development systems (*Box 1*) across the country have worked for decades to create advancement opportunities for lower-skilled workers and job seekers. More recently, these efforts have focused on the critical role of workforce intermediaries, which focus on a dual-mission of helping low-income individuals find a job and advance in a career, while also working with businesses to increase their productivity and improve their bottom line. In “Workforce Intermediaries for the Twenty-First Century,” Robert Giloth identifies a number of intermediaries, including partnerships that have emerged out of business associations, community colleges, unions, workforce boards and various other community organizations.⁹

Regions that leverage the efforts of workforce intermediaries to build world-class talent pipelines must accomplish three important tasks:

1. Identify businesses driving regional economic growth through **industry cluster analysis**.
2. Convene these business leaders with education and training providers through a **sector partnership** that identifies skill gaps and other labor market challenges for their industry.
3. Work together to create and strengthen **career pathways**, where needed, to provide a skilled workforce for their region and employment opportunities for their residents.¹⁰

Box 1

Entities in Regional Workforce Development Systems¹¹

- **Local workforce development board:** Lead, coordinate, implement and evaluate workforce initiatives to meet regional labor market needs
- **Community or technical college:** Provide training and education to prepare students for employment
- **University:** Provide education and research to support regional economic development
- **K-12 school:** Provide foundational skills and knowledge, exposure to career opportunities and infrastructure for workforce programs targeting in-school and out-of-school youth
- **Chamber of commerce:** Identify and represent the workforce needs of businesses
- **Business, business association or industry group:** Help ensure that the local talent pipeline meets business needs and provide data on hiring needs to educators regarding the skills, knowledge and credentials required for jobs, and training and employment opportunities.
- **Social service agency:** Provide a wide range of support to individuals—e.g., transportation, child care, health care, English as a Second Language (ESL) and adult basic education (ABE)—as they obtain or maintain employment
- **Community-based organization:** Provide training, job placement services and support services that connect to workforce development initiatives (e.g., food banks can provide food scholarships)
- **Labor group:** Represent and support the development of trained, skilled workers
- **Officials/administration of city, county, state and federal agencies:** Coordinate public resources to fulfill agency commitments toward workforce development goals
- **Philanthropic entity:** Provide financial and other support to pilot and scale workforce initiatives
- **Other community partner:** Connect mission and program activities to workforce development initiatives

NOTE: These definitions are from a workforce development vantage point, highlighting each entity's primary function within the system, and are not comprehensive.

SOURCE: "Engaging Workforce Development: A Framework for Meeting CRA Obligations," by Elizabeth Sobel Blum and Steven Shepelwich, Federal Reserve Bank of Dallas and Federal Reserve Bank of Kansas City, December 2016.

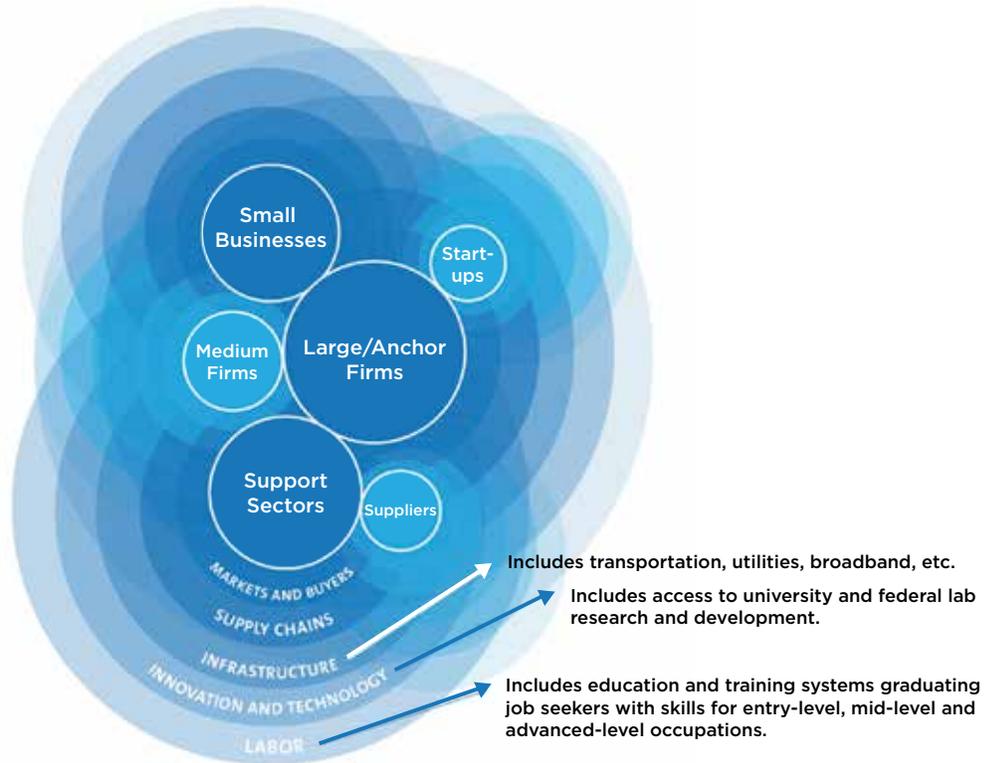
This section provides a broad descriptive framework of high-quality elements and outcomes of identifying industry clusters and developing sector partnerships and career pathways. When regional workforce development systems fully integrate these elements, they are building world-class regional talent pipelines.

Industry Clusters

In economic development research and practice, an industry cluster is a geographically concentrated group of businesses linked by the technologies they employ, the markets they serve, the goods and services they produce and the labor skills they require.¹² They generally include multiple interrelated industries and are critical to economic development practitioners because they provide an effective approach for analyzing the drivers of regional economic growth.

An industry cluster can be made up of several small, medium and large businesses (Figure 1). They include large anchor firms that attract similar companies to the region, as well as small start-up businesses that may spin off from larger companies or seek to replicate and innovate based on their products and services. These companies share a common geography that does not adhere to government boundaries such as city or county lines.

Figure 1
Identifying World-Class Industry Clusters



SOURCE: “State Sector Strategies Coming of Age: Implications for State Workforce Policymakers,” by Lindsey Woolsey and Garrett Groves, Corporation for a Skilled Workforce, National Skills Coalition and the National Governors Association Center for Best Practices, Jan. 16, 2013.

Industry clusters often form naturally and do not need to rely on any organizing entity to exist. Some of the most well-known include the information technology cluster in California known as Silicon Valley, and the oil and gas industry in the Houston and Midland–Odessa metropolitan areas. Each industry cluster is unique to its region and does not conform neatly to any general data set or simple definition. However, several industries are present in many economic regions across a state, such as health care, energy, information technology and advanced manufacturing.¹³

The Federal Reserve Bank of Dallas’ publication “At the Heart of Texas: Cities’ Industry Clusters Drive Growth” highlights the industry clusters of eight of Texas’ largest metros: Austin–Round Rock, Dallas–Plano–Irving, El Paso, Fort Worth–Arlington, Houston–The Woodlands–Sugar Land, McAllen–Edinburg–Mission, Midland–Odessa and San Antonio–New Braunfels. “Together, the eight accounted for 73 percent of the state’s population, 76 percent of its employment and 82 percent of its economic output in 2014.” It shows that in Austin–Round Rock, for example, “the underpinnings of [its] economy are government, which includes [the University of Texas] UT, and the technology industry. Computer manufacturing boasts four times the concentration in Austin than in the U.S. due to the significant presence of manufacturers of personal computers and related parts such as Dell, Apple, Advanced Micro Devices and Applied Materials.”¹⁴

Industry Clusters' High-Quality Elements

There are several common elements of the most well-connected businesses in a regional industry cluster. These include:

- **Common markets and buyers:** Businesses in an industry cluster have a common set of markets and buyers. Whether it is oil and gas firms, auto manufacturers or residential and commercial construction companies, businesses within each industry are subject to the same business cycles and external elements that affect supply and demand within their common markets.
- **Supply chains:** Businesses in an industry cluster rely on a common supply chain. For example, manufacturing clusters purchase similar raw materials from a common set of supply or support sectors. Fluctuations in price or shortages of goods, services or labor from an interdependent supply chain can have a direct impact on everyone in that cluster.
- **Infrastructure:** Every industry requires infrastructure of some kind to operate. In today's economy, this is as likely to include modern infrastructure needs for internet access or a low-cost supply of energy as well as a more traditional reliance on a transportation network. For example, businesses in a regional information technology cluster share a common need for high-speed internet access, and local manufacturing clusters are highly sensitive to changes in energy prices.
- **Innovation and technology:** Nearly every industry must spend time developing the products and services that will drive its growth in the future. Few companies are large enough to do this on their own, and instead may pool their resources or take advantage of public investments in the form of university centers or private research parks that specialize in industry-focused research and innovation. For example, the Houston petrochemical industry is able to use the research conducted at the Institute for Energy Research, the University of Houston Energy Research Park and the Advanced Energy Consortium to develop new commercial products and services.
- **Labor:** One of the most critical elements binding an industry together is its common workforce needs. Businesses in the same industry cluster will employ many of the same occupations and require many of the same skill sets. For example, it is no coincidence that the Houston metropolitan area, home to the nation's largest oil and gas industry cluster, exceeds the national average in engineering occupations, including chemical, marine, petroleum, mining and geological engineering.¹⁵

Industry clusters were brought to national attention during the 1990s, in part by the work of Harvard economist Michael Porter.¹⁶ As a state, Texas began to emphasize industry cluster analysis as a key part of its economic and workforce development systems at least as early as 1995, when the Texas workforce system prioritized industry sectors and key growth occupations for training.¹⁷ This focus was reinforced in 2005 when then-Governor Rick Perry launched the Texas Industry Cluster Initiative, a statewide effort that aimed to allocate state resources to advance long-term growth in six target industry clusters: advanced technologies and manufacturing, aerospace and defense, biotechnology and life sciences, information and computer technology, petroleum refining and chemical products, and energy.¹⁸

Today, the 28 local workforce boards in Texas each conduct an analysis of industry clusters as part of their strategic plan for regional workforce development. Depending on the size of the region, several other public and private entities may conduct their own analyses of industry clusters specific to their unique geographic regions, whether that is a city, county or larger economic region.

High-Quality Outcomes of Identifying Industry Clusters

According to Texas workforce boards' survey responses and interviews, there are three high-quality outcomes of a regional industry cluster strategy. Further research is recommended to identify additional high-quality outcomes and to quantify their impact. The high-quality outcomes identified include:

- **Coordinated analysis of regional industry clusters:** A set of industry clusters has been identified for a specified economic region or regions that most education, workforce and economic development partners in the region use to prioritize and organize their business engagement activities and their education and training efforts.
- **Identification of in-demand occupations:** A set of criteria has been established for identifying high-demand occupations within one or more industry clusters, and several regional workforce development entities use these occupations to guide their business engagement activities and their education and training efforts.
- **Shared implementation of a regional workforce development plan:** Industry clusters are prominently featured in a regional workforce development plan that has been co-created by several regional partners. The plan is not simply the workforce board's plan that other partners have signed on to or contributed to. Instead, each regional partner has direct ownership or oversight of portions of the plan, and those elements are built into their own internal plans and documents.

Sector Partnerships

Despite the presence of industry clusters in every region of the country, the businesses that make up those industries don't typically come together as a group to address a common problem, such as the absence of a supply of high-quality local talent or to help determine what career readiness means for a specific occupation. A sector partnership is a regional approach for organizing multiple businesses from one or more industries and connecting those businesses with education, training, economic development, labor, government and community organizations to collaboratively address economic and workforce needs.

Sector partnerships are an evidenced-based approach to workforce development that produce positive outcomes for both businesses and job seekers. A rigorous evaluation of three of these partnerships from 2003–05 found that job seekers trained through a sector partnership approach were more likely to earn higher wages and exit poverty than participants in other workforce training programs. They were also more likely to find employment in higher-quality jobs that provided access to health care, paid sick leave and vacation time.¹⁹ Businesses reported reductions in turnover costs, increases in productivity and overall satisfaction in their participation in the partnership. For example, a 2009 survey in Pennsylvania of businesses engaged in a sector partnership found that 84 percent reported increases in worker productivity.²⁰

In Texas, various sector partnerships exist throughout the state. When the 28 local workforce boards in Texas were surveyed in early 2016, 19 of them reported that sector partnerships are included in their strategic planning documents or at least one of their grant proposals for which they have won funding.²¹

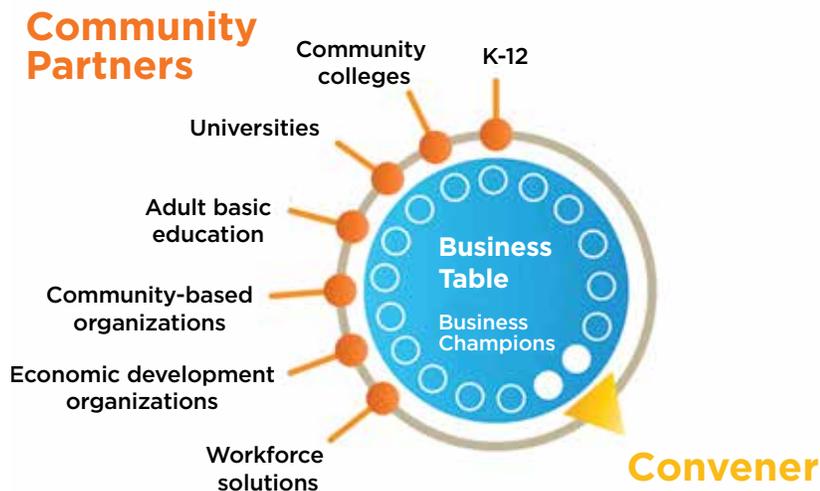
Across the U.S., sector partnerships have been gaining prominence as a local strategy for identifying and clarifying unmet skill needs of employers and aligning them with workforce training programs serving low-skilled unemployed individuals and underemployed workers. The reauthorization of the federal workforce development programs through the passage of the Workforce Innovation and Opportunity Act (WIOA) also emphasizes sector partnerships as a key strategy for local workforce boards, noting that it should be an approach that is included in every state's plan for engaging employers. According

to nonprofit organization Corporation for Economic Development (CFED), 21 states have such policies in place to support the local development of sector partnerships²² (Texas is not included in this list), and national networks such as the National Fund for Workforce Solutions and the National Network of Sector Partners work to advance sector partnerships across the country.²³

Sector Partnerships' High-Quality Elements

There are six quality elements of highly effective sector partnerships that can help local partners assess the strength of their business partnership strategies and identify areas for deepening business engagement (Figure 2).²⁴ These include:

Figure 2
Developing World-Class Sector Partnerships



SOURCE: "State Sector Strategies Coming of Age: Implications for State Workforce Policymakers," by Lindsey Woolsey and Garrett Groves, Corporation for a Skilled Workforce, National Skills Coalition and the National Governors Association Center for Best Practices, Jan. 16, 2013.

- **A common need or incentive to work together:** There is an opportunity or need that motivates several businesses to collaborate. This is particularly important for businesses that are more accustomed to competing against each other. Some challenges are so large that individual businesses are unable to address them on their own. In these cases, a sector partnership is the ideal approach for building trust and arriving at a solution that requires the involvement of several public, private and nonprofit partners.
- **A business table:** Business leaders convene regularly (usually from a single industry cluster) to discuss their common challenges and needs, while other community partners from the regional workforce development system (workforce boards, employers, chambers of commerce, community colleges, etc.) listen for opportunities to collaborate. Too often, the opposite dynamic unfolds in workforce partnerships: Business partners are invited to meetings led by education or workforce training partners, and the space is not provided for a business consensus to emerge on their most critical workforce challenges and potential solutions.
- **Nonworkforce needs:** In addition to discussing workforce shortages and skill gaps, the business partners have also identified industry challenges that may not be related to workforce needs. For example, supply chain problems, transportation costs, access to new markets, energy costs

or burdensome regulations could all be more urgent industry challenges. Working together to address the most critical need of businesses helps build trust and creates momentum within a new sector partnership for addressing other difficult problems.

- **Business champions:** Clearly identifiable business leaders are promoting the partnership's efforts and encouraging other businesses to participate. It is sometimes the case that one of these business champions may not be part of the same industry cluster, especially during the formation of a new sector partnership. Because companies within the same industry cluster are likely accustomed to competing against each other, they may be hesitant to trust one another when discussing the wages they pay their employees or the specific skill sets they are seeking. A prominent business leader from a different industry may avoid these concerns and have greater influence in the beginning of the partnership's formation.
- **A convener:** A single organization manages the partnership's activities and provides critical support by coordinating meetings and ensuring that activities are executed and progress is monitored. The convener is not the individual or organization receiving public recognition for leading the partnership. Instead, the convener is most likely operating behind the scenes to ensure that meetings are efficient and activities are effective. Several types of organizations may serve as the convener, including a local workforce board, a chamber of commerce, an industry association, a community college or nonprofit organization. Some sector partnerships may also decide to create their own support organization.
- **A support team of community partners:** A fully coordinated, comprehensive team of educators, community-based organizations, economic development organizations, workforce boards and other community partners act in unison and in joint support of the needs of industry and on behalf of students and job seekers.

While any organized group of businesses can organize its activities to function as an effective sector partnership, these quality elements help demonstrate how sector partnerships differ from most other business groups. Box 2 highlights examples of how sector partnerships are different from chambers of commerce, industry associations and advisory councils at a community college.

Box 2

Distinguishing Sector Partnerships from Other Business Groups

- **Sector partnerships differ from a chamber of commerce**, where activities and discussions are generally focused on the business community at large, and individual companies are rarely asked to discuss their specific growth challenges or hiring needs with other similar companies in great detail.
- **Sector partnerships differ from industry associations**, where education and training providers rarely participate or observe.
- **Sector partnerships differ from advisory councils at a community college**, where business representatives critique and review curriculum. While these councils can be effective at making incremental changes to classroom instruction materials and processes, they are generally not designed or intended to address large-scale challenges such as closing regional skills gaps, identifying missing occupational training programs or reallocating education and training resources to ramp up capacity or create a new program with shorter completion times and greater job placement rates.

High-Quality Outcomes of Developing Sector Partnerships

According to Texas workforce boards' survey responses and interviews, there are three outcomes of highly effective sector partnerships. Further research is recommended to identify additional high-quality outcomes and to quantify their impact. The high-quality outcomes identified include:

- **Common goals and measures of success:** Business partners have agreed upon a common set of goals and identified ways to measure progress toward attaining those goals. Examples of workforce goals and measures could include a target number of incumbent workers or job seekers trained to fill specified skill gaps, the identification of a set of skill standards that are used to modify course curriculum across the region or the creation of new apprenticeship positions and other learn-and-earn opportunities. These goals and measures are revisited regularly to identify where positive changes are occurring and to inform future activities.
- **Business systems change:** Business partners can identify how they are working together in new ways and changing how they do business. For example, they may be working together to share internal hiring practices, alter recruiting processes, change partnership agreements with contractors, donate equipment to schools or allocate resources to provide more internships for students, teachers and faculty.
- **Business engagement practices change:** Local education and training providers, economic development groups and other entities decide to alter their business engagement practices to better support or take advantage of sector partnership activities. For example, a community college may dissolve an advisory council and instead work with a new sector partnership to receive more detailed information on modifying programs or curriculum. Similarly, a chamber of commerce or workforce board may hire coordinators or staff to directly support a highly effective sector partnership or to help convene a new partnership.

Career Pathway Development

A career pathway is an approach to education and workforce development that connects students to progressive levels of course work, training and support services that lead to one or more credentials for a specific set of occupations.

Like a sector partnership, the career pathway approach has gained considerable national attention during the past decade. Various entities have sought to define the essential elements of high-quality career pathways. Some of these models advance an academically focused framework for building pathway programs, such as Complete College America's Guided Pathways to Success (GPS)²⁵ or the American Association of Community Colleges Pathways Project.²⁶ These models tend to emphasize aligning educational courses within a school or institution into programs or fields of study, creating clear pathways between institutions to ensure that students can transfer their academic credits from one school to another and advancing strategies to reduce the time required to attain a credential.

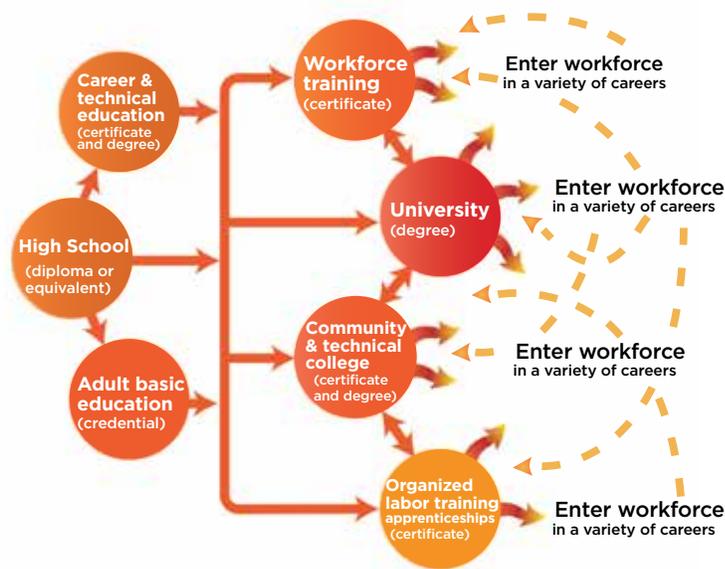
Other national organizations emphasize a strong focus on the career or employment aspect of these models. The U.S. Departments of Labor, Education, Health and Human Services and eight other federal agencies that issued a joint letter support career pathways that emphasize partnerships with businesses, create on-ramps for various underrepresented populations and ensure that the credentials produced have value in the labor market.²⁷

Career Pathways' High-Quality Elements

Regardless of the specific model used, there are several cross-cutting quality elements of highly effective career pathways that maintain a dual focus on improving academic pathways and ensuring that those pathways provide access to employment and career advancement. These are perhaps best

summarized by the Alliance for Quality Career Pathways, a multistate effort led by the Center for Law and Social Policy (CLASP) to identify common criteria for high-quality career pathways. The alliance identified three primary elements (*Figure 3*):²⁸

Figure 3
Developing World-Class Career Pathways



After being in the workforce, a person may choose to go back for more credentials to make an upward or lateral career move.

SOURCE: “State Sector Strategies Coming of Age: Implications for State Workforce Policymakers,” by Lindsey Woolsey and Garrett Groves, Corporation for a Skilled Workforce, National Skills Coalition and the National Governors Association Center for Best Practices, Jan. 16, 2013.

- **Well-connected and transparent education and training:** A career pathway consists of a set of education and training programs at successively higher levels of education that align with the employment and promotion requirements of several related occupations in an industry or industries. They also provide support services that help students persist along the pathway, transfer between institutions as needed and enter progressive levels of education and employment.
- **Multiple entry points:** Educators, trainers and other community partners ensure that career pathway programs are designed to enable well-prepared students, as well as targeted populations with limited education, skills, English or work experiences, to successfully enter the career pathway.
- **Multiple exit points:** Each student within a career pathway has access to exit points at successively higher levels that lead to self- or family-supporting employment. Each exit point is also aligned with subsequent entry points, allowing students to stop and restart their education and training as they are able.

In Texas, there are several local, state and nationally funded initiatives underway that are building academic and career-oriented pathways across the state. For example, Texas has a representative team of state and local officials that participate in the Pathways to Prosperity cross-state network supported by Harvard University and Jobs for the Future.²⁹ Together they are working to identify ways that state-level agencies and organizations can help support local partners in building career pathway programs, as well as align many of the disparate pathway efforts taking place in kindergarten through 12th grade (K-12) and postsecondary programs across the state.

There are also several career pathway efforts taking place at the state level. Some of these include the Texas Association of Community Colleges Career Pathway Project and the Texas Regional STEM Degree Accelerator led by Educate Texas and Accelerate Texas, a joint initiative of the Texas Workforce Commission and Texas Higher Education Coordinating Board.³⁰

High-Quality Outcomes of Building Career Pathways

According to Texas workforce boards' survey responses and interviews, there are four high-quality outcomes that can help local partners develop career pathways that include both an academic and career-focused framework. Further research is recommended to identify additional high-quality outcomes and to quantify their impact. The high-quality outcomes identified include:

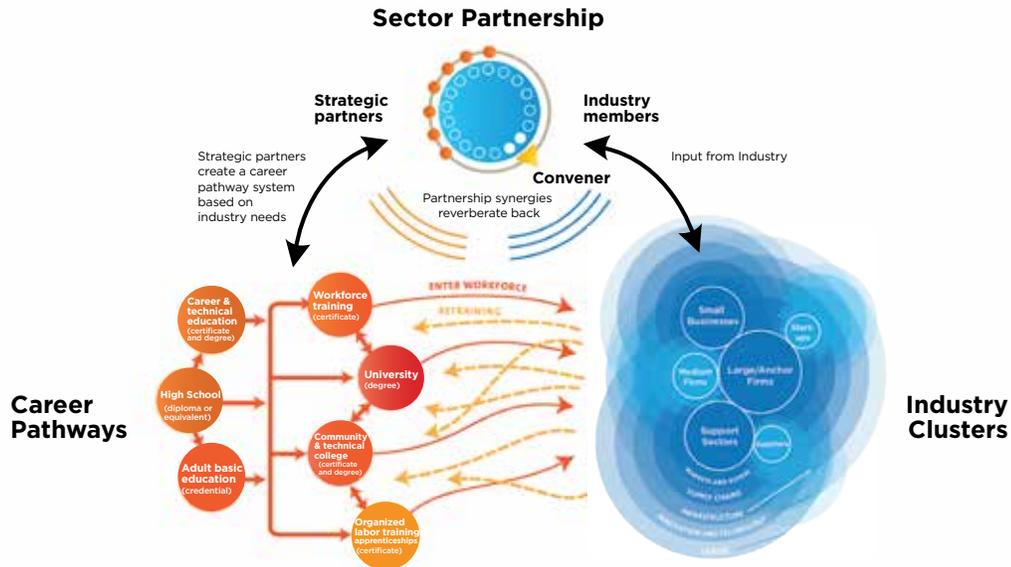
- **Education and training systems' responsiveness to industry:** Educational institutions and training partners are changing their practices as a direct result of feedback from businesses (e.g., new curriculum and instruction that incorporate the specific skill needs of industry, changes in postsecondary credentials, the realignment of educational programs and staff).
- **Improved recruitment and support services for students:** Student barriers to enrollment, program completion and job placement have been identified and addressed through the targeted deployment of outreach and support services (e.g., transportation, child care, job search, career counseling, financial counseling or coaching, academic tutoring outside of official class instruction, individual mentoring).
- **New work experience opportunities aligned with education and training programs:** Business partners and education and training providers are collaborating to create new opportunities for students to simultaneously improve their education and gain relevant work experience or earn a wage (e.g., paid or unpaid internships, apprenticeships, college work-study positions).
- **Documented completion and employment outcomes:** Education and training providers can document how many of their program graduates earn the degrees, industry-recognized certifications and other education and training demanded by industry, as well as how many graduates progress into employment opportunities in the field that they have been trained in and how many are earning a family-sustaining wage.

Regional Talent Pipelines: Collaborating with Industry to Build Career Pathways

While it is common to see industry cluster analysis, sector partnerships and career pathway approaches in education, economic and workforce development practice across the state, it is rare to see them achieve their full potential because entities in a region's workforce development system typically do not weave them together into a comprehensive workforce development strategy. When they do so, however, they are able to work on a broad scale to drive change across a regional education and training system, expanding the potential for economic growth and improving the prosperity of hundreds or thousands of job seekers and workers.

The National Governor’s Association, National Skills Coalition and Corporation for a Skilled Workforce jointly wrote “State Sector Strategies Coming of Age: Implications for State Workforce Policymakers,”³¹ which identified the following high-quality elements of world-class regional talent pipelines (*Figure 4*):

Figure 4
Developing World-Class Regional Talent Pipelines



SOURCE: “State Sector Strategies Coming of Age: Implications for State Workforce Policymakers,” by Lindsey Woolsey and Garrett Groves, Corporation for a Skilled Workforce, National Skills Coalition and the National Governors Association Center for Best Practices, Jan. 16, 2013.

- **Sector partnership approach:** There is a credible convener who has brought business leaders together to discuss challenges and barriers to growth, and also education and training providers who are prepared to respond to those industry needs for skills required in their businesses.
- **Industry cluster representation:** The business leaders who are designing the training and education programs to meet hiring needs through the sector partnership are also part of at least one industry cluster that has been identified by local partners as driving economic growth in the region.
- **Career pathway development:** The education and training partners that are working with business to identify specific skill needs are also working with secondary and postsecondary institutions in the region to create career pathway programs and initiatives to help students advance into higher-wage jobs.

When these quality elements come together, the potential exists to create powerful regional talent pipelines to help drive the local economy. These pipelines can dramatically improve the availability of a highly skilled workforce for an entire industry, while also moving many low-skilled or underemployed individuals into higher-paying jobs.

When effectively organized, sector partnerships can also become the principal connection point in their economic region for several programs and initiatives. There are several state initiatives emerging in Texas that could help strengthen regional talent pipelines. Some examples include:

- **House Bill 5, 83rd Texas Legislature:** State legislation in 2013 created new graduation paths for high school students with five new endorsement tracks designed to create greater college and career relevance for students. Several of these endorsement tracks require business involvement. Research from Texas A&M elevated the specific need for greater workforce partnerships with independent school districts.³²
- **Texas Industry Cluster Innovative Academies:** Governor Greg Abbott announced a new initiative in 2016 and requested \$7.2 million in funding to provide students in early-college high schools with greater access to applied learning opportunities, such as internships, externships, apprenticeships, mentorship programs and career counseling in high-demand occupations.³³
- **Texas College Work-Study Program:** Legislation passed during the 2015 session required postsecondary institutions to begin moving a portion of their state-supported work-study positions off campus and create opportunities for students to work with private employers.³⁴ Complying with this new legislation and creating a significant number of new, off-campus internships across the state will require new partnerships between colleges and local businesses. They will need to work together to ensure that each position advances both the student's career goals and the employer's workforce development goals.

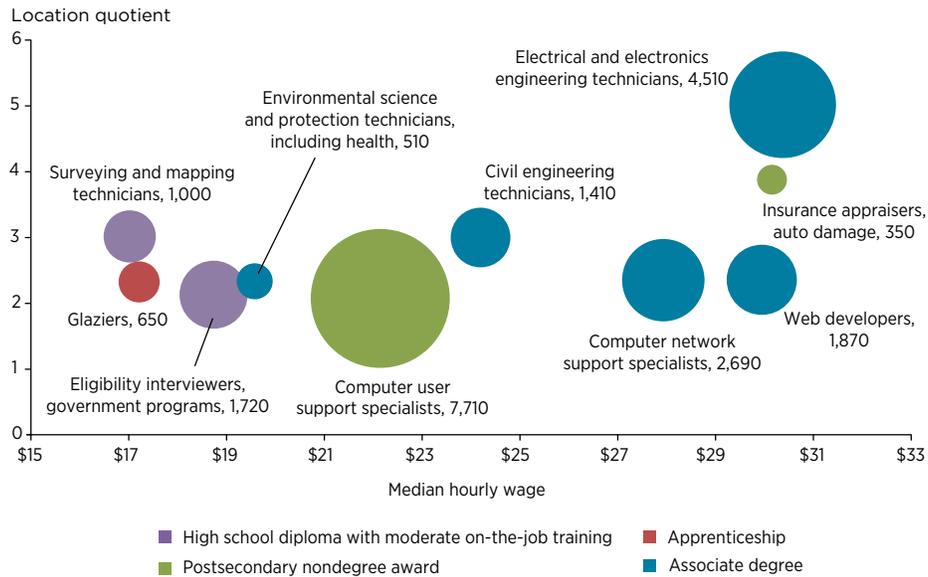
Sector partnerships are often the missing piece that can ensure that each of these initiatives is driven by the hiring needs of a particular industry, that they are kept up to date in a continually changing economy, and that all relevant initiatives and programs are coordinated to create a regional talent pipeline for that industry.

Building Regional Talent Pipelines to Opportunity Occupations

Critical to the success of career pathway and sector partnership development is the identification of high-wage, high-demand occupations that help drive economic growth in a region. The Federal Reserve Banks of Philadelphia, Cleveland and Atlanta released a joint paper in 2015 that identified **opportunity occupations** as those that pay a wage at or above the national median and require less than a four-year college degree.³⁵ Their analysis shows that while middle-skill opportunity occupations exist in every metro area, both the prevalence and type of occupations vary dramatically across economic regions.

For this reason, regional workforce development systems must analyze information on opportunity occupations, or other similar data on both middle- and high-skill jobs in their region, to identify where career pathway programs are needed to help move more individuals into higher-paying jobs. Economic development data can also be included—such as location quotients that help determine the regional industries or occupations with a competitive advantage compared with the national average—to identify target occupations that are also likely to help grow the economic prosperity of the region. (See Chart 4 for examples of opportunity occupations in the Austin–Round Rock metro area.)

**Chart 4
Ten Most Dominant Opportunity Occupations in Austin–Round Rock Metro Area**



SOURCE: Center for Public Policy Priorities' analysis of data from "Identifying Opportunity Occupations in the Nation's Largest Metropolitan Economies," by Keith Wardrip, Kyle Fee, Lisa Nelson and Stuart Andreason, Federal Reserve Banks of Philadelphia, Cleveland and Atlanta, Sept. 9, 2015.

In Chart 4, each bubble represents an opportunity occupation, and the size of the bubble is relative to the number of workers employed in that occupation. The 10 middle-skill opportunity occupations included in the chart have the highest location quotient in the Austin–Round Rock metro area. A location quotient of one signifies that the occupation has the same share of workers in the regional labor market as the United States economy. A location quotient of two signifies that the regional labor market has twice the concentration of workers in that occupation as the country as a whole. Occupations with location quotients greater than 1 can be used to identify areas where the regional economy has specialized and may be helping drive regional economic growth.

In the Austin–Round Rock metropolitan statistical area (MSA), 25.6 percent of jobs are opportunity occupations. Chart 5 shows the share of jobs that are opportunity occupations in each of Texas' largest MSAs. Opportunity occupations account for 15.5 percent to 30.1 percent of jobs in these MSAs. This chart also shows that the share of jobs that require a bachelor's degree and pay higher wages account for 14.6 percent to 24.1 percent of total jobs in these MSAs, and the share of jobs that do not require a bachelor's degree and pay lower wages account for 47.6 percent to 68.3 percent of total jobs in these MSAs. The variance in MSAs' employment distribution by education and wages highlights the importance of regional workforce development systems understanding their regional context and identifying their opportunity occupations so that they know where to target their industry-led career pathways.

Chart 5
Presence of Opportunity Occupations Varies Across Texas Metros



NOTE: Opportunity occupations are those that require more than a high school diploma but less than a bachelor's degree.
 SOURCE: Federal Reserve Bank of Dallas' analysis of data from "Identifying Opportunity Occupations in the Nation's Largest Metropolitan Economies," by Keith Wardrip, Kyle Fee, Lisa Nelson and Stuart Andreason, Federal Reserve Banks of Philadelphia, Cleveland and Atlanta, Sept. 9, 2015.

SECTION THREE

Workforce Development Activities in Texas: Survey Results

To identify how local communities are addressing job polarization and the associated challenges, the Federal Reserve Bank of Dallas and Austin-based nonprofit Center for Public Policy Priorities reviewed national best practices to provide a guiding framework for analysis, and then, in partnership with the Texas Association of Workforce Boards, sent a survey to the executive directors of the 28 regional workforce boards in May 2016.³⁶ The purpose of the survey was to identify the most innovative and robust career pathways in the state. It consisted of multiple-choice questions and a few open-ended questions that enabled the respondents to give more in-depth information. All 28 workforce boards responded to it, and responses were aggregated to preserve anonymity and enable the authors to see patterns in the data.

The workforce boards were selected for the survey because their mission places them at the center of much of the activity in their regional workforce system. They are charged with helping meet the labor needs of regional employers, creating good-quality jobs for the regional labor force and promoting regional economic development and competitiveness. Their major roles and responsibilities are to collect, analyze and share labor market data and other relevant information, contract with organizations that provide services to lower-skill/lower-wage individuals, convene workforce development entities and coordinate and leverage the activities of the workforce development system.

Workforce boards are mostly funded by the [Texas Workforce Commission \(TWC\)](#), which is governed by three commissioners. One commissioner represents employers, another represents labor and another

represents the public. TWC sets the state’s workforce development parameters, policies and priorities. Through performance-based contracts, TWC provides grants to the workforce boards, which decide how to implement WIOA within their regions.

The survey asked the boards about their goals and objectives, how they meet them and if and how they measure them. Specific questions asked about their areas of emphasis, the populations they serve, which education, training and service providers they partner with, the strategies they use, if they are increasing the availability of learn-and-earn opportunities and support services and which technical assistance they are interested in accessing.

This section gives general observations of the boards’ activities and then highlights the most promising practices and opportunities for improvement in the state of Texas.³⁷

The Texas Workforce System: General Observations

Observation No. 1

Workforce Boards’ Goals and Objectives Continue to Emphasize Their Roles as a Convener and Intermediary

The workforce boards’ most common goals and objectives include:

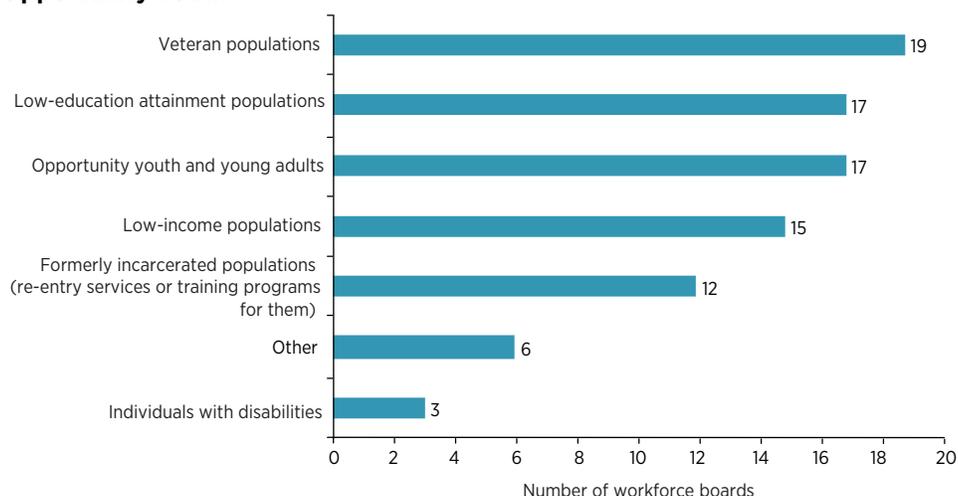
- Transforming into an employer-driven/market-driven system
- Increasing communication, partnership, alignment, coordination, leverage or integration with/ between employers, chambers of commerce, educational providers and other workforce development partners
- Continually improving the quality of service to both employers and job seekers.

Observation No. 2

Workforce Boards Provide Services to Populations Who Face Major Hurdles to Advancing Along Career Pathways

The populations that Texas’ workforce boards most commonly focus on are veterans, low-education attainment populations, opportunity youth and young adults (youth and young adults disconnected from education and employment), low-income populations and formerly incarcerated populations (*Chart 6*).

Chart 6
Workforce Boards Serve Veterans, Low-Educated Populations and Opportunity Youth



NOTES: “Opportunity youth” refers to youth and young adults disconnected from education and employment. Respondents could check more than one box.

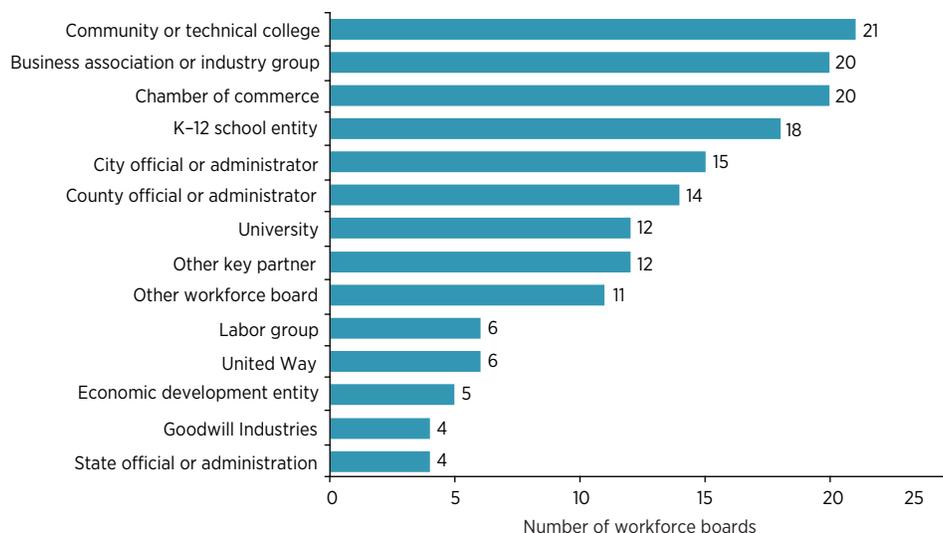
SOURCE: “Promising Practices in Workforce Development in Texas,” a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

Observation No. 3

Workforce Boards Partner with Key Workforce Development Entities

Twenty-three of Texas' 28 workforce boards report that they are partnering with organizations to create, design or implement a regional strategic plan for workforce development at the regional level. The most commonly cited partners are education providers (community or technical colleges and K-12 school entities), industry (business associations or industry groups and chambers of commerce) and government (city or county officials or administrators) (*Chart 7*).

Chart 7
Workforce Boards Partner with Educators, Industry and Government



NOTE: Respondents could check more than one box.

SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

The Texas Workforce System: Promising Practices

There are a number of ways that Texas' workforce boards are planning or implementing the high-quality elements of world-class regional talent pipelines. These promising practices are detailed below.

Promising Practice No. 1

In Their Strategic Planning Process, Most Boards Use a List of Industry Clusters— a Fundamental Element of Building Regional Talent Pipelines

In Texas, 24 workforce boards use a list of industry clusters in their region for strategic planning purposes, which can help prioritize employer outreach or identify in-demand occupations or skills gaps. The industry clusters with the greatest number of active sector partnerships are health/health care, manufacturing and construction. In this case, an active sector partnership means that multiple employers are 1) meeting as a group to identify and discuss workforce development needs or challenges that they share in common, and 2) working with education, training and/or other service providers to address those needs or challenges.

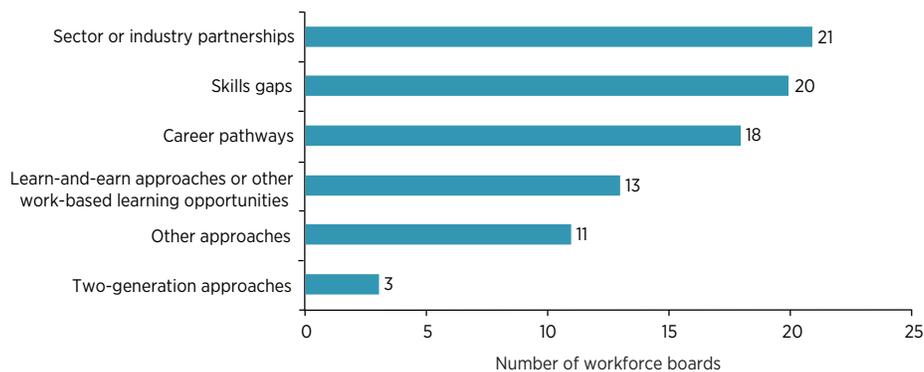
Promising Practice No. 2

Their Strategies Prioritize Sector Partnerships, Career Pathways and Other High-Quality Elements of Regional Talent Pipelines

While Texas workforce boards' strategic plans differ, their most common areas of emphasis are sector or industry partnerships, skills gaps and career pathways (*Chart 8*). Twenty-four workforce boards are familiar with sector partnership approaches to workforce development, and 19 boards include sector partnerships in their strategic plans or grant proposals for which they have won funding.

In addition, 23 boards include career pathways in their strategic planning documents or at least one of their grant proposals for which they have won funding. When asked how many career pathway initiatives they are currently part of, their responses varied widely, from "just getting started" to "16 initiatives" to "multiple." The industries or occupations that are most commonly targeted by these career pathway initiatives are mostly in health/health care and information technology, followed by manufacturing, welding, education and construction.

Chart 8
Workforce Boards Emphasize Sector Partnerships, Skills Gaps and Career Pathways



NOTE: Respondents could check more than one box.

SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

Promising Practice No. 3

Regional Sector Partnerships' Work Aligns with Regional Workforce Development Plans

The workforce boards identified a total of 52 sector partnerships in their regions. While the survey did not assess how robust these sector partnerships are, the boards reported that 44 of them have a common agenda, goal or objective that is specific to workforce development, and their respective agendas/goals/objectives align with their regional plans. Alignment is critical to regional workforce development entities working in concert with each other toward a common goal.

Promising Practice No. 4

Many Partnerships Offer Learn-and-Earn Opportunities and Support Services

Regional sector partnerships throughout Texas are developing and supporting career pathways that are industry-led. Table 1 shows that they are doing so by increasing the availability of learn-and-earn opportunities and support services.

Table 1
Sector Partnerships Support Learn-and-Earn Opportunities and Services

Number of partnerships	Types of opportunity or service
47	Identify specific in-demand occupations or skills gaps that employers are having difficulty filling
40	Create a list of in-demand degrees, certificates or licenses according to employers' input
40	Assess the capacity of regional education and training programs to provide skilled workers for specific in-demand occupations
40	Verify the precise skills, knowledge, competencies or work functions employers require for certain occupations for use in an educational or job training program
32	Increase the availability of wraparound support services to help individuals in targeted education or training programs (e.g., transportation, child care, job search, career counseling, financial counseling or coaching, academic tutoring outside of official class instruction, individual mentoring)
24	Increase the availability of paid or unpaid internships
24	Increase the availability of transitional jobs programs (subsidized temporary jobs designed to teach workplace skills and provide work experience)
23	Increase the availability of technology or equipment needed in instructional settings for specific occupations
18	Increase the availability of summer employment opportunities for youth
18	Increase the availability of apprenticeships
16	Increase the availability of job shadowing opportunities
10	Increase the availability of college work-study positions outside of the college
8	Increase the availability of other learn-and-earn opportunities (e.g., on-the-job training)
8	Participate in other career pathway activities

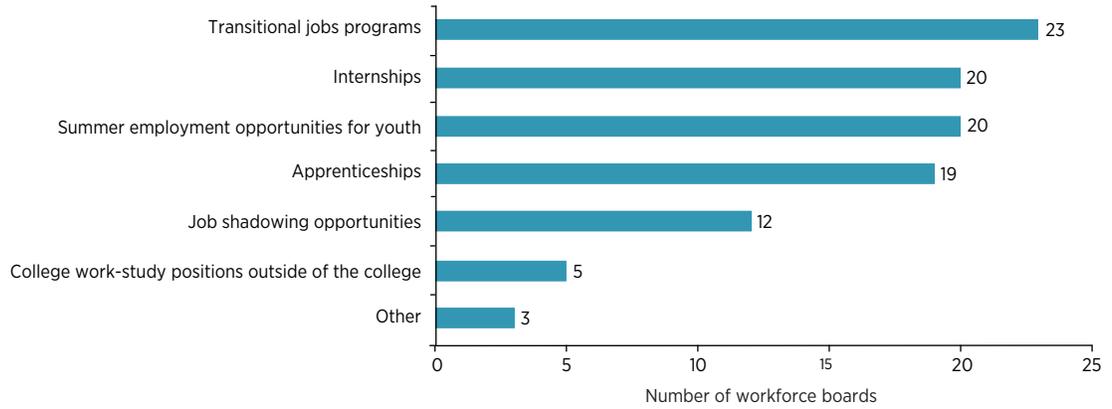
SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

Promising Practice No. 5

Workforce Boards Plan, Implement or Expand Learn-and-Earn Programs

Even if they are not part of a sector partnership, all of the workforce boards are planning, implementing or expanding programs to increase the number of employers offering learn-and-earn opportunities. The most popular types of these opportunities among the boards are transitional jobs programs, internships, apprenticeships and summer employment opportunities for youth (*Chart 9*).

Chart 9
Workforce Boards Expand the Number of Learn-and-Earn Opportunities



NOTES: Respondents could check more than one box. Transitional jobs are designed to teach workplace skills and provide work experience.

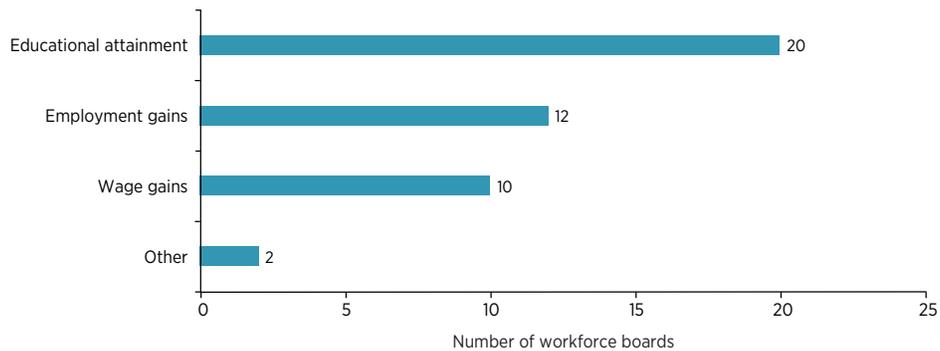
SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

Promising Practice No. 6

Workforce Boards Participate in Collective-Impact Initiatives

Twenty-one boards are engaged in at least one collective-impact initiative (*Chart 10*). In this model, community members work together to address a specific problem. They identify a common goal, decide on shared metrics to monitor their progress and coordinate efforts to address that problem.³⁸ Of the 44 collective-impact initiatives in which the boards are leading or participating, 20 of the initiatives focus on educational attainment, 12 of the initiatives focus on employment gains and 10 of the initiatives focus on wage gains.

Chart 10
Most Workforce Boards Are Engaged in Collective-Impact Initiatives



NOTE: Respondents could check more than one box.

SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

The Texas Workforce System: Opportunities for Improvement

While there are a number of ways that Texas' workforce boards are planning or implementing the high-quality elements of world-class regional talent pipelines, there are a number of opportunities for improvement. Some of them are detailed below.

Improvement Opportunity No. 1

Identify a Baseline and Set Metrics to Track Improvement

Benchmarks are critical because activities that are measured are generally more likely to get done than activities that are not measured. In addition, it is difficult to attract more businesses, chambers of commerce, educators and other key entities into partnerships without established benchmarks and demonstrated success.

Only 13 workforce boards have identified program or project outcomes beyond those required by the federal or state government. Examples of such outcomes include increasing the number of customers who earn a target wage after training or improving the percentage of individuals receiving training who then obtain training-related employment. Of the workforce boards that have identified such outcomes, only four established or are establishing benchmarks to track improvement on any of these outcomes.

Improvement Opportunity No. 2

Develop a Process to Allow the Number of Industry-Recognized Certifications to Grow to Scale

A primary element of high-quality career pathways is the identification of industry-recognized certifications that have value in the local labor market. But to increase the number of programs offering students certifications with labor market value, businesses must be able to identify or provide feedback on new certifications and convey that information to area schools, colleges and training programs that are providing the education and training required for these credentials.

Eighteen workforce boards have a process for creating and/or updating a list of industry certifications that are recognized by employers in their region. In addition, five workforce boards reported that they are working on implementing a process to create a list of industry-recognized certifications. There is a variety of criteria that boards use to determine if an industry certification is “recognized” (*Box 3*). When asked how many industry-recognized certifications are part of their lists, their responses varied widely, from indistinct (e.g., “not sure” and “varies due to market demand”) to several, about a dozen, over 20, over 40 and hundreds.

What matters more than the number of certifications is their quality: Regardless of how many industry-recognized certifications the boards have, what's most important is how they determine that the certifications are used by employers to make their hiring decisions. More workforce boards need to communicate with employers to determine which certifications are most valuable to them.

Box 3

How Workforce Boards Determine if an Industry Certification is “Recognized”

- Accepted by multiple employers as required or preferred criteria for employment
- Endorsed by a local trade or industry-led group
- Approved by state or U.S.
- Recognized by local community colleges
- Recognized or conditionally recognized by the Texas Skill Standards Board
- Identified through labor market indicators and statistics, then modified based on employer requests and foot traffic coming into workforce solution centers

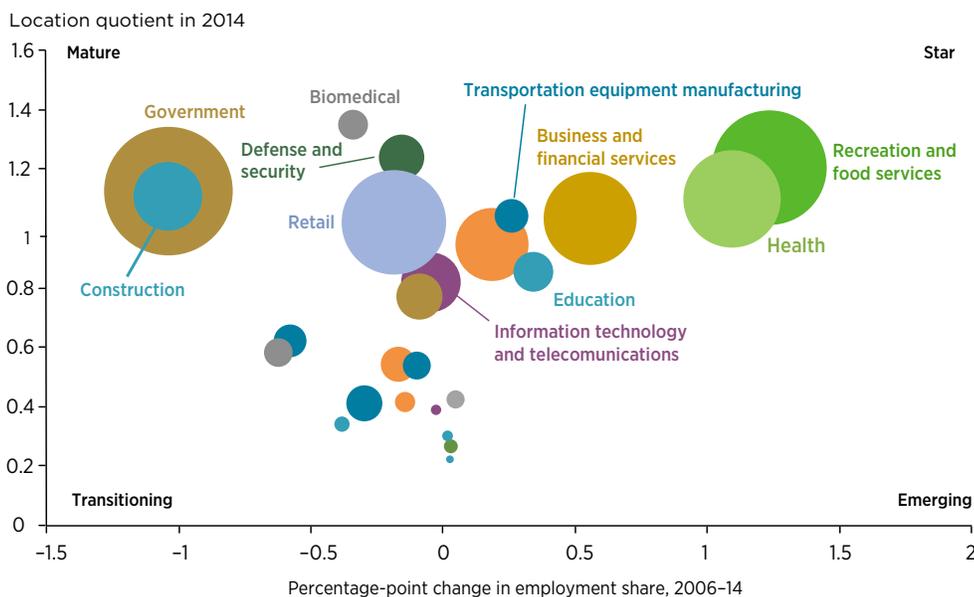
Improvement Opportunity No. 3

Develop Career Pathways to Each Region’s Strong Regional Industry Clusters

One opportunity for regions’ improvement is to develop career pathways that are aligned with sector partnerships in each of their strong industry clusters, especially those in which they have a regional competitive advantage and are projected to grow.

In “At the Heart of Texas: Cities’ Industry Clusters Drive Growth,” the Dallas Fed identifies industry clusters in eight Texas metropolitan areas and categorizes them as mature, transitioning, emerging or star.³⁹ A mature industry cluster has a regional competitive advantage because it is more dominant locally than nationally; it is growing slowly. A transitioning industry cluster does not have a regional competitive advantage because it is less dominant locally than nationally; it is growing slowly. An emerging industry cluster does not have a regional competitive advantage but is growing fast. A star industry cluster has a regional competitive advantage and is growing fast—this type of cluster is ripe for career pathway opportunities. Chart 11 highlights San Antonio–New Braunfels’ industry clusters.

Chart 11
San Antonio–New Braunfels Industrial Composition Is Diverse



NOTE: Bubble size represents cluster share of metropolitan statistical area employment.
SOURCES: Texas Workforce Commission; Bureau of Labor Statistics, as used in “At the Heart of Texas: Cities’ Industry Clusters Drive Growth,” by Laila Assanie, Kristin E. Davis, Pia M. Orrenius and Michael Weiss, Federal Reserve Bank of Dallas, February 2016, <https://dallasfed.org/research/heart/dallas>.

In the survey, Texas' 28 workforce boards were asked to identify their most innovative and/or robust sector partnerships. The most common industry listed was health/health care. This is good news because this industry has a regional competitive advantage and/or is growing fast in all but one of the state's eight largest metros.

There are a number of other industries that also are ripe for partnership opportunities—especially those that are star industries. The star industry clusters in Austin–Round Rock include information technology and telecommunications; in Dallas–Plano–Irving they include business and financial services; in El Paso and McAllen–Edinburg–Mission they include retail; in Fort Worth–Arlington, Houston–The Woodlands–Sugar Land and Midland–Odessa they include mining and energy; and in San Antonio–New Braunfels they include recreation and food services. Untapped opportunities in all of Texas' regional star industries serve as opportunities for improvement.

Improvement Opportunity No. 4

Partner with Other Groups to Develop Both Strategic Plans and Metrics

Twenty-three workforce boards report that they are partnering with other groups to create, design or implement a strategic plan for workforce development at the regional level. Virtually all of these plans have an overarching goal or set of objectives, but only 12 of them include a set of metrics or indicators that are used to measure progress on the goals or objectives. Metrics are important because they indicate progress or lack of it and make it easier to communicate the purpose of the plan to potential partners.

Improvement Opportunity No. 5

Expand Partnerships with Employers in Their Regions and Access Technical Assistance

A majority of the workforce boards expressed interest in receiving technical assistance (TA) on how to incentivize employers to partner with them. This interest suggests that the full potential for employer engagement is not yet realized, particularly when it extends beyond responsive forms of employer engagement to proactive and strategic forms of engagement, such as creating sector partnerships and building industry-led career pathways. Table 2 shows a detailed list of the types of TA that the boards would like to receive.

Table 2
Workforce Boards Are Interested in Accessing Technical Assistance

Number of workforce boards	Types of technical assistance
15	Incentivizing employers to partner with them
13	Having a process to create or update a list of industry certifications that are recognized by employers in their region
13	Implementing career pathways that are aligned with sector partnerships
11	Establishing benchmarks for tracking continuous improvement
11	Planning, implementing or expanding programs that increase the number of employers offering learn-and-earn opportunities
10	Creating, designing or implementing a regional strategic plan for workforce development
10	Supporting existing sector partnerships or creating new partnerships in their region
8	Using two-generation approaches
6	Redesigning how they deliver services to clients
5	Identifying occupations or industries to focus on
5	Providing financial coaching or counseling for workforce participants
4	Participating in collective-impact initiatives
1	Offering apprenticeships

SOURCE: "Promising Practices in Workforce Development in Texas," a survey by the Federal Reserve Bank of Dallas and Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards, 2016.

SECTION FOUR

Case Studies of Promising Practices in Texas

The following case studies show how some Texas regional workforce development systems are building regional talent pipelines. This is not an exhaustive list. It was selected based on the quality of information gathered from survey responses and follow-up interviews with the boards that indicated that they were putting quality elements of a regional talent pipeline into action. Of these strong examples, three from different environments were chosen to show how workforce development systems from various environments can learn from each other's successes.

Houston

The Gulf Coast Workforce Board has helped lead the development of sector partnerships since the late 1990s. Over the years, it has supported several partnerships focused on solving workforce challenges for industry, including working with health care, major integrated oil companies, industrial construction, aerospace and school districts. Currently, the Gulf Coast Workforce Board has partnered in a new workforce development effort led by the Greater Houston Partnership (GHP) titled "UpSkill Houston." Though specific to the Houston area, this project provides a helpful illustration of the development of a regional talent pipeline in practice.

Upskill Houston is currently identifying workforce challenges and helping to organize or support activities in three industry clusters: health care, industrial construction and petrochemical industries. This case study will focus on the petrochemical partnership, which serves as a strong current example of businesses working with education and training providers to build talent pipelines for their industry.

Petrochemical Industry Cluster

The petrochemical industry in southeast Texas manufactures resins used in chemical and plastic products around the world. There are more than 700 small, medium and large establishments in the industry, which formed around the oil and gas exploration and extraction infrastructure of the Texas Gulf Coast region.⁴⁰ Because of advancements in technology, including fracking, which opened up new oil and gas resources throughout the region, many of these companies changed their business strategy four years ago. Rather than ride out the existing life of their buildings and infrastructure and then move overseas, they instead began to reinvest in their facilities to modernize and expand their production capacities. More than \$50 billion has been invested in new plants and infrastructure in 2016 alone. This shift created a new and urgent workforce challenge. The existing workforce was aging and approaching retirement, and the new plants and technology coming online required new skill sets and training programs that weren't readily available in the region.

Sector Partnership-EHCMA

The East Harris County Manufacturers Association (EHCMA) represents 130 large and small companies in the region's petrochemical industry.⁴¹ In response to these growing workforce challenges, EHCMA's workforce subcommittee began to coordinate its activities with the local regional economic development entity, the Economic Alliance Houston Port Region and the San Jacinto and Lee Colleges, which provided most of the education and training programs for the industry.

“In the past, industry didn’t want to share proprietary information on hiring and skill sets. But now these companies are seeing that their workforce challenges are bigger than any one company, and that by working together, everyone can win.”

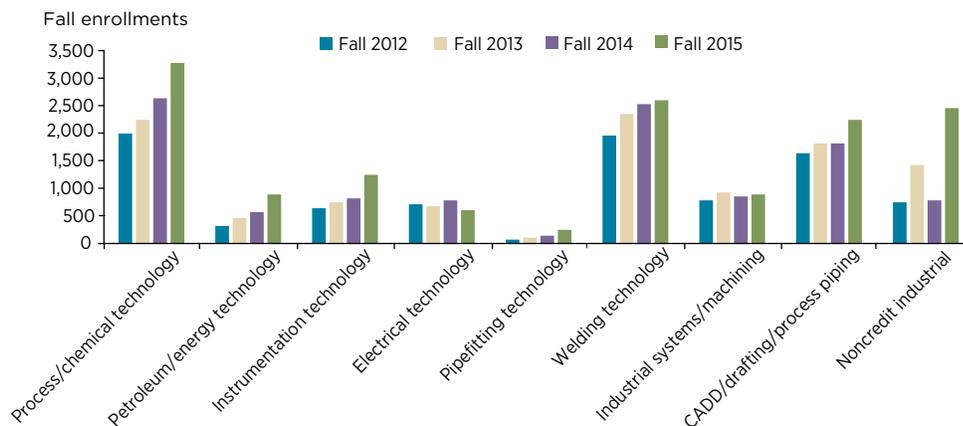
Allatia Harris
 Vice Chancellor of Strategic Initiatives, San Jacinto College

These partners began working together to conduct a survey of EHCMA members on workforce challenges and hiring projections. At about this time, ExxonMobil funded a grant for all nine colleges in the Greater Houston region to work together to coordinate and align their work as part of the Community College Petrochemical Initiative (CCPI). CCPI supported the colleges in recruiting people to the industry and in strengthening their curricula and the development of their faculty. The Greater Houston Partnership also began building bridges with the petrochemical effort through its Upskill Houston project. Together these partners all came together and provided the means to identify and consolidate industry feedback on specific workforce challenges and then connect with area community colleges that were prepared to reevaluate their programs and respond in a new way to industry demands.

Industry-Led Career Pathway

EHCMA and its partners identified student awareness of job opportunities in the industry as a major obstacle and began expanding and coordinating student recruitment efforts, primarily at high schools across the region. With the support of JPMorgan Chase Foundation, EHCMA developed PetroChemWorks.com to help students explore careers in the industry and to connect to education and training. They also worked directly with the colleges to increase tracking of enrollment and completion data. For example, Chart 12 shows the number of enrollments and the progress during the past three years in nine occupations identified as high-demand areas by EHCMA’s members.

Chart 12
Community College Petrochemical Initiative Increases Enrollments



NOTE: CADD is computer-aided design and drafting.
 SOURCE: Data provided by all nine colleges participating in the Community College Petrochemical Initiative in the Texas Gulf Coast Area: Alvin Community College, Brazosport College, College of the Mainland, Galveston College, Houston Community College, Lee College, Lone Star College, San Jacinto College and Wharton County Junior College.

A second challenge was a shortage of trained faculty. Qualified teachers could earn more in the industry than the classroom, and a solution required partnering with businesses in new ways. This included recruiting retirees into the classroom, encouraging current employees to teach a lab or other course on a regular basis and providing externships for current faculty to increase their awareness of the job skills required.

The progress and momentum earned from these initial and successful activities have begun to transform the way that colleges in the region are operating. For example, EHCMA and its college partners realized that a new education facility and training equipment were needed. As a partial response, San Jacinto Community College included these items as a major component of a successful \$459 million bond campaign in November 2015. Working with industry was critical to winning approval of the bond, because the industry represents 51 percent of the college's tax base.

“This approach to working with industry is different than how we’ve done it my entire career, and it’s working.”

Allatia Harris

Vice Chancellor of Strategic Initiatives, San Jacinto Community College

San Jacinto Community College then formed a chancellor's advisory group after the bond passed and hired an industry representative as a liaison to work closely with petrochemical businesses to create the new training center and facility. This work includes a subcommittee that is looking at credentials, aligning them with industry-based in-house training and identifying equipment needs and upgrades required for the colleges. The subcommittee's initial focus is on six high-demand occupations that industry partners identified (e.g., instrumentation, nondestructive testing).

Through this process, the largest petrochemical companies have seen their employment practices of hiring away the best talent from their supporting contract companies is disruptive to the industry, as well as to workers seeking a smooth, steady and logical advancement process. The industry is now talking collaboratively about hiring practices and figuring out how to formalize employee advancement pathways that benefit the industry as a whole. In addition, the petrochemical manufacturers are engaging with their industrial contractors about key practices and obstacles that affect the ability of the construction firms to train and develop their workforce. The collaboration among the petrochemical manufacturers themselves and with the key supplier of construction services is something the region has never done before.

EHCMA is formalizing the governance for this work and creating critical work groups to address these key challenges. This structure is intended to increase the effectiveness of its work and engage more of EHCMA's membership to participate in and support its collective workforce efforts.

West Central Texas

A large regional workforce partnership has formed in west central Texas. Three local workforce development boards (Concho Valley, Permian Basin and West Central Texas) have coordinated their efforts in support of more than 1,200 companies in the oil and gas, wind and solar energy sectors covering 60,000 square miles in rural west Texas. Together the industry employs a civilian labor force of a half million and includes 49 counties, eight community colleges, 118 independent school districts and the cities of Midland, Odessa, San Angelo and Abilene.⁴²

Energy Industry Cluster

Due in part to its large rural geography, the west central Texas energy industry has difficulty recruiting, training and retaining skilled workers. Companies might find qualified employees working for a competitor and recruit them with a pay raise or better benefits, but this does little to increase the overall pool of talent for the region. Employers also report challenges navigating and coordinating training courses at each of the community colleges serving the region. Energy industry employees in West Texas are often asked to relocate. However, each college has different curriculum, course requirements and rules for accepting credits from other colleges. This means that when employees move 50 or more miles to a new job site, they may discover that few if any of their college credits transfer to the new

community college program. Furthermore, several companies report that they aren't sure which college programs provide the best alignment with the skill sets needed for specific occupations, nor do they have a way of assessing the difference between a certificate from one college and another without talking to each one individually and working extensively with their graduates.

“We’re not able to draw a lot of people to our region. We’re going to have to grow our own, and to do that we must build our own talent pipeline.”

Mary Ross

Executive Director, Workforce Solutions of West Central Texas

Sector Partnership—West Texas Energy Consortium

The West Texas Energy Consortium is a membership organization created in 2013. It originally formed because a number of energy companies had received economic incentives to locate or expand their operations in the region, and they were having difficulty meeting the hiring targets specified in those agreements. However, after coming together and discussing labor shortages, the member companies soon realized that they might also work together to address several other issues.

These companies were very clear that while they needed to coordinate their activities to address some of these larger workforce challenges, they also needed a separate organization to provide a home for their activities and prevent the impression that any one company wasn't telling others what to do. As often happens with the creation of new sector partnership efforts, the business champion who initially convened the early consortium members was from outside the regional industry. Though he was an executive in the oil and gas sector, his company didn't operate in the West Texas region. That was important because he wasn't seen as a direct competitor, which helped create trust among the other business leaders and allayed concerns that anyone might be trying to win a competitive advantage. It also helped that he not only had earned the respect of his business peers, but that he also had existing relationships with many city officials, county judges, railroad commissioners and others. This helped bring together the necessary partners and move the consortium forward during the first 12 to 18 months.

Today the consortium promotes public awareness of the careers and training opportunities available in the industry, encourages community and economic development and facilitates communication and partnerships among business, education, government, economic development, community leadership and workforce development partners across the West Texas region. The consortium's business members provide financial support to staff an executive advisory board, run the consortium's committees and execute agreed-upon activities. Workforce Solutions of West Central Texas also serves as the fiscal agent and grant administrator.

Industry-Led Career Pathway

One of the first workforce challenges the consortium addressed was a shortage of skilled welders across the industry. Companies reported they were having difficulty not only recruiting and retaining skilled welders, but also working with colleges across the region to train and hire new skilled welders.

Through the consortium, these businesses were able to identify their specific skill needs and invite representatives from all eight community colleges in the region to work with them to address the challenge on a regional level. Together, they created a common course sequence for earning a one-year welding certificate that is aligned with industry demand for the American Welding Society's certification and is fully transferable to all colleges in the region. They are also working to make those courses available at a growing number of high schools that offer dual-credit programs in welding, which provide college credits to students in high school. The consortium is now exploring how to expand the number of internship opportunities available through dual credit and are creating new scholarships for dual-credit and postsecondary programs that are aligned to industry demand.

The consortium captured all of this information and made it available through a virtual center of excellence in welding that acts as a resource hub for students, educators and industry. They are now taking this model and all of these activities from welding and creating a new Science, Technology, Engineering and Math (STEM) Center of Excellence resource center, which will serve as an online community and a one-stop resource for parents, students and educators. Businesses will also participate in the STEM Center of Excellence by providing externship opportunities for educators and internship or mentorship opportunities for students to fill that critical gap between education and real-world experience. The STEM Center of Excellence is developing a mobile app targeted primarily to middle and high school students, parents and individuals considering a career change. The app will provide basic assessment tools and career information and assist users in developing their own career map.

The consortium is also developing a mobile app targeted primarily to middle and high school students throughout the state of Texas that will meet new legislative and Texas Education Agency requirements for high school degree planning. Students in the state of Texas will be able to build their degree plan beginning in the 8th grade and select an approved endorsement with the required classes needed to meet high school graduation requirements. This mobile app will also allow students to share their degree plan with a high school counselor electronically.

In addition to creating new tools for the region, several other benefits have come from the consortium's efforts to address workforce shortages. As a result of building trust and increasing communication across the industry, several businesses are now sharing employee hours during lean economic times rather than laying off employees. They are also identifying opportunities to work with peer companies locally rather than contract with service or support firms from Dallas or other parts of the country.

They have also identified safety as a common priority requiring collaboration. Nearly every company in the consortium has safety needs and concerns, particularly in transportation where there has not been a day on the West Texas highways without a fatality. Many of those accidents involve industry vehicles, either transport trucks or tankers, or crews going to and from job sites. In response to this challenge, the consortium worked with companies such as Chevron, Shell, Apache, Concho Resources and Pioneer Natural Resources to create the Permian Road Safety Coalition, which has set a number of strategic objectives and launched a Goal Zero campaign to have a day with zero accidents on the road.⁴³

Dallas-Fort Worth

In the Dallas-Fort Worth region, the local workforce boards, chambers of commerce, industry leaders and the University of North Texas are collaborating as the [Regional Workforce Leadership Council](#) (RWLC) to support five of the region's industry clusters: aerospace, health care, infrastructure, logistics and technology.⁴⁴ As part of that support, the council has appointed an industry liaison for each industry cluster to help the regional workforce development system develop a strong talent pipeline into these industries. What follows are examples from three of these liaisons on how they and their organizations serve local industry.

Background

Schools, community colleges, universities and other educators often invite employers to join their advisory boards. Employers report receiving numerous calls from these entities for the same information, and workforce boards and chambers of commerce can help them save time by convening them with their industry peers, facilitating a conversation about their common challenges and sharing this information with educators, economic development organizations and other workforce boards and chambers of commerce.

Industry liaisons have observed that as the labor market tightens, employers tend to show more interest in addressing their labor challenges through a partnership. This is good news for regional workforce development systems because they need businesses to collaborate with peers in regional sector partnerships to help develop and sustain robust career pathways.

“Workforce boards are excellent agents for bringing together industry in a noncompetitive environment. DFW Regional Workforce Leadership Council (RWLC) continues to reinforce the convening of like-minded employers to expand the talent pipeline for all.”

Laurie Bouillion Larrea
President, Workforce Solutions Greater Dallas

Aerospace Industry Liaison (at Workforce Solutions for Tarrant County)

The DFW Regional Aerospace Consortium was formed in 2003 as a result of both a targeted analysis of industry trends and an employer-driven collaboration to address the issues of an aging workforce and the lack of youth migrating to careers in science and math. The consortium represents an industry that employs over 185,000 jobs in the North Texas region and includes companies such as Lockheed Martin, Bell Helicopter, Airbus Helicopters, Elbit Systems of America and Triumph Aerostructures.

Workforce Solutions for Tarrant County has dedicated an aerospace industry liaison to facilitate the operations of the regional consortium along with a grant manager for aerospace training grants. This sector partnership is charged with meeting the education and workforce needs of the aerospace industry and advises educators on curriculum so their graduates are job-ready. Often the liaison funnels this information through the Career and Technology Education Director’s Advisory Committee that consists of 17 directors from the local independent school districts. Career and technology directors regularly interact with counselors, teachers and students. They share the workforce board and sector partnership’s training products with educators, who can change their curriculum to meet industry’s needs.

The consortium has created two aerospace worker training programs administered by Tarrant County College and the Community Learning Center. In addition, it is currently working to develop an analysis of workforce supply and demand in the aerospace and aviation industry to produce recommendations on building a more robust talent pipeline that meets business needs in the region. This information will allow for a targeted curricula review and upgrade for secondary educational STEM and Career and Technology programs.

FLYBY DFW

Another product of the DFW Regional Aerospace Consortium is “FLYBY DFW,” a free aerospace gaming application. Education partners suggested that the consortium explore digital applications to more easily reach the current generation of students. FLYBY DFW allows students of all ages to have fun playing a game while also learning about career opportunities in the aerospace and aviation fields.

Industry leaders and their suppliers donated trivia questions that are built into the game and paid for software development. Career and technology directors brought the workforce board and their game designer into schools to beta test the gaming app with their students. The partnership rolled out FLYBY DFW at the Bell Helicopter Fort Worth Alliance Air Show, and industry leaders and their suppliers are using FLYBY’s marketing materials to increase young adults’ attraction to the aerospace industry.

Technology Industry Liaison (at Dallas-Fort Worth Technology and Education Council)

The U.S. has had, and continues to have, a severe shortage of engineers. It is estimated that every year approximately 70,000 engineers graduate from college programs but they fill fewer than half of the newly created engineering and computer science jobs. Almost 15 years ago, Texas Instruments, DRS Infrared, Micron, TriQuint Semiconductor, ST Micro, National Semiconductor and Raytheon started to collaborate to more effectively address these talent shortages. The technology industry liaison convenes

the partnership and its board recruits industry peers and suppliers to the partnership. Its main selling point is that businesses can accomplish more collectively than individually, each partner gets credit for all of the partnerships' successes and the partnership demonstrates good corporate citizenship.

There are several ways that the industry liaison connects industry to the workforce development system. For example, the partnership has a speakers bureau of 90 engineers (each company has five to seven engineers on the bureau). Sector partners benefit from this bureau because they can dedicate less time to reach more students and job seekers than if they were conducting outreach alone. In addition, Educate Texas participates in this partnership and is designing [Texas-STEM \("T-STEM"\) Academies](#), which are "demonstration schools and learning labs [that] develop innovative methods to improve science and math instruction."⁴⁵ Technology industry partners advise Educate Texas on how to design these schools and labs, which serve over 40,000 students in Texas.

The industry liaison connects industry partners to meetings, conferences and other events hosted by the regional workforce boards and chambers of commerce so that they can network with similar companies and discuss opportunities to collaborate to meet common challenges. The liaison also helped popularize [FIRST LEGO League Junior competitions](#) for children in kindergarten through fourth grades.⁴⁶ Three years ago, there were only four "Junior FIRST LEGO League" teams competing in North Texas. Currently, the region has 72 teams, and 180 teams are registered for the 2016-17 season.

The sector partnership used to have the traditional membership model of asking partners to contribute annually. This model has evolved into having "sustaining partners" and sponsors who write extra checks for specific programs. This structure has enabled industry to increase its exposure to educators, students and job seekers. It also gives industry partners more choices of how to participate—such as by serving on the planning committee or recruiting staff to volunteer at events. The technology sector partnership's model differs from the other RWLC sector partnerships in another way. In its first year, its budget was \$125,000. Within three years, its budget grew to \$1.2 million. Two years ago, to accommodate its growing budget and diversifying funding sources, it created its own 501c3—a nonprofit organization. Representing this nonprofit, the industry liaison organizes college and career expos, attracts industry's financial support of these expos and reaches out to organizations like Girl Scouts to increase student participation.

Logistics Industry Liaison (at Workforce Solutions for North Central Texas)

The logistics industry liaison's focus is to help industry partners address high-demand, hard-to-fill occupations. When the partners identified the need to develop an industry certificate program, the liaison facilitated their collective work. He convened a broad sample of the logistics industry with local and national employers, got support from the governor's office and local chambers of commerce, raised funds to support this effort, gathered curriculum data and brought in industrial psychologists to help build the curriculum. The partnership launched the certificate program in 2009 and reconvenes to review the curriculum at least every two years to make sure that it is up to date.

The industry liaison highlights how his business model differs from other industry liaisons. Workforce boards are required to use contractors to provide direct services and typically they contract out their outreach efforts. Workforce Solutions for North Central Texas decided to hire its own outreach staff, who live and work in the communities that they serve. Their role is to interact on a daily basis with business and economic development organizations. They then work with the contractor and others who provide direct services, such as community colleges, to ensure high-quality, responsive customer service to local and incoming businesses.

The board also hired two staff members who have expertise in corporate recruiting so that they successfully recruit high-quality talent for these businesses and teach other staff members how to do so. The industry liaison cites one major example of its success: It consistently wins the highest, or one of the highest, percent of funds from the [Texas Workforce Commission \(TWC\)'s Skills Development Fund](#).⁴⁷ Through this fund, TWC allocates \$24 million a year to local community and technical colleges and requires local workforce boards to review and participate in the development of the grant projects. “This award is a big deal,” says Kent Andersen, business development manager at Workforce Solutions for North Central Texas, because “the more training funds brought into the region, the more local workers can get trained. The better trained they are, the more likely local employers will stay in our region, become more productive and hire more people. Employer growth and wage increases benefit our economy and community.”



SECTION FIVE

The Path Forward: A State’s Role in Supporting Regional Efforts

Three state-level entities—Texas Education Agency (TEA), Texas Higher Education Coordinating Board (THECB) and Texas Workforce Commission (TWC)—play an important role in supporting regional efforts to move Texans into higher-paying jobs and ensure businesses have the skilled workforce needed to grow the economy and be as competitive as possible. However, regional coordination between businesses, schools, colleges, universities and community organizations cannot be mandated at the state level. A set of state regulations or mandates cannot create the collaborative culture required for local leaders to work across the education and workforce systems to identify their common challenges and opportunities for increased alignment. So while this work must be driven at the local level, the state has a role to play: to offer strategic guidance and provide the resources local partners need to build or strengthen regional talent pipelines that make the most sense for their community.

Texas has taken many pioneering steps to support regional workforce alignment efforts. These efforts date back to at least 1995 when TWC was created and began to prioritize industry sectors and key growth occupations for training.⁴⁸ This focus was reinforced in 2005 when then-Governor Rick Perry launched the Texas Industry Cluster Initiative. The initiative sought to develop a skilled regional workforce and competitive education system through the identification of six target industry clusters for the state.⁴⁹ To varying degrees, several workforce boards across the state can still trace their industry cluster analysis efforts back to this statewide initiative.

Under the leadership of Governor Greg Abbott, Texas is again placing a high priority on increasing education and workforce alignment in Texas. In March 2016, the governor established the Tri-Agency Workforce Initiative.⁵⁰ Commissioners from TEA, THECB and TWC were charged with assessing local economic activity, examining workforce challenges and opportunities, and considering innovative approaches to meeting the state’s workforce goals. After a series of regional stakeholder meetings across the state, the Tri-Agency initiative held a statewide convening in Austin in September 2016, and at the time of publication was working on a new report on education and workforce integration for the state.⁵¹

Other state agencies also play an important role in overseeing the development and alignment of the Texas workforce system. Beyond the three agencies included in the governor’s Tri-Agency initiative, the Texas Health and Human Services Commission, the Texas Department of Criminal Justice, the Texas Juvenile Justice Department and the Texas Veterans Commission also deliver programs and services that serve the Texas workforce system.

Each agency has a strategic plan with goals or objectives to improve the Texas workforce system. In addition, the Texas Workforce Investment Council (TWIC), which resides in the governor’s office and serves as the state workforce investment board under the federal Workforce Innovation and Opportunity Act (WIOA), is also required by Texas statute to develop a single strategic plan for the state workforce system. Nearly all of these strategic plans single out cross-agency coordination and alignment as goals or objectives, and each emphasizes the importance of eliminating redundancies or unnecessary overlap in function. However, more can be done to further integrate these efforts into a single workforce development vision for the state that is marketed to the general public and used to increase the development of world-class regional talent pipelines in Texas.

The recommendations in Box 4 are meant to complement the Tri-Agency initiative’s recommendations and provide additional opportunities to apply promising practices and lessons learned from other states and local Texas examples.

While each of the following recommendations can be implemented without appropriating new state funds, the long-term success of many of these goals and opportunities may require strategic and targeted investments by the state over time.

Box 4

Recommendations for State-Level Entities

The Vision: A World-Class Texas Talent Pipeline

- Recommendation 1:** Make the Development of Sector Partnerships and Regional Talent Pipelines a Strategic Priority for the State of Texas
- Recommendation 2:** Elevate and Expand the 60x30TX Strategic Plan for Higher Education to Become Both the Education and Workforce Development Vision for the State
- Recommendation 3:** Increase State Agency Alignment and Improve Efficiencies by Increasing Cross-Agency Staffing

The Data: The Texas Talent Pipeline Report

- Recommendation 4:** Formalize a Process for Identifying Key Policy Questions Concerning the Texas Talent Pipeline
- Recommendation 5:** Produce a Biennial Texas Talent Pipeline Report
- Recommendation 6:** Improve the Information Currently Collected Through Unemployment Insurance Wage Record Data

The Blueprint: State Technical Support and Resources

- Recommendation 7:** Identify State-Level Criteria for Designating High-Quality Career Pathways and Sector Partnerships
- Recommendation 8:** Increase State Support of Programs that Advance Regional Talent Pipelines
- Recommendation 9:** Provide Technical Assistance Resources to Local Partners on Building or Expanding Career Pathways and Sector Partnerships

The Vision: A World-Class Texas Talent Pipeline

Recommendation No. 1

Make the Development of Sector Partnerships and Regional Talent Pipelines a Strategic Priority for the State of Texas

There is an opportunity for state policymakers—whether it is the governor, the legislature or the commissioners of several state agencies working together—to advance a statewide policy to draw business, education and training stakeholders together to build world-class talent pipelines across the state. The practice of identifying regional industry clusters is well established across workforce investment boards and economic development entities. However, those clusters are not always well connected to efforts by education and training partners to build industry-led career pathways that provide the talent that Texas businesses need to thrive and compete in a global economy. The result is that too many of the career pathway initiatives and programs in Texas are not sufficiently driven by industry demand. The missing element is a statewide strategy to support the creation of sector partnerships across the state. More than half of U.S. states already support the development of sector strategies at the local level.⁵² And though creating sector partnerships is a required activity in WIOA, Texas does not yet have an official statewide strategy.

Examples of state action:

- Develop a set of cross-agency strategies to advance sector partnerships as the primary strategy for proactively engaging industry in education and training programs across the state.
- Create new incentives in state grant funding that prioritizes any awards for workforce training—such as the Skills Development Fund and Jobs and Education for Texans (JET) program—to regional initiatives that follow a sector partnership model.⁵³
- Review potential state incentives and regulatory obstacles or opportunities that can be used to encourage the creation of sector partnerships at the regional level, as well as to affect businesses' desire and ability to engage in these efforts and grow their participation, (e.g., addressing liability concerns on the part of some businesses for allowing high school students to tour or work on the job site).

Recommendation No. 2

Elevate and Expand the 60x30TX Strategic Plan for Higher Education to Become Both the Education and Workforce Development Vision for the State

The strategic plan for higher education provides an excellent vehicle for raising awareness of the need to increase the educational attainment level of Texas' workforce. The overarching goal for the 60x30TX plan is for 60 percent of Texans ages 25–34 to earn a postsecondary certificate or degree by 2030.⁵⁴ However, to ensure that these credentials have value in a labor market that is changing due to advances in technology and increasing globalization, the plan, strategies and initiatives must be able to adapt quickly.

With education and workforce development linked directly in the vision, it underscores that the plan must go beyond educational attainment to ensure that Texas develops the talent needed to maintain its economic competitiveness and increase prosperity across the state.

Examples of state action:

- Elevate and specify the role of business, and in particular of sector partnerships, in helping institutions of higher education validate the labor market value of skills and credentials as it pertains to the marketable skills goal in the 60x30TX strategic plan.
- Remove the restriction that limits the 60x30TX goal to 25–34 year-olds and expand it to include all adults in their prime working years, 25–54 years old. This would not only broaden the plan's

emphasis to more of the Texas workforce, but it would also deepen the connection to state agencies and institutions educating, training and placing adult populations into jobs.

- Encourage all state agencies with education or training programs to develop or expand on their own benchmarks that are responsive to the 60x30TX vision, as well as cross-reference their strategic plans, objectives and strategies with the 60x30TX goals. This would increase cross-agency coordination and ensure that all state entities are fully invested in and accountable for the success of the plan.
- Create a plan for implementing job placement targets in the marketable skills goal of the 60x30TX vision, which aims to ensure that all graduates complete postsecondary programs with identified marketable skills. These targets could be proposed and set by each respective agency and program, provided they are also reported publicly.
- Create an overarching document that summarizes all cross-agency initiatives and objectives that advance the 60x30TX vision, and report annually on progress toward attaining that vision.

Recommendation No. 3

Increase State Agency Alignment and Improve Efficiencies by Increasing Cross-Agency Staffing

Workforce alignment and collaboration must be modeled at the state level. Beyond collaborating on strategic planning efforts, state agencies in Texas have modeled effective collaboration by partnering on several joint initiatives, most prominently the Tri-Agency initiative. There are several options to increase state agencies' coordination to accomplish the goals and objectives of the Tri-Agency initiative.

Examples of state action:

- Create joint staffing positions that report to the commissioners in multiple agencies.
- Increase the number of cross-agency initiatives that produce services or products used by partners at the regional level. Examples may include the Texas Talent Pipeline report discussed below, or programs such as Accelerate Texas, which is a joint effort by TWC and THECB to assist individuals receiving adult education services to enroll in community college courses that lead to a credential and employment.
- Create one or more interagency councils or leadership committees—underneath the leadership and authority of the Tri-Agency initiative or other cross-agency body such as TWIC—that are responsible for a particular cross-agency initiative or set of strategies for aligning education and workforce development efforts across state agencies. One example could be the cross-agency creation of an annual 60x30TX report on key initiatives and progress to date. Each council or committee should have designated staff support and a clear set of deliverables and be required to publicly report on its activities and outcomes.

The Data: The Texas Talent Pipeline Report

Texas state agencies provide a considerable amount of information on the Texas labor market and the education and training system. While these data systems are robust, there is need for a coordinated effort to further prioritize and elevate the most critical and actionable data from this abundance of information, as well as to develop protocols to look at data across isolated or segmented programs and data sets within the system. This requires a process for identifying the most important policy questions that can elevate major challenges or gaps in Texas' regional labor markets and a single report or summary data source that puts that information in front of state policymakers to address these challenges.

Recommendation No. 4

Formalize a Process for Identifying Key Policy Questions Concerning the Texas Talent Pipeline

Texas currently does not have a formal process for identifying key policy questions to guide the allocation of limited resources and investments. This is a particular challenge for the workforce system where no one agency can be tasked with oversight of all of Texas' education, workforce and economic development programs and services. Without clearly articulated policy questions to focus data-driven state efforts and legislative action, policymakers run the risk of debating and enacting policies that fail to address the most significant challenges facing the state and local areas.

Examples of state action:

- Form an interagency council or leadership committee under the leadership of the Tri-Agency initiative to develop a list of prioritized policy questions to help guide agency strategic planning, budgeting and reporting regarding education and workforce systems.
- Update the list of policy questions on a biennial basis to help inform and advise legislators prior to each legislative session.

Recommendation No. 5

Produce a Biennial Texas Talent Pipeline Report

Beyond prioritizing policy questions, the state also needs a method of providing state and local policymakers with answers to those questions. THECB produces an excellent example and model in the Public Higher Education Almanac. Created in 2011, the almanac is designed to provide an annual status update on the state's higher education plan, as well as promote greater transparency and accountability within the system. The state of Texas should consider producing a similar report for the workforce system—or adding a new section to the existing almanac—that provides answers to the talent pipeline policy questions and provides critical data for the state and each economic region.

Examples of state action:

- Produce a biennial Texas Talent Pipeline Report that is available before each legislative session with data for the state and each economic region on high-wage and high-demand jobs (“hot jobs”), the largest or most significant skill gaps threatening regional talent pipelines, economic growth projections for industry clusters in each region and a list of priority industry certifications that might be integrated into college courses, career and technical education courses, and dual-credit programs that offer college credit for courses taken by high school students.
- Provide a summary of the regional skill gap analyses conducted by the state's 28 local workforce boards, and identify for state policymakers where significant skills gaps exist across the state.
- Highlight leading examples and promising practices from across the state in the report to serve as models for how Texas is addressing challenges and leading the development of new talent pipelines.
- Ensure that a cross-agency team under the leadership of the Tri-Agency initiative comes together to produce the biennial Texas Talent Pipeline Report, leverages local analysis wherever possible, is responsive to the state's talent pipeline vision and integrates efforts that each agency is taking to advance that vision.

Recommendation No. 6

Improve the Information Currently Collected Through Unemployment Insurance Wage Record Data

There are a few technical changes or adjustments that could significantly improve the quality of education and workforce data available to state agencies and local partners. For example, the unemployment insurance (UI) system is the primary tool used by state agencies to match employment and wage information with student record data to determine the effectiveness of education and training programs. Currently the state's system does not require employers to provide occupation information, which significantly limits the usefulness of this data. For example, the state's data systems can determine if nursing students are employed after graduating and how much these students are making on a quarterly basis. However, the system is not able to determine if the students got jobs as nurses using the education that they completed. Similarly, the address information collected through the UI system can be unreliable and cannot be used to effectively determine if graduates from a college or local training provider were able to find employment within the regional labor market.

Examples of state action:

- Explore the costs and benefits to businesses and job seekers of reporting employee occupations on unemployment insurance forms. This could also include determining if human resources staffing agencies, which complete a significant amount of UI reporting on behalf of employers, can make this change more efficiently or inexpensively than individual employers.
- Explore the costs and benefits to businesses and job seekers of improving the accuracy of the work address reported for employees through the unemployment insurance form.

The Blueprint: State Technical Support and Resources

State agencies provide a significant amount of technical support to local education and workforce partners. For example, TWC provides a menu of resources, including helping local partners identify industry clusters in their region, conducting outreach and training on labor market information and providing access to several tools and resources, including third-party data tools such as Help-Wanted Online's real-time labor market information. Similarly, TWIC provides a series of documents and tools designed to assist workforce alignment efforts at the local level, including its most recent effort to identify a priority list of industry-recognized certifications for the state that can be used by schools, colleges and training programs.

Recommendation No. 7

Identify State-Level Criteria for Designating High-Quality Career Pathways and Sector Partnerships

There are more than 60 pathway programs operating in Texas across K-12, higher education and workforce development.⁵⁵ There are also an unknown number of regional sector partnerships and other business-driven education initiatives working to guide the development of some of those pathway programs. To take these efforts to scale and ensure that they are working toward a coherent system, the state should identify the quality elements of a regional talent pipeline in Texas and create a credentialing process to acknowledge excellence for both students and for employers, similar to early college high school credentialing. But to maximize local flexibility in designing initiatives that meet the needs of their communities, local partners must recognize the need to customize these strategies to fit the unique needs of their regions.

Examples of state action:

- Create a formal cross-agency review process under the leadership of the Tri-Agency initiative to identify common career pathway elements shared across state programs, and create a blueprint for building pathways that are successful at moving various students through a series of education and training courses and into a related job with career advancement potential.
- Create a similar review process to identify common sector partnership elements shared across regional partnerships, and create a blueprint for creating industry-led partnerships.

Recommendation No. 8**Increase State Support of Programs that Advance Regional Talent Pipelines**

There are several ways the state can make new investments—or strengthen the impact of investments already made—to advance regional talent pipelines. One of the greatest opportunities is to strengthen efforts or initiatives that incentivize collaboration among education and business partners.

Examples of state action:

- Increase the impact of TWC's Skills Development Fund by requiring an industry match to receive a workforce training grant, extending the reach of state funds and ensuring that businesses are committed to the need for and success of their grant.
- Set aside a portion of the Skills Development Fund, Carl D. Perkins Career and Technical Education funds, the governor's discretionary funds provided through the Workforce Innovation and Opportunity Act or the newly announced Texas Industry Partnership program for sector partnerships that engage more than one business partner in an effort to build an industry-led career pathway.
- Add job placement criteria to the performance funding model for community colleges.
- Increase the percent of WIOA clients who receive workforce training services.
- Seek opportunities to increase federal support of career pathway programs, such as using Temporary Assistance for Needy Families funds to support adult career pathway programs at community colleges or otherwise incentivize using these funds to support education and training that leads to employment.
- Increase the share of state funding for education and training programs that go to state-designated career pathway programs. This could include increasing formula funding for the K-12 or higher education system for programs of study at the secondary or postsecondary level. Funds may also be shifted to efforts such as the Accelerate Texas program that integrate both basic skills instruction and workforce training for adults.⁵⁶

Recommendation No. 9

Provide Technical Assistance Resources to Local Partners on Building or Expanding Career Pathways and Sector Partnerships

In addition to creating a state designation process for recognizing high-quality career pathways and sector partnerships, the state should offer technical assistance resources and services from nationally or state-recognized sources to local partners. And because requests for assistance can come from local workforce boards, independent school districts, institutions of higher education and economic development entities, the technical assistance services offered should cut across education, workforce and economic development.

Examples of state action:

- Make available technical assistance services from one or more state-recognized sources to provide expert guidance to local stakeholders on how to build career pathway programs, create sector partnerships or conduct industry cluster analysis. This could be accomplished by publishing a list of experts or organizations that are familiar with state designation criteria, as well as by setting aside a small technical assistance fund that could be used to provide local assistance upon request.
- Design a series of state agency guidance and planning documents—a Texas Talent Pipeline toolkit—that draws on varied promising practices from across the state and country on implementing industry cluster analysis, sector partnerships and career pathways.

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Notes

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⁶See note 2 and "Computing Inequality: Have Computers Changed the Labor Market?" by David H. Autor, Lawrence F. Katz and Alan B. Krueger, *Quarterly Journal of Economics* vol. 113, no. 4, 1998, pp. 1169–1213.

⁷"Skill Gaps, Skill Shortages and Skill Mismatches: Evidence for the U.S.," by Peter Capelli, National Bureau of Economic Research Working Paper 20382, August 2014, www.nber.org/papers/w20382.

⁸See note 7.

⁹"Workforce Intermediaries for the Twenty-First Century," by Robert P. Giloth, The American Assembly and Columbia University, www.temple.edu/tempress/titles/1723_reg_print.html.

¹⁰"State Sector Strategies Coming of Age: Implications for State Workforce Policymakers," by Lindsey Woolsey and Garrett Groves, Corporation for a Skilled Workforce, National Skills Coalition and the National Governors Association Center for Best Practices, Jan. 16, 2013, www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/state-sector-strategies-coming-o.html.

¹¹These definitions come from a workforce development vantage point, highlighting the entities' primary function within the workforce development system. These definitions are not comprehensive, and entities may not prioritize their stated workforce development function or include it in their mission (e.g., community colleges and universities might define their mission as educating well-rounded citizens).

¹²For more information, go to "U.S. Cluster Mapping: Mapping a Nation of Regional Clusters," by Michael Porter, Institute for Strategy & Competitiveness, Harvard Business School and U.S. Department of Commerce, Economic Development Administration, www.clustermapping.us/.

¹³"At the Heart of Texas: Cities' Industry Clusters Drive Growth," by Laila Assanie, Kristin E. Davis, Pia M. Orrenius and Michael Weiss, Federal Reserve Bank of Dallas, February 2016, <https://dallasfed.org/en/research/heart.aspx>.

¹⁴See note 13.

¹⁵"Houston: Energy Powerhouse," Energy Data Sheet, Greater Houston Partnership, April 2013, www.houston.org/assets/pdf/opportunity/Energy-Data-Sheet.pdf.

¹⁶"What Are Clusters?" Institute for Strategy & Competitiveness, Harvard Business School, Harvard University, www.isc.hbs.edu/competitiveness-economic-development/frameworks-and-key-concepts/Pages/clusters.aspx.

¹⁷"Moving Sectoral and Career Pathway Programs from Promise to Scale," by Christopher T. King and Heath J. Price in *Transforming U.S. Workforce Development Policies for the 21st Century*, Carl Van Horn, Tammy Edwards and Todd Green, eds., Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 2015, pp. 195–229.

¹⁸"Texas Industry Cluster Initiative," Texas Workforce Commission, www.twc.state.tx.us/partners/texas-industry-cluster-initiative.

¹⁹"Tuning in to Local Labor Markets: Findings from the Sectoral Employment Study," by Shelia Maguire, Joshua Freely, Carol Clymer, Maureen Conway and Deena Schwartz, Public/Private Ventures, July 2010, ppv.issuelab.org/resources/5101/5101.pdf.

²⁰See note 10.

²¹Results from "Promising Practices in Workforce Development in Texas," the 2016 survey sent to Texas' workforce development boards by the Federal Reserve Bank of Dallas and the Center for Public Policy Priorities in partnership with the Texas Association of Workforce Boards.

²²"Workforce Development—Sector Partnerships," Assets & Opportunity Scorecard, CFED, scorecard.assetsandopportunity.org/latest/measure/workforce-development-sector-partnerships.

²³"Sector Snapshot: A Profile of Sector Initiatives, 2010," by Ravi Mangat, National Network of Sector Partners, wvl.insightcced.org/uploads/publications/wd/Sector-Snapshots.pdf.

²⁴See note 10.

²⁵"Guided Pathways to Success: Boosting College Completion," Complete College America, completecollege.org/docs/GPS_Summary_FINAL.pdf.

- ²⁶"Resources," American Association of Community Colleges, www.aacc.nche.edu/Resources/aaccprograms/pathways/Pages/default.aspx.
- ²⁷Joint Federal Agency Memo on Career Pathways, April 28, 2016, www.ncpn.info/2016-downloads/CP-JointLetterFinal-4-22-2016.pdf.
- ²⁸"Shared Vision, Strong Systems," Alliance for Quality Career Pathways, a project of CLASP, Framework Version 1.0, June 2014, www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf.
- ²⁹Building Career Pathways to Help More Students Succeed, Jobs for the Future, www.iff.org/initiatives/pathways-prosperity-network.
- ³⁰For details, see "Texas Success Center Resources," Texas Association of Community Colleges, www.tacc.org/pages/texas-success-center/resources/texas-success-center-resources; Texas Regional Stem Degree Accelerator, Educate Texas, www.edtx.org/postsecondary-access-and-success/postsecondary-success/texas-regional-stem-degree-accelerator/ and 60x30TX, Texas Higher Education Coordinating Board, www.theccb.state.tx.us/index.cfm?objectid=5033056A-A8AF-0900-DE0514355F026A7F.
- ³¹See note 10.
- ³²"The New Shape of Texas High School Education: Administrator, Counselor, and Parent Viewpoints on HB5 Endorsement Implementation," Jenny Knowles Morrison, et al, Texas Education Grantmakers Advocacy Consortium and The Bush School of Government & Public Service, Texas A&M University, http://bush.tamu.edu/psaa/capstones/TEGAC%20HB5%20Report_Final.pdf and "Successful Implementation of HB 5: Recommendations for Stakeholder Groups," Texas Education Grantmakers Advocacy Consortium, tegac.org/uploads/HB5-Successful-Implementation-FINAL.pdf
- ³³"Governor Abbott Announces Initiative to Establish Innovative Academies in Texas High Schools," Office of the Governor of Greg Abbott, Sept. 2, 2016, gov.texas.gov/news/press-release/22629.
- ³⁴ For more information, see "Beyond the Campus: Connecting Community College Students to Meaningful Employment," by Chandra Kring Villanueva, Center for Public Policy Priorities, March 2015, forabettertexas.org/images/EO_2015_03_WorkStudy.pdf.
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- ³⁶See note 21.
- ³⁷For a more detailed explanation of what workforce development board do, see "Engaging Workforce Development: A Framework for Meeting CRA Obligations," by Elizabeth Sobel Blum and Steven Shepelwich, Federal Reserve Bank of Dallas and Federal Reserve Bank of Kansas City, December 2016.
- ³⁸For more information about collective impact, see the Collective Impact Forum, an initiative of FSG and the Aspen Institute Forum for Community Solutions, collectiveimpactforum.org/what-collective-impact.
- ³⁹See note 13.
- ⁴⁰See note 15.
- ⁴¹For more information, see East Harris County Manufacturers Association, www.ehcma.com.
- ⁴²For more information, see West Texas Energy Consortium, www.wtxec.org.
- ⁴³For more information, see Permian Road Safety Coalition: Working Together for Safer Roads, www.permianroadsafety.org.
- ⁴⁴For more information, see "Annual Report 2015," Regional Workforce Leadership Council, workforcesolutions.net/wp-content/uploads/2016/01/2015-RWLC-FINAL-Hi-Res.pdf.
- ⁴⁵For more information, see the Texas Science, Technology, Engineering and Mathematics (T-STEM), Educate Texas, www.edtx.org/college-ready-standards-and-practices/t-stem/.
- ⁴⁶For more information, see FIRST LEGO League Jr. Challenge & Season Info, www.firstinspires.org/robotics/flljr.
- ⁴⁷For more information, see the Texas Workforce Commission's Skills Development Fund, www.twc.state.tx.us/partners/skills-development-fund.
- ⁴⁸See note 17.
- ⁴⁹See note 18.
- ⁵⁰For more information, see "Prosperity Requires Being Bold: Integrating Education and the Workforce for a Bright Texas Future," The Tri-Agency Report to the Office of the Governor from the Texas Education Agency, Texas Higher Education Coordinating Board and Texas Workforce Commission, November 2016, www.twc.state.tx.us/files/partners/tri-agency-report-office-governor-twc.pdf.
- ⁵¹"Governor Abbott Establishes Tri-Agency Workforce Initiative," Office of the Governor Greg Abbott, March 7, 2016, <http://gov.texas.gov/news/press-release/22031>.
- ⁵²See note 10.
- ⁵³For more information, see note 47 and Jobs & Education for Texans (JET) Grant Program, www.twc.state.tx.us/partners/jobs-education-texans-jet-grant-program.
- ⁵⁴"60x30TX: Texas Higher Education Strategic Plan: 2015-2030," Texas Higher Education Coordinating Board, www.theccb.state.tx.us/reports/PDF/6862.PDF?CFID=41531877&CFTOKEN=29618147.
- ⁵⁵See note 29.
- ⁵⁶For more information, see Accelerate TEXAS, Texas Higher Education Coordinating Board, www.theccb.state.tx.us/index.cfm?objectid=896FFFBE-FD7B-786E-FC7B9F8F4EC245AE.

Government Relations

Legislative Update

Current Situation

During the 85th Texas Legislative session, members of the House and Senate filed bills that may impact the workforce system. We are paying attention to a number of bills in several areas.

- ***Raising the (Texas) minimum wage to \$10 per hour***
85(R) [HB 924](#) Author: Turner, Chris | Last Action 01/11/2017 H Filed
- ***Raising the (Texas) minimum wage to \$15 per hour***
85(R) [HB 992](#) Author: Walle, Armando | Last Action 01/12/2017 H Filed

A minimum wage increase to either \$10.10 by House Bill No. 992, or \$15.00 by House Bill No. 924, would be a significant increase from the current federal minimum wage of \$7.25. The state of Texas is among 13 other states that have enacted minimum wage laws that coincide with the federal minimum. Alternatively, 29 other states, excluding Wyoming and Georgia, have adopted higher minimums in their legislation.

- ***Establishing Veterans' Resource Centers at certain institutions of higher education***
85(R) [HB 1007](#) Author: Alonzo, Roberto | Last Action 01/12/2017 H Filed

The Texas Veterans Commission would administer a veterans' resource center in at least one institution of higher education in each of the 10 higher education regions to provide a centralized place for veterans to find assistance and information while enrolled at an institution of higher education. The Gulf Coast region is one of those areas. These centers would also deliver innovative, cost-effective programs to attract veterans and family members of veterans to attend public institutions of higher education.

- ***Creating a program to assist foster care youth in accessing higher education, career information, and skills certifications***
85(R) [SB 482](#) Author: Miles, Borris | Last Action 01/13/2017 S Filed

The Department of Family and Protective Services would collaborate with local workforce development boards, foster care transition centers, community and technical colleges, schools, and any other appropriate workforce industry resources to create a program that assists foster care youth and former foster care youth in obtaining a high school diploma or a high school equivalency certificate and industry certifications necessary for in-demand occupations. This program will also provide career guidance to foster care youth and former foster care youth, and inform foster care youth and former foster care youth about the tuition and fee waivers for institutions of higher education that are available.

- ***Relating to a prohibition of a monitoring system performance indicator based on the number or percentage of students receiving special education services.***

85(R) [HB 713](#) Author: Wu| **Last Action** 01/21/2017 S Filed

Companion: [SB 160](#) by Rodríguez, Similar, 01/25/2017 S Referred to Education

[SB 214](#) by Menéndez, Identical, 01/25/2017 S Referred to Education

The House bill would prohibit the TEA commissioner and TEA from establishing a performance indicator in the agency's monitoring system that evaluates the total number of students or the percentage of enrolled students in special education services. The Senate bills contain the same prohibition, but adds language to ensure TEA has the ability to require performance data to assess disproportionate service and to report on special education services as required by state and federal law.

We've included – as an attachment – the Texas Association of Workforce Board's public policy priorities for 2017. We will track and report on any activity around these priorities.

We're following these additional bills that and will provide additional information as it develops:

Business/Economic Development

85(R) [HB 108](#) Author: Alvarado

Last Action 11/14/2016 H Filed

Caption: Relating to the creation of the Recruit Texas Program to facilitate the relocation to or expansion in this state of employers offering complex or high-skilled employment opportunities.

85(R) [HB 595](#) Author: Workman

Last Action 12/14/2016 H Filed

Caption: Relating to a franchise tax credit for entities that employ certain students in certain paid internship or similar programs.

85(R) [SB 474](#) Author: Rodríguez | et al.

Last Action 01/12/2017 S Filed

Caption Version: Introduced

Caption: Relating to required provision of workers' compensation insurance coverage for employees of building and construction contractors and subcontractors.

Comment: Safety training for construction personnel (Companion to HB 863)**

Education

85(R) [HB 136](#) Author: Bell

Last Action 11/14/2016 H Filed

Caption: Relating to inclusion of career and technology education and workforce training in the mission of public education.

85(R) [HB 374](#) Author: Johnson, Jarvis

Last Action 11/16/2016 H Filed

Caption: Relating to the requirement that the Texas Workforce Commission provide certain employment information for secondary school students.

85(R) [HB 852](#) Author: Parker

Last Action 01/06/2017 H Filed

Caption: Relating to adult high school diploma and industry certification charter school pilot program requirements.

Comment: Charter School pilot program requirements (Companion to SB 276) **

Veterans

85(R) [HB 257](#) Author: Hernandez

Last Action 11/14/2016 H Filed

Caption: Relating to a report by the Texas Workforce Commission regarding the transition from military service to employment.

Government

85(R) [HB 793](#) Author: Capriglione

Last Action 01/03/2017 H Filed

Companion: [SB 408](#) Author: Watson | et al.

Last Action 01/03/2017 S Filed

Caption: Relating to the definition of a governmental body for the purposes of the public information law.

85(R) [SB 9](#) Author: Hancock | et al.

Last Action 01/24/2017 *Referred to Finance Committee*

Caption: Relating to the constitutional limit on the rate of growth of appropriations.

Comment: Limits on appropriations

85(R) [SB 446](#) Author: Burton

Last Action 01/09/2017 S Filed

Caption Version: Introduced

Caption: Relating to the acceptance or expenditure of federal funds by a political subdivision.

85(R) [SB 452](#) Author: Hancock

Last Action 01/10/2017 S Filed

Caption: Relating to the effect of certain agreements with a collective bargaining organization on certain state-funded public work contracts.

85(R) [SB 497](#) Author: Uresti

Last Action 01/17/2017 S Filed

Caption: Relating to the creation of an office of workforce development and analytics in the Department of Family and Protective Services.

Employer Service and Career Office Committees

Local Plan 2017-2020

Background

The Gulf Coast Workforce Board and its operating affiliate, Workforce Solutions are tasked with implementing a local, data-driven compliance plan for developing our region's pool of human talent to meet local employment needs. To guarantee that we are fulfilling our area's obligations to the Texas Workforce Commission under the Workforce Innovation and Opportunity Act, this Local Plan examines our estimated economic needs through 2020.

Current Situation

Through its 2017-2020 Local Plan, the Board:

- Projects labor market conditions and identifies the needs for skilled workers
- Sets the strategic direction for Workforce Solutions and the Board's investments to meet the region's needs for an educated and skilled workforce
- Describes how Workforce Solutions is organized to deliver high-quality, valued service for the region's employers and people
- Ensures the public workforce system is open and accessible to its customers and accountable to funders, local elected officials and stakeholders

Regional Outlook

By 2024, total population in the region will reach 7,674,819. The Houston-Galveston area will continue to become more and more diverse, with 35.4% Anglo, 37.6% Hispanic, 16.8% African American, and 7.5% Asian. Although the percentage of the workforce over the age of 55 will increase to 23.8%, the region will remain largely young with just over half of the population under the age of 35.

Total employment in the region will grow to 3,821,030 – an increase of 22.4% from 2014. Key industries in the region will continue to include oil and gas exploration and production, construction, manufacturing, health care, education, and business and technical services.

We estimate that even before 2024, 58.8% of all jobs in the region will require education or training beyond the high school level and that the majority of these will be “middle skill” jobs. In 2024, employers will need 1.3 million workers in middle skill positions – those that require some post-secondary education and/or on-the-job training. But make no mistake, these are the crucial positions that will need to be filled in order to make our workforce competitive in a global environment. Wages for these jobs currently average \$23.79 per hour – significantly above the region's median wage.

The region's employers will continue to need almost 925,000 individuals for highly skilled work. These are the jobs that require education at or beyond a bachelor's degree level and usually some level of work experience: physicians, nurses, pharmacists, engineers of all types, accountants and researchers for example. These are the highest paying jobs – with current average wages at \$47.66 per hour.

There will also be some 1.8 million lower-skilled jobs in 2024.

Our System Response

The Local Plan lays out the broad workforce and human resources needs for the region's future, and helps us make decisions about how we use our system and resources to meet those needs. These forecasts show us where our workforce development efforts should be focused and tell us what kinds of jobs and industries will be our region's key occupations and employers. This information is critical to educators, communities and businesses because it explains how we will need to evolve and adapt our workforce to changing economic demands.

What we see most clearly is the continued need for employees capable of filling skilled technical professions. These are the occupations that will come to dominate our employment needs and provide the manpower that businesses need to grow and succeed. Technical skill jobs are found across the chief industries of the Texas Gulf Coast region, but what they have in common are requirements for additional training and education beyond high school.

This means that Workforce Solutions will share pertinent information with educators, parents and students about career exploration and what steps young people need to be taking now so they are prepared for the jobs of tomorrow. Collectively, we need to focus our efforts on making sure that tomorrow's job candidates are equipped with the skills and knowledge they will need.

The impact of the decline in new oil and gas-related occupations is also significant. Our region has always had an energy sector that accounted for a large part of our workforce. Looking into the coming years, it appears that many of those employers will need fewer, but more skilled workers. It will also become increasingly important that we prepare our workforce with a set of transferable skills that can be applied across industries.

This will make our focus on transitional employment increasingly crucial. It is also worth noting that even while oil and gas has declined, there has been a regional uptick in the petrochemical industry, as well as liquefied natural gas operations. However, moving between industries may necessitate learning new skills and re-applying old ones to new problems. This will be another avenue where Workforce Solutions will look to provide services.

Our System Design

The Workforce Solutions Gulf Coast system includes our Employer Service, local career offices and their supporting units, adult education providers, and our early education quality efforts. We have designed this system to be responsive to our customers' wants and needs, open and accessible to all, and able to offer professional advice and resources that help our employers meet their human resource needs and individuals build careers.

The Local Plan describes in detail how the parts of our system work together and how we will meet the requirements of our federal and state funders to ensure that taxpayer dollars are spent effectively and efficiently. The Local Plan includes a description of our efforts

- to work with employers in the region's key industries;
- to connect with our partners in organized labor, education, and community organizations;
- to offer current and meaningful career and labor market data for all our customers;
- to ensure access to our service for individuals with disabilities;
- to ensure priority for low-income residents in access to our service and financial assistance; and
- to address the workforce needs of individuals experiencing homelessness, returning citizens, and adults and young people in need of basic education.

Public Comment

As a public entity, Workforce Solutions is most effective when we can rely on the participation of all stakeholders in the regional economy. This means that we work closely with schools, colleges, local city and county governments, non-profits, and social service providers, as well as the business community, to bring people together and focus on our shared economic needs.

On December 21, 2016, we announced publication of the Local Plan on our website and via email to more than 900 individuals representing business, education and labor organizations. The email included a web link the plan and an invitation to provide comment using an online response form or by sending an email to comments@wrksolutions.com. We received six comments, shown on the attachment to this item.

We also hosted a community forum on January 5, 2017 from 9:00 a.m. to 11:00 a.m. at our Southeast career office (near Almeda Mall in Houston). Those who attended worked in groups to review the plan and develop individual and group responses. The attendee list as well as group responses are also in the attachment to this item.

Action

Recommend Board approve the Local Plan for submission to the Texas Workforce Commission.

GULF COAST WORKFORCE BOARD

2017- 2020

LOCAL PLAN

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FOREWORD

The Gulf Coast Workforce Board and its operating affiliate, Workforce Solutions are the public workforce system for the 13-county Houston-Galveston area in southeast Texas. We help employers meet their workforce needs and individuals build careers so both can compete in the global economy.

As a public entity, Workforce Solutions is most effective when we can rely on the participation of all stakeholders in the regional economy. This means that we work closely with schools, colleges, local city and county governments, non-profits, and social service providers, as well as the business community, to bring people together and focus on our shared economic needs. To represent these many groups, the Gulf Coast Workforce Board is made up of dedicated individuals from both the public and private sectors who volunteer their time and expertise to help set the direction for how Workforce Solutions carries out its mission.

Our volunteer Board members along with the hard-working professional staff of Workforce Solutions, are tasked with implementing a local, data-driven plan for developing our region's pool of human talent to meet local employment needs. To guarantee that we are fulfilling our area's obligations to the Texas Workforce Commission under the Workforce Innovation and Opportunity Act, this Local Plan examines our estimated economic needs through 2020.

Through its 2017-2020 Local Plan, the Board:

- Projects labor market conditions and identifies the needs for skilled workers
- Sets the strategic direction for Workforce Solutions and the Board's investments to meet the region's needs for an educated and skilled workforce
- Describes how Workforce Solutions is organized to deliver high-quality, valued service for the region's employers and people
- Ensures the public workforce system is open and accessible to its customers and accountable to funders, local elected officials and stakeholders

The full report draws on a wide variety of data points, metrics and programming, and we encourage you to read it for a fuller understanding of our efforts.

But first, it's important to begin with a few basic facts about how are our Board envisions the next 10 years for local employment and some of our plans for meeting the challenges and opportunities that we see developing for our 13-county area.

What does the future hold?

By 2024, total population in the region will reach 7,674,819. The Houston-Galveston area will continue to become more and more diverse, with 35.4% Anglo, 37.6% Hispanic, 16.8% African American, and 7.5% Asian. Although the percentage of the workforce over the age of 55 will increase to 23.8%, the region will remain largely young with just over half of the population under the age of 35.

Total employment in the region will grow to 3,821,030 – an increase of 22.4% from 2014. Key industries in the region will continue to include oil and gas exploration and production, construction, manufacturing, health care, education, and business and technical services.

We estimate that even before 2024, 58.8% of all jobs in the region will require education or training beyond the high school level and that the majority of these will be “middle skill” jobs. In 2024, employers will need 1.3 million workers in middle skill positions – those that require some post-secondary education and/or on-the-job training. But make no mistake, these are the crucial positions that will need to be filled in order to make our workforce competitive in a global environment. Wages for these jobs currently average \$23.79 per hour – significantly above the region's median wage.

The region's employers will continue to need almost 925,000 individuals for highly skilled work. These are the jobs that require education at or beyond a bachelor's degree level and usually some level of work experience: physicians, nurses, pharmacists, engineers of all types, accountants and researchers for example. These are the highest paying jobs – with current average wages at \$47.66 per hour.

There will also be some 1.8 million lower-skilled jobs in 2024.

In its local plan, the Board targets the key regional industries and the high-skill and middle-skill jobs which will be most in need for those industries, while presenting information on the lower-skilled jobs as well.

How will the Board and Workforce Solutions respond to these challenges?

The Board's mission is to help employers meet their human resource needs and individuals build careers, so both can compete in the global economy. To accomplish this goal, Workforce Solutions will focus on providing services to both employers and members of the workforce to fill our region's economic needs with highly trained individuals.

Our focus on employers is to help them find the right people for the right job, and expand their share of the regional economy by growing their workforce, capacity and productivity. For our area's workers, we provide assistance with training, education and professional development to help people find meaningful employment and make progress in their career. This commitment to service is how we intend to meet the needs of our dynamic economic future.

What does the report show?

The Local Plan lays out the broad workforce and human resources needs for the region's future, and helps us make decisions about how we use our system and resources to meet those needs. These forecasts show us where our workforce development efforts should be focused and tell us what kinds of jobs and industries will be our region's key occupations and employers. This information is critical to educators, communities and businesses because it explains how we will need to evolve and adapt our workforce to changing economic demands.

What we see most clearly is the continued need for employees capable of filling skilled technical professions. These are the occupations that will come to dominate our employment needs and provide the manpower that businesses need to grow and succeed. Technical skill jobs are found across the chief industries of the Texas Gulf Coast region, but what they have in common are requirements for additional training and education beyond high school.

This means that Workforce Solutions will share pertinent information with educators, parents and students about career exploration and what steps young people need to be taking now so they are prepared for the jobs of tomorrow. Collectively, we need to focus our efforts on making sure that tomorrow's job candidates are equipped with the skills and knowledge they will need.

The impact of the decline in new oil and gas-related occupations is also significant. Our region has always had an energy sector that accounted for a large part of our workforce. Looking into the coming years, it appears that many of those employers will need fewer, but more skilled workers. It will also become increasingly important that we prepare our workforce with a set of transferable skills that can be applied across industries.

This will make our focus on transitional employment increasingly crucial. We also anticipate that some of the losses in oil and gas-related employment will be offset by other fields in industrial construction, transportation, and health care. It is also worth noting that even while oil and gas has declined, there has been a regional uptick in the petrochemical industry, as well as liquefied natural gas operations. However, moving between industries may necessitate learning new skills and re-applying old ones to new problems. This will be another avenue where Workforce Solutions will look to provide services.

The Gulf Coast Workforce Board and our Workforce Solutions team are dedicated to growing our region's economic footprint by helping businesses reach their full human resources potential. Even as economic challenges arise and are ultimately overcome, we pride ourselves on the work that we do, and we look forward to continuing to serve Gulf Coast businesses and their employees into the future.

PART A: STRATEGIC ELEMENTS



PART A: STRATEGIC ELEMENTS

1. **A description of the Board’s strategic vision to support regional economic growth and economic self-sufficiency. The description must include:**
 - a. goals for preparing an educated and skilled workforce, including youth and individuals with barriers to employment; and
 - b. goals relating to the performance accountability measures based on performance indicators described in WIOA §116(b)(2)(A).

The Board’s Vision

The Gulf Coast Workforce Board is accountable for leading and governing the regional workforce system in the 13-county Gulf Coast region of Texas. It is the one and only workforce board in the region and one of its primary responsibilities is strategic planning.

The greatest challenge for us is setting the direction and focus for all workforce activities in the region, regardless of how they are funded, and to use our limited resources to leverage the larger system and achieve Board-established results. Moving the bigger system would be impossible without a strategic plan that clearly describes and precisely quantifies what results the Board expects the regional workforce system to achieve.

The Board has been engaged in a strategic planning process for several years. In 2003, we developed statements of our core values, mission and vision that explain what Board members value most, why it exists as a board, and where it wants to be at some point in the future. The Board developed results statements for the regional workforce system, both that which it directly controls and for the larger system. The Board’s strategic plan is a tool for managing the regional workforce system. Board members and staff use it to drive the regional workforce system toward the four results statements.

The Gulf Coast workforce system is a regional network of business, education, labor, government, and community organizations serving the City of Houston and the 13-county Gulf Coast region of Texas.

<p>Core Values</p> <p>(Our Strongly Held Beliefs)</p>	<p>Innovation – Productivity – Accountability – Results</p>
<p>Mission</p> <p>(The Reason We Exist)</p>	<p>The Gulf Coast workforce system helps employers meet their workforce needs and individuals build careers so both can compete in the global economy.</p>
<p>Vision</p> <p>(The Future We Aspire To)</p>	<p>The Gulf Coast of Texas ranks among the top ten economic regions in the world.</p> <ul style="list-style-type: none"> • Employers have an adequate supply of well-educated and well-trained people, which enables them to compete in the world economy. • Individuals have the knowledge, skills, and aptitudes to work and earn incomes that make them self-sufficient. • The region is among the most attractive places in the country to live and work. <p>A single, integrated workforce system helps employers meet their workforce needs and individuals build careers. Employers access the system and use its services without leaving their place of business.</p> <ul style="list-style-type: none"> • Individuals are able to learn and work in their homes, in schools, and on the job to realize their greatest potential. • People throughout the region know about the system and can access the same high-quality information and labor market services regardless of where they live or how they come in contact with the system. • Strong commitments to innovation, productivity, accountability, and results keep the system flexible and responsive to employers’ and peoples’ ever-changing workforce needs. • Life-long learning and skills development are integral parts of the regional workforce system. • Long-standing relationships between employers and educators keep education and training opportunities one step ahead of the needs of the market.

	<ul style="list-style-type: none"> • The system partners with those industries and employers that drive the regional economy. It also works with chambers of commerce and economic development entities to identify and support emerging industries vital to the region’s continued growth and diversification. • Operating above reproach, the system is highly valued by employers and people alike. <p>The Gulf Coast Workforce Board sets the regional workforce agenda. It is widely recognized for its excellence as a leadership and governing board and for its commitment to making a difference.</p> <p>Business, labor, and community leaders vie for board membership because they know it is:</p> <ul style="list-style-type: none"> • well-educated, innovative, disciplined, and high-performing • nationally and locally recognized for its stewardship of public funds and its commitment to results; it makes funding decisions solely on the basis of performance, not politics • accountable to its owners (the taxpayers) and their representatives (the elected officials who appointed its members)
<p>Results (The Difference We Will Make)</p>	<ol style="list-style-type: none"> 1. More Competitive Employers 2. A Better-Educated Workforce 3. More and Better Jobs 4. Higher Incomes
<p>Strategies (How We Will Achieve Results)</p>	<ol style="list-style-type: none"> 5. Continually improve the quality of customer service 6. Provide high-quality labor market information 7. Provide skilled workers for employers in critical industries 8. Contribute to high-quality, life-long learning experiences 9. Use our resources to move the larger system to achieve Board-established results 10. Meet the requirements of our funding sources 11. Find additional revenue to support Board results

We worked out a framework for quantifying progress toward Board-established results – measures, baselines, annual and long-range targets for both the Board controlled activities and the larger system. Together, this framework established a policy structure governing the regional workforce system, and clearly laid out the expectations for the system. The Workforce Board Strategic Planning Committee and staff annually review performance on strategic metrics. More importantly, the Board and staff analyze gaps between performance and targets. Do strategies align with the goals? Where are the opportunities to improve operational efficiency? What factors are affecting performance? Based on this analysis, we may adjust strategies, change procedures, revise (or eliminate) metrics and reset targets.

In the table below, are the metrics and long-term goals for both the Board-controlled and the larger workforce system through 2018.

Result #1 More Competitive Employers

For Workforce Solutions

	2014	2015	2016	2017	2018
Number of the region’s employers who use Workforce Solutions	25,147	25,452	22,000	22,000	23,000
Percentage of the region’s employers using Workforce Solutions as repeat customers	58%	62%	60%	60%	60%

Result #2 A Better-Educated Workforce

For the Regional Workforce System

	2014	2015	2016	2017	2018
Percentage of the region's population (25 years and older) holding an education credential	80.0%	80.0%	81.0%	82.0%	82.0%

Percentage of the region's population (25 years and older) holding a post-secondary degree	35.0%	35.0%	37.0%	37.0%	38.0%
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Percentage of those pursuing an education credential who earn one	21.0%	21.0%	22.0%	22.0%	23.0%
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	2014	2015	2016	2017	2018
Percentage of students enrolled in the 9th through 12th grades earning a high school diploma	21.0%	21.0%	21.0%	21.0%	21.0%

Percentage of those enrolled in adult basic education who earn a GED	79%	79%	79%	79%	79%
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Percentage of students enrolled in post-secondary institutions earning a certificate or degree	18.0%	18.0%	19.0%	20.0%	21.0%
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Percentage of students earning post-secondary certificates or degrees who hold credentials in fields preparing them for jobs in high-skill, high-growth occupations targeted by the Gulf Coast Workforce Board	32.0%	32.5%	34.5%	35.0%	35.5%
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Total number of students earning a post-secondary degree or certificate up to and including Associate's degrees	31,382	31,925	34,467	37,222	40,210
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For Workforce Solutions

	2014	2015	2016	2017	2018
Percentage of resident customers pursuing an education credential who earn one	73%	70%	72%	74%	74%

Percentage of resident customers enrolled in post-secondary education who earn certificate/degree	82%	83%	84%	84%	85%
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Result # 3 More and Better Jobs – Job Creation

For the Regional Workforce System

	2014	2015	2016	2017	2018
Total number of individuals employed	2.75M	2.81M	2.87M	2.93M	2.99M
Number of new jobs created as a direct result of Workforce Solutions' partnering with other business organizations	2,700	2,800	3,000	3,200	3,300
	2014	2015	2016	2017	2018
Percentage of new jobs created with employers in industries targeted by the Gulf Coast Workforce Board as a direct result of Workforce Solutions' partnerships	75%	75%	75%	75%	75%
Percentage of new jobs created in high-skill, high-growth occupations targeted by the Gulf Coast Workforce Board as a direct result of Workforce Solutions' partnerships with employers	45%	45%	45%	45%	45%

Result # 3 More and Better Jobs – Employment

For the Regional Workforce System

	2014	2015	2016	2017	2018
Percentage of those employed who are working for employers in industries targeted by the Gulf Coast Workforce Board	27.5%	27.7%	28.3%	28.4%	28.6%
Percentage of those employed who are working in high-skill, high-growth occupations targeted by the Gulf Coast Workforce Board	19.3%	19.4%	16.8%	16.9%	16.9%

For Workforce Solutions

	2014	2015	2016	2017	2018
Percentage of resident customers employed after leaving Workforce Solutions	72%	73%	75%	76%	76%
Percent of resident customers unemployed at entry who are employed after leaving Workforce Solutions	70%	71%	73%	74%	74%
Percentage of resident customers employed after leaving Workforce Solutions, also employed in both consecutive quarters	81%	81%	82%	82%	83%
Percentage of resident customers employed in the quarter beginning services from Workforce Solutions	62%	62%	63%	64%	65%

Result # 4 Higher Incomes

For Workforce Solutions

	2014	2015	2016	2017	2018
Percentage of resident customers with earnings gains of at least 20 percent after leaving Workforce Solutions	35%	35%	36%	36%	37%
Percentage of resident customers employed with earnings gains after leaving Workforce Solutions	44%	44%	45%	45%	46%

For 2017, the Board adopted 13 measures and set performance targets for 2017:

More Competitive Employers	Market Share - (Oct. 2015 - Sept. 2016)	22,000
	Customer Loyalty - (Oct. 2015 - Sept. 2016)	60%
Higher Incomes	Exiters with Earnings Gains of at least 20% (April 2015 - March 2016)	36%
	Exiters employed in the 1st Qtr After Exit with Earnings Gains (April 2015 - March 2016)	45%
More and Better Jobs	New jobs created as a direct result of partnering with other business organizations (Oct. 2016 - Sept. 2017)	3,200
	New jobs created with employers in industries targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	75%
	New jobs created in high-skill occupations targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	45%
	Customers employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	76%
	Customers, unemployed at entrance, employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	74%
	Number of customers employed in 2nd and 3rd quarters after exit (April 2015 - March 2016)	82%
	Customers employed in the entrance quarter - (April 2016 - March 2017)	64%
A Better Educated Workforce	Customers pursuing Education Credential that achieve one by quarter after exit (July 2016 - June 2017)	74%
	Customers enrolled in post-secondary who earn certificate or degree by quarter after exit (July 2016 - June 2017)	84%
More Competitive Employers	Market Share - No LMI (Oct. 2015 - Sept. 2016)	22,000
	Customer Loyalty - No LMI (Oct. 2015 - Sept. 2016)	60%
Higher Incomes	Exiters with Earnings Gains of at least 20% (April 2015 - March 2016)	36%
	Exiters employed in the 1st Qtr After Exit with Earnings Gains (April 2015 - March 2016)	45%

More and Better Jobs	New jobs created as a direct result of partnering with other business organizations (Oct. 2016 - Sept. 2017)	3,200
	New jobs created with employers in industries targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	75%
	New jobs created in high-skill occupations targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	45%
	Customers employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	76%
	Customers, unemployed at entrance, employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	74%
	Number of customers employed in 2nd and 3rd quarters after exit (April 2015 - March 2016)	82%
	Customers employed in the entrance quarter - (April 2016 - March 2017)	64%
A Better Educated Workforce	Customers pursuing Education Credential that achieve one by quarter after exit (July 2016 - June 2017)	74%
	Customers enrolled in post-secondary who earn certificate or degree by quarter after exit (July 2016 - June 2017)	84%

In addition, there will be 19 measures Contracted by the State.

Contracted with the State	# of Employers Receiving Workforce Assistance	26,235
	Employed Q2 Post Exit - Adult	75.0%
	Employed Q2 Post Exit - DW	81.3%
	Employed Q2 Post Exit - Youth	63.8%
	Employed Q4 Post Exit - Adult	71.5%
	Employed Q4 Post Exit - DW	76.1%
	Employed Q4 Post Exit - Youth	67.7%
	Employed/Enrolled Q2 Post Exit - All Participants	61.4%
	Employed/Enrolled Q2-Q4 Post Exit - All Participants	78.3%
	Median Earnings Q2 Post Exit - Adult	\$3,910
	Median Earnings Q2 Post Exit - DW	\$6,980
	Median Earnings Q2 Post Exit - All Participants	\$4,080
	Credential Rate - Adult	47.7%
	Credential Rate - DW	66.6%
	Credential Rate - Youth	41.7
	Credential Rate - All Participants	N/A
	Claimant Reemployment w/in 10 Weeks	42.4%
	Average Kids Served Per Day - Discretionary At-Risk	21,465
	Choices Full Work Rate (Oct. 2016 - Sept. 2017)	50.0%

We also track the following measures:

Tracked Measures	Total Customers Served	26,235
	Average Monthly Traffic	22,000
	Job Openings Filled – Problems with State report prevents us from tracking this	N/A
	Job Postings Filled – Problems with State report prevents us from tracking this	N/A
	Customers Directly Placed	23,000

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2. A description of the Board’s strategy to work with the entities carrying out the core programs and with the required partners to align resources available to the local area, to achieve the vision and goals.

Programs

The Gulf Coast Workforce Board proposes to align our administration of the below programs with the WIOA Texas Combined State Plan.

- The Adult, Dislocated Worker, and Youth programs
- The Wagner-Peyser Employment Service (ES) program, including the Agricultural Outreach Plan
- The Adult Education and Family Literacy Act program
- The Vocational Rehabilitation program
- The Senior Community Service Employment Program

Currently, the Texas Workforce Commission (TWC) has oversight authority for all of the aforementioned programs. The programs discussed in this plan reflect only a portion of the programs managed by the Gulf Coast Workforce Board. Through the integrated workforce system in Texas, the GCWB also manages several other programs administered by TWC:

- Choices [the employment program for recipients of Temporary Assistance for Needy Families (TANF)]
- Supplemental Nutrition Assistance Program Employment and Training (SNAP E&T)
- Child Care and Development Block Grant Funds/Child Care Development Funds (CCDBG/CCDF)
- Trade Adjustment Assistance (TAA)

Partners

The Gulf Coast region is rich in workforce development partners. We have ten community colleges systems, more than a dozen university campuses, numerous economic development and business organizations, a host of state and local agencies, and a wide variety of community and faith-based organizations. Together, these institutions represent a rich infrastructure for the Gulf Coast workforce system.

With our partners, we provide a wide range of service to employer and individual customers. On the resident side, community and faith based organizations provide mentoring, life skills training, adult basic education, English as a second language, child care, transportation, and other work support service. Some of these organizations are paid vendors for our system while many others work informally with Workforce Solutions jointly assisting customers.

Workforce Solutions has an excellent relationship with our community college partners. The colleges provide educational programs leading to degrees and technical certificates, adult education and English as second language instruction, and other training. They work with the Board in developing customized training for employers, and consult with us in developing proposals related to workforce training. The colleges in the area are valuable partners in developing industry-based initiatives to address workforce issues in the region.

The region's major universities have a role in the workforce system, and are likely to have a greater one in the future as the Board's industry-based work continues and expands. The universities help to contribute to the diversification of our economy in the Gulf Coast Region. In addition to the current major universities located in Houston, there are plans for a new University of Texas Campus, which will focus on providing Healthcare and Healthcare Technology education and training.

The region's 76 districts are key partners in addressing many of the long-term shortages of skilled workers in our region. The Board has an existing relationship with many school districts; many career offices work directly with middle and high schools in their communities. The career offices are charged with providing service to young people in their schools. In addition to serving individual youth, many of whom are out of school, the Board continues to work with schools broadly to provide good labor market information to schools, parents and young people. We continue to expand and improve our labor market information and career planning products which include the High Skill, High Growth Guide, Focus on Industry and Occupation profiles, When I Grow Up and Choices Planner. Our goal is to support schools in their efforts to reduce drop-out rates, target resources to prepare youth for the good jobs of the future, and provide both parents and students information they can use in selecting course work and career opportunities. The Board's Education Committee provides guidance and oversight, and is fully committed to assisting schools in producing more graduates with the skills employers want.

Economic development organizations are key partners in our region. In many cases, the Board is a member of these organizations. In other cases, such as our industry groups, the economic development organizations are key members of Board-sponsored projects. We work together in identifying opportunities for the region to grow good jobs, and to help develop solutions to barriers to growth, such as the need for improved

schools. The Board's strategic plan includes a measure of the degree to which we are involved in economic development efforts leading to new or retained jobs. In general, each partner we work with pays for the service and staff the organization normally provides. For example, we may have a memorandum of understanding to work with a community-based organization to coordinate providing service to customers. We agree to make cross-referrals for customers with each partner paying for service they deliver to each customer.

There are exceptions to this general policy. Some of our partners are either vendors for Workforce Solutions or the Board has procured the organization to provide specialized service. In these cases, we pay for the partner organization to provide service, either by individual referral or through cost-reimbursement contracts.

The Board enjoys excellent working relationships with its partners, especially core partners such as the colleges, the adult education community, and economic development entities.

Vocational Rehabilitation Services

The Texas Workforce Commission's Vocational Rehabilitation Services (formerly the Department of Assistive Rehabilitation Services, or DARS) is the new State funded program that assists individuals with disabilities in obtaining employment. People with disabilities represent a growing market segment in the U.S., so counting individuals with disabilities among employees can help businesses better understand and meet the needs of this expanding customer base. In addition, hiring workers with disabilities could mean tax breaks.

On September 1, 2016, Vocational Rehabilitation Services were transferred from DARS to TWC, in accordance with Senate Bill (SB) 208, 84th Texas Legislature, Regular Session (2015). The GCWB is working with TWC to insure a smooth transition and integrate TWC's Vocational Rehabilitation Services into current Workforce Solutions' offices.

The Workforce Solutions' Navigator team and career offices work with Vocational Rehabilitation Counselors with Texas Workforce Solutions Vocational Rehabilitation Services to help connect those with disabilities with services offered through the local career office. Vocational Rehabilitation Counselors also arrange to meet customers in the local career offices.

Adult Education and Literacy

In September 2014 the Gulf Coast Workforce Board began administering the public adult education and literacy funds in our 13-county region.

Adult education and literacy providers offer English language, mathematics, reading, and writing instruction to help students acquire the skills needed to earn a high school equivalency, enter college or career training and/ or succeed in the workforce.

While some classes may charge a small, nominal fee (less than \$20) most adult education and literacy services are free to adult learners. Service is also available to young people who have dropped out of high school and have not earned an equivalency diploma.

The Gulf Coast Adult Education Consortium served a total of 26,674 customers in ESL, Adult Basic and Secondary Education, Career Pathways and Transitions courses during the period beginning July 1, 2015 and ending June 30, 2016. Notably, 890 customers were enrolled in a Career Pathways course. Career Pathways courses are uniquely designed to meet the workforce needs of employers and to enable customers to secure industry relevant certification and obtain or retain employment in in-demand occupations. These courses may involve integrated education and training (IET), which is concurrent enrollment of customers in Adult Education and workforce training, workplace literacy, or work-based training in collaboration with employers.

Senior Community Services Employment Programs

The Board participates as a host agency providing a work site for eligible SCSEP customers whenever possible. Workforce Solutions offices provide work experience opportunities including job-specific training to SCSEP customers placed at a host office of Workforce Solutions. (SCSEP contract staff work directly with Workforce Solutions office managers to establish work site agreements and job duties.)

Sharing Information with Partners

Here are some examples of how The Board shares information with partners.

- **Customer relationships** – Our employer and resident service staff have ongoing relationships with both our partners and customers. On the employer service side, business consultants, industry liaisons, and administrative staff maintain relationships with employers, economic development organizations staff, and schools. On the resident side, career office staff, particularly our greeters, resource room specialists, personal service representatives, financial aid specialist and employment counselors, work with residents to ensure they have access to all the services they want and need.
- The Gulf Coast Workforce Board has a Regional Team made up of Navigators and Facilitators that go out in to the community to reach populations that might not be served in a local career office. The Regional Team works with our partners to conduct community-based job search seminars and workshops. These presentations are conducted outside the career office in schools, libraries, and a wide range of community based organizations.
- Staff work with our vendor network to provide information about our service and system. Grants management staff work with many of partners to ensure our system is working to maximize resources in the region and provide coordinated service to employers and individuals. Board staff provide support to partners in developing new projects and grant proposals. Staff work with partners to develop meaningful memoranda of understanding (MOU) by providing high quality labor market information and guiding partners in the development of programs that are the best fit for the Region.
- **Marketing** – The Board’s marketing plan is designed to share information about workforce service throughout the region. Our marketing plan includes the use of our website, www.wrksolutions.com, email blasts, targeted mailings, and special events.

Working with Education and Training Providers

The Board has no difficulty in identifying organizations interested in providing education and training service to meet employer needs. The region’s ten community colleges, universities, and numerous private career schools are quite willing to work with us.

The Board uses the Workforce Commission’s online application and review process to maintain its list of approved vendors and educational programs. We provide information to organizations interested in becoming vendors at <http://www.wrksolutions.com/about/vendorapplications.html>. Workforce Solutions financial aid payment office assists organizations who want to become part of our network of providers. Staff answer provider questions and assist them in completing the process.

Working to Improve Early Education

Through local match agreements, the Board coordinates with school districts and Head Start/Early Head Start providers to support and expand early education and care and to improve the quality and quantity of care available to working parents.

The Board will continue to support unique projects to enhance after school and year-around care. The projects include efforts to improve the quality of learning in a variety of early education situations through scholarships for quality training, pilot projects to increase teacher pay, and support of Texas Rising Star.

2015 Workforce Report Card

In February 2005, the Board produced the first Report Card as a tool to gauge the region's competitiveness in relation to similar metropolitan areas across the United States. Since then, the Board has produced four subsequent updates. The most recent Workforce Report Card, released in February 2016, also measures how the Houston-Galveston region fits into the larger global economy. To emphasize the continued importance of an educated and trained workforce, this Report Card featured a special focus section on education that discusses the full spectrum – from early education to post-secondary training and beyond. The report also includes recommendations for improvement in the regional education system as well as a full discussion of the regional comparison indicators.

The 2015 Workforce Report card can be found at: <http://www.wrksolutions.com/about-us/gulf-coast-workforce-board/report-card>.

Report Card Regional Roundtable Discussions

In order to engage key stakeholders in communities across the region, the Gulf Coast Workforce Board hosted a series of local roundtable discussions designed to:

- Deepen relationships in each of the communities we serve
- Engage Workforce Board members in meaningful interactions with local leaders
- Create opportunities for both stakeholders and the people we serve to better understand key findings in the Report Card
- Illustrate the vital role of Workforce Solutions in the regional economy.

Common Themes:

Although each event was unique and each community had its particular concerns, we noted the following common themes:

- Emphasize early childhood education. Opinions varied on specific issues, but there was consensus about the benefits of putting more emphasis on and investing more resources in early childhood education.
- Change perceptions about technical certifications and degrees. Participants noted a need to change the perception that pursuing technical careers requiring either a professional certificate or associate's degree is less valuable than obtaining a four-year bachelor's degree. Concerns were raised that there is not enough emphasis or importance put on the value of obtaining the education and training necessary for technical careers.
- Build and expand connections between industry and education. There was widespread agreement about the need to better connect employers and educators, particularly in the areas of curriculum development and experiential learning opportunities. Educators, employers and others stressed the long-term value of apprenticeships, mentorships and other efforts that expose students to real-life workplace opportunities.
- Provide better career counseling for students. This included students in middle and high schools, with an emphasis on quality career exploration particularly in middle school.
- Teach essential skills. A number of concerns were raised that students coming out of high school are not equipped with the basic, essential skills necessary to obtain and keep jobs -- including communication, teamwork and critical thinking.
- Encourage parents' involvement. Round-table participants talked about how to encourage more parental involvement in their children's education, recognizing the obstacles that some working parents face.

We will continue to work with our community partners to address the concerns raised in the Report Card Round Table events and stand firm in our commitments presented in the 2015 Report Card.

Commitments:

The Gulf Coast Workforce Board is committed to helping build a trained and educated workforce.

- For 2016, the Board has allocated over \$4 million to support early education and care through our contracts with Collaborative for Children and the Texas Association for the Education of Young Children.
- Through Workforce Solutions, we will provide support to nearly 23,000 low-income working families to help with their early education expenses.
- Workforce Solutions will continue to provide quality local labor market information in the form of our career planning resources for student, parents and educators available at www.wrksolutions.com/careerplanning.
- We will target outreach efforts to middle schools to increase awareness of the When I Grow Up career exploration curriculum for grades six through eight www.wrksolutions.com/wigu.
- We will continue to integrate adult education and literacy into the Workforce Solutions system and leverage over \$14 million in funding to help customers continue to post-secondary training or directly into a new or better job.
- We will work to increase awareness among employers on the benefits and opportunities to use apprenticeships to develop a highly skilled workforce.

Community Partnerships

In addition to working with our core partners, the GCWB outreaches to local community partners to seek their input and collaboration on special projects in order to enhance our administration of the core programs. Over the past year the GCWB has seen success across a broad range of community based projects.

THRIVE – Workforce Connector Project

Through United Way THRIVE, families achieve financial stability by focusing on three key strategies: increasing income, building savings and acquiring assets.

As part of the THRIVE initiative, the Workforce Connector project blends the financial literacy resources of United Way THRIVE agencies with Workforce Solutions to provide a seamless service experience to customers by helping them access training, find employment and build financial stability.

In 2015, THRIVE agencies provided job readiness service to over 600 customers with nearly 300 finding employment and approximately 200 completing financial education classes.

In 2016, the model expanded to incorporate three additional partnerships, bringing the total to six career offices and six United Way agencies.

The GCWB also partnered with S&B Engineers and Constructors, the United Way, the Greater Houston Partnership, Harris County Department of Education and other community-based organizations to introduce women to craft construction occupations. 16 women started careers with S&B as they participated in four months of paid on-the-job training, to include hands-on skills development, classroom training, adult basic education, financial literacy, and preparation for NCCER construction core credential attainment.

Income Now

The GCWB partnered with the Coalition for the Homeless and other homeless service providers to help individuals experiencing homelessness find employment.

Homeless provider employment counselors are stationed at the Workforce Solutions offices that have a higher volume of customers who experience homelessness. Similarly, Workforce Solutions employment counselors are also working at homeless shelter locations and provider sites

The GCWB expects the integration of the workforce and homeless service systems to lead to an improved service experience for people experiencing homelessness. By learning from our partner agencies, Workforce

Solutions staff will be better prepared to provide employment assistance to those experiencing homelessness and partner agencies will better understand Workforce Solutions services and resources.

From the implementation date in 2015 to November 2016 the integrated approach has served over 700 customers experiencing homelessness with more than 200 finding employment.

Jobs Plus – Cuney Homes

Jobs Plus is a pilot project among the Houston Housing Authority, Workforce Solutions and a number of various community partners to bring employment resources and support services onsite to housing communities. The initial pilot will take place at the Houston Housing Authority's Cuney Homes development, located in Houston's Third Ward.

Jobs Plus seeks to develop locally-based, job-driven approaches to increase earnings and advance employment outcomes for residents of public housing through work readiness, employer linkages, job placement, educational advancement, technology skills, and financial literacy.

Cuney Homes has converted an entire complex of apartment units into community space, which will house an onsite Workforce Solutions itinerant office, adult education classes, food pantry, clothes closet, mental health counseling, onsite childcare services and more. The idea is to utilize a place-based approach to not only make access to service convenient, but to also bring a diverse set of services, resources and community partners into one location to quickly overcome job readiness challenges and help people find employment.

Through the Jobs Plus project, Workforce Solutions has provided employment service to over 300 customers with more than 50 securing employment.

Houston Food Bank

Many customers in our region are unemployed and face significant hurdles, such as food insecurity, when looking for work or training for a career. As a result, we have partnered with the Houston Food Bank to build awareness about Food Bank services and pantry locations as well as provide food support to eligible customers.

Food Bank staff began visiting career offices in Harris, Montgomery and Fort Bend counties to attend office huddles and meetings to provide Workforce Solutions staff information about Food Bank services, pantry locations, and special opportunities and initiatives.

Additionally, established the Houston Food Bank as a paid work experience site, where customers can develop skills in a variety of occupational areas to include, transportation and logistics, information technology, customer service, and food service.

We paired the Food Bank with the Income Now initiative and have provided work experience opportunities to over 60 individuals experiencing homelessness. Five of these customers secured full-time work at the Food Bank while others obtained work at other businesses utilizing the skills acquired during their work experience assignments at the Food Bank. We also connected nearly 20 young adult customers to paid work experience assignments at the Houston Food Bank.

The Houston Food Bank also administers its Food for Change program, which allows select agencies to provide high-dollar food scholarships to their eligible customers. These food scholarships typically equate to 60 pounds of food every two weeks. Customers who enroll in an education and training service with Workforce Solutions are eligible to receive the food scholarship. Many of our customers begin a training program, but are unable to complete it due to having to work to pay bills or provide food support for their family. By helping to address one of these critical issues, we believe that more customers will have an opportunity to successfully complete their training programs.

Workforce Solutions facilitators are also working with the Food Bank to develop onsite seminars, where staff will visit the Houston Food Bank periodically to offer Workforce 101 classes to Food Bank staff. These classes are designed to help outside organizations become more familiar with Workforce Solutions service to do a better job of connecting their customers to our system's resources and opportunities. Similarly, facilitators will also conduct onsite job readiness seminars for customers and Food Bank volunteers to help them find a job, keep a job or get a better job.

The Professional Academy for Career Exploration (PACE)

The Professional Academy is an innovative year-round work experience and college and career readiness program. For the 2016 school year Workforce Solutions partnered with the City of Houston and Worthing High School to provide seniors at Worthing High School enrolled in a “Career Prep Co-op” class, rotating paid internships at the City of Houston in the professional fields of Public Administration, Finance, IT, and Healthcare. Over the course of the 2016-2017 school year and the following summer, these students are participating in year-round activities including skills training, work experience, on the job training, job shadowing and mentoring, career readiness and exploration, financial literacy training, and post-secondary preparation.

The goals of the PACE project are (1) to expose students to a variety of professional career pathways; (2) encourage them to complete high school and pursue post-secondary opportunities; and (3) make informed decisions regarding major selections and career options.

The Greater Houston Workforce Development Group

The Greater Houston Workforce Development Workgroup is a regional collaborative led by Greater Houston Partnership – UpSkill Houston, Gulf Coast Workforce Board and United Way of Greater Houston. The Greater Houston Workforce Development Workgroup aligns and improves workforce services in nonprofits by investing in meaningful partnerships with industry, education, and workforce organizations. They seek to meet the current and emerging needs of our businesses and local communities so all can thrive in our growing economy.

Throughout 2015 and 2016 multiple agencies across the Houston-Galveston Region worked together to develop a comprehensive Workforce Development Professional’s Guide with the goal of improving and standardizing workforce development procedures across the region.

A copy of the Workforce Development Professional’s Guide can be found at:

<https://www.unitedwayhouston.org/thrive/resources/workforce-development-workgroup>.

ECONOMIC AND WORKFORCE ANALYSIS

3. A regional analysis of the following:

- a. The economic conditions, including existing and emerging in-demand industry sectors and occupations, as well as targeted occupations
- b. The employment needs of employers in existing and emerging in-demand industry sectors and occupations

As appropriate, a local workforce development area (workforce area) may use an existing analysis, provided that it is recent and provides a current and accurate description of the regional economy.

Economic Conditions of the Region

The Gross Domestic Product (GDP) of the Houston-Sugar Land-Baytown MSA rose from 515.2 billion in 2013 to 525.4 billion in 2014, the fourth largest economy in the United States. If it were a country it would be the 31st largest economy by Gross Domestic Product, larger than Norway, Austria, Thailand, Columbia, and Venezuela. The economy remains dominated by oil and gas exploration and production and it continues to become increasingly diversified in areas of manufacturing and health services.

Low oil prices and its effect on related business will challenge the region's economic growth through 2017. Growth in the chemical and health industries will not be strong enough to pick up the slack.

- West Texas Intermediate (WTI) oil prices are forecast to average \$40.32 per barrel in 2016 and \$50.65 per barrel in 2017 according to the U.S. Energy Administration but states there is high uncertainty in the price outlook. Any substantial recovery requires WTI around \$65 per barrel.
- Net cash flows in the upstream industry are expected to remain negative until mid-2017.
- Uncertainties surround the ability to ramp up drilling due to parts availability, lost workforce, and inability to acquire loans due to new regulations.
- Major chemical plant construction projects are expected to begin to wind down in mid-2017.
- The impact of low oil prices is expected to spread into other industry sectors as discretionary spending declines.
- The strong dollar, weak oil prices and global economic growth have driven the value of trade passing through Houston/Galveston Customs District down 26.5 percent in first quarter 2016 compared to one year earlier.

The Gulf Coast region has always been known for its strength in energy. Energy and the associated businesses make up a large portion of employment. The recent shale boom had a profound impact on the region over the last several years until the more recent crash in oil prices. The energy industry in the Gulf Coast region is currently undergoing what is the largest oil bust in history with drilling activity falling to an all-time low according to available data. The job toll peaked in May 2016 at 78,600 jobs.

In addition to energy, the region features other important industries. Its centrally southern location with easy access to the Port of Houston makes it an ideal distribution point for numerous maritime, railroad, airline, and motor freight companies.

The shale gas boom and the resulting easy access to natural gas are having a major impact on the region's petrochemical complex with numerous expansions underway helping soften the blow of the current oil bust. Most of the resulting job growth, however, has been in the construction industry consisting of temporary jobs that are expected to begin their decline in the second half of 2017. The region is currently under preparations to train additional workforce not only to operate and maintain the newly constructed plants but to replace a rapidly aging workforce.

Other industries such as education, trade, and healthcare that benefit from a population growth rate that more than doubles that of the nation experienced healthy job gains throughout 2014 and 2015. Only recently have these industries begun to show a slight slowing trend which will intensify over the next year as consumers are forced to reduce discretionary spending.

Workforce Needs of Businesses, Job Seekers, and Workers

In developing its strategic plan, the Board takes into account the regional economy, employers' current and projected human resource needs, and the current and future workforce. All of this information plays a part in shaping how we target investments to meet the needs of the labor market and its industries, employers and individuals.

The resources the Board controls are small in contrast to those in the larger workforce system. Our efforts are underwritten by a short list of revenue streams - Child Care Development Block Grant, Temporary Assistance to Needy Families, Supplemental Nutrition Assistance Program Employment and Training, Workforce Innovation and Opportunity Act, Wagner-Peyser, and Trade Act Assistance. Leveraging our role as an influencer becomes more critical as the pool of Board-controlled resources shrinks. For example, the public education system in the Gulf Coast region includes 76 school districts and 10 community college systems. The Board must leverage its relationship with the educational systems to ensure all young people receive an education that prepares them for the world of work, and adults have access to basic and job-

specific educational programs that prepare them for the high-skill, high-wage jobs in our region.

The Gulf Coast Workforce Board has worked to identify the workforce needs of businesses, job candidates, and workers in the workforce region using a combination of labor market intelligence and active participation of various partners and stakeholders. These needs are identified in three lists: 1) Targeted Industries, 2) Where the Jobs Are, and 3) High-Skill, High-Growth Occupations.

The three lists are used to guide not only the Board's strategic investments, but also to help our residents build careers in industries and occupations with good prospects and higher wages. We use the High-Skill, High-Growth Occupations list to decide which occupations we will support with our education scholarship dollars.

The Employer Service Committee reviewed and recommended the initial lists for the target industries and in-demand occupations to the Board. We noted then that we would bring periodic updates to these lists to the Committee and the Board as circumstances warranted.

The Gulf Coast Workforce Board, through its operating affiliate Workforce Solutions, is committed to providing basic labor market information and service to all employers and individuals across the 13-county region. The bulk of the resources available for employer service, however, are targeted to employers in those industries that are likely to contribute the most to the region's economic future. We call this short list of industries the *Gulf Coast Workforce Board Targeted Industries List*.

The *Targeted Industries List*, equivalent to the Commission's in-demand industry list, is simply those industries in which the Board makes major investments. To build the list of targeted industries, we looked at the 2014 through 2024 employment projections data and kept those industries that met specific criteria for total employment, growth and average earnings for workers. Several industries "fell out" because growth is not expected to keep pace with other industries. We added back a few of these industries that will nevertheless remain large and an integral part of the region's economy, even if their growth will be relatively slow in the next decade. Simply put, these industries are too important to the region's economic well-being to not focus on their needs.

While employers in the targeted industries are likely to have needs spanning the entire spectrum of occupations that make up their workforces, those with chronic labor shortages in high-skill occupations have top priority for service financed by Workforce Solutions or one of its partners in the regional workforce system. We believe helping these employers solve their workforce problems will benefit employers and residents of the region alike, and ultimately yield the best return on the taxpayer's investment.

The *Where the Jobs Are List* is the equivalent to the Commission’s in-demand occupations list, and more of a consumer tool used by people looking for work. It is primarily a list of occupations that are expected to provide at least 170 openings every year without regard to earnings potential and skill level. The list is rank-ordered by annual job openings.

Lastly, the *High-Skill, High-Growth Occupations List* is the equivalent to the Commission’s targeted occupations list, and represents the “good jobs” in the region. To build this list, we looked at earnings, the number of jobs expected to be available, the number that are new jobs, and what employers are posting ads for. We looked at educational requirements as a proxy for skill level, and chose higher-skill occupations, i.e. those requiring at least a post-secondary credential or significant work experience. We also considered what businesses are saying they need. Counselors in our offices use this list when talking to customers - “Here are the good jobs; now let me help you figure out how to get one.” We use the list in working with the public education system. For example, the Board is helping align academic and career/technology courses to the High-Skill, High-Growth Occupations, and then to the 16 education career clusters. The Board has developed career cluster maps – career planning tools – for school teachers, counselors and administrators to use when helping students choose courses that prepare them for good jobs.

Each of the lists is initially derived from the best statistical labor market information available. They are then tempered by the latest regional labor market intelligence (information not reflected in the statistical information) to produce final lists which are subsequently adopted by the Board. This “tempering” process serves as an important validation step, involving small to large local employers, and is conducted in several forums – Workforce Board meetings, the Board Employer Service Committee meetings, and through the Board’s Industry Liaisons’ contacts and committee participation.

4. A list of the in-demand industry sectors and occupations

In-Demand Industries

We began, as always, with labor market data. We used NAICS-level employment and wage data and projections for the 10-year period from 2014 to 2024 and looked for industries that fit the following criteria:

1. Industries with a projected employment growth rate equal to or greater than the 80% of the average growth rate for all industries in the region for the period 2014 to 2024 (>17.9%)
2. Industries having a projected employment growth of at least 4,000 new jobs from 2014 to 2024 (an average of 400 jobs per year)
3. Industries with an average weekly wage of at least \$700 per week.

Additional industries were included in our targeted list due to their overall importance and contribution to the region's economy and gross regional product.

2111	Oil & Gas Extraction
2131	Support Activities for Mining
3241	Petroleum & Coal Products Manufacturing
3331	Agriculture, Construction, & Mining Machinery Mfg
3329	Other Fabricated Metal Product Manufacturing

There has been significant interest from many employers in these industry sectors requesting the Board's assistance for current and projected skills shortages. We have been working with a number of these employers for several years with a variety of workforce needs.

In addition to the criteria and steps listed above, the selection process was reinforced by the use of additional tools provided by the Texas Workforce Commission:

- Texas Industry Profiles
- Wanted Analytics
- Tracer

Ten out of thirty-three industries, as a result of the analysis, are directly related to the governor’s clusters including:

NAICS Code and Title	Related Governor Clusters
2111 Oil and Gas Extraction	Energy
2371 Utility System Construction	Energy
3241 Petroleum & Coal Products Manufacturing	Petroleum Refining and Chemical Products
3251 Basic Chemical Manufacturing	Advanced Technologies and Manufacturing, Biotechnology and Life Sciences, Petroleum Refining and Chemical Products
3331 Agriculture, Construction, and Mining Machinery Manufacturing	Advanced Technologies and Manufacturing, Petroleum Refining and Chemical Products
5413 Architectural & Engineering Services	Advanced Technologies and Manufacturing, Biotechnology and Life Sciences
5415 Computer Systems Design & Related Services	Advanced Technologies and Manufacturing, Information and Computer Technology
5416 Management, Scientific, and Technical Consulting Services	Biotechnology and Life Sciences, Energy
5419 Other Professional & Technical Services	Biotechnology and Life Sciences
6113 Colleges, Universities, and Professional Schools	Information and Computer Technology

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Industries Targeted by the Gulf Coast Workforce Board^{1,2}

NAICS	Industry Title	Employment Growth				1st Qtr 2016 Avg. Weekly Wages
		Annual Averages 2014	2024	Absolute Change	Percent Change	
	Mining⁴	107,030	91,590	-15,440	-14.4%	-
2111	Oil & Gas Extraction ⁴	54,140	48,610	-5,530	-10.2%	\$5,341
2131	Support Activities for Mining ⁴	52,890	42,980	-9,910	-18.7%	\$2,793
	Construction	174,600	229,720	55,120	31.6%	
2362	Nonresidential Building Construction	43,120	54,870	11,750	27.2%	\$1,830
2371	Utility System Construction	29,600	38,680	9,080	30.7%	\$1,498
2382	Building Equipment Contractors	44,170	60,750	16,580	37.5%	\$1,157
2381	Building Foundation & Exterior Contractors	20,920	28,260	7,340	35.1%	\$1,101
2389	Other Specialty Trade Contractors	18,800	23,850	5,050	26.9%	\$1,025
2383	Building Finishing Contractors	17,990	23,310	5,320	29.6%	\$881
	Manufacturing⁴	92,210	86,830	-5,380	-5.8%	-
3241	Petroleum & Coal Products Manufacturing	10,050	11,730	1,680	16.7%	\$3,738
3251	Basic Chemical Manufacturing	21,890	26,270	4,380	20.0%	\$2,940
3331	Agriculture, Construction, & Mining Machinery Manufacturing ⁴	42,680	33,860	-8,820	-20.7%	\$2,365
3329	Other Fabricated Metal Product Manufacturing ⁴	17,590	14,970	-2,620	-14.9%	\$1,402
	Trade, Transportation & Utilities	100,840	128,510	27,670	27.4%	-
4251	Wholesale Electronic Markets & Agents & Brokers	21,880	29,960	8,080	36.9%	\$2,560
4238	Machinery & Supply Merchant Wholesalers	35,440	44,970	9,530	26.9%	\$1,600
4411	Automobile Dealers	25,760	31,410	5,650	21.9%	\$1,187
4811	Scheduled Air Transportation	17,760	22,170	4,410	24.8%	\$2,124
	Finance and Insurance	18,170	22,940	4,770	26.3%	-
5242	Insurance Agencies & Brokerages	18,170	22,940	4,770	26.3%	\$1,566
	Professional and Business Services	298,520	377,480	78,960	26.5%	-
5411	Legal Services	24,060	28,860	4,800	20.0%	\$2,045
5412	Accounting & Bookkeeping Services	22,260	27,080	4,820	21.7%	\$1,294
5413	Architectural & Engineering Services	73,470	93,740	20,270	27.6%	\$2,007
5415	Computer Systems Design & Related Services	30,230	38,870	8,640	28.6%	\$2,073
5416	Management & Technical Consulting Services	34,220	43,420	9,200	26.9%	\$2,173
5419	Other Professional & Technical Services	15,300	19,920	4,620	30.2%	\$1,190
5611	Office Administrative Services	22,220	28,190	5,970	26.9%	\$2,462
5613	Employment Services	76,760	97,400	20,640	26.9%	\$937
	Education and Health Services	418,760	538,090	119,330	28.5%	-
6111	Elementary & Secondary Schools, Public & Private ³	187,470	236,120	48,650	26.0%	\$1,090
6113	Colleges & Universities, Public & Private ³	53,270	64,800	11,530	21.6%	\$1,749
6211	Offices of Physicians	48,210	69,460	21,250	44.1%	\$1,522
6214	Outpatient Care Centers	10,030	14,940	4,910	49.0%	\$1,216
6221	General Medical & Surgical Hospitals, Public & Private	81,370	103,250	21,880	26.9%	\$1,201
6223	Specialty Hospitals, Public & Private	22,220	28,980	6,760	30.4%	\$1,029
6212	Offices of Dentists	16,190	20,540	4,350	26.9%	\$903
	Other Services	18,560	24,170	5,610	30.2%	-
8111	Automotive Repair & Maintenance	18,560	24,170	5,610	30.2%	\$716

GULF COAST WORKFORCE REGION

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Industries Targeted by the Gulf Coast Workforce Board^{1,2}

Notes

1. Criteria used to identify the targeted industries:

Industries with a projected employment growth of at least 4,000 new jobs from 2014-2024 (an average of 400 jobs per year)

Industries with projected employment growth rate greater than or equal to 80% of the average growth rate for all industries in the region for the period 2014 to 2024. (17.9%)

Industries with an average weekly wage of at least \$700 per week.

2. Absolute changes do not represent total demand for labor because they do not reflect demand due to replacements, attrition, turnover, etc.

3. Employment and average weekly wage information is from the first quarter 2012 ES-202 data based on employers' employment and wage reports to Texas Workforce Commission. Average weekly wages for NAICS 6111 and 6113 are based on a 9 month year.

4. Industries included on the previous Targeted Industries List that are projected to decline over 2014 to 2024, but are retained for periodic review by the Board due to their continued importance to the regional economy.

Authorized for use by the Gulf Coast Workforce Board [INSERT DATE APPROVED HERE]

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In-Demand Occupations

We use the “Where the Jobs Are” list to identify those occupations that are growing. We don’t use wage or other kinds of criteria to refine the list; it consists entirely of those jobs in which we expect to see openings over the next 10 years. Occupations on this list are those with projected annual average job openings equal to or greater than 170 per year.

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GULF COAST WORKFORCE REGION

Where The Jobs Are 1.23

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ³	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
11-0000	Management Occupations	166,700	198,120	31,420	18.8%	3,140	3,690	6,830				\$58.25
11-1021	General & Operations Managers	47,300	57,500	10,200	21.6%	1,020	1,195	2,215	Bachelor's	5 years or more	None	\$58.53
11-2022	Sales Managers	6,690	8,040	1,350	20.2%	135	160	295	Bachelor's	Less than 5 years	None	\$62.97
11-3011	Administrative Services Managers	5,530	6,800	1,270	23.0%	125	105	230	Bachelor's	Less than 5 years	None	\$48.02
11-3021	Computer & Information Systems Managers	5,680	7,050	1,370	24.1%	135	65	200	Bachelor's	5 years or more	None	\$68.74
11-3031	Financial Managers	8,770	10,280	1,510	17.2%	150	210	360	Bachelor's	5 years or more	None	\$67.00
11-9013	Farmers, Ranchers, & Other Agricultural Managers	20,920	22,030	1,110	5.3%	110	355	465	High school	5 years or more	None	\$14.51
11-9021	Construction Managers	13,440	16,010	2,570	19.1%	255	190	445	Bachelor's	None	Moderate	\$41.22
11-9032	Education Administrators, Elementary/Secondary School	5,370	6,840	1,470	27.4%	145	155	300	Master's	5 years or more	None	-
11-9041	Architectural & Engineering Managers	4,720	5,460	740	15.7%	75	145	220	Bachelor's	5 years or more	None	\$81.11
11-9051	Food Service Managers	4,310	5,630	1,320	30.6%	130	85	215	High school	Less than 5 years	None	\$25.73
11-9111	Medical & Health Services Managers	4,840	6,390	1,550	32.0%	155	120	275	Bachelor's	Less than 5 years	None	\$48.46
11-9141	Property, Real Estate, & Community Association Managers	5,930	6,940	1,010	17.0%	100	105	205	High school	Less than 5 years	None	\$30.59
11-9199	Managers, All Other	9,490	11,130	1,640	17.3%	165	210	375	Bachelor's	Less than 5 years	None	\$59.68
13-0000	Business & Financial Operations Occupations	154,100	185,700	31,600	20.5%	3,160	3,295	6,455				\$35.09
13-2011	Accountants & Auditors	39,640	48,220	8,580	21.6%	860	1,060	1,920	Bachelor's	None	None	\$36.89
13-1071	Human Resources Specialists	12,250	14,450	2,200	18.0%	220	300	520	Bachelor's	None	None	\$29.24
13-1199	Business Operations Specialists, All Other	16,290	19,130	2,840	17.4%	285	195	480	Bachelor's	None	None	\$38.59
13-1111	Management Analysts	12,000	14,680	2,680	22.3%	265	165	430	Bachelor's	Less than 5 years	None	\$46.15
13-1023	Purchasing Agents, Ex. Wholesale, Retail, & Farm Products	8,920	9,930	1,010	11.3%	100	245	345	Bachelor's	None	Long-term	\$32.92
13-1161	Market Research Analysts & Marketing Specialists	7,050	9,310	2,260	32.1%	225	85	310	Bachelor's	None	None	\$29.57
13-1151	Training & Development Specialists	6,280	7,600	1,320	21.0%	135	155	290	Bachelor's	Less than 5 years	None	\$33.22
13-1051	Cost Estimators	4,940	6,180	1,240	25.1%	125	140	265	Bachelor's	None	None	\$32.05
13-2051	Financial Analysts	6,630	7,850	1,220	18.4%	120	135	255	Bachelor's	None	None	\$40.68
13-2052	Personal Financial Advisors	4,190	5,650	1,460	34.8%	145	105	250	Bachelor's	None	Long-term	\$34.43
15-0000	Computer & Mathematical Occupations	81,750	100,060	18,310	22.4%	1,830	1,170	3,000				\$41.01
15-1121	Computer Systems Analysts	18,010	22,990	4,980	27.7%	500	230	730	Bachelor's	None	None	\$44.67
15-1151	Computer User Support Specialists	13,430	16,380	2,950	22.0%	295	175	470	Some college	None	None	\$25.73
15-1132	Software Developers, Applications	11,590	14,280	2,690	23.2%	270	165	435	Bachelor's	None	None	\$48.54
15-1133	Software Developers, Systems Software	8,470	10,090	1,620	19.1%	160	120	280	Bachelor's	None	None	\$50.54
15-1142	Network & Computer Systems Administrators	8,660	10,150	1,490	17.2%	150	110	260	Bachelor's	None	None	\$42.52
17-0000	Architecture & Engineering Occupations	92,380	107,360	14,980	16.2%	1,505	2,275	3,780				\$43.94
17-2051	Civil Engineers	11,070	14,000	2,930	26.5%	295	325	620	Bachelor's	None	None	\$49.41
17-2141	Mechanical Engineers	8,670	10,140	1,470	17.0%	145	275	420	Bachelor's	None	None	\$46.68
17-2171	Petroleum Engineers	10,700	11,400	700	6.5%	70	290	360	Bachelor's	None	None	\$74.24
17-3023	Electrical & Electronics Engineering Technicians	5,400	6,200	800	14.8%	80	130	210	Associate's	None	None	\$28.89
17-2041	Chemical Engineers	4,270	5,130	860	20.1%	85	115	200	Bachelor's	None	None	\$55.85
17-2112	Industrial Engineers	4,990	5,470	480	9.6%	50	145	195	Bachelor's	None	None	\$47.50
17-2071	Electrical Engineers	4,470	5,380	910	20.4%	90	100	190	Bachelor's	None	None	\$49.90

GULF COAST WORKFORCE REGION

Where The Jobs Are ^{1,2,3}

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ³	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
19-0000	Life, Physical, & Social Science Occupations	33,060	38,460	5,400	16.3%	555	1,015	1,570				\$31.35
19-4099	Life, Physical, & Social Science Technicians, All Other	3,720	4,700	980	26.3%	100	155	255	Associate's	None	None	\$18.49
19-2042	Geoscientists, Ex. Hydrologists & Geographers	6,150	6,740	590	9.6%	60	190	250	Bachelor's	None	None	\$66.66
21-0000	Community & Social Service Occupations	41,860	50,850	8,990	21.5%	900	905	1,805				\$22.78
21-2011	Clergy	12,960	14,800	1,840	14.2%	185	280	465	Bachelor's	None	Moderate	\$24.95
21-1012	Educational, Guidance, School, & Vocational Counselors	4,690	5,950	1,260	26.9%	125	100	225	Master's	None	None	\$28.33
23-0000	Legal Occupations	27,530	33,150	5,620	20.4%	560	480	1,040				\$41.44
23-1011	Lawyers	15,710	19,230	3,520	22.4%	350	230	580	Doctoral or prof.	None	None	\$69.50
23-2011	Paralegals & Legal Assistants	5,700	7,260	1,560	27.4%	155	125	280	Associate's	None	None	\$25.87
25-0000	Education, Training, & Library Occupations	169,180	212,850	43,670	25.8%	4,365	3,650	8,015				\$24.78
25-2021	Elementary School Teachers, Ex. Special Education ⁴	33,980	43,150	9,170	27.0%	915	750	1,665	Bachelor's	None	Internship/residency	\$36.71
25-2031	Secondary School Teachers, Ex. Special/Career/Technical Ed ⁴	22,550	28,640	6,090	27.0%	610	535	1,145	Bachelor's	None	Internship/residency	\$36.75
25-9041	Teacher Assistants	17,090	21,690	4,600	26.9%	460	410	870	Some college	None	None	\$14.03
25-2022	Middle School Teachers, Ex. Special/Career/Technical Ed ⁴	16,470	20,940	4,470	27.1%	445	365	810	Bachelor's	None	Internship/residency	\$36.43
25-3098	Substitute Teachers	17,070	21,540	4,470	26.2%	445	320	765	Bachelor's	None	Internship/residency	\$11.92
25-2011	Preschool Teachers, Ex. Special Education	8,470	10,470	2,000	23.6%	200	250	450	Associate's	None	None	\$11.50
25-3021	Self-Enrichment Education Teachers	5,780	7,420	1,640	28.4%	165	110	275	High school	Less than 5 years	None	\$17.84
25-2012	Kindergarten Teachers, Ex. Special Education ⁴	4,120	5,200	1,080	26.2%	110	120	230	Bachelor's	None	Internship/residency	\$34.01
27-0000	Arts, Design, Entertainment, Sports, & Media Occupations	36,910	44,660	7,750	21.0%	780	850	1,630				\$21.35
27-2022	Coaches & Scouts	3,450	4,230	780	22.6%	80	115	195	Bachelor's	None	None	\$11.69
27-1026	Merchandise Displayers & Window Trimmers	3,880	4,810	930	24.0%	95	90	185	High school	None	Moderate	\$25.89
27-3031	Public Relations Specialists	5,160	6,280	1,120	21.7%	110	60	170	Bachelor's	None	None	\$25.89
29-0000	Healthcare Practitioners & Technical Occupations	146,970	193,450	46,480	31.6%	4,650	3,215	7,865				\$32.24
29-1141	Registered Nurses	46,340	61,920	15,580	33.6%	1,560	1,095	2,655	Bachelor's	None	None	\$36.73
29-2061	Licensed Practical & Licensed Vocational Nurses	13,280	17,620	4,340	32.7%	435	380	815	Postsecondary non-degree	None	None	\$22.63
29-1069	Physicians & Surgeons, All Other	5,950	8,230	2,280	38.3%	230	160	390	Doctoral or prof.	None	Internship/residency	\$84.78
29-2052	Pharmacy Technicians	8,380	10,630	2,250	26.8%	225	85	310	High school	None	Moderate	\$16.43
29-1051	Pharmacists	5,400	6,550	1,150	21.3%	115	125	240	Doctoral or prof.	None	None	\$56.80
29-2071	Medical Records & Health Information Technicians	3,960	5,220	1,260	31.8%	125	90	215	Postsecondary non-degree	None	None	\$18.47
29-2041	Emergency Medical Technicians & Paramedics	4,050	5,420	1,370	33.8%	135	65	200	Postsecondary non-degree	None	None	\$15.30
29-2034	Radiologic Technologists	3,850	4,890	1,040	27.0%	105	75	180	Associate's	None	None	\$27.54
29-2011	Medical & Clinical Laboratory Technologists	3,240	4,250	1,010	31.2%	100	75	175	Bachelor's	None	None	\$29.30

GULF COAST WORKFORCE REGION

Where The Jobs Are ^{1,2,3}

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ^a	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
31-0000	Healthcare Support Occupations	63,910	87,030	23,120	36.2%	2,310	1,390	3,700				\$12.56
31-1014	Nursing Assistants	18,740	25,250	6,510	34.7%	650	425	1,075	Postsecondary non-degree	None	None	\$11.72
31-9092	Medical Assistants	14,090	19,580	5,490	39.0%	550	295	845	Postsecondary non-degree	None	None	\$13.66
31-1011	Home Health Aides	10,430	15,550	5,120	49.1%	510	235	745	No formal credential	None	Short-term	\$8.75
31-9091	Dental Assistants	6,580	8,400	1,820	27.7%	180	165	345	Postsecondary non-degree	None	None	\$16.99
33-0000	Protective Service Occupations	74,290	88,900	14,610	19.7%	1,460	1,690	3,150				\$17.88
33-9032	Security Guards	27,790	35,170	7,380	26.6%	740	390	1,130	High school	None	Short-term	\$11.38
33-3051	Police & Sheriff's Patrol Officers	16,080	18,410	2,330	14.5%	235	530	765	High school	None	Moderate	\$29.85
33-3012	Correctional Officers & Jailers	10,920	12,300	1,380	12.6%	140	300	440	High school	None	Moderate	\$18.83
33-2011	Firefighters	6,480	7,570	1,090	16.8%	110	190	300	Postsecondary non-degree	None	Long-term	\$22.13
35-0000	Food Preparation & Serving Related Occupations	258,540	354,120	95,580	37.0%	9,560	9,980	19,540				\$9.14
35-3021	Food Preparation & Serving Workers, Incl. Fast Food	61,010	87,330	26,320	43.1%	2,635	1,970	4,605	No formal credential	None	Short-term	\$8.87
35-3031	Waiters & Waitresses	53,290	71,350	18,060	33.9%	1,805	2,565	4,370	No formal credential	None	Short-term	\$8.95
35-3022	Counter Attendants; Cafeteria/Food Concession/Coffee Shop	17,760	24,700	6,940	39.1%	695	1,070	1,765	No formal credential	None	Short-term	\$8.63
35-2014	Cooks, Restaurant	20,600	31,070	10,470	50.8%	1,045	545	1,590	No formal credential	Less than 5 years	Moderate	\$10.54
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	19,160	27,300	8,140	42.5%	815	570	1,385	High school	Less than 5 years	None	\$16.76
35-9031	Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	10,700	14,740	4,040	37.8%	405	760	1,165	No formal credential	None	None	\$8.78
35-2021	Food Preparation Workers	15,970	21,450	5,480	34.3%	550	445	995	No formal credential	None	Short-term	\$10.13
35-9011	Dining Room & Cafeteria Attendants & Bartender Helpers	9,490	12,910	3,420	36.0%	340	475	815	No formal credential	None	Short-term	\$8.78
35-3011	Bartenders	8,900	12,640	3,740	42.0%	375	335	710	No formal credential	None	Short-term	\$8.96
35-9021	Dishwashers	8,510	10,410	1,900	22.3%	190	370	560	No formal credential	None	Short-term	\$9.16
35-2011	Cooks, Fast Food	11,580	12,960	1,380	11.9%	140	305	445	No formal credential	None	Short-term	\$8.84
35-2012	Cooks, Institution & Cafeteria	6,420	7,810	1,390	21.7%	140	170	310	No formal credential	None	Short-term	\$11.41
35-2015	Cooks, Short Order	5,470	6,580	1,110	20.3%	110	145	255	No formal credential	None	Short-term	\$9.22
35-3041	Food Servers, Nonrestaurant	4,240	5,500	1,260	29.7%	125	105	230	No formal credential	None	Short-term	\$9.02
37-0000	Building & Grounds Cleaning & Maintenance Occupations	98,740	126,430	27,690	28.0%	2,770	1,990	4,760				\$10.10
37-2011	Janitors & Cleaners, Ex. Maids & Housekeeping Cleaners	47,980	61,830	13,850	28.9%	1,385	955	2,340	No formal credential	None	Short-term	\$9.72
37-2012	Maids & Housekeeping Cleaners	21,540	27,330	5,790	26.9%	580	515	1,095	No formal credential	None	Short-term	\$9.13
37-3011	Landscaping & Groundskeeping Workers	19,900	25,460	5,560	27.9%	555	360	915	No formal credential	None	Short-term	\$11.05
39-0000	Personal Care & Service Occupations	104,610	137,940	33,330	31.9%	3,335	2,035	5,370				\$9.07
39-9021	Personal Care Aides	39,210	57,430	18,220	46.5%	1,820	315	2,135	No formal credential	None	Short-term	\$8.67
39-9011	Childcare Workers	22,580	27,250	4,670	20.7%	465	665	1,130	High school	None	Short-term	\$9.15
39-5012	Hairdressers, Hairstylists, & Cosmetologists	10,790	13,460	2,670	24.7%	270	280	550	Postsecondary non-degree	None	None	\$10.43
39-3091	Amusement & Recreation Attendants	3,750	4,730	980	26.1%	100	155	255	No formal credential	None	Short-term	\$8.64
39-2021	Nonfarm Animal Caretakers	4,470	5,710	1,240	27.7%	125	90	215	High school	None	Short-term	\$9.04
39-9032	Recreation Workers	4,370	5,450	1,080	24.7%	110	80	190	High school	None	Short-term	\$11.05
39-1021	First-Line Supervisors of Personal Service Workers	4,240	5,200	960	22.6%	95	80	175	High school	Less than 5 years	None	\$16.26
39-9031	Fitness Trainers & Aerobics Instructors	4,190	5,170	980	23.4%	100	75	175	High school	None	Short-term	\$20.76

GULF COAST WORKFORCE REGION

Where The Jobs Are ^{1,2,3}

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ³	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
41-0000	Sales & Related Occupations	323,480	392,980	69,500	21.5%	6,950	9,225	16,175				\$13.53
41-2031	Retail Salespersons	91,830	113,230	21,400	23.3%	2,140	3,185	5,325	No formal credential	None	Short-term	\$10.59
41-2011	Cashiers	61,450	74,290	12,840	20.9%	1,285	2,615	3,900	No formal credential	None	Short-term	\$9.26
41-4012	Sales Reprs, Wholesale/Mfg, Exc Tech/Scientific Products	35,540	43,410	7,870	22.1%	790	730	1,520	High school	None	Moderate	\$29.66
41-1011	First-Line Supervisors of Retail Sales Workers	29,150	35,070	5,920	20.3%	590	650	1,240	High school	Less than 5 years	None	\$20.51
41-3099	Sales Representatives, Services, All Other	26,860	32,810	5,950	22.2%	595	570	1,165	High school	None	Moderate	\$26.11
41-2021	Counter & Rental Clerks	12,430	14,870	2,440	19.6%	245	310	555	No formal credential	None	Short-term	\$11.86
41-3021	Insurance Sales Agents	9,130	11,490	2,360	25.8%	235	240	475	High school	None	Moderate	\$21.89
41-3031	Securities, Commodities, & Financial Services Sales Agents	9,460	11,220	1,760	18.6%	175	165	340	Bachelor's	None	Moderate	\$27.48
41-1012	First-Line Supervisors of Non-Retail Sales Workers	11,120	13,190	2,070	18.6%	205	130	335	High school	Less than 5 years	None	\$38.24
41-4011	Sales Reprs, Wholesale/Mfg, Technical/Scientific Products	7,040	8,420	1,380	19.6%	140	145	285	Bachelor's	None	Moderate	\$41.01
41-9022	Real Estate Sales Agents	9,940	11,730	1,790	18.0%	180	70	250	High school	None	Moderate	\$30.24
43-0000	Office & Administrative Support Occupations	470,970	550,660	79,690	16.9%	8,050	9,585	17,635				\$16.36
43-9061	Office Clerks, General	83,470	97,510	14,040	16.8%	1,405	1,800	3,205	High school	None	Short-term	\$15.88
43-4051	Customer Service Representatives	55,940	69,430	13,490	24.1%	1,350	1,380	2,730	High school	None	Short-term	\$14.94
43-5081	Stock Clerks & Order Fillers	37,970	46,190	8,220	21.6%	820	1,205	2,025	No formal credential	None	Short-term	\$11.76
43-6014	Secretaries & Admin Assistants, Ex. Legal/Medical/Executive	46,070	53,270	7,200	16.6%	765	485	1,250	High school	None	Short-term	\$16.31
43-1011	First-Line Supervisors of Office & Admin Support Workers	28,340	34,300	5,960	21.0%	595	430	1,025	High school	Less than 5 years	None	\$28.05
43-6013	Medical Secretaries	22,280	30,100	7,820	35.1%	780	235	1,015	High school	None	Moderate	\$15.27
43-5071	Shipping, Receiving, & Traffic Clerks	18,600	20,870	2,270	12.2%	225	405	630	High school	None	Short-term	\$14.45
43-4171	Receptionists & Information Clerks	13,970	16,370	2,400	17.2%	240	375	615	High school	None	Short-term	\$12.97
43-3021	Billing & Posting Clerks	11,200	14,270	3,070	27.4%	305	325	540	High school	None	Moderate	\$17.85
43-3031	Bookkeeping, Accounting, & Auditing Clerks	32,510	33,680	1,170	3.6%	115	320	435	Some college	None	Moderate	\$18.74
43-3071	Tellers	10,780	10,940	160	1.5%	15	420	435	High school	None	Short-term	\$11.99
43-5061	Production, Planning, & Expediting Clerks	9,200	10,590	1,390	15.1%	140	250	390	High school	None	Moderate	\$22.18
43-4081	Hotel, Motel, & Resort Desk Clerks	3,320	4,270	950	28.6%	95	170	265	High school	None	Short-term	\$9.23
43-5032	Dispatchers, Ex. Police, Fire, & Ambulance	5,340	6,620	1,280	24.0%	130	135	265	High school	None	Moderate	\$17.77
43-9041	Insurance Claims & Policy Processing Clerks	4,950	6,220	1,270	25.7%	130	125	255	High school	None	Moderate	\$18.60
43-3011	Bill & Account Collectors	6,780	7,180	400	5.9%	40	165	205	High school	None	Moderate	\$16.01
43-5052	Postal Service Mail Carriers	5,510	6,420	910	16.5%	90	105	195	High school	None	Short-term	\$28.50
43-4151	Order Clerks	5,060	5,570	510	10.1%	50	135	185	High school	None	Short-term	\$18.53
43-6011	Executive Secretaries & Executive Administrative Assistants	12,420	12,910	490	3.9%	50	130	180	High school	Less than 5 years	None	\$26.90
45-0000	Farming, Fishing, & Forestry Occupations	15,440	16,060	620	4.0%	60	405	465				\$10.29
45-2092	Farmworkers & Laborers; Crop, Nursery, & Greenhouse	8,440	8,600	160	1.9%	15	225	240	No formal credential	None	Short-term	\$8.88
45-2093	Farmworkers; Farm, Ranch, & Aquacultural Animals	5,520	5,830	310	5.6%	30	145	175	No formal credential	None	Short-term	\$11.17

GULF COAST WORKFORCE REGION

Where The Jobs Are ^{1,2,3}

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ³	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
49-0000	Construction & Extraction Occupations	206,690	250,260	43,570	21.1%	4,775	3,485	8,260				\$18.37
47-2061	Construction Laborers	41,780	53,510	11,730	28.1%	1,175	835	2,010	No formal credential	None	Short-term	\$13.69
47-2111	Electricians	18,450	24,130	5,680	30.8%	570	280	850	High school	None	Apprenticeship	\$22.13
47-1011	First-Line Supervisors: Construction Trades/Extraction Wkrs	22,970	27,480	4,510	19.6%	450	180	630	High school	5 years or more	None	\$31.31
47-2152	Plumbers, Pipefitters, & Steamfitters	13,570	17,390	3,820	28.2%	380	180	560	High school	None	Apprenticeship	\$23.60
47-2031	Carpenters	14,810	18,310	3,500	23.6%	350	170	520	High school	None	Apprenticeship	\$16.92
47-2141	Painters, Construction & Maintenance	11,050	13,220	2,170	24.2%	265	175	440	No formal credential	None	Moderate	\$16.88
47-2073	Operating Engineers & Other Construction Equip Operators	10,380	12,740	2,360	22.7%	235	175	410	High school	None	Moderate	\$18.57
47-5013	Service Unit Operators, Oil, Gas, & Mining	7,860	6,540	-1,320	-16.8%	0	270	270	No formal credential	None	Moderate	\$21.48
47-2051	Cement Masons & Concrete Finishers	5,010	6,550	1,540	30.7%	155	60	215	No formal credential	None	Moderate	\$14.39
49-0000	Installation, Maintenance, & Repair Occupations	132,420	163,410	30,990	23.4%	3,115	3,100	6,215				\$20.58
49-9071	Maintenance & Repair Workers, General	28,050	33,870	5,820	20.7%	580	735	1,315	High school	None	Long-term	\$16.95
49-3023	Auto Service Technicians & Mechanics	12,840	15,490	2,650	20.6%	265	345	610	Postsecondary non-degree	None	Short-term	\$19.57
49-9041	Industrial Machinery Mechanics	11,270	14,370	3,100	27.5%	310	290	600	High school	None	Long-term	\$24.66
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	10,730	12,880	2,150	20.0%	215	215	430	High school	Less than 5 years	None	\$31.79
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	6,780	8,720	1,940	28.6%	195	115	310	High school	None	Long-term	\$21.96
49-2021	Heating, AC, & Refrigeration Mechanics & Installers	5,750	7,670	1,920	33.4%	195	90	285	Postsecondary non-degree	None	Long-term	\$21.46
49-9098	Helpers--Installation, Maintenance, & Repair Workers	4,880	6,090	1,210	24.8%	120	160	280	High school	None	Short-term	\$12.71
49-3042	Mobile Heavy Equipment Mechanics, Ex. Engines	4,680	5,720	1,040	22.2%	105	110	215	High school	None	Long-term	\$24.48
49-9051	Electrical Power-Line Installers & Repairers	2,800	3,670	870	31.1%	85	110	195	High school	None	Long-term	\$27.79
51-0000	Production Occupations	206,560	224,070	17,510	8.5%	2,210	4,980	7,190				\$17.17
51-4121	Welders, Cutters, Solderers, & Brazers	18,800	21,630	2,830	15.1%	285	540	825	High school	None	Moderate	\$20.91
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	17,800	19,250	1,450	8.1%	145	450	595	High school	None	Moderate	\$20.64
51-9198	Helpers--Production Workers	13,290	14,470	1,180	8.9%	120	435	555	No formal credential	None	Short-term	\$12.58
51-4041	Machinists	13,620	13,720	100	0.7%	10	395	405	High school	None	Long-term	\$19.81
51-1011	First-Line Supervisors of Production & Operating Workers	15,200	16,730	1,530	10.1%	155	240	395	High school	Less than 5 years	None	\$32.77
51-9011	Chemical Equipment Operators & Tenders	7,390	8,640	1,250	16.9%	125	235	360	High school	None	Moderate	\$31.87
51-2092	Team Assemblers	11,040	12,090	1,050	9.5%	105	235	340	High school	None	Moderate	\$14.16
51-9111	Packaging & Filling Machine Operators & Tenders	4,740	5,430	690	14.6%	70	170	240	High school	None	Moderate	\$11.57
51-8093	Petroleum Pump System Operators/Refinery Operators/Gauger	4,310	4,850	540	12.5%	55	165	220	High school	None	Long-term	\$32.85
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	5,240	5,710	470	9.0%	45	160	205	High school	None	Moderate	\$19.25
51-8091	Chemical Plant & System Operators	3,370	4,000	630	18.7%	60	125	185	High school	None	Long-term	\$33.14

Where The Jobs Are ^{1,2,3}

SOC	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Annual Openings due to Growth	Annual Openings due to Replacements	Total Annual Average Openings ³	Typical Education Needed for Entry into Occupation	Work Experience in a related Occupation	Typical on-the-job training	PCT 50 Median Wage 2015
53-0000	Transportation & Material Moving Occupations	215,610	264,510	48,900	22.7%	4,900	5,375	10,275				\$15.40
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	45,050	55,160	10,110	22.4%	1,010	1,340	2,350	No formal credential	None	Short-term	\$11.80
53-3032	Heavy & Tractor-Trailer Truck Drivers	42,360	52,100	9,740	23.0%	975	720	1,695	Postsecondary non-degree	None	Short-term	\$18.47
53-7051	Industrial Truck & Tractor Operators	15,340	18,550	3,210	20.9%	320	380	700	No formal credential	None	Short-term	\$15.11
53-3033	Light Truck or Delivery Services Drivers	15,300	18,960	3,660	23.9%	365	260	625	High school	None	Short-term	\$14.29
53-3031	Driver/Sales Workers	11,840	15,360	3,520	29.7%	350	200	550	High school	None	Short-term	\$11.32
53-7061	Cleaners of Vehicles & Equipment	8,260	10,480	2,220	26.9%	225	290	515	No formal credential	None	Short-term	\$9.89
53-7064	Packers & Packers, Hand	10,760	12,820	2,060	19.1%	205	285	490	No formal credential	None	Short-term	\$9.57
53-2031	Flight Attendants	6,360	8,110	1,750	27.5%	175	115	290	High school	Less than 5 years	Moderate	-
53-3022	Bus Drivers, School or Special Client	8,250	10,050	1,800	21.8%	180	110	290	High school	None	Short-term	\$15.20
53-6021	Parking Lot Attendants	3,370	4,120	750	22.3%	75	190	265	No formal credential	None	Short-term	\$9.32
53-1031	First-Line Supervisors: Trans./Material-Moving Mach/Veh Oprs	4,690	5,670	980	20.9%	100	150	250	High school	Less than 5 years	None	\$29.38
53-1021	First-Line Supervisors: Helprs/Labors/Material Movrs, Hand	3,290	3,910	620	18.8%	65	105	170	High school	Less than 5 years	None	\$22.63

1. Where The Jobs Are represents those occupations projected to offer the largest number of employment opportunities for Gulf Coast residents now and in the immediate future.

2. Occupations on this list are those with projected annual average job openings equal to or greater than 170 per year.

3. Occupations are ranked by total number of annual average job openings.

4. Average hourly wages provided, median wage not available.

5. A list of the target occupations

High-Skill, High-Growth Occupations

The high-skill, high-growth list is made up of larger, high-skill, well-paying occupations critical to the Gulf Coast region's economic future. They offer the best job opportunities to area residents now and will likely continue doing so over the next ten plus years. These occupations are found in many industries in the region, not just in those on the in-demand industries list.

Qualifying Criteria:

Occupations meet the following criteria to be included on the high-skill, high-growth occupations list. They must have:

- projected employment for 2024 equal to or greater than the average for all occupations in the region (5,633)
- a projected employment growth rate equal to or greater than the average growth rate for all industries in the region (22.4 %)
- minimum education requirements of a post-secondary certificate or degree, moderate on-the-job training, long-term on-the-job training, or work experience in a related occupation
- median hourly wages equal to or greater than the median for all occupations in the region (\$18.06 per hour)

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**GULF COAST WORKFORCE REGION
High-Skill, High-Growth Jobs Targeted by the Gulf Coast Workforce Board^{1,2}**

SOC	Occupational Title	Employment Growth		Percent Change	Annual Averages			Typical Education Needed	Work Experience in Related Occ	Typical On-the-job Training	Median Hourly Wage 2015
		2014	2024		Absolute Change	Annual Averages	Job Openings				
13-1000	Business Operations Specialists	88,590	106,210	17,620	19.9%	1,675	3,435	-	-	-	
13-1161	Market Research Analysts & Marketing Specialists	7,050	9,310	2,260	32.1%	85	310	Bachelor's	None	\$29.57	
13-1051	Cost Estimators	4,940	6,180	1,240	25.1%	125	265	Bachelor's	None	\$32.05	
13-2000	Financial Specialists	65,510	79,490	13,980	21.3%	1,400	3,020	-	-	-	
13-2052	Personal Financial Advisors	4,190	5,650	1,460	34.8%	145	250	Bachelor's	None	\$34.43	
13-2011	Accountants & Auditors ²	39,640	48,220	8,580	21.6%	860	1,920	Bachelor's	None	\$36.89	
15-1100	Computer Occupations	79,430	96,820	17,390	21.9%	1,740	2,865	-	-	-	
15-1121	Computer Systems Analysts	18,010	22,990	4,980	27.7%	500	730	Bachelor's	None	\$44.67	
15-1132	Software Developers, Applications	11,590	14,280	2,690	23.2%	270	435	Bachelor's	None	\$48.54	
15-1133	Software Developers, Systems Software ²	8,470	10,090	1,620	19.1%	160	280	Bachelor's	None	\$50.54	
15-1142	Network and Computer Systems Administrators ²	8,660	10,150	1,490	17.2%	150	260	Bachelor's	None	\$42.52	
17-2000	Engineers	59,050	69,020	9,970	16.9%	1,005	2,635	-	-	-	
17-2031	Biomedical Engineers ³	280	380	100	35.7%	10	5	Bachelor's	None	\$37.80	
17-2081	Environmental Engineers ²	910	1,170	260	28.6%	25	50	Bachelor's	None	\$39.58	
17-2051	Civil Engineers	11,070	14,000	2,930	26.5%	295	620	Bachelor's	None	\$49.41	
17-2072	Electronics Engineers, Ex. Computer ²	3,050	3,740	690	22.6%	70	135	Bachelor's	None	\$50.91	
17-2071	Electrical Engineers ³	4,470	5,380	910	20.4%	90	190	Bachelor's	None	\$49.90	
17-2041	Chemical Engineers ³	4,270	5,130	860	20.1%	85	200	Bachelor's	None	\$55.85	
17-2121	Marine Engineers & Naval Architects ³	1,380	1,640	260	18.8%	25	60	Bachelor's	None	\$52.94	
17-2111	Health & Safety Engineers, Ex. Mining Safety Engineers & Inspectors ³	1,500	1,780	280	18.7%	25	45	Bachelor's	None	\$49.65	
17-2199	Engineers, All Other ³	2,880	3,380	500	17.4%	50	110	Bachelor's	None	\$57.71	
17-2141	Mechanical Engineers ²	8,670	10,140	1,470	17.0%	145	420	Bachelor's	None	\$46.68	
17-2131	Materials Engineers ³	660	770	110	16.7%	10	25	Bachelor's	None	\$50.78	
17-2011	Aerospace Engineers ³	2,450	2,850	400	16.3%	40	70	Bachelor's	None	\$55.79	
17-2112	Industrial Engineers ³	4,990	5,470	480	9.6%	50	145	Bachelor's	None	\$47.50	
17-2171	Petroleum Engineers ²	10,700	11,400	700	6.5%	70	290	Bachelor's	None	\$74.24	
17-2151	Mining & Geological Engineers, Inc. Mining Safety Engineers ⁵	700	630	-70	-10.0%	0	20	Bachelor's	None	\$85.67	

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**GULF COAST WORKFORCE REGION
High-Skill, High-Growth Jobs Targeted by the Gulf Coast Workforce Board^{1,2}**

SOC	Occupational Title	Annual Averages		Employment Growth		Annual Average Job Openings		Typical Education Needed	Work Experience in Related Occ	Typical On-the-job Training	Median Hourly Wage 2015
		2014	2024	Absolute Change	Percent Change	Growth	Replacement				
17-3000	Drafters, Engineering Technicians, & Mapping Technicians	27,360	31,020	3,660	13.4%	365	515	880	-	-	-
17-3023	Electrical and Electronics Engineering Technicians ²	5,400	6,200	800	14.8%	80	130	210	Associate's	None	\$28.89
19-2000	Physical Scientists	12,360	14,010	1,650	13.3%	170	340	510	-	-	-
19-2042	Geoscientists, Ex. Hydrologists & Geographers ²	6,150	6,740	590	9.6%	60	190	250	Bachelor's	None	\$66.66
19-4000	Life, Physical, & Social Science Technicians	13,910	16,260	2,350	16.9%	245	510	755	-	-	-
19-4041	Geological & Petroleum Technicians ⁵	3,380	3,280	-100	-3.0%	0	125	125	Associate's	None	\$33.66
23-1000	Lawyers, Judges, & Related Workers	16,760	20,390	3,630	21.7%	365	245	610	-	-	-
23-1011	Lawyers	15,710	19,230	3,520	22.4%	350	230	580	Doctoral or prof.	None	\$69.50
23-2000	Legal Support Workers	10,770	12,760	1,990	18.5%	200	235	435	-	-	-
23-2011	Paralegals & Legal Assistants	5,700	7,260	1,560	27.4%	155	125	280	Associate's	None	\$25.87
21-1000	Counselors/Social Workers/Other Social Service Specialists	24,660	30,980	6,320	25.6%	630	530	1,160	-	-	-
21-1012	Educational, Guidance, School, & Vocational Counselors	4,690	5,950	1,260	26.9%	125	100	225	Master's	None	\$28.33
25-2000	Preschool, Primary, Secondary, & Special Ed School Teachers⁴	93,140	117,840	24,700	26.5%	2,470	2,170	4,640	-	-	-
25-2022	Middle School Teachers, Ex. Special/Career/Technical Ed	16,470	20,940	4,470	27.1%	445	365	810	Bachelor's	Internship/residency	\$36.43
25-2053	Special Education Teachers, Middle School ²	1,290	1,640	350	27.1%	35	25	60	Bachelor's	Internship/residency	\$38.30
25-2054	Special Education Teachers, Secondary School ²	1,960	2,490	530	27.0%	50	35	85	Bachelor's	Internship/residency	\$38.21
25-2031	Secondary School Teachers, Ex. Special/Career/Technical Ed	22,550	28,640	6,090	27.0%	610	535	1,145	Bachelor's	Internship/residency	\$36.75
25-2021	Elementary School Teachers, Ex. Special Education	33,980	43,150	9,170	27.0%	915	750	1,665	Bachelor's	Internship/residency	\$36.71
25-2052	Special Education Teachers, Kindergarten & Elementary School ²	2,080	2,640	560	26.9%	55	40	95	Bachelor's	Internship/residency	\$38.11
25-2051	Special Education Teachers, Preschool ³	300	380	80	26.7%	5	5	10	Bachelor's	Internship/residency	\$38.99
25-2012	Kindergarten Teachers, Ex. Special Education ²	4,120	5,200	1,080	26.2%	110	120	230	Bachelor's	Internship/residency	\$34.01
25-2011	Preschool Teachers, Ex. Special Education ³	8,470	10,470	2,000	23.6%	200	250	450	Associate's	None	\$11.50
25-2032	Career/Technical Education Teachers, Secondary School ³	1,550	1,870	320	20.6%	30	35	65	Bachelor's	Internship/residency	\$38.99

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**GULF COAST WORKFORCE REGION
High-Skill, High-Growth Jobs Targeted by the Gulf Coast Workforce Board^{1,2}**

SOC	Occupational Title	Employment Growth		Percent Change	Annual Average Job Openings		Typical Education Needed	Work Experience in Related Occ	Typical On-the-job Training	Median Hrly Wage 2015
		Annual Averages 2014	2024		Absolute Change	Annual Average Growth				
29-1000	Health Diagnosing & Treating Practitioners	85,460	113,500	28,040	32.8%	2,805	2,030	4,835	-	-
29-1061	Anesthesiologists ²	1,290	1,830	540	41.9%	55	35	90	None	\$130.42
29-1069	Physicians & Surgeons, All Other	5,950	8,230	2,280	38.3%	230	160	390	None	\$84.78
29-1064	Obstetricians & Gynecologists ³	470	650	180	38.3%	20	15	35	None	\$24.08
29-1067	Surgeons ²	500	690	190	38.0%	20	15	35	None	\$106.63
29-1127	Speech-Language Pathologists ³	2,690	3,610	920	34.2%	90	70	160	None	\$35.95
29-1122	Occupational Therapists ³	1,590	2,130	540	34.0%	55	30	85	None	\$40.45
29-1141	Registered Nurses	46,340	61,920	15,580	33.6%	1,560	1,095	2,655	None	\$36.73
29-1123	Physical Therapists ²	2,390	3,190	800	33.5%	80	65	145	None	\$42.77
29-1126	Respiratory Therapists ²	2,330	3,070	740	31.8%	75	55	130	None	\$27.64
29-1063	Internists, General ²	930	1,230	280	29.5%	30	25	55	None	\$71.62
29-1062	Family & General Practitioners ²	2,260	2,920	660	29.2%	65	60	125	None	\$96.75
29-1066	Psychiatrists ³	220	280	60	27.3%	5	5	10	None	\$70.85
29-1021	Dentists, General ²	1,890	2,370	480	25.4%	50	40	90	None	\$85.87
29-1065	Pediatricians, General ²	830	1,030	200	24.1%	20	20	40	None	\$30.16
29-1041	Optometrists ³	830	1,020	190	22.9%	20	30	50	None	\$11.72
29-1011	Chiropractors ³	720	810	90	12.5%	10	15	25	None	\$74.70
29-1081	Podiatrists ³	90	100	10	11.1%	0	0	0	None	-
29-2000	Health Technologists & Technicians	55,130	72,370	17,240	31.3%	1,725	1,060	2,785	-	-
29-2011	Medical & Clinical Laboratory Technologists ²	3,240	4,250	1,010	31.2%	100	75	175	None	\$29.30
29-2061	Licensed Practical & Licensed Vocational Nurses	13,280	17,620	4,340	32.7%	435	380	815	None	\$22.63
29-2071	Medical Records & Health Information Technicians ²	3,960	5,220	1,260	31.8%	125	90	215	None	\$18.47
29-2034	Radiologic Technologists & Technicians ²	3,850	4,890	1,040	27.0%	105	75	180	None	\$27.54
41-3000	Sales Representatives, Services	48,320	58,950	10,430	21.5%	1,045	1,050	2,095	-	-
41-3021	Insurance Sales Agents	9,130	11,490	2,360	25.8%	235	240	475	None	\$21.89
43-9000	Other Office & Administrative Support Workers	99,250	114,900	15,650	15.8%	1,590	2,105	3,695	-	-
43-9041	Insurance Claims & Policy Processing Clerks	4,950	6,220	1,270	25.7%	130	125	255	None	\$18.60
47-2000	Construction Trades Workers	139,100	177,290	38,190	27.5%	3,820	2,265	6,085	-	-
47-2111	Electricians	18,450	24,130	5,680	30.8%	570	280	850	None	\$22.13
47-2152	Plumbers, Pipefitters, & Steamfitters	13,570	17,390	3,820	28.2%	380	180	560	None	\$23.60
47-2073	Operating Engineers & Other Construction Equipment Operators	10,380	12,740	2,360	22.7%	235	175	410	None	\$18.57

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**GULF COAST WORKFORCE REGION
High-Skill, High-Growth Jobs Targeted by the Gulf Coast Workforce Board^{1,2}**

SOC	Occupational Title	Employment Growth		Percent Change	Annual Average Job Openings			Typical Education Needed	Work Experience in Related Occ	Typical On-the-job Training	Median Hly Wage 2015
		2014	2024		Absolute Change	Growth	Replacement				
47-5000	Extraction Workers ³ Service Unit Operators, Oil, Gas, & Mining ³	27,460	23,320	-4,140	-15.1%	5	750	755	-	-	-
47-5013		7,860	6,540	-1,320	-16.8%	0	270	270	None	Moderate	\$21.48
49-3000	Vehicle & Mobile Equip Mechanics, Installers, & Repairers Bus & Truck Mechanics & Diesel Engine Specialists Mobile Heavy Equipment Mechanics, Except Engines ³	36,250	44,700	8,450	23.3%	845	875	1,720	-	-	-
49-3031		6,780	8,720	1,940	28.6%	195	115	310	High school	Long-term	\$21.96
49-3042		4,680	5,720	1,040	22.2%	105	110	215	High school	Long-term	\$24.48
49-5000	Other Installation, Maintenance, & Repair Occupations Heating, AC, & Refrigeration Mechanics & Installers Industrial Machinery Mechanics	70,820	88,100	17,280	24.4%	1,730	1,775	3,505	-	-	-
49-9021		5,750	7,670	1,920	33.4%	195	90	285	Postsecondary non-degree	Long-term	\$21.46
49-9041		11,270	14,370	3,100	27.5%	310	290	600	High school	Long-term	\$24.66
51-4000	Metal Workers & Plastic Workers ³ Welders, Cutters, Solderers, and Brazers ³ Machinists ³	62,320	61,310	-1,010	-1.6%	350	1,610	1,960	-	-	-
51-4121		18,800	21,630	2,830	15.1%	285	540	825	High school	Moderate	\$20.91
51-4041		13,620	13,720	100	0.7%	10	395	405	High school	Long-term	\$19.81
51-8000	Plant & System Operators Chemical Plant and System Operators ³ Petroleum Pump System Operators, Refinery Operators, & Gaugers ³	11,900	13,840	1,940	16.3%	195	420	615	-	-	-
51-8091		3,370	4,000	630	18.7%	60	125	185	High school	Long-term	\$33.14
51-8093		4,310	4,850	540	12.5%	55	165	220	High school	Long-term	\$32.85
53-2000	Air Transportation Workers Flight Attendants	12,680	15,930	3,250	25.6%	325	275	600	-	-	-
53-2031		6,360	8,110	1,750	27.5%	175	115	290	High school	Moderate	\$24.73
53-3000	Motor Vehicle Operators Heavy & Tractor-Trailer Truck Drivers	84,790	105,080	20,290	23.9%	2,030	1,415	3,445	-	-	-
53-3032		42,360	52,100	9,740	23.0%	975	720	1,695	Postsecondary non-degree	Short-term	\$18.47

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**GULF COAST WORKFORCE REGION
High-Skill, High-Growth Jobs Targeted by the Gulf Coast Workforce Board^{1,2}**

Notes

- 1. High-skill jobs targeted by the Gulf Coast Workforce Board are those that offer the best employment opportunities for Gulf Coast residents now and in the immediate future. Criteria used to identify these occupations are:
 - | Projected employment for 2024 equal to or greater than the average for all occupations in the region. ($\geq 5,633$)
 - | Projected growth rate equal to or greater than the average of all occupations in the region. ($\geq 22.4\%$)
 - | Minimum education requirements of a postsecondary degree or certificate, moderate on-the-job training, long-term on-the-job training, or work experience in a related occupation.
 - | Median hourly wages equal to or greater than the median for all occupations in the region. ($\geq \$18.06$)
- 2. Occupations from the prior year list meeting three of the four qualifying criteria and projected to have at least 50 percent of their 2024 employment in those industries targeted by the Gulf Coast Workforce Board have been
- 3. Other occupations meeting some but not all of the above criteria have also been included based on the best regional labor market intelligence available. Employers can petition to have other occupations added or deleted as
- 4. Wages are based on a 9 month year.
- 5. Occupations included on the previous High-Skill High-Growth List that are projected to decline over 2014 to 2024, but are retained for periodic review by the Board due to their continued importance to the regional economy.

Authorized for use by the Gulf Coast Workforce Board on December 6, 2016

Scholarship Occupations List

The Scholarship Occupations list is a subset of the High-Skill, High-Growth list. We've focused this list - the one we will use in our career offices to help guide staff in putting our dollars into scholarships - on those occupations for which we can provide about two years of support for a successful outcome. All of the Scholarship Occupations come from the High-Skill, High-Growth list and are those currently in demand in our target industries and range of others.

Modifying the List: An employer or group of employers with a demand for skilled workers can ask us at any time to modify our list. We will discuss with employers their shortage occupations, expected numbers of hires, wages and training requirements.

We also use our employer service sales and marketing staff and any updates to published labor market data to check on new or emerging shortage occupations that might be added to our list.

Current Status: The Gulf Coast Workforce Board is in the process of revising our Scholarship Occupations list. We will provide TWC with an updated list as soon as that is available.

6. An analysis of the knowledge and skills needed to meet the employment needs of the employers in the region, including employment needs in in-demand sectors and occupations

Demand-Driven Workforce System

Since its inception, the Gulf Coast Workforce Board has been committed to building a demand-driven workforce system. We have consistently demonstrated this commitment through policies and actions that include:

- Defining a demand-driven workforce system, identifying employers as the primary but not exclusive customers of the system
- Recognizing the 13-county area as an economically integrated region competing with other such regions in the international economy
- Setting strategic performance metrics that measure economic results rather than social welfare outcomes for employers and residents
- Creating an Employer Service Committee of the Board to keep attention focused on helping employers solve their workforce problems, especially their labor shortages in skill occupations
- Designing the regional workforce delivery system from a labor market perspective by recognizing that chronic imbalances in labor markets (i.e., too few or too many workers in an industry or occupation) justify some sort of outside intervention
- Creating separate employer services as the lead component in the regional workforce delivery system, one that actively markets and “sells” workforce solutions to employers
- Starting the problem identification/service delivery process for employers and individuals on the demand side of the labor market equation and offering service that help both compete in the international economy
- Providing basic information and labor market service to all employers but reserving the bulk of available resources to help employers with labor shortages in high-skill occupations in industries that are likely to contribute the most to the region’s economic future
- Using the best available statistical labor market information and local labor market intelligence to target these key industries and high-skill occupations for special attention

The Board developed overarching strategies that further guide the activities of the system. They include:

- Continually improve the quality of customer service
- Provide high-quality labor market information
- Provide skilled workers for employers in critical industries
- Contribute to high-quality, life-long learning experiences
- Use our resources to move the larger regional workforce system to achieve Board-established results
- Meet the requirements of our funding sources
- Improve the work environment in organizations in the regional workforce system including those funded by the Gulf Coast Workforce Board

Measuring Education Credentials of Middle-Skill Jobs

Background

The ability to fill the workforce needs of local employers in the Gulf Coast Region has always been a high priority. Workforce demands are constantly undergoing transformations and occupations are increasingly using sophisticated technology driving the necessity for a better educated and skilled workforce. Over the last several years there has been an increasing number of studies on the demand and importance of middle-skilled jobs. The rising numbers of individuals approaching retirement age has only heightened awareness of the region's need to meet workforce demands both now and in the future.

Studies on middle-skill credentials have generally been limited largely due to a lack of ability to track the numerous sources of information, in particular when it comes to privately issued certifications. In recognition of this, the state is attempting to improve data collection and reporting of postsecondary credentials and licenses. This analysis provides a review of occupations by skill level followed by some insight on tracking postsecondary credentials.

Middle-Skill Jobs

Most studies generally define middle-skill jobs as those requiring some education and training beyond a high school diploma but less than a four-year baccalaureate degree. This postsecondary learning may include college coursework, two-year associate's degrees, certificates, on-the-job training, or apprenticeships. The Bureau of Labor Statistic's typical education, experience, and training requirements by occupation were used to estimate workforce demands in the Gulf Coast Region by skill level. We divided occupations into three categories—low-skill, middle-skill, and high-skill—and examined their respective changes in shares of total employment and shares of projected job openings for three periods: 2000 to 2010, 2010 to 2020, and 2014 to 2024.

- **Low-skill occupations** – those with requirements up to and including a high school diploma and short-term on-the-job training
- **Middle-skill occupations** – those with requirements of an associate's degree or high school diploma and one of the following
 - » Moderate-term on-the-job training
 - » Long-term on-the-job training
 - » Apprenticeship
 - » One year or more experience in a related occupation
 - » Some college, no degree
 - » Postsecondary non-degree award
- **High-skill occupations** – those with requirements of a bachelor's degree or higher

The Future and Occupations by Skill Level

As of 2014, there were roughly 1,080,000 middle-skill jobs in the Gulf Coast Region with employers needing to fill some 44,000 openings annually to meet growth and replacement demand.

- By 2024, 58.8 percent of all jobs will require some kind of postsecondary education and training.
- By 2024 the number of middle-skill jobs in the Gulf Coast Region is projected to rise to 1,293,730 representing a 19.8% growth rate over ten years.
- Through 2024, approximately 54.4 percent of all job openings, due to growth and replacement, will require education or training beyond high school of which 56.8 percent will be middle-skill jobs.
 - » Low-skills jobs will represent 45.7 percent of job openings, 65,135 annual openings
 - » Middle-skills jobs will represent 30.9 percent of job openings, 44,040 annual openings
 - » High-skills jobs will represent 23.5 percent of job openings, 33,480 annual openings
- By 2024, approximately 58.8 percent of all jobs in the Gulf Coast Region will require education or training beyond high school of which 58.3 percent will be middle-skill jobs.
 - » Low-skills jobs will represent 41.1 percent of all jobs or 1,550,000
 - » Middle-skills jobs will represent 34.3 percent of all jobs or 1,293,730
 - » High-skills jobs will represent 24.5 percent of all jobs or 925,070
- Middle-skill jobs paid an average 82.4 percent higher than low skill jobs in 2015.
 - » Hourly mean wage for low-skill jobs was \$13.04
 - » Hourly mean wage for middle-skill jobs was \$23.79
 - » Hourly mean wage for high-skill jobs was \$47.66

**Gulf Coast Region
Occupations by Skill Level**

Category	2000 to 2010 Projections				Percent of 2000 Employment	Percent of 2010 Employment	Percent of 10 Year Growth	Annual Openings			Percent of Annual Openings
	2000	2010	Number Growth	Percent Growth				Growth	Repl.	Total	
Low Skill Occupations	1,034,240	1,216,650	182,410	17.6%	40.9%	40.5%	38.4%	18,920	29,935	48,855	45.1%
Middle Skill Occupations	905,290	1,060,610	155,320	17.2%	35.8%	35.3%	32.7%	15,700	18,510	34,210	31.6%
High Skill Occupations	592,080	729,830	137,750	23.3%	23.4%	24.3%	29.0%	13,935	11,260	25,195	23.3%
Total	2,531,610	3,007,090	475,480	18.8%	100.0%	100.0%	100.0%	48,555	59,705	108,260	100.0%

Category	2010 to 2020 Projections				Percent of 2010 Employment	Percent of 2020 Employment	Percent of 10 Year Growth	Annual Openings			Percent of Annual Openings
	2010	2020	Number Growth	Percent Growth				Growth	Repl.	Total	
Low Skill Occupations	1,183,110	1,446,610	263,500	22.3%	41.7%	41.5%	40.9%	26,635	31,125	57,760	44.1%
Middle Skill Occupations	1,065,780	1,285,660	219,880	20.6%	37.5%	36.9%	34.1%	22,070	22,360	44,430	33.9%
High Skill Occupations	589,590	750,610	161,020	27.3%	20.8%	21.6%	25.0%	16,080	12,745	28,825	22.0%
Total	2,838,480	3,482,880	644,400	22.7%	100.0%	100.0%	100.0%	64,785	66,230	131,015	100.0%

Category	2014 to 2024 Projections				Percent of 2014 Employment	Percent of 2024 Employment	Percent of 10 Year Growth	Annual Openings			Percent of Annual Openings
	2014	2024	Number Growth	Percent Growth				Growth	Repl.	Total	
Low Skill Occupations	1,244,400	1,550,000	305,600	24.6%	40.4%	41.1%	44.3%	31,020	34,115	65,135	45.7%
Middle Skill Occupations	1,080,280	1,293,730	213,450	19.8%	35.1%	34.3%	30.9%	21,850	22,190	44,040	30.9%
High Skill Occupations	753,860	925,070	171,210	22.7%	24.5%	24.5%	24.8%	17,080	16,400	33,480	23.5%
Total	3,078,540	3,768,800	690,260	22.4%	100.0%	100.0%	100.0%	69,950	72,705	142,655	100.0%

Category	2002 OES Wages			2011 OES Wages			2002 to 2011 Percent Increase in Mean	2015 OES Wages			2002 to 2015 Percent Increase in Mean
	Mean Wage	Entry Wage	Experienced Wage	Mean Wage	Entry Wage	Experienced Wage		Mean Wage	Entry Wage	Experienced Wage	
Low Skill Occupations	\$ 9.97	NA	NA	\$ 12.42	\$ 9.10	\$ 14.08	24.6%	\$ 13.04	\$ 9.32	\$ 14.90	30.8%
Middle Skill Occupations	\$ 17.25	NA	NA	\$ 23.03	\$ 14.84	\$ 27.13	33.5%	\$ 23.79	\$ 14.72	\$ 28.32	37.9%
High Skill Occupations	\$ 30.64	NA	NA	\$ 45.66	\$ 26.24	\$ 55.37	49.0%	\$ 47.66	\$ 27.59	\$ 57.69	55.5%

Note: Source TWC LMCI Dept. Some wage data not available.

Data source Texas Workforce Commission LMCI Dept.

The Gulf Coast Region includes the following 13 Texas counties: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller and Wharton.

Measuring Workforce Credentials – Middle-Skill Occupations

Data Sources and Limitations

National Center for Education Statistics (NCES)

The NCES operates several databases that gather and report on educational statistics. One report that we currently use to track certificate and award completions is the Integrated Postsecondary Education Data System (IPEDS), which gathers data from every postsecondary educational, technical, and vocational institution in the nation that participates in any federal student aid program. This data set is the most inclusive available however, since it does not track privately issued credentials aggregates derived represent a very conservative estimate of middle skill credentials issued in the Gulf Coast Region during any given time-frame.

Texas Higher Education Coordinating Board (THECB)

The THECB also tracks certificate and award completions. The data is the same as provided by IPEDS and can be found at their website as part of the Perkins Core Indicator Data set. The limitations to data from THECB are:

- Lacks the ability to make a distinction between each type of credential earned
- Does not provide data from the many private educational, technical, and vocational institutions that is available when using IPEDS
- Only available in pdf format

The THECB also provides licensure testing results for approved technical associate degree and certificate programs leading to professions requiring licensure or certification at community and technical colleges across the state. Data is available from 2008 to 2014. Limitations are:

- Many state agencies do not track licensure examination results by college
- Does not provide results for four-year universities
- Licenses obtained outside of community colleges are not tracked

Texas Education Agency (TEA)

The Texas Education Agency collects data on certifications awarded to senior high school students. Data collection on certifications awarded to high school students is at an early stage. Growth in the number awarded have increased exponentially in recent years as districts have focused more on making these opportunities available due to federal Perkins accountability on technical skill attainment.

Degrees, Certifications, and Award Completions – Results

According to available data from the National Center for Educational Statistics, during the 2013 to 2014 academic year, there were 31,925 middle-skill degrees and certifications awarded in the Gulf Coast Region. While the number of middle-skill degrees and certifications awarded during the 2013 to 2014 academic year was slightly lower than a peak of 32,334 during the 2010 to 2011 academic year, it represented a 26.6 percent increase from 25,216 awarded during the 2008 to 2009 academic year.

- The number of associate degrees experienced the largest and fastest growth from the 2008 to 2009 academic year to the 2013 to 2014 academic year, up 6,137 or 59.4 percent.
 - » The number of associate degrees awarded was also the only category to experience positive growth throughout then entire time-period reviewed but the rate of growth declined during years of economic expansion.
- The number of certifications awarded for at least 1 but less than 2 academic years experienced the second largest growth from the 2008 to 2009 academic year to the 2013 to 2014 academic year, up 2,539 or 41.5 percent.
 - » Most of the expansion was during the 2010 to 2011 academic year, during the tail end of the Great Recession, when the number of certifications awarded for at least 1 but less than 2 academic years experienced a 49.4 percent increase, up 3,440.
 - » Over a three-year period, the number of certifications awarded for at least 1 but less than 2 academic years was negatively impacted during rapid economic growth experiencing a 16.8 percent decline, down 1,742.
- The number of certifications awarded for less than one academic year was negatively impacted during rapid economic growth declining by 1,967 from the 2008 to 2009 academic year to the 2013 to 2014 academic year, down 22.5 percent.
 - » Over a three-year period, the number of certifications awarded for less than one academic year experienced a 34.5 percent decline, down 3,516.

Results – Key Finding

The number of certifications issued below the level of an associate degree declines during economic expansion and rises during economic contraction in the region depending on the availability of easy access jobs. As a result, the number of middle-skill awards and certifications awarded as a percentage of all levels of awards and certifications declines during economic expansion and rises during economic contraction.

Gulf Coast Region

Total Middle-Skill Degrees/Certificates

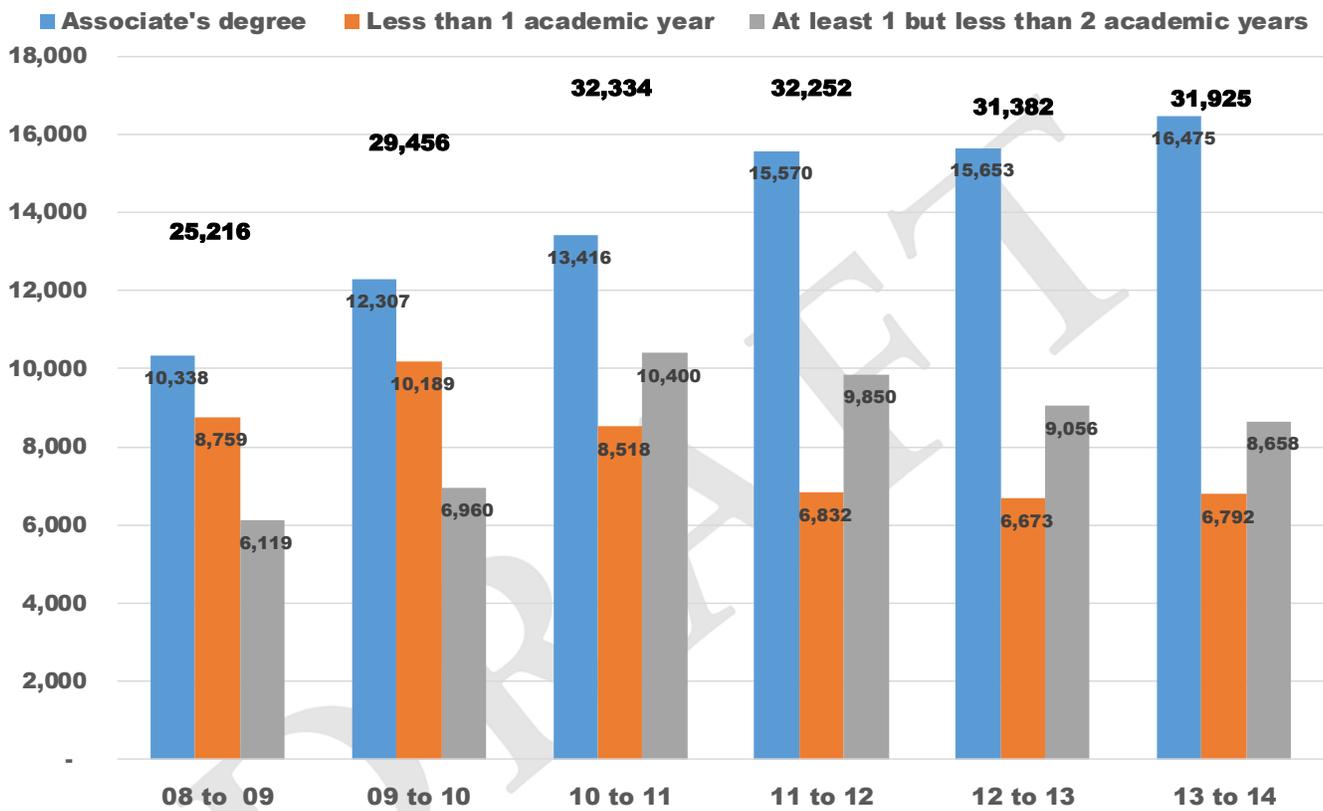
	08 to 09	09 to 10	10 to 11	11 to 12	12 to 13	13 to 14	Number Increase 08 - 09 to 13 - 14	Percent Increase 08- 09 to 13 - 14
Associate's degree	10,338	12,307	13,416	15,570	15,653	16,475	6,137	59.4%
Less than 1 academic year	8,759	10,189	8,518	6,832	6,673	6,792	(1,967)	-22.5%
At least 1 but less than 2 academic year	6,119	6,960	10,400	9,850	9,056	8,658	2,539	41.5%
Total middle-skill degrees/certificates	25,216	29,456	32,334	32,252	31,382	31,925	6,709	26.6%
Grand Total	52,357	56,299	60,427	61,249	59,898	63,348	10,991	21.0%
Percentage of Total Degrees/Certificates	48.2%	52.3%	53.5%	52.7%	52.4%	50.4%		

Growth (Decline) From Previous Academic Year

	09 to 10	10 to 11	11 to 12	12 to 13	13 to 14
Associate's degree	1,969	1,109	2,154	83	822
Less than 1 academic year	1,430	(1,671)	(1,686)	(159)	119
At least 1 but less than 2 academic year	841	3,440	(550)	(794)	(398)
Total middle-skill degrees/certificates	4,240	2,878	(82)	(870)	543
Grand Total	3,942	4,128	822	(1,351)	3,450

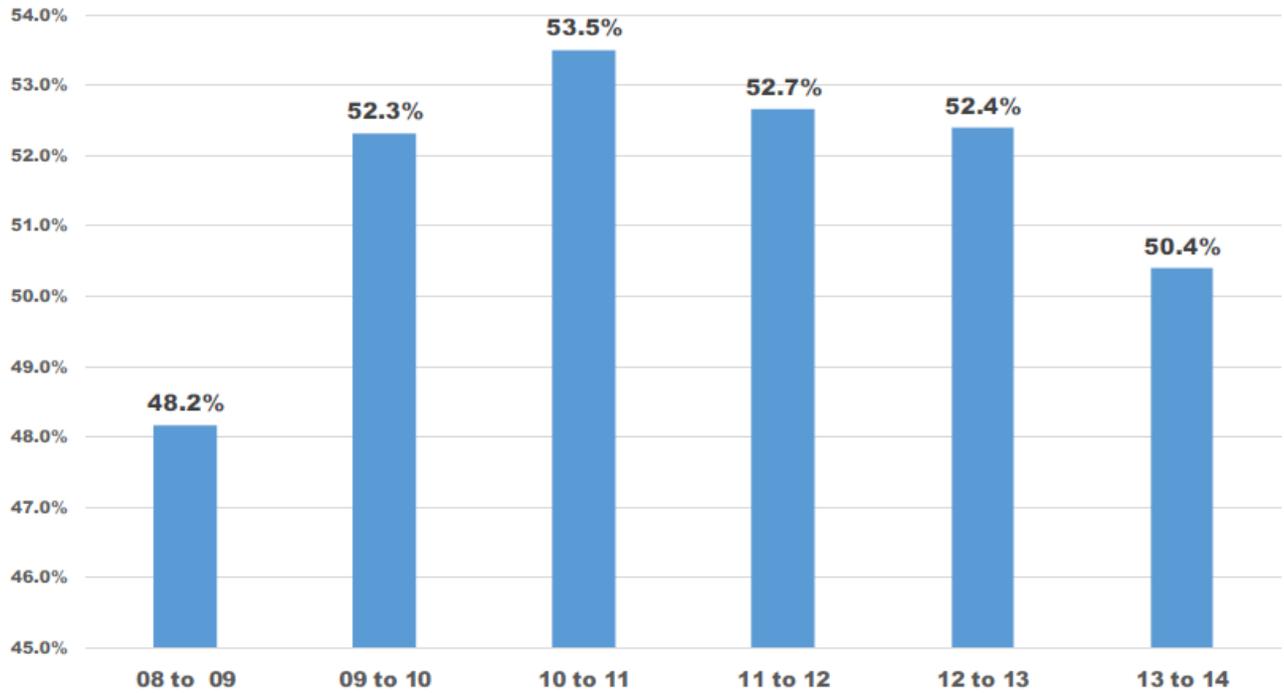
Source: NCES (IPEDS)

Gulf Coast Region Middle-Skill Degrees/Certificates



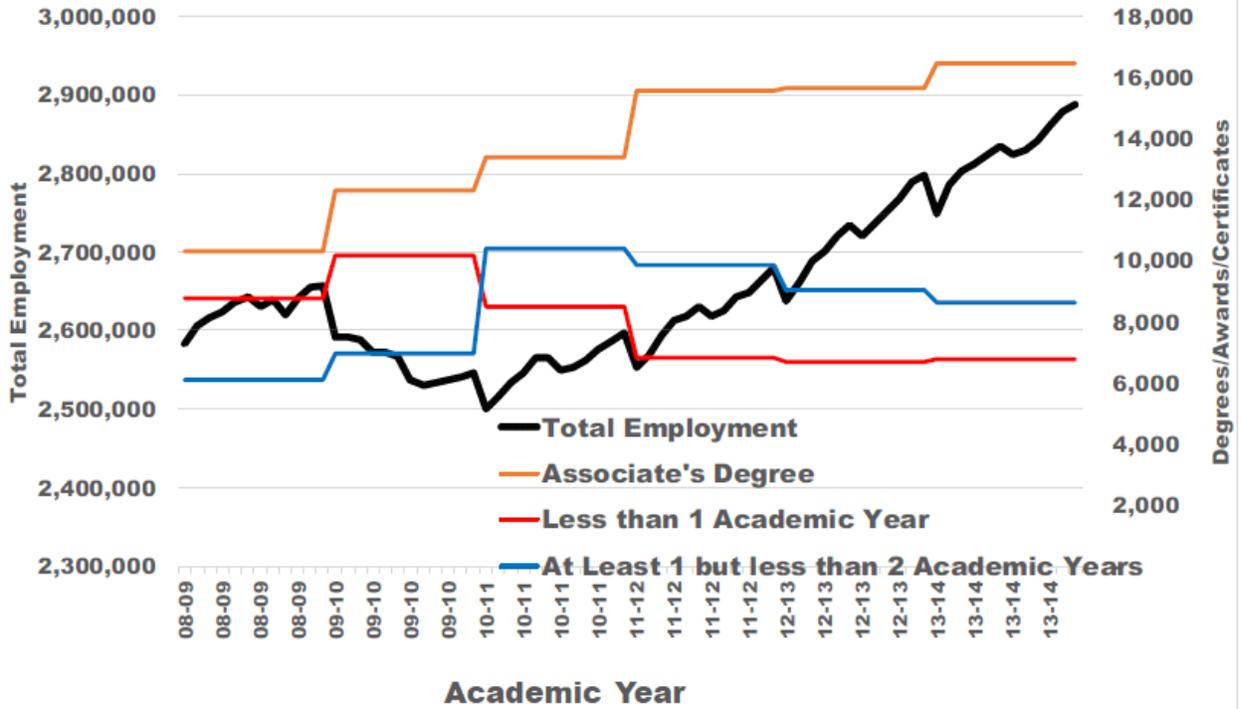
Source: NCES (IPEDS)

**Gulf Coast Region
Middle-Skill Degrees/Certificates
Percentage of Total Degrees/Certificates
By Academic Year**



Source: NCES (IPEDS)

Gulf Coast Region Degrees/Awards/Certifications by Academic School Year



Source: Texas Workforce Commission LMCI and NCES (IPEDS)

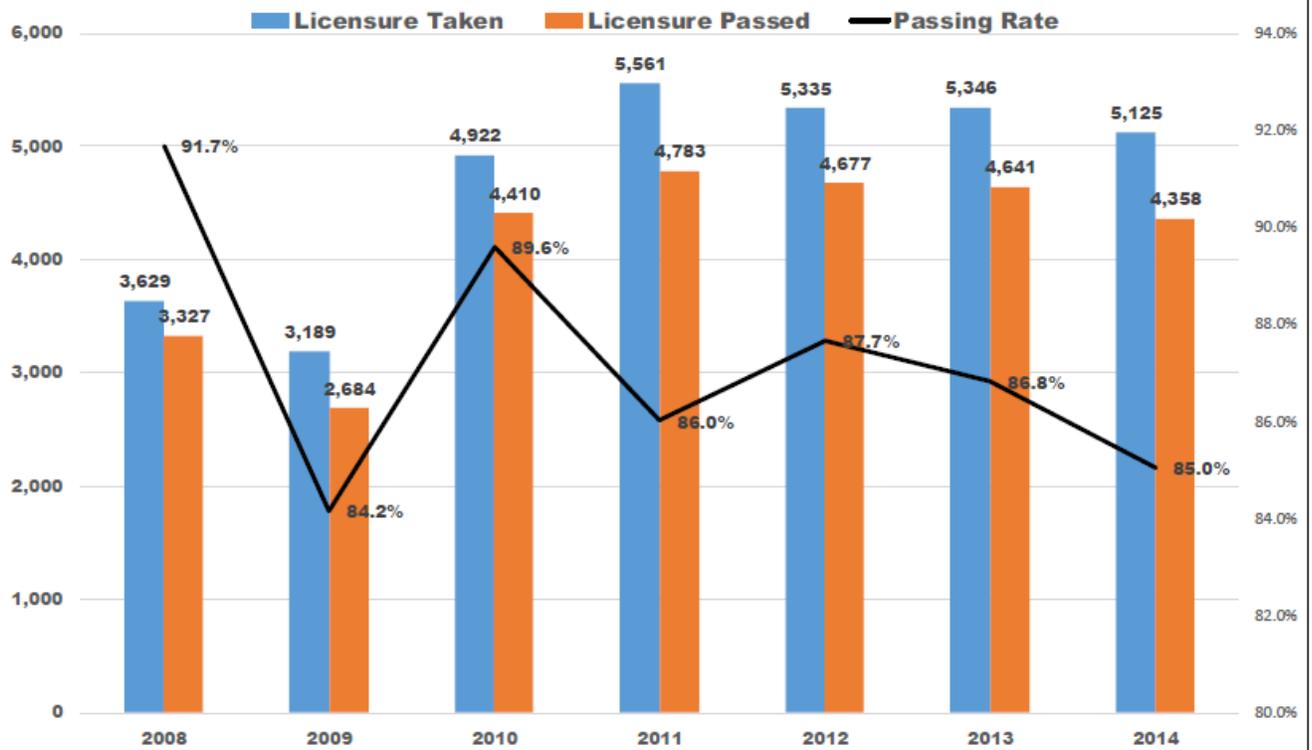
Licensure Testing Results

Data from the Texas Higher Education Coordinating Board was extracted for each year from 2008 to 2014. Validity of the data has been difficult to confirm. The data provided primarily represents licensures taken and passed at community colleges, not all institutions or licensing agencies participate in the report.

Additional notes on the data:

- The total number of licensures passed peaked in 2012 as the Gulf Coast Region entered a period of rapid expansion. The total number of licensures passed fell 6.8 percent by 2014.
- Passing rates were at their highest during the first sampling year at 91.7 percent and have since declined an average 1.12 percent each year to 85.0 percent in 2014.
- Fifteen of the top twenty licensures were in the health care field.
- Numerous community colleges provided limited or in some cases no data for 2008 and 2009 affecting numerous categories. Strong declines were found across most licensure categories as a result for 2009, particularly in the area of registered nursing, licensed practical nursing, and pharmacy technicians.
 - » While data from 2010 forward appears to be fairly consistent, the ability to analyze or identify definitive trends is not possible across licensure categories.
- Results from several categories represent a very small portion of the actual numbers licensed each year, for example:
 - Medical assistants
 - Dental hygienists
 - Dental assistants
 - Phlebotomy technician

Annual Licensure Reporting Results Community Colleges in Gulf Coast Region



*Data was limited and in some cases missing for 2008 and 2009.

Source: Texas Higher Education Coordinating Board

Gulf Coast Region

2014 Top 20 Annual Licensures at Community Colleges

Major	2008*	2009*	2010	2011	2012	2013	2014
Registered Nursing/Registered Nurse	816	557	999	1,027	1,115	1,075	882
Emergency Medical Technology/Technician (EMT Paramedic)	259	396	751	864	866	702	858
Licensed Practical/Vocational Nurse Training	489	198	309	426	385	428	415
Cosmetology/Cosmetologist, General	470	411	379	478	426	430	372
Fire Science/Firefighting	202	224	389	337	310	317	246
Criminal Justice/Police Science	270	208	476	488	287	344	237
Radiologic Technology/Science - Radiographer	127	143	158	126	143	164	174
Pharmacy Technician/Assistant	102	36	83	192	196	195	133
Respiratory Care Therapy/Therapist	97	37	72	82	90	96	129
Physical Therapist Technician/Assistant	80	34	67	84	90	87	98
Surgical Technology/Technologist	38	44	60	61	80	64	76
Medical/Clinical Assistant	25	13	23	18	36	42	71
Graphic Communications, General	na	na	na	na	na	na	56
Occupational Therapist Assistant	41	11	53	48	47	48	53
Dental Hygiene/Hygienist	33	20	35	35	42	62	49
Dental Assisting/Assistant	11	12	14	21	16	25	48
Medical Radiologic Technology/Science - Radiation Therapist	40		36	48	50	51	46
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	23	24	35	41	64	64	46
Facial Treatment Specialist/Facialist	26	4	28	80	41	49	39
Phlebotomy Technician/Phlebotomist	na	na	na	na	na	na	38
Total ALL Licensures	3,327	2,684	4,410	4,783	4,677	4,641	4,358

*Data was limited and in some cases missing for 2008 and 2009.

Source: Texas Higher Education Coordinating Board



7. An analysis of the regional workforce, including current labor force employment and unemployment data, information on labor market trends, and educational and skill levels of the workforce, including individuals with barriers to employment

Employment

As of September 2016, the Houston metropolitan statistical area, which comprises the majority of the Gulf Coast WDA, was quickly approaching the conclusion of a second year weak job growth related to the fall in oil prices that began in late 2014. According to the Current Employment Statistics (CES) survey of non-farm payroll counts, year-over-year job growth now stands at 20,100 compared to 104,800 in September 2014. Three energy-related sectors: Professional and Business Services, Mining and Logging, and Manufacturing have experienced the largest job losses since their most recent peak in late 2014 and collectively have shed roughly 68,000 jobs. Offsetting these declines have been strong gains in sectors related to population growth including Educational and Health Services, Leisure and Hospitality, and Government, the latter of which is primarily composed of public school systems.

Unemployment

The Houston MSA (not-seasonally-adjusted) unemployment rate stood at 5.7 percent in September 2016, up from 4.8 percent a year ago. This places the local unemployment rate above the statewide rate of 4.9 percent and the national rate of 4.8 percent. There were 190,365 individuals unemployed in Houston in September, which marks an increase of 35,411 from 154,954 in September 2015. The net number of unemployed individuals in Houston has risen by 58,413 since the most recent low of 131,952 in December 2014. Including September 2016, the Houston area unemployment rate has exceeded that of the state for 17 consecutive months and that of the nation for six months.

Educational Attainment

Based on the most current 2015 1-year American Community Survey (ACS) estimates, educational attainment among Houston area residents age 25 and over was as follows: 18 percent possess less than a high school diploma, 23 percent possess a high school diploma or equivalent, 21 percent have completed some college without obtaining a degree, 7 percent possess an associate's degree, while 32 percent possess a bachelor's degree or higher.

Populations with Barriers to Employment

Disabilities

In the Houston area among all individuals in the labor force age 18 to 64, 5.6 percent were unemployed according to 2015 1-year estimates from the American Community Survey. However, among the subset of the labor force with a disability, 11.4 percent were unemployed for a rate more than double that of the population at-large. In terms of labor force participation, 77 percent of individuals across the entire civilian noninstitutionalized population of the region were either in possession of paid work or actively seeking work while unemployed. The participation rate among individuals with disabilities was significantly lower at 46 percent. (Note that the above figures will differ from the official measures of unemployment and labor force participation as those measures typically include all individuals age 16 and over).

Poverty

Among the 6.5 million residents in the Houston area for whom poverty status could be determined, nearly 960,000, or 15 percent, were classified as living below the poverty line according to the 2015 1-year estimates from the American Community Survey. The poverty rate among females stood at 16 percent compared to 13 percent among males. Children under five years of age had the highest poverty rate 23 percent among the age groups for which data were available. Poverty rates by race and/or ethnicity ranged from 9 percent among those identifying as Asian alone, to 13 percent among Whites Alone, to 14 percent among those of Two or More Races, to 16 percent among American Indians and Alaska Natives Alone, to 19 percent among Blacks or African Americans Alone. Poverty rates among individuals identifying as Some Other Race Alone and those of Hispanic or Latino Origin of any race were 20 percent and 21 percent respectively.

Households Receiving Food Stamps/SNAP

Partially related to measures of poverty is the share of households receiving food stamps also known as Supplemental Nutrition Assistance Program (SNAP). According to the 2015 1-year estimates from the American Community Survey, 11 percent of the approximately 2.3 million households in the Houston area were beneficiaries of this program. When considering household types, only 7 percent married-couple families were SNAP recipients while the rate increased to 17 percent among male householders with no wife present and 32 percent among female householders with no husband present. Among households below the poverty line, 39 percent were SNAP recipients while the remaining 61 percent of households below the poverty line did not receive SNAP benefits. Participation in the food stamp program by race and/or ethnicity were as follows: Asian Alone (7 percent), White Alone (8 percent), Two or More Races (12 percent), Some Other Race Alone (15 percent), Hispanic or Latino Origin of Any Race (16 percent), Black or African American Alone (20 percent), and American Indian and Alaska Native Alone (22 percent).

Language

As a reflection of Houston's diversity, the 2015 1-year estimates from the American Community Survey indicate that 39 percent of the population age five and over speak another language at home other than English. Of those that speak another language, 55 percent reported that they speak English "very well" while the remainder indicated that they speak English less than "very well." The most common languages spoken by individuals that indicated that they speak English less than "very well" were Spanish (79 percent) followed by Vietnamese (6 percent) and Chinese (4 percent). These were also the most common languages spoken besides English regardless of reported proficiency in English-speaking ability.

Veterans

Of the 4.8 million Houston area residents belonging to the civilian population age 18 and over, roughly 275,000 or 6 percent were veterans according to the 2015 1-year estimates from the American Community Survey. The largest group of veterans by period of service were those that served during the Vietnam War (33 percent) while the largest age group were those 35 to 54 years (27 percent). Educational attainment among veterans 25 and older proved relatively high with 71 percent in possession of some college or higher compared to 58 percent for non-veterans. These statistics were mirrored in the employment status of veterans age 18 to 64 as indicated by a slightly lower unemployment rate compared to non-veterans (5.2 percent vs. 5.6 percent) and a higher participation rate (80 percent vs. 76 percent). Accordingly, poverty rates for veterans were also lower than for non-veterans age 18 and over with 7 percent of veterans falling below the poverty line compared to 12 percent of non-veterans. Lastly, rates of disability were higher among veterans than non-veterans with 27 percent reporting a disability compared 11 percent for those who did not serve in the armed forces.

8. An analysis of workforce development activities in the region, including education and training.

Note: This analysis must include the strengths and weaknesses of workforce development activities and an evaluation of the effectiveness of programs and services. It must evaluate the Board's capacity to provide workforce development activities to address the identified education and skills needs of the workforce. The analysis must include individuals with barriers to employment. The analysis also must address the employment needs of employers.

Building Stronger Community Partnerships

The Gulf Coast region is big and a good deal of money flows into the region supporting a solid foundation of resources and services. There are 76 school districts, 10 community colleges and several well-known universities in the region. Our community colleges provide a significant number of workforce training programs, and continue to be awarded Skills Development Fund contracts.

The Board's strategy is to become better connected to other stakeholders in the region. Better connections mean stronger partnerships, and stronger partnerships help all parties to "divide and conquer." For the Workforce Board, this means its funds will go farther, and move the system closer to achieving its goals.

Support for Key Industries

A fundamental strategy of the Board is to support the region's key industries by making significant investments to targeted industries. The Board employs full time staff as Education, Construction/Crafts and Advanced Manufacturing /Supply Logistics Industry Liaisons. Their goal is to partner with specific employers in high growth, high skill Gulf Coast industry sectors. The Liaisons work to meet employers' current and future workforce needs by coordinating regional agency services, training, and education to fulfill skill needs. Industry Liaisons work to support changes in structures and policies to more closely align and integrate workforce, education, and economic development programs to better serve Gulf Coast employers. They provide Board representation and expertise to economic development and industry-led workforce initiatives.

We recognize that the Energy Industry Cluster is a key industry to our region as well as to the state; however, with the current oil and gas downturn, most of the Board's efforts in this industry cluster has revolved around helping employers and individuals laid off from these industries weather the current crisis.

When the price of oil plunged below \$30 per barrel, our region's workforce felt the effects. Thousands of highly-trained individuals have been laid off and are struggling to find employment as more and more companies announce workforce reductions. The Gulf Coast Workforce Board launched Gulf Coast Oil & Gas Initiative aimed specifically at those individuals. The goal of the program is to find employers in other industries that are looking for highly-trained individuals to meet their needs and match them with job-seekers from the state's database, WorkInTexas.com.

The Gulf Coast Oil & Gas Initiative will assist 500 job seekers displaced from the oil and gas industry through a virtual office. The services offered include resume critique, transitional occupation analysis, tools and seminars designed to help with their search, as well as specialized training and OJT opportunities.

Workforce Solutions will find employers in other industries that are looking for highly-trained individuals to meet their needs and match them with job-seekers from the state's database, WorkinTexas.com. In addition to having access to the largest database of job seekers, this initiative will also assist companies with recruitment, pre-screening applicants, hiring events and specialized training. The team provides matches to those businesses with the appropriate Oil and Gas customers based on their previous experience. They also work with WIT and attend job fairs.

As the Oil and Gas Initiative continues to expand its connection to displaced oil and gas workers and introduce Workforce Solutions services to them, we see two areas that need attention for the unit to increase its success helping workers transition to new industries;

- Employer outreach and education about the talent available to them from the displaced oil and gas worker pools
- Add recruiting services specializing in transitioning displaced oil and gas workers to new industries, similar to what we did at the Aerospace Transition Unit and the Sealy Transition Center

Support for Target Occupations

Perhaps the most critical step in supporting the Board's High-Skill, High-Growth Occupations is through the targeting process itself. The right occupations need to be on the list, those for which there is a shortage of workers, and that is accomplished through a thorough targeting process.

The Board continues to build a robust network of approved vendors and educational programs. We have developed clear policies and procedures for Workforce Solutions staff to use when awarding scholarships to help customers pay for school that prepares them for a career in an occupation we support through scholarships. Through this vendor network, we can award scholarships to customers, who might not otherwise be able to go to school. These Scholarships prepare them for meaningful careers in occupations that are in high-demand in the region's key industries.

Getting People Back to Work

Several years ago, the Board developed a Placement Team that consists of 12 employment counselors working out of a central location. Daily, the team pulls an Unemployment Insurance claimant list, and contacts new claimants. Working by phone and email, the team helps customers clean up WorkInTexas.com applications, develop good resumes and find solid job leads.

Staff contacts all customers in the Rapid Reemployment Service database (profiled pool) by sending letters of introduction asking them to contact Workforce Solutions by phone, email or in person. The Board has on staff an outplacement specialist who is often a first responder working with employers to assess needs, and coordinate service for affected workers. Workforce Solutions usually provides job search workshops with modules on resume preparation, interviewing and using WorkInTexas.com.

We maintain a Regional Team that provides Workforce Solutions seminars and workshops at community locations such as public libraries. The Regional Team made up of Navigators and Facilitators that go out in to the community to reach populations that might not be served in a local career office. The Regional Team works with our partners to conduct community-based job search seminars and workshops. These presentations are conducted outside the career office in schools, libraries, and a wide range of community based organizations.

Good employment counselors help customers identify knowledge and skills that can be applied to different jobs and similar jobs in different industries. Our training contractor, Learning Designs, Inc. (LDI), delivers training that teaches employment counselors to move beyond computer-generated matches from WorkInTexas.com to analyzing those matches to pick the best people possible for each job. Staff are taught how to help customers identify their transferable skills, develop resumes and complete job applications highlighting those skills, and look for jobs that demand those skills. The analytical skills developed through this process can be applied to helping customers identify their unique, marketable, and transferable skills. We now provide at least one class a month of Working with Job Ready Customers that trains staff in precisely this function - helping customers find good jobs that match their skills.

The Board also asked LDI to develop and deliver a series of industry-specific training courses for staff. The training talks about the industry, jobs, skill sets, and transferable skills. There is a basic labor market intelligence course that provides staff with a foundational knowledge of the labor market and resources to learn more about it. There are industry-specific courses for health services, educational services, and industrial crafts.

The Board’s philosophy is that workforce development is a component of economic development, and all of our activities reflect this philosophy. We measure our ability to help create jobs and help employer customers become more competitive. Our work with economic development organizations includes partnering on industry-based work groups, sharing planning and evaluation information, coordinating grant proposals, and assisting in bringing new businesses to the region and retraining and supporting existing businesses. The Board works closely with economic development partners to identify long-range issues such as the changing demographics of the region’s workforce and a trend to lower educational achievement; and shorter-range issues such as finding transportation solutions across the region so employers can get the workers they need.

Below is a list of economic development organizations that work with the Board.

Central Fort Bend Chamber Alliance	Sealy Chamber of Commerce
Brazosport Area Chamber of Commerce	Greater Houston Women's Chamber of Commerce
Asian Chamber of Commerce	Houston Northwest Chamber of Commerce
Galveston Chamber of Commerce	Greater Houston Black Chamber of Commerce
The Woodlands Area Chamber of Commerce	Clear Lake Area Chamber of Commerce
Baytown Chamber of Commerce	Greater Conroe/Lake Conroe Area Chamber of Commerce
Greater Houston Partnership	Houston East End Chamber of Commerce
Katy Area Chamber of Commerce	Economic Development Alliance for Brazoria County
Bay City Chamber of Commerce	Bay Area Houston Economic Partnership
Houston Intercontinental Chamber of Commerce	Pearland Economic Development Corporation
Wharton Chamber of Commerce	Greater Tomball Area Chamber of Commerce
Palacios Chamber of Commerce	The Woodlands Area Economic Development Council
Pearland Chamber of Commerce	Columbus Chamber of Commerce
Economic Alliance Houston Port Region	Galveston County

Education Sector

Below is a brief discussion of some of the projects the Board is involved with in the Education Industry Sector:

Teacher Externships 2015 and 2016

The first year (2015) the GCWB hosted 20 teachers and counselors from Pasadena ISD, Deer Park ISD, and AAMA Charter Schools across 6 worksites focusing on the Logistics industry. Teachers and counselors spent half and full day sessions at each worksite job shadowing, helping to create and ship/move products, and learning about the cycles of manufacturing and distribution and how they intersect in the Logistics field. The session started with a half-day overview of the industry and regional labor markets by Sr. Regional Economist, Parker Harvey. The ten-day session ended with the educators providing demonstration lessons to the group inspired by the jobs they learned about and as relevant to their specific teaching or counseling area(s).

The second year (2016), the same model was carried forward with 30 teachers and counselors focusing this time on the Healthcare industry. Cypress Fairbanks, Spring Branch, Katy, Alief, and Houston ISDs as well as KIPP Charter Schools provided participants. The worksite experiences occurred at private practice physician offices and throughout the Harris Health System. Part of the 2016 externship included a school-year evening and weekend iteration of the project to pilot a different pacing and timing for implementation.

J.P. Morgan Chase College and Career Institutes 2015 and 2016

Project GRAD's College and Career Institutes, with the funding and support of JP Morgan Chase, Workforce Solutions, and local community colleges, provided rising juniors and seniors with the opportunity to explore what college is like and what training and education is necessary for various careers.

Nine institutes were held at Lone Star College (North Harris, Cy Fair, and University Park), Houston Community College (Southeast, Stafford, Northeast and Coleman), San Jacinto College (South and Central), and Lee College (Liberty) serving 800 students entering grades 9-12 from 18 school districts and 6 charter or private schools.

Each student received at least 4 hours of college preparation instruction from Project GRAD and 8 hours of Workforce Preparation and Labor Market instruction from Workforce Solutions including identification of skills, interests, and values, job search skills such as interviewing, resume writing, networking, and application completion, and the utilization of current and relevant LMI in college and career decision making and life planning. Students were given at least 8 hours of instruction in at least 3 of the following industry/occupation tracks:

- | | | |
|--------------------------|----------------------------|--------------------------|
| Robotics | Machining | Pipefitting |
| Welding | Drilling Simulation | Maritime Logistics |
| 3D Modeling | HVAC Technology | Fluid Mechanics |
| Lean Manufacturing | Logistics and Supply Chain | Manufacturing Technology |
| AutoCAD | Design Engineering | Construction Technology |
| Petroleum Field Services | Electrical Technology | |

DRAFT

The participating employers were a necessary component of the institutes also. They provided in-depth knowledge about specific careers and a perspective that students would not otherwise receive throughout their career decision-making process.

More than 140 volunteers participated from more than 40 small, medium, and large businesses in the region over the last 3 years:

Barri Financial Group	NBA Referees Association
Breakthrough Consulting	Northwest Assistance Ministries
Brickman Group	Occupational Safety Council of America -
Carmax	Pasadena Police Department
CenterPoint Energy	Patterson-UTI Drilling
City of Houston, Public Works and Engineering	PepsiCo
Comcast	PFS Investments
CVS	Port of Houston Authority
Cypress Fairbanks ISD	Primerica
Energy Future Holdings	R.R. Donnelly
Federal Bureau of Investigation	RECON
Green Mountain Energy	Schlumberger
Harris County Toll Road Authority	Shell
Heath Consultants	Southwest Shipyard
Houston Police Department	Tellepsen
Hudson Group	The Law Offices of Pierre-Louis
Igloo Corporation	Thermon
Industrial Information Resources	TXU Retail Services
International Union of Oper. Eng. (IUOE) Local 450	United Machine Works
JP Morgan Chase	Wells Fargo
KRBE (Radio Station)	YMCA
MRC Global	

Young Aspiring Professionals Project – Department of Labor Demonstration Grant Serving Disconnected Youth

The Young Aspiring Professional Project (YAP) models the Workforce Innovation Opportunity Act’s job-driven priorities for out-of-school youth through a sustainable, multi-dimensional worksite-based platform – designed to reengage at least 100 disconnected youth with both education and workforce opportunities that lead to improved income and employability. We work with an eligible population of out-of-school youth, between the ages of 18 and 29, who reside in the Settegast and Denver Harbor neighborhoods or who come from Houston ISD’s Wheatley, Scarborough, and Kashmere High Schools feeder patterns. Priority is given to homeless, truant, court-involved, transient and foster youth. Relying on an aggressive community-based outreach and ongoing engagement system, individuals are recruited in cohorts from a number of organizations that provide mentorship and social assistance.

The project combines work-based learning, career pathways education, and existing sector initiatives to achieve its anticipated results. Targeted industries for this project include manufacturing, construction, and logistics with the special emphasis on occupations with clearly defined career pathways that include multiple skill certifications and tiered advancement opportunities.

Young Aspiring Professionals Project – Department of Labor Demonstration Grant Serving Disconnected Youth:

- Immediate employment in subsidized Paid Work Experience (PWE) and On the Job Training (OJT)
- On-site Adult Education and Literacy (AEL) and contextualized skills training
- 24/7 cohort-based mentor engagement
- Credit-to-completion and credential attainment

The goal is to enroll at least 100 participants within the first 18 months of service. 80% of enrolled participants are anticipated to complete PWE and entry to AEL. 80% of PWE completers are anticipated to enter employment through the OJT experience or begin postsecondary education. Consequently, we expect at least half of the participants who begin programming to achieve continued employment and/or postsecondary education. As of December 2016, 53 participants have been enrolled and placed into subsidized employment.

Alternative Certification/Educational Provider Forum 2014, 2015, 2016

The GCWB hosts an annual discussion forum that focuses on a salient issue related to teacher quality and the preparation of new (first-time) K-12 teachers. In 2014, the idea was formative and the discussion focused on identifying salient issues. In 2015, the focus was on managing non-pedagogy related administration. In 2016, the focus was on Social Media management and its effect on the total educator presentation to the public. K-12 leadership, teacher preparation program representation, and other individuals invested in public education are invited to the forum. From its inception, attendance has grown from 14 individuals in 2014 to 52 in 2016. The goal of each forum is to connect the preparation providers (supply) to the schools (demand) asking for constantly improving quality in the teacher pipeline. Each year, actionable goals are established to keep connections thriving.

Rebuilding Adult Curriculum & Building AEL Curriculum for Job Readiness

The GCWB is in the process of revising our job readiness curriculum for all audiences so that the delivery and content fit the needs of our diverse customer base. As part of this, the general curriculum offered to adults is being revised to be modular and adaptable to many audiences, including the Adult Education audience and the audience of individuals with disabilities. Accommodations, modifications, and suggested delivery methods are included with each lesson within each thematic module to better serve each customer's needs.

Alternative Teacher Certification Program

In Fall of 2015, the GCWB recruited from a database of about 1000 individuals who held four-year degrees within a targeted geography nearest training providers with Alternative Teacher Certification Programs, namely Houston Community College (Central), Lone Star College, and Region IV Education Service Center. 56 individuals were interested, eligible and selected to begin training toward teacher certification in Secondary STEM, Bilingual, Special, or Career & Technical Education fields. To date, 13 individuals have begun their first year of paid work as a certified probationary teacher, which is the first step toward becoming fully certified in their content area after successfully passing the required examinations. Most of the individuals attended training through Lone Star College which had the most flexibility in course offerings available at the time. The goal of the project was to serve an increasing need for more and better qualified teachers throughout the Gulf Coast region. Projected through 2020, the Gulf Coast region will need more than 83,000 certified teachers, which presents a shortfall of nearly 20,000 job openings versus the currently and projected available labor pipelines.

Education Workgroup

The Gulf Coast Workforce Board sponsors an Education Workgroup of 19 participating school districts. The group meets regularly to discuss the needs of the participating school districts and topics of importance to the group as well as the Board.

Industrial Crafts and Construction Industry Sector

Below is a brief discussion of some of the projects the Board is involved with in the Industrial Crafts and Construction Industry Sector:

Jacobs, Inc. 2015-2016

Local employer, Jacobs, Inc. came to the Gulf Coast Workforce Board with a huge workforce need. They were in the middle of constructing a multi-billion cracker petroleum plant in Baytown, Texas and needed to hire more employees while at the same time, train their current workforce to obtain more national portable credentials. What ensued was a project that encompassed not only hiring new local talent but also provided incumbent workers a career pathway to attain additional skills as they earn while they learn.

Working in collaboration with the Gulf Coast Workforce Board, Workforce Solutions, and other non-profit support agencies, prospective employees are identified and pre-screened for participation in the program. The prospect could be an unemployed or underemployed worker seeking better opportunities through the local workforce development agency, or a U.S military veteran looking for a career that would provide opportunities in a high-wage, high-skill industry. JumpStart benefits the client by providing a safe, skilled workforce from the community local to the project. For trainees, JumpStart provides an opportunity to acquire skills needed to enter the industrial construction industry, and sets the stage for continued development through training. This program allows participants to train for 45-hours, at no cost to the participant other than their time, in preparation to enter the world of industrial construction.

The project officially launched in Fall 2015 and ended in Summer 2016. The results included 307 incumbent workers and 19 JumpStart candidates, for a total of 326 individuals who successfully received a national portable credential for the construction industry; a 30% increase over the grant goal.

S&B 2015-2016

Similar to the Jacobs project, The Gulf Coast Workforce Board worked with a local employer, S&B Engineers and Constructors, Ltd, on targeted recruiting, screening, and selection campaign to incentivize women to enter the construction industry, "Women in Construction". The program consisted of several partners including the Gulf Coast Workforce Board, United Way THRIVE, Workforce Solutions

Astrodome Career Office, Family Houston, and Harris County Dept. of Education. Over 4,000 women were originally emailed and invited to a phone screening phase. During the phone screening, the candidates were asked a pre-qualifying questionnaire and invited to a face-to-face event. At the event, the human resource managers of S&B Engineers and Constructors along with Workforce Solutions and United Way presented and offered them a way to get trained that would result in an industry-recognized certification and direct employment.

Over 80 women attended a face-to-face event at our Astrodome Workforce Career Office on December 19, 2015. The event was very successful and 69 women decided to move forward with the program and elected to take a TABE screening. Of which, 24 women passed all three modules with scores above 80%. S&B Engineers and Constructors selected 19 women as direct hires and started a training program on January 18, 2016. The training ended on April 15, 2016. We had a completion rate of 84% with 16 graduates from the 19 women who originally started with the program. Of the 3 women who didn't complete the training, one moved to Florida to care for family, one resigned due to her spouse's illness, and the last woman was let go due to poor attendance rate. All of the graduates earned NCCER CORE credentials and full-time employment with S&B, Inc.

Last but not least, the women were given supportive services which included financial literacy so that they could learn how to budget, pay down or eliminate debt, and save for the future.

Upskill Construction Committee

The Upskill Construction Committee was formed from the Greater Houston Partnership's Upskill Houston Collaborative. The Upskill program is industry-led workforce development program to fill middle skills jobs and build careers.

McKinsey Generation Project 2016

The McKinsey Generation training platform is a collaborative effort of employer leadership, community based supportive services, the Gulf Coast Workforce Board, and the Greater Houston Partnership's UpSkill Houston to attract, train and place new craft professionals into the construction sector with the key mindsets that employers have identified as crucial for success. This industry-led effort aims to improve safety, performance, and ultimately lower costs. The first training class of 20 students graduated in November 2016 and is interviewing with industry sponsors.

CDL project 2016

Seven local transportation companies came to the Workforce Board with a desire to collectively hire 400 new drivers within the next two years for local and over-the-road routes. With stricter national and state regulations, an aging population, and low interest in this career, the transportation employers needed assistance to attract and train new talent. We recruited and screen potential candidates based on the employers' hiring criteria. The employers interviewed and selected the candidates. The selected candidates had the option of selecting one of four training providers based on what geographic locations and course schedules. Of the candidates interviewed, 101 were approved for vouchers and enrolled in training. Currently 3 have graduated, 96 are still in training, and 2 left the program. Training programs should be complete by December 31st, 2016.

The program included the following partners:

Partners	
Gulf Coast Workforce Board	
Employers	Comcar, Grocers Supply, Mai True Transport, LTS, Schneider, Averitt, US Xpress
Career Offices	Astrodome, Cypress Station, Northline, Southeast
Training Providers	Alvin, Houston, San Jacinto, Lone Star Colleges
Operational Units	Call Center, Eligibility, Financial Payment, Track and Monitor

The project started in August 2016 and is slated to end in December 2016. Preliminary results indicate we will end the project on time, within budget, and will fulfill all grant milestones.

PART B: OPERATIONAL ELEMENTS



PART B: OPERATIONAL ELEMENTS

The Operational Elements of the Guidelines are as follows:

1. **A description of the workforce development system in the local area that identifies:**
 - a. the programs that are included in the system; and
 - b. how the Board will support the strategy identified in the State Plan and work with the entities carrying out core programs and other workforce development programs to support alignment to provide services, including programs of study authorized under the Carl D. Perkins Career and Technical Education Act of 2006, that support the strategy identified in the State Plan under WIOA §102(b)(1)E).

Workforce Development System Description

The Gulf Coast Workforce Board (GCWB) and its contractors and service providers, forms Workforce Solutions, a workforce development system available to employers, workers, job seekers, and youth in the 13-county Houston-Galveston region. Workforce Solutions provides vital workforce development tools that help workers find and keep good jobs, and help employers hire the skilled workers they need to grow their businesses. Through one-stop centers (i.e., Workforce Solutions offices) across the region, and in collaboration with workforce partners, including community colleges, adult basic education providers, local independent school districts, economic development groups, and other state agencies, Workforce Solutions provides innovative services to support employers and workers. Collaboration and coordination across these agencies and local entities play a critical role in the success of the Gulf Coast workforce system.

Employer Service Division

Customized services help employers find qualified applicants for specific jobs. We assist with recruiting, screening, referring and testing of job applicants to help simplify the hiring process.

Workforce Solutions will also help employers strengthen their current workforce as well as get advice on human resource issues and concerns. Workforce Solutions partners with businesses, educational institutions, civic organizations and community leaders to find solutions to labor needs of industries vital to the region and its economy.

We believe that helping employers find skilled workers results in the region's economic development and benefits individual workers. We will help more than 26,000 Gulf Coast employers identify qualified candidates for job openings. Business Service Representatives visit employers to offer services and learn firsthand a business's specific need.

As part of the statewide Texas Workforce Solutions network, we partner with the Texas Workforce Commission and other workforce boards in the largest job-matching database in the state - WorkInTexas.com.

Career Offices

Offering placement, career counseling and financial aid services, Workforce Solutions operates 24 community-based career offices to help residents find employment or advance their careers.

Our entire system works to provide individuals, students, parents, teachers, and counselors with current information on labor market data - focusing on high-skill, high-growth jobs that provide opportunities for growth, good wages and a more successful career.

Programs

The Gulf Coast Workforce Board proposes to align our administration of the below programs with the Texas Combined State Plan.

- The Adult, Dislocated Worker, and Youth programs
- The Wagner-Peyser Employment Service (ES) program, including the Agricultural Outreach Plan
- The Adult Education and Family Literacy Act program
- The Vocational Rehabilitation program
- The Senior Community Service Employment Program

Currently, the Texas Workforce Commission (TWC) has oversight authority for all of the aforementioned programs. However, the programs discussed in this plan reflect only a portion of the programs administered by the Gulf Coast Workforce Board. Through the integrated workforce system in Texas, the GCWB also manages several other programs administered by TWC:

- Choices [the employment program for recipients of Temporary Assistance for Needy Families (TANF)]
- Supplemental Nutrition Assistance Program Employment and Training (SNAP E&T)
- Child Care and Development Block Grant Funds/Child Care Development Funds (CCDBG/CCDF)
- Trade Adjustment Assistance (TAA)

Through this highly integrated system, the GCWB intends to implement enhancements that continue to strengthen the region's workforce development system to put more people to work. The plan describes a four-year strategy that spurs skill and credential attainment, employment, retention, and earnings of participants, including those with barriers to employment, resulting in a higher quality workforce, reduced welfare dependency, and increased productivity and competitiveness in the state.

The plan complies with WIOA by aligning its core programs and two optional programs to the state's workforce investment, education, and economic development systems, as discussed in the unified strategic planning requirements, common performance accountability measures, and requirements governing the one-stop delivery system. As WIOA intended, the plan serves as a map to develop, align, and integrate the entire system across federal education, employment, and training programs. The plan enumerates the region's vision and strategic and operational goals for providing workforce services and continuously improving the quality and performance of its system.

Alignment with State Strategy

The region's workforce system is complex, comprising numerous programs, services, and initiatives administered by the Board, TWC, TWIC, independent school districts, community and technical colleges, and local adult education providers. System partners are responsible for the delivery of a wide range of workforce education and training programs and related services, as well as education programs that support career preparation and advancement.

The system is interrelated because the programs and agencies serve either a common customer or are charged with achieving similar employment and education outcomes for their targeted customer groups. Therefore, the strategic plan is designed to identify and focus on systemic issues that affect multiple parts of the system – either programs or agencies – and that address broad, big-picture workforce issues.

The GCWB is aware of the region's changing demographics and skills gaps, and continues to design programs to meet increasingly complex workforce needs. Through the Workforce Solutions network, the GCWB connects job seekers and other populations with barriers to employment to numerous career and training resources to prepare them to enter or reenter the workforce of high-growth industry sectors. Although the service is targeted, its delivery is uniformly applied.

Leveraging an integrated workforce system, the GCWB also strives to create a seamless approach that attracts and retains in-demand employers. The agency understands that an employer may not care which funding source or program is covering the service it is receiving. By creating a specific Business Service Unit (BSU), the workforce system rallies a group of dedicated individuals to meet employer needs and present employers with services in ways that are beneficial and easy to understand. The BSU is our frontline business advocate, having strong ties to the local business communities. Because our Board is composed of many local business leaders, the GCWB taps a continuous flow of current and relevant information from employers. Board members are able to shape local policies and procedures to best fit the local marketplace.

The GCWB will work with our partners carrying out core programs and other workforce development programs in the region to continue to support the strategy identified in the State Plan. The Gulf Coast region is rich in potential partners for workforce. We have ten community colleges systems, more than a dozen university campuses, numerous economic development and business organizations, a host of state and local agencies, and a wide variety of community and faith-based organizations. Together, these institutions represent a rich infrastructure for the Gulf Coast workforce system.

With our partners, we provide a wide range of service to employer and individual customers. On the resident side, community and faith based organizations provide mentoring, life skills training, adult basic education, English as a second language, child care, transportation, and other work support service. Some of these organizations are paid vendors for our system while many others work informally with Workforce Solutions jointly assisting customers.

Workforce Solutions has an excellent relationship with our community college partners. The colleges provide educational programs leading to degrees and technical certificates, adult education and English as second language instruction, and other training. They work with the Board in developing customized training for employers, and consult with us in developing proposals related to workforce training. The colleges in the area are valuable partners in developing industry-based initiatives to address workforce issues in the region.

The region's major universities have a role in the workforce system, and are likely to have a greater one in the future as the Board's industry-based work continues and expands.

The region's 76 school districts are key partners in addressing many of the long-term shortages of skilled workers in our region. The Board has an existing relationship with many school districts, many career offices work directly with middle and high schools in their communities. The career offices are charged with providing service to young people in their schools.

In addition to serving individual youth, many of whom are out of school, the Board continues to work with schools broadly to provide good labor market information to schools, parents and young people. We continue to expand and improve our labor market information and career planning products which include the High Skill, High Growth Guide, Focus on Industry and Occupation profiles, When I Grow Up and Choices Planner. Our goal is to support schools in their efforts to reduce drop-out rates, target resources to prepare youth for the good jobs of the future, and provide both parents and students information they can use in selecting course work and career opportunities. The Board's Education Committee provides guidance and oversight, and is fully committed to assisting schools in producing more graduates with the skills employers want.

2. A description of how the Board will work with entities carrying out core programs to:

- a.** expand access to employment, training, education, and supportive services for eligible individuals, particularly eligible individuals with barriers to employment;
- b.** facilitate the development of career pathways and coenrollment, as appropriate, in core programs; and
- c.** improve access to activities leading to a recognized postsecondary credential (including a credential that is an industry-recognized certificate or certification, portable, and stackable).

Workforce Innovation and Opportunity Act (WIOA) Eligibility

WIOA Adult

First Priority includes customers who qualify as low-income¹ or basic skills deficient² with preference to customers who are a qualified veteran⁴ or qualified spouse⁵.

Second Priority - Customer must be at or below self-sufficiency³ income levels with preference to customers who are a qualified veteran or qualified spouse.

We established a Registry of customers who applied for financial assistance with work support, work experience, or training services and who were determined eligible for WIOA Adult funds and suitable for the assistance requested. We first fund customers from the Registry who meet the priority criteria described above (low-income). When there are no low-income customers on the Registry, we allow financial aid for customers on the Registry who are not low-income but are at or below the self-sufficiency income level as funds are available on a first-come, first-served basis.

Exception: We project Workforce Solutions is able to provide short-term financial assistance to anyone requesting the assistance who qualifies. There is not a priority process for customers requesting short-term financial assistance.

WIOA Dislocated Worker

Priority includes customers who are a qualified veteran or qualified spouse

We fund all customers determined eligible for WIOA Dislocated Worker funds with a preference given to customers who are qualified veterans or qualified spouses.

Exception: We project Workforce Solutions is able to provide short-term financial assistance to anyone requesting the assistance who qualifies. There is not a priority process for customers requesting short-term financial assistance.

¹ Low-Income

An individual who meets any one of the following criteria satisfies the low-income requirement for WIOA adult services.

- Receives, or in the past six months has received, or is a member of a family that is receiving or in the past six months has received, assistance through SNAP, TANF, or the Supplemental Security Income (SSI) program, or state or local income-based public assistance;
- Receives an income or is a member of a family receiving an income that, in relation to family size, is not in excess of the current Workforce Solutions Income Guidelines for Adults;
- Is a homeless individual as defined in §41403(6) of the Violence Against Women Act of 1994, or a homeless child or youth as defined in §725(2) of the McKinney-Vento Homeless Assistance Act;
- Receives or is eligible to receive a free or reduced-price lunch under the National School Lunch Act (this only applies to the individual receiving the free or reduced-price lunch);
- Is a foster youth, as defined in Texas Family Code §264.101(a-1) and §264.101(d), on behalf of whom state or local government payments are made; or
- Is an individual with a disability whose own income meets:
 - » Workforce Solutions Income Guidelines for Adults, even if the individual's family income does not meet the income requirements; or
 - » income eligibility criteria for payments under any federal, state, or local public assistance program.

² Basic Skills Deficient

An individual who is unable to compute or solve problems, or read, write, or speak English, at a level necessary to function on the job, in the individual's family, or in society satisfies the basic skills deficient requirement for WIOA adult services.

³ Self-Sufficiency

Workforce Solutions defines self-sufficiency at 200% of the Federal Poverty Guidelines. Self-sufficiency for a family of four is about \$48,500.

⁴ Eligible Veteran

A person who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable as specified at 38 U.S.C. 101(2). Active services include full-time duty in the National Guard or a Reserve component, other than full-time for training purposes.

⁵ Qualified Spouse

The spouse of:

- (1) any veteran who died of a service-connected disability or any member of the armed forces who died while serving on active military, naval, or air service.
- (2) any member of the Armed Forces serving on active duty who, at the time of application for the priority, is listed in one or more of the following categories and has been so listed for a total of more than 90 days:
 - (i) missing in action;
 - (ii) captured in line of duty by a hostile force; or
 - (iii) forcibly detained or interned in line of duty by a foreign government or power;
- (3) any veteran who has a total disability resulting from a service-connected disability, as evaluated by the U.S. Department of Veterans Affairs;
- (4) any veteran who died while a disability, as indicated in paragraph (3) of this section, was in existence.

Note: the spouse of a living veteran or service member (definitions 2 or 3 above) will lose his or her eligibility if the veteran or service member loses the status that is the basis for eligibility. For example, the spouse of a veteran with a total service-connected disability will not be eligible if the veteran's disability is revised to a lower level. Similarly, a spouse whose eligibility is derived from a living veteran or service member will lose his or her eligibility upon divorce from the veteran or service member.

Coenrollment and Pathways to Postsecondary Credentials

The Gulf Coast Workforce Board is one of three boards in the state to serve as the grant recipient and administrator of the Adult Education and Literacy grant. Since being awarded the grant, the Board has worked to ensure that adult education and literacy services are wholly integrated into the other core services provided through the workforce system. Moving forward, the Board remains committed to working closely with employers, Adult Education providers, and community partners to develop robust, customized training curriculum and courses that are aligned with high-demand industries and occupations, meet the specific needs of employers, and lead to nationally- and/or industry-recognized credentials.

The Board is also committed to connecting customers to wrap-around support services and resources, provided either directly through the workforce system or through strategic partnerships with community-based organizations, to eliminate as many barriers as possible that may keep customers from successfully completing their course and transitioning into employment and/or postsecondary education.

3. A description of the strategies for coordinating programs and services for target populations.

Targeted Service Populations

Employers

Texas' strong economic foundation is largely a credit to the diversity and stability of its private-sector businesses. The Gulf Coast Region boasts an estimated 125,000 total employers representing hundreds of public and private industries. The overwhelming majority of Gulf Coast employers are small businesses employing 100 or fewer workers. However, the largest percentages of private-sector jobs are with those companies that employ more than 100 workers. It is vital that the GCWB and its workforce partners collaborate with local economic development entities to equip Texas employers, both large and small, with a highly skilled workforce that will keep jobs in Texas and keep companies competitive in the global marketplace.

The GCWB provides more personalized services. Our recruiters who try to fill job postings offer a higher level of service. We screen applicants and refer them specifically to employer. Although initial result may be fewer employers receiving a service the overall level of employer satisfaction should increase and the number of employers returning to receive our services should improve over time.

Our Employer Service unit will focus on Market Penetration in five industries: 5413 - Architectural, Engineering, and Related Services, 5415 - Computer Systems Design & Related Services, 5416 - Management, Scientific, & Technical Consulting, 6211 – Offices of Physicians, and 2382 – Building Equipment Contractors. We plan to personally contact 2,200 of these employers with 49 or fewer employees and provide services for 1,200 of them. We plan to personally contact 310 of these employers with 50 to 99 employees and provide services for 175 of them.

Communities

The Gulf Coast Workforce Board is comprised of a cross section of local officials and businesspeople that form partnerships with local entities to deliver integrated services that address each community's unique needs. This workforce system now supports the delivery of Adult Education and Literacy (AEL) services within local communities to assist those individuals who need education and training in order to obtain the basic skills that will enable them to obtain sustainable employment and become self-sufficient.

Job Seekers

Providing employment services and developing innovative strategies to help individuals find employment opportunities in high-growth, high-wage industries are central to the Board's mission. Workforce Solutions and its workforce partners offer services that lead to thousands of job seekers entering employment each year. Services include job-search assistance, labor market and career planning information, training and education opportunities, and unemployment benefits to those who lose their jobs through no fault of their own.

Workers

Workforce Solutions seeks to help customers achieve and succeed in a quality work environment. Workforce Solutions provides workforce development and training, apprenticeship programs, and employment support services for members of its labor force. The agency promotes long-term self-sufficiency by enabling parents to work or attend education and training to launch a career pathway, while their children receive quality child care.

Unemployment Insurance Claimants

UI claimants and employers are priority customers at our Workforce Solutions Offices. Staff must promptly assist claimants and employers wishing to use Workforce Solutions Office resources to transmit materials to TWC for claims and appeals adjudication purposes. Customers are given access to space and telecommunications equipment necessary to participate in UI hearings. Additionally, staff supports customers with dedicated resources – computers, telephones, and printed materials about claim filing and UI rights and responsibilities.

Veterans

Veterans are a priority population for the Gulf Coast Workforce Board. The Gulf Coast Workforce Board promotes the hiring of veterans by others through a number of initiatives, including services and programs for U.S. armed service members returning from Iraq and Afghanistan.

The Gulf Coast Workforce Board has begun integrating staff of the Texas Veterans Commission into the Workforce Solutions career offices. This allows veterans efficient and seamless access to employment services, one-on-one job coaching as well as resource and referral services.

To support the efforts of TVC staff, we have placed large, stand-up posters in the front of our offices that ask customers to tell us if they are a veteran and promote the additional resources offered to vets. In addition, we have a special section on our website about veteran services – Our service begins when your

service ends – found at <http://wrksolutions.com/jobs/veteranservices.html>. The site includes links to and information about re-employment rights, veterans' benefits for school, buying a home, health care and counseling.

In addition, the GWFB continues to support TWC's Initiative Hiring Red, White & You! which connects Texas veterans and their families with Texas employers who value the experience, discipline and other exceptional qualities inherent with a military background.

There are thousands of veterans in Texas who are eligible for work. The U.S. Bureau of Labor Statistics reports that the national unemployment rate for all veterans is 6.3 percent. In contrast, for those veterans who served in the military post 9/11, the unemployment rate is 10.0 percent.

The GWB's most recent Hiring, Red, White and You! job fair, held on November 10, 2016 connected over 4,000 customers to 152 employers and 21 veterans service and training organizations.

Individuals with Disabilities

The Gulf Coast Workforce Board upholds the highest standard of equal opportunity and access to service for all its customers. To meet the needs of employers, Workforce Solutions provides opportunity for everyone to be actively involved in the potential labor pool by ensuring staff focus on abilities, not disabilities.

Foster Youth

Another priority population for Workforce Solutions is foster youth. We provide access to education, employment training and services, life skills classes, and appropriate support services to customers identified as foster youth.

Students and Their Parents

Providing today's youth with education, training, and workplace opportunities is essential to the state's future growth and success. In an effort to ensure that young people have the skills to meet future workforce needs, Texas must support programs that steer students toward in-demand careers from an early age. TWC supports programs that identify educational and career paths for students and their parents, including vocational and technical training, as well as those that require two-year, four-year, and higher education levels.

Educational materials and online tools that help parents, educators, and students identify career pathways are developed and distributed by Workforce Solutions. In addition to serving individual youth, many of whom are out of school, the Board continues to work with schools broadly to provide good labor market information to schools, parents and young people. We continue to expand and improve our labor market information and career planning products which include the High Skill, High Growth Guide, Focus on Industry and Occupation profiles, When I Grow Up and Choices Planner. Our goal is to support schools in their efforts to reduce drop-out rates, target resources to prepare youth for the good jobs of the future, and provide both parents and students information they can use in selecting course work and career opportunities. The Board's Education Committee provides guidance and oversight, and is fully committed to assisting schools in producing more graduates with the skills employers want.

Since its inception, the Gulf Coast Workforce Board has been committed to building a demand driven workforce system with employers as the primary but not exclusive customers of the system. Having designed the regional workforce delivery system from a labor market perspective, we recognize that chronic imbalances in labor markets are most effectively addressed when everyone, including special populations is part of the workforce.

4. A description of the strategies and services that will be used in the local area:

- a. To facilitate engagement of employers in the workforce development programs, including small employers and employers in in-demand industry sectors and occupations.
- b. To support a local workforce development system that meets the needs of businesses in the local area.
- c. To better coordinate workforce development programs and economic development
- d. To strengthen linkages between the one-stop delivery system and unemployment insurance programs

Note: This may include the implementation of initiatives such as incumbent worker training programs, on-the-job training programs, customized training programs, industry and sector strategies, career pathways initiatives, use of effective business intermediaries, and other business services and strategies designed to meet the needs of regional employers. These initiatives must support the strategy described above.

Employer Engagement

The Workforce Board would like Workforce Solutions to be the first choice of employers when they need assistance with workforce issues. Most employers use our core products - help with recruiting and screening for job openings. We would like to provide a deeper level of service to our employer customers, becoming partners with them to solve workforce-related business problems. To this end, we have disbanded our in-house outreach unit and transitioned these staff to be in the field making face to face contact with employers. It is our belief we will provide a better quality service to our employer customers and employer customers will have a higher level of satisfaction with our services.

The Board is continuing to take steps to improve the quality of our screening and referral process for employers. We plan to continue these efforts by improving our system's ability to obtain and communicate accurate information on what employers need and want in employees. ESD staff review new job orders submitted electronically by employers, and edit them to provide better matches with job candidates.

Employment Counselors help individuals get jobs that best fit their skills, interests, and experience. We employ staffing specialists who "work" the job orders, looking for candidates in our system and outside. We continue to develop this function to include contacting college and university placement offices, community-based organizations, and other sources to find the best workers for the jobs we are trying to fill.

The Board will continue to track the results of its efforts to improve employer satisfaction through an annual survey. The current survey measures how well employers believe our business consultants follow through on promises, understand their needs, are responsive to those needs, offer solutions to problems, and are professional.

Meeting the Needs of Local Businesses

The Board's Employer Services Division provides service to employers. We believe that helping employers find skilled workers results in the region's economic development and benefits individual workers. We will help more than 26,000 Gulf Coast employers identify qualified candidates for job openings. Business Service Representatives visit employers to offer services and learn firsthand a business's specific need. They offer the full system resources to help businesses by:

- Recruiting, screening, referring and testing applicants for jobs
- Providing information about state and federal labor laws
- Providing economic and labor market information including occupation-specific wage and salary data
- Outplacement services for employees who have been laid off due to a plant closure, downsizing or a reduction-in-force
- Subsidizing a portion of a qualified employee's wage for a short time while the employer provides on the job training.

Employers can use the Workforce Solutions website to list jobs with WorkInTexas.com, find labor market information, and access information about employment laws.

The Board's Employer Service Division provides staff to committees with members from the same industry willing to work together to address the industry's immediate and long-term workforce needs.

- These industry committees help the Workforce Board by adding real time advice to statistical data about the workforce needs of companies in the industry.
- These committee recommendations allow the Board to direct our resources to train people for the jobs in demand now and later

Employer Service Division staff also work with the committees to identify outside resources to meet the needs identified by the industry committee.

Economic Development

The Board’s philosophy is that workforce development is a component of economic development, and all of our activities reflect this philosophy. We measure our ability to help create jobs and help employer customers become more competitive. Our work with economic development organizations includes partnering on industry-based work groups, sharing planning and evaluation information, coordinating grant proposals, and assisting in bringing new businesses to the region and retraining and supporting existing businesses.

The Board works closely with economic development partners to identify long-range issues such as the changing demographics of the region’s workforce and a trend to lower educational achievement; and shorter-range issues such as funding transportation solutions in Colorado County so employers can get the workers they need. Below is a list of economic development organizations that our Employer Services Division currently maintains membership status. However, we work collaboratively with many additional economic development organizations, not on this list.

Central Fort Bend Chamber Alliance	Sealy Chamber of Commerce
Brazosport Area Chamber of Commerce	Greater Houston Women's Chamber of Commerce
Asian Chamber of Commerce	Houston Northwest Chamber of Commerce
Galveston Chamber of Commerce	Greater Houston Black Chamber of Commerce
The Woodlands Area Chamber of Commerce	Clear Lake Area Chamber of Commerce
Baytown Chamber of Commerce	Greater Conroe/Lake Conroe Area Chamber of Commerce
Greater Houston Partnership	Houston East End Chamber of Commerce
Katy Area Chamber of Commerce	Economic Development Alliance for Brazoria County
Bay City Chamber of Commerce	Bay Area Houston Economic Partnership
Houston Intercontinental Chamber of Commerce	Pearland Economic Development Corporation
Wharton Chamber of Commerce	Greater Tomball Area Chamber of Commerce
Palacios Chamber of Commerce	The Woodlands Area Economic Development Council
Pearland Chamber of Commerce	Columbus Chamber of Commerce
Economic Alliance Houston Port Region	

Unemployment in the Region

While the price of oil plunged below \$30 per barrel, our region's workforce has certainly felt the effects. Thousands of highly-trained individuals have been laid off and are struggling to find employment as more and more companies announce workforce reductions.

Gulf Coast Workforce Solutions announced the launch of the Gulf Coast Oil & Gas Initiative aimed specifically at those individuals. The goal of the program is to find employers in other industries that are looking for highly-trained individuals to meet their needs and match them with job-seekers from the state's database, WorkInTexas.com.

The Gulf Coast Oil & Gas Initiative will assist 500 jobseekers displaced from the oil and gas industry through a virtual office. The services offered include resume critique, transitional occupation analysis, tools and seminars designed to help with their search, as well as specialized training and OJT opportunities.

Workforce Solutions will find employers in other industries that are looking for highly-trained individuals to meet their needs and match them with job-seekers from the state's database, WorkInTexas.com. In addition to having access to the largest database of job seekers, this initiative will also assist companies with recruitment, pre-screening applicants, hiring events and specialized training. The team provides matches to those businesses with the appropriate Oil and Gas customers based on their previous experience. They also work with WIT and attend job fairs.

As the Oil and Gas Initiative continues to expand its connection to displaced oil and gas workers and introduce Workforce Solutions services to them, we see two areas that need attention for the unit to increase its success helping workers transition to new industries;

- Employer outreach and education about the talent available to them from the displaced oil and gas worker pools
- Add recruiting services specializing in transitioning displaced oil and gas workers to new industries, similar to what we did at the Aerospace Transition Unit and the Sealy Transition Center

- 5. An explanation of how the Board will coordinate local workforce investment activities with regional economic development activities that are carried out in the local area and how the Board will promote entrepreneurial-skills training and microenterprise services.**

Workforce Investment

A fundamental strategy of the Board is to support the region's key industries by making significant investments to targeted industries. The Board employs full time staff as Education, Construction/Crafts and Advanced Manufacturing /Supply Logistics Industry Liaisons. Their goal is to partner with specific employers in high growth, high skill Gulf Coast industry sectors. The Liaisons work to meet employers' current and future workforce needs by coordinating regional agency services, training and education to fulfill skill needs. Industry Liaisons work to support changes in structures and policies to more closely align and integrate workforce, education and economic development programs to better serve Gulf Coast employers. They provide Board representation and expertise to economic development and industry-led workforce initiatives.

Where appropriate, the Board supports customers who are interested in becoming entrepreneurs and/or creating micro businesses through referrals to entities that have better expertise in that area. Small business development centers, for example, are a rich source of training, and the Board supports several successful grant proposals for funds such as the U.S. Health and Human Services' Job Opportunities for Low Income (JOLI) program.

6. A description of the one-stop delivery system in the local area, including explanations of the following:

- a. How the Board will ensure the continuous improvement of eligible providers and how providers will meet the employment needs of local employers, workers, and job seekers;
- b. How the Board will facilitate access to services provided through the one-stop delivery system, including to remote areas, through the use of technology and other means;
- c. How entities within the one-stop delivery system, including the one-stop operators and the one-stop partners, will comply with WIOA §188, if applicable, and with applicable provisions of the Americans with Disabilities Act of 1990 regarding the physical and programmatic accessibility of facilities, programs and services, technology, and materials for individuals with disabilities, including providing staff training and support for addressing the needs of individuals who have disabilities; and
- d. The roles and resource contributions of the one-stop partners.

One-Stop Delivery System Description

The Gulf Coast Workforce Board and its operating affiliate Workforce Solutions are the public workforce system in the 13-county Houston-Galveston region. We help employers meet their human resource needs and individuals build careers, so both can compete in the global economy.

- The Workforce Board is business-led and community focused, with members representing private sector business, education, organized labor, and community-based organizations.
- With participation from the region's chief local elected officials, the Workforce Board sets the strategic direction for the regional workforce system and guides the area's workforce agenda focusing on four key results:
 - » competitive employers,
 - » an educated workforce,
 - » more and better jobs, and
 - » higher incomes.
- The Board contracts for the operations of its affiliate Workforce Solutions, which directly delivers service to employers and individuals.

What we do:

- During 2015, our Employer Service helped more than 26,000 employers
 - » find candidates to fill about 200,000 openings;
 - » outplace more than 4,000 workers; and
 - » get advice on human resources issues and concerns
- Our 24 local offices and seven adult education providers touched more than 380,000 individuals helping
 - » about 237,000 go to work;
 - » More than 22,000 improve their basic education skills; and
 - » more than 31,000 use \$134 million in financial aid to get a job, keep a job or get a better job
- Our entire system worked to provide individuals, students, parents, teachers and counselors with up-to-date and useful information on the good jobs of the future – focusing on the high-skill, high-growth jobs that provide opportunities for growth and good wages.

Meeting the needs of local employers, workers, and job seekers:

Two key performance metrics are employer market share and employer customer loyalty which measures are intended on gauging our success at increasing employer use and satisfaction with our service. The Board sets annual and long-range targets, regularly reviews performance, and adjusts operating strategies as needed. The Board offers these metrics and performance as evidence of the effectiveness of strategies it has implemented to improve services to employers.

Employer Loyalty – Last year’s performance indicated 61.5% of our customers value our services and returned for additional services. Our current annual target is 60%.

Two key performance metrics are customers employed after exiting from services and higher earnings gains.

Customers Employed – Last year’s performance indicated 78.1% of our customers were employed in the quarter after exiting from services. Our current annual target is 76%.

Higher Real Incomes – Last year’s performance indicated 33.8% of customers who exited had earnings gains of at least 20%. Our current annual target is 36%.

Facilitating Services

Over the last few years, the Board's revenue continues to shrink and we have to do more with less. The good news is that we are meeting this challenge, in part, by leveraging available technology and developing cost efficient outreach strategies.

Blogforce (<http://blogforce.wrksolutions.com/>) provides customers with timely, helpful, and usually humorous, advice on getting and keeping jobs, and career planning. Bloggers are Workforce Solutions office and Board staff.

In addition to the 24 career offices managed by the Board in the Region, there are 4 additional itinerant sites located at the Chambers County Courthouse Annex, Houston Central Library, Metropolitan Multi-Service Center, and Ring Neighborhood Library. These sites provide basic job search services to those customers unable to reach a full services career office, as well as allows them to make appointments with office staff members who maintain a part time presence at the sites.

The Gulf Coast Workforce Board has a Regional Team made up of Navigators and Facilitators that go out in to the community to reach populations that might not be served in a local career office. The Regional Team works with our partners to conduct community-based job search seminars and workshops. These presentations are conducted outside the career office in schools, libraries, and a wide range of community based organizations.

Our adult education customers are able to access adult education sites and classes located throughout the region, often near a customer's residence or place of employment. Many providers offer distance learning options for customers who experience transportation issues or merely prefer the convenience of taking classes remotely. A few of our offices have adult education sites in the career office.

Equal Opportunity and Access to Service

The Gulf Coast Workforce Board upholds the highest standard of equal opportunity and access to service for all its customers. To meet the needs of employers, Workforce Solutions provides opportunity for everyone to be actively involved in the potential labor pool by ensuring staff focus on abilities, not disabilities.

To make certain staff are focused on customer abilities, all career office staff participate in professional development trainings which include:

- Courses through the National Workforce Institute where staff learn to provide customer service from a strength-based approach; identifying customers' skills and abilities and then matching them to available jobs.
- Diversity Awareness training from Texas Workforce Solutions Vocational Rehabilitation Services.
- Computer based trainings from Texas Workforce Commission on Diversity, EEO, and Discrimination Prevention as well as the Discrimination Complaint Process.
- An overview of Equal Opportunity Standards and Guidelines including providing accommodations and the discrimination complaint process.
- Usage of assistive technology in the career offices.
- Various disability awareness topics.

To further ensure equal opportunity and access to service for all its customers, the Gulf Coast Workforce Board has a team of three system-wide Navigators whose primary role is to ensure that customers with disabilities are able to “navigate” the realm of finding employment on a level playing field with those who do not have disabilities. To do this the Navigators:

- Provide staff training on various disability related topics including the use of auxiliary aids and assistive technologies.
- Work along side career office staff to ensure needs of individuals with disabilities are being met.
- Coordinate with Texas Workforce Solutions Vocational Rehabilitation Services and other community organizations to promote awareness of disability related topics, attend disability related events, and assist individuals with reaching their employment goals.
- Host employer education events to provide information on hiring and providing accommodations for job seekers with disabilities.
- Recruit and prepare individuals with disabilities for special hiring initiatives.

Physical accessibility of each career office location is assessed by the EO Officer on an annual basis. In addition to being physically accessible, each career office has at least one of each of the following assistive technologies and auxiliary aids:

- Accessible work station equipped with assistive technologies such as JAWS, MAGic, headphones or speakers, large print keyboard, and trackball mouse;
- TTY phone;
- Video Relay Service (VRS) phone;
- Hearing Aid Compatible phone with volume control;
- Pocket Talker voice amplifier;
- Adjustable height table and chair; and
- Professional interpreter services from a qualified source.

In general, Workforce Solutions Career Office staff, Employer Service staff, the Navigator Team, and EO Officer work together to provide employers with information about the Work Opportunity Tax Credit, the American with Disabilities Act, and providing accommodations to encourage employers to give serious consideration to hiring qualified candidates with disabilities.

7. A description and assessment of the type and availability of adult and dislocated worker employment and training activities in the local area.

Adult and Dislocated Worker Activities

We offer professional advice and individually-tailored service to assist our customers in entering the workforce, going back to work, continuing to work, or advancing in a career. Eligible adult and dislocated workers may receive two levels of service:

Career services are available to any customer who wants or needs these services. They may be provided electronically or by staff. Career services are designed to help customers get a job, keep a job, or get a better job. Career Services include the following:

- Job openings/listings
- Placement services
- Employment counseling and career planning
- Outreach, intake (including worker profiling), and orientation to information and other services available through Workforce Solutions;
- Assessment of skills levels, including literacy, numeracy, and English language proficiency, as well as aptitudes, abilities (including skills gaps), and support service needs;
- Support services
- Computer access
 - » Internet job search
 - » Computerized job search software tutorials
 - » E-mail
 - » Resume preparation
- Job search assistance (referral to job openings, FAX, Telephone)
- Labor Market Information
- Information on support services for working families including information on available and affordable child care
- Job Search Seminars
 - » Resume tips

- » Interviewing tips
- » Networking
- » Landing that First Job
- » Rebranding Your Skills
- Financial literacy
- Internships and work experience opportunities
- Follow-up services

Training services are available to support individuals' education, training or re-training in high-skill, high-growth occupations. Training services includes:

- Financial Aid – scholarships for education and occupational skills training for individuals deemed in need of training in order to become employed or retain employment and for education and work support such as child care, transportation, and work-related expenses when needed by the individual to work or participate in education or training.
- Career advancement training
- Adult Education and Literacy (AEL) activities including activities of English language acquisition and integrated education and training programs, in combination with training
- On-the-job training (OJT), including registered apprenticeships
- Customized training

- 8. A description of how the Board will coordinate workforce investment activities carried out in the local area with statewide rapid response activities described in WIOA §134(a)(2)(A).**

Rapid Response Activities

Our Rapid Response team works with employers that are faced with workforce challenges that include reducing their workforce. Once layoffs are announced the Rapid Response team begins working with the employer to bring outplacement services onsite and provide them with immediate response to the needs of each employee. These services include information on where and how to look for work, training and filing unemployment insurance claims. We provide the workers with tools like labor market information, job listings, career exploration and planning. Additionally, we provide information on how to get registered for work in Texas and work with them until they are employed.

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- 9. A description and assessment of the type and availability of workforce investment activities for youth in the local area, including activities for youth who have disabilities. This description must include an identification of successful models of such activities.**

Youth Workforce Investment Activities

The Board provides year-round employment and training services for economically disadvantaged youth (ages 14-21). Eligible customers receive an objective assessment, including a review of academic and occupational skill levels and service needs; an individual service strategy with an age-appropriate career goal with steps to help the customer stay in school, return to school or go to work. Individuals may receive referrals to education and training to prepare them for postsecondary educational opportunities and/or to prepare them for jobs. The Board also provides schools with informational guides to show linkages between academic and occupational learning.

The Gulf Coast Workforce Board has a Regional Team made up of Navigators and Facilitators that go out in to the community to reach populations that might not be served in a local career office. One population they reach is young adults with disabilities.

Each year this team partners with multiple school districts to conduct Employability Skills sessions that help hundreds of young adults with disabilities prepare for an annual Transition Fair that takes place in the Houston area each Spring.

The Navigators and career offices work with Vocational Rehabilitation Counselors with Texas Workforce Solutions Vocational Rehabilitation Services to help connect young adults with disabilities with services offered through the local career office. Vocational Rehabilitation Counselors also arrange to meet with young adults in the local career offices.

The Board is currently involved in several projects that support the education industry as well as workforce invest for youth in the local area including those listed below:

Professional Academy for Career Exploration

The Professional Academy is an innovative year-round work experience and college and career readiness program. For the 2016 school year Workforce Solutions has partnered with the City of Houston and Worthing High School to provide seniors at Worthing High School enrolled in a “Career Prep Co-op” class, rotating paid internships at the City of Houston in the professional fields of Public Administration, Finance, IT, and Healthcare. Over the course of the 2016-2017 school year and the following summer, these students are participating in year-round activities including skills training, work experience, on the job training, job shadowing and mentoring, career readiness and exploration, financial literacy training, and post-secondary preparation. Currently we have 12 students enrolled in the program.

Young Aspiring Professionals

The Young Aspiring Professional Project (YAP) models the Workforce Innovation Opportunity Act’s job-driven priorities for out-of-school youth through a sustainable, multi-dimensional worksite-based platform – designed to reengage at least 100 disconnected youth with both education and workforce opportunities that lead to improved income and employability. We work with an eligible population of out-of-school youth, between the ages of 18 and 29, who reside in the Settegast and Denver Harbor neighborhoods or who come from Houston ISD’s Wheatley, Scarborough, and Kashmere High Schools feeder patterns. Priority is given to homeless, truant, court-involved, transient and foster youth. Relying on an aggressive community-based outreach and ongoing engagement system, individuals are recruited in cohorts from a number of organizations that provide mentorship and social assistance.

The project combines work-based learning, career pathways education, and existing sector initiatives to achieve its anticipated results. Targeted industries for this project include manufacturing, construction, and logistics with the special emphasis on occupations with clearly defined career pathways that include multiple skill certifications and tiered advancement opportunities.

J.P. Morgan Chase College and Career Institutes 2015 and 2016

Project GRAD's College and Career Institutes, with the funding and support of JP Morgan Chase, Workforce Solutions, and local community colleges, provided rising juniors and seniors with the opportunity to explore what college is like and what training and education is necessary for various careers.

In 2016 more than 40 volunteers from small, medium and large businesses in the region participated in the CCI project. Nine institutes were held at Lone Star College (North Harris, Cy Fair, and University Park), Houston Community College (Southeast, Stafford, Northeast and Coleman), San Jacinto College (South and Central), and Lee College (Liberty) serving 800 students entering grades 9-12 from 18 school districts and 6 charter or private schools.

Each student received at least 4 hours of college preparation instruction from Project GRAD and 8 hours of Workforce Preparation and Labor Market instruction from Workforce Solutions including identification of skills, interests, and values, job search skills such as interviewing, resume writing, networking, and application completion, and the utilization of current and relevant LMI in college and career decision making and life planning. Students were given at least 8 hours of instruction in at least 3 of the following industry/occupation tracks:

Robotics	Machining	Pipefitting
Welding	Drilling Simulation	Maritime Logistics
3D Modeling	HVAC Technology	Fluid Mechanics
Lean Manufacturing	Logistics and Supply Chain	Manufacturing Technology
AutoCAD	Design Engineering	Construction Technology
Petroleum Field Services	Electrical Technology	

- 10. A description of how the Board will coordinate relevant secondary- and postsecondary-education programs and activities with education and workforce investment activities to coordinate strategies, enhance services, and avoid duplication of services.**

Education Services

The Board continues to build a robust network of approved vendors and educational programs. We have developed clear policies and procedures for Workforce Solutions staff to use when awarding scholarships to help customers pay for school that prepares them for a career in an occupation we support through scholarships. Through this vendor network, we can award scholarships to customers, who might not otherwise be able to go to school, prepare them for meaningful careers in occupations that are in high-demand in the region's key industries.

The Board will work with adult education and literacy providers, particularly Institutions of Higher Education (IHE), to develop strategies that will leverage financial aid from the workforce system and the IHE and that will support customers through completion of their initial course and provide a seamless transition into postsecondary education. These strategies will involve sources such as the Federal Pell Grant, Ability to Benefit, and workforce training funds.

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- 11. A description of how the Board will provide transportation, including public transportation, and other appropriate support services in the local area in coordination with WIOA Title I workforce investment activities.**

Transportation and Additional Support Services

Workforce Solutions offer support service when we believe it will help a customer go to work quickly, to keep an existing job, or to advance in a career. Types of support service we provide includes:

- **Work Support** – assistance to help customers accept a job offer or keep a job.
- **Work Search Support** – assistance to help customers look for work.
- **Education Support** – assistance to help customers obtain education or training to meet the expectations of employers in our region.

Categories of assistance includes:

- Transportation
 - » Personal Expenses
- Gas, bus fare/passes, other
 - » Vehicular Expenses
- Car repair/maintenance, Consumables, Vehicle safety inspection
- Car insurance, Vehicle registration

- Health Care or Health-Related
 - » Immunizations
 - » Physical Exams
 - » Vision/corrective lenses
 - » Prescription safety glasses
 - » Drug tests

- Clothing
 - » Work clothes, uniforms for work or training
 - » Interview clothes
 - » Shoes, boots, safety boots

- Tools and Equipment

- Licenses
 - » Application or renewal fees
 - » Testing
 - » Certification
 - » Immigration document renewal fees
 - » Background checks
 - » TWIC

- Documents
 - » Fees to obtain documents for job search, education or work requirements
- Birth Certificates
- School records
- Passports

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12. A description of plans, assurances, and strategies for maximizing coordination, improving service delivery, and avoiding duplication of Wagner-Peyser Act services and other services provided through the one-stop delivery system.

Coordination with Wagner-Peyser Act Services

Employment Service Professional Staff Development

Wagner-Peyser–funded ES staff receives professional development training at new employee orientation and yearly continuing education classes and on an as needed basis, to ensure staff is prepared and able to provide high-quality services to both job seekers and employers. Performance is monitored closely; as needs arise, Gulf Coast may respond with staff development activities, such as classroom instruction, webinars and one-on-one training.

Gulf Coast participates in the “Texas Model” for the delivery of ES services, which restructured the oversight and responsibility for ES state merit staff. Under the Texas Model, Gulf Coast has full responsibility for day-to-day guidance of state ES staff. TWC still maintains administrative responsibility, but Workforce Solutions Office managers share responsibility for directing daily work assignments, assigning individual performance goals, coordinating hiring, initiating disciplinary action, and evaluating staff performance.

Placing responsibility for ES staff with Workforce Solutions Offices supports an integrated workforce system. Many of the services provided by ES and WIOA are similar; the Texas Model gives Boards and their contractors the opportunity and flexibility to design integrated services, regardless of the program from which they are funded. All direction and guidance given to ES employees must be consistent with the provisions of state and federal laws, rules, and regulations governing the administration and delivery of the ES program. TWC provides technical support and quality assurance to Boards and contracted service providers through local Integrated Service Area Managers (ISAMs). ISAMs serve as the TWC supervisors for Texas Model staff. ISAMs coordinate all Texas Model staff-related actions with Boards and their contractors.

ES staff receives mandatory professional development training at new employee orientation and biannually and annually, and on an as needed basis, to ensure staff is prepared to provide high quality services to both job seekers and employers. ES staff receives training on how to conduct a job search, customer service, and how to use WorkInTexas.com. Performance is monitored closely; as needs arise, Boards may respond with staff development activities, such as classroom instruction, webinars, and one-on-one training.

Meaningful Assistance in Filing for UI

UI claimants and employers are priority customers at our Workforce Solutions Offices. Staff must promptly assist claimants and employers wishing to use Workforce Solutions Office resources to transmit materials to TWC for claims and appeals adjudication purposes. Customers are given access to space and telecommunications equipment necessary to participate in UI hearings. Additionally, staff supports customers with dedicated resources – computers, telephones, and printed materials about claim filing and UI rights and responsibilities.

Reemployment Assistance to UI Claimants

Wagner-Peyser–funded ES staff located in the Workforce Solutions Offices serves all customers. However, UI claimants are a priority population and staff is charged with improving claimant reemployment by connecting claimants with an array of relevant services and programs.

Among them, the Rapid Reemployment Services (RRES) program, known nationally as the Worker Profiling and Reemployment Services program, is a DOLETA-approved statistical model that uses claimant characteristics, as well as Board-level economic indicators, to assess the likelihood of a claimant exhausting UI benefits. On a weekly basis, TWC provides Gulf Coast with the likely-to-exhaust score of every individual who has received a first payment of UI benefits. We then determine the UI claimants to outreach for services and the type of reemployment services to provide. At a minimum, claimants called in under the RRES program must receive an orientation and an employment plan.

Use of Wagner-Peyser Funds to Support UI Claimants

Gulf Coast benefits from the joint-administration of the UI program and workforce services by TWC, which allows efficient coordination between programs. Computer linkages coordinate and provide services between WorkInTexas.com and the UI automation system. These links ensure that UI claimants who are required to register have done so, and that UI claimants comply with their work search requirements.

Gulf Coast strives to assist and place individuals in jobs before they reach long-term unemployment. Gulf Coast has a performance measure that tracks success in placing job seekers in employment within 10 weeks of their initial monetary eligibility. We achieve this measure by providing quality job posting and job development activities coupled with increased outreach to participants to ensure better applications and quality referrals.

Gulf Coast uses the RRES program to help claimants find new employment as quickly as possible. As mentioned above, all claimants who are outreached are required to attend an orientation and receive staff assistance in developing an individualized employment plan. Claimants are offered other staff-assisted services, too, including job referrals and job development activities to help in the work search.

13. A description of how the Board will coordinate WIOA Title I workforce investment activities with adult education and literacy activities under WIOA Title II. This description must include how the Board will carry out the review of local applications submitted under Title II consistent with WIOA §§107(d)(11)(A) and (B)(i) and WIOA §232.

Adult, Education, and Literacy Services

In September 2014 the Gulf Coast Workforce Board began administering the public adult education and literacy funds in our 13-county region. Through a consortium of eight contractors, we have helped more than 25,000 customers using about \$14 million.

Adult education and literacy providers offer English language, mathematics, reading, and writing instruction to help students acquire the skills needed to earn a high school equivalency, enter college or career training and/ or succeed in the workforce. While some classes may charge a small, nominal fee (less than \$20) most adult education and literacy services are free to adult learners. Service is also available to young people who have dropped out of high school and have not earned an equivalency diploma.

Service Categories

Adult education and literacy providers typically offer a wide variety of adult education courses. Most of these courses are components of four major service categories:

- **High School Equivalency Preparation** – Academic preparation toward readiness for the high school equivalency examination.
- **Combined GED & Skills Training** – Traditional GED preparation offered with concurrent skills training. You may also hear this referred to as “contextualized learning”.
- **English as a Second Language** – ESL courses teach English literacy to individuals with languages other than English as their primary language.
- **EL/Civics** – Civics courses inform individuals on United States history, culture, and practice in preparation for U.S. citizenship. EL/Civics courses are frequently offered in conjunction with ESL courses.

The Consortium

The consortium includes a managing partner, Region 6 Education Service Center, and seven providers. Region 6 offers programming support for the system. The seven providers offer direct service through their own facilities as well as through sites at hundreds of community based organizations, such as churches, libraries, non-profits, schools.

Name of Organization	Counties Served	Role	Responsibilities
Region 6 Education Service Center	All 13 Counties	Lead Organization	Provide technical and programmatic support
Brazosport College	Brazoria	Service Provider	Adult education and literacy
College of the Mainland	Chambers and Galveston	Service Provider	Adult education and literacy
Harris County Department of Education	Harris and Liberty	Service Provider	Adult education and literacy
Houston Community College	Fort Bend and Harris	Service Provider	Adult education and literacy
Lone Star College	Harris, Montgomery and Walker	Service Provider	Adult education and literacy
San Jacinto College	Harris	Service Provider	Adult education and literacy
Wharton County Junior College	Austin, Colorado, Fort Bend, Matagorda, Waller and Wharton	Service Provider	Adult education and literacy

Referring Customers

At the present time, staff must refer a customer to an adult education provider; they cannot make an eligibility determination or place a customer in a class.

- Using the Workforce Solutions referral tool, available online at www.wrksolutions.com/ael-services, Staff members select the county in which the customer wants to attend class and complete the Contact Us form. The appropriate adult education provider will contact the customer to arrange intake and placement.
- Customers may use the tool themselves, as may any partner organizations or the general public.

Things to Know

1. There are multiple adult education sites and classes located throughout the region, often near a customer's residence or place of employment. Classes or sites sometimes change locations, so at this time, staff members refer the customer to the adult education provider for exact placement.
2. Many providers offer distance learning options for customers who experience transportation issues or merely prefer the convenience of taking classes remotely.
3. A few of our offices have adult education sites in the career office.
4. Employers interested in improving their employees' basic skills can host adult education classes on-site.

Coming Soon

As the Board works to make better connections with adult education providers, we will:

- Expand and improve the referral tool to offer real-time and more detailed information for staff and customers on the location of individual classes
- Assist in helping staff from the offices, Employer Service, Financial Aid Payment Office, and Financial Aid Call Center connect with adult education staff.
- Work with the Bridging the Gaps workgroup to find better ways to integrate all service for customers

Action

- Make sure managers, supervisors, and staff members are familiar with how to access the referral tool and make referrals for customers, as well as the basics about the consortium's adult education and literacy service
- Ensure that staff members first consider adult education options and providers from within our consortium prior to authorizing financial aid for other providers.

The Board procures adult education and literacy services under WIOA Title II through a competitive RFP process. Proposals will be initially screened for required elements. Those that meet all requirements will be scored by a team of evaluators, and subsequently ranked by their total score. Proposals with the highest scores will enter into negotiation.

14. Provide copies of executed cooperative agreements that explain how all local service providers, including additional providers, will carry out the requirements for integration of and access to the entire set of services available in the local one-stop delivery system. This includes cooperative agreements (as defined in WIOA §107(d)(11)) between the Board or other local entities described in §101(a)(11)(B) of the Rehabilitation Act of 1973 (29 U.S.C. 721(a)(11)(B)) and the local office of a designated state agency or designated state unit that administers programs that are carried out under Title I of the Rehabilitation Act (29 U.S.C. 720 et seq.) (other than §112 or part C of that title (29 U.S.C. 732, 741) and are subject to §121(f) in accordance with §101(a)(11) of the Rehabilitation Act (29 U.S.C. 721(a)(11)) with respect to efforts that will enhance the provision of services to individuals who have disabilities and to other individuals, such as cross training of staff, technical assistance, use and sharing of information, cooperative efforts with employers, and other efforts.

On September 1, 2016, Vocational Rehabilitation Services were transferred from DARS to TWC, in accordance with Senate Bill (SB) 208, 84th Texas Legislature, Regular Session (2015). The Gulf Coast Workforce Board is working with TWC to insure a smooth transition and integrate TWC's Vocational Rehabilitation Services into current Workforce Solutions' offices. Currently, cooperative agreements have not been established between the Vocational Rehabilitation program and the local workforce investment boards. The Gulf Coast Workforce Board will await further instruction from TWC in regards to these cooperative agreements.

- 15. An identification of the entity responsible for the disbursement of grant funds described in WIOA §107(d)(12)(B)(i)(III), as determined by the CEOs or the governor under WIOA §107(d)(12)(B)(i).**

Houston-Galveston Area Council

The Houston-Galveston Area Council is the staff for the Gulf Coast Workforce Board and the entity authorized by the Workforce Board and the chief elected officials to act as the grant recipient in the Gulf Coast Workforce Development Area.

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- 16. A description of the competitive process that will be used to award the sub-grants and contracts for WIOA Title I activities.**

The Houston Galveston Area Council (H-GAC) serves as the grant recipient and administrative entity for the regional public workforce system. In this role, H-GAC receives public workforce funds, contracts with various organizations and oversees the workforce system's operation and performance.

In 2013, H-GAC solicited contracts for the regional workforce system. This is the fourth and final year of the procurement cycle for regional workforce contracts. H-GAC will release a Request for Proposal to solicit contracts for its regional workforce system including adult education in 2017.

When H-GAC issues a Request for Proposal, it will be posted for prospective bidders to view.

All proposal packages will be available for download from this site:

<http://www.wrksolutions.com/about-us/business-opportunities/rfps/current-rfps>

After the deadline for proposal submission has closed, all proposals will be evaluated using the criteria specified in the RFP and an evaluation matrix will be developed to score the individual proposals by each member of the evaluation team.

Members of the Gulf Coast Workforce Board's Procurement Committee will meet in a public forum to review and discuss results of the evaluation. Each bidder will have an opportunity to make a brief oral presentation to the Procurement Committee. Committee members will have the opportunity to ask questions of the bidders.

After all proposals are scored and selected proposers are interviewed, the Procurement Committee will make their recommendations to the Gulf Coast Workforce Board. The Board will then vote on the Procurement Committee's recommendation. When the Board reaches their decision, they will submit their recommendation to the Budget and Finance Committee of the H-GAC Board of Directors for approval to negotiate, and execute, a contract with the ranked proposers in descending order. However, the final approval and selection of award lies with the Board of Directors. H-GAC reserves the right to delay that date as needed and to reject any and all proposals as deemed in its interest.

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17. A description of the local levels of performance negotiated with TWC and the CEOs consistent with WIOA §116(c), to be used to measure the performance of the local area and to be used by the Board for measuring the performance of the local fiscal agent (where appropriate), eligible providers under WIOA Title I subtitle B, and the one-stop delivery system in the local area.

Performance Targets

The Board adopted 13 measures and set performance targets for 2017

More Competitive Employers	Market Share - No LMI (Oct. 2015 - Sept. 2016)	22,000
	Customer Loyalty - No LMI (Oct. 2015 - Sept. 2016)	60%
Higher Incomes	Exiters with Earnings Gains of at least 20% (April 2015 - March 2016)	36%
	Exiters employed in the 1st Qtr After Exit with Earnings Gains (April 2015 - March 2016)	45%
More and Better Jobs	New jobs created as a direct result of partnering with other business organizations (Oct. 2016 - Sept. 2017)	3,200
	New jobs created with employers in industries targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	75%
	New jobs created in high-skill occupations targeted by the Gulf Coast Workforce Board as a direct result of partnerships (Oct. 2016 - Sept. 2017)	45%
	Customers employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	76%
	Customers, unemployed at entrance, employed in the 1st Qtr After Exit (Oct. 2015 - Sept. 2016)	74%
	Number of customers employed in 2nd and 3rd quarters after exit (April 2015 - March 2016)	82%
	Customers employed in the entrance quarter - (April 2016 - March 2017)	64%
A Better Educated Workforce	Customers pursuing Education Credential that achieve one by quarter after exit (July 2016 - June 2017)	74%
	Customers enrolled in post-secondary who earn certificate or degree by quarter after exit (July 2016 - June 2017)	84%

In addition, there will be 19 measures Contracted by the State.

Contracted with the State	# of Employers Receiving Workforce Assistance	26,235
	Employed Q2 Post Exit - Adult	75.0%
	Employed Q2 Post Exit - DW	81.3%
	Employed Q2 Post Exit - Youth	63.8%
	Employed Q4 Post Exit - Adult	71.5%
	Employed Q4 Post Exit - DW	76.1%
	Employed Q4 Post Exit - Youth	67.7%
	Employed/Enrolled Q2 Post Exit - All Participants	61.4%
	Employed/Enrolled Q2-Q4 Post Exit - All Participants	78.3%
	Median Earnings Q2 Post Exit - Adult	\$3,910
	Median Earnings Q2 Post Exit - DW	\$6,980
	Median Earnings Q2 Post Exit - All Participants	\$4,080
	Credential Rate - Adult	47.7%
	Credential Rate - DW	66.6%
	Credential Rate - Youth	41.7
	Credential Rate - All Participants	N/A
	Claimant Reemployment w/in 10 Weeks	42.4%
	Average Kids Served Per Day - Discretionary At-Risk	21,465
	Choices Full Work Rate (Oct. 2016 - Sept. 2017)	50.0%

We also track the following measures:

Tracked Measures	Total Customers Served	26,235
	Average Monthly Traffic	22,000
	Job Openings Filled – Problems with State report prevents us from tracking this	N/A
	Job Postings Filled – Problems with State report prevents us from tracking this	N/A
	Customers Directly Placed	23,000

18. A description of the actions the Board will take toward becoming or remaining a high-performing Board.

Remaining a High Performing Board

The Gulf Coast Workforce Board has long understood that to be an effective and high-performing Board, certain actions and responsibilities must be undertaken.

The Board's specific responsibilities (those things for which it alone is responsible) include:

- Developing itself as a well-educated, highly diversified, high-performing board
- Establishing ongoing relationships between the workforce system and its owners
- Developing governing policies to guide itself as a board and the regional workforce system (i.e., long-term results statements)
- Developing an effective working relationship with its chief executive officer
- Ensuring board staff/system performance
- Providing annual reports on the state of workforce affairs in the region (progress toward achieving system results)

The carrying out of these responsibilities represents the value added by the Board. It justifies the Board's existence as part of the regional workforce system.

In addition to the previously stated explicit responsibilities, the Gulf Coast Workforce Board frequently under takes actions to remain a high-performing board by:.

- Holding new board members to high standards
- Focusing on policy (staying at the policy level and out of the details of planning and program operation) and being employer driven
- Watching national trends and adopting best practices based on the rapidly changing economic and workforce climate
- Keeping board members updated on current LMI and future trends
- Influencing other areas critical for workforce development, such as the PK-12 education system
- Continuing active participation in state and national associations of workforce boards and workforce associations

Board's Vision and Actions

The Gulf Coast Workforce Board regularly reassesses its visions and goals to set continually higher standards for the workforce system performance. More than 13 years ago the Gulf Coast Workforce Board adopted a strategic plan that described and quantified results the Board expected the regional workforce system to achieve. It includes values, mission and vision statements that explain what its members value most, why they exist as a board, and where they want the regional workforce system to be in the future. The plan continues to guide our efforts to help employers meet their human resource needs and individuals build careers. In keeping with its key values innovation, productivity, performance and results the Board identified four results statements that describe the difference it intends to make in the Gulf Coast region.

- More competitive employers
- A better educated workforce
- More and better jobs
- Higher incomes

The Board's measures, developed from these statements, help determine progress towards achieving the results both for the region and for Workforce Solutions, our operating affiliate. 2015 was the second year of the five-year strategic planning period, 2014 – 2018. We used 10 strategic metrics to assess performance and progress towards annual targets and longer-term goals.

For the Regional Workforce System, we focused on total employment - a gauge of how well we create and keep jobs in the region - and education credentials of working-age residents - a gauge of the skill level of the region's workforce. For the part of the system we directly control, Workforce Solutions, we focus on outcomes for individuals - employment, education and earnings. We also looked at our contribution to employers' job creation, market share and customer loyalty.

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The strategies for how the Board will achieve the four previously stated results and remain a high-performing Board are:

1. Continually improve the quality of customer service
2. Provide high-quality labor market information
3. Provide skilled workers for employers in critical industries
4. Contribute to high-quality, life-long learning experiences
5. Use our resources to move the larger system to achieve Board-established results
6. Meet the requirements of our funding sources
7. Find additional revenue to support Board results

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- 19. A description of how training services outlined in WIOA §134 will be provided through the use of Individual Training Accounts (ITAs), including, if contracts for training services will be used, how the use of such contracts will be coordinated with the use of ITAs under that chapter, and how the Board will ensure informed customer choice in the selection of training programs, regardless of how the training services are to be provided.**

Individual Training Accounts (ITAs)

How We Decide What Financial Aid to Offer:

Customer Request. Often customers ask us for financial aid. We evaluate a customer's request based on our understanding of her need to get a job, keep a job, or get a better job and our guidelines for providing financial aid. This evaluation is automatically included in requests for child care expenses.

Staff Suggestion. Based on our assessment of the customer and her needs, we may suggest financial aid to a customer to support completion of his or her employment plan.

Workforce Solutions helps employers meet their human resource needs and individuals build careers, so both can compete in the global economy.

To ensure that our region has an educated workforce, Workforce Solutions offers scholarships to help an individual get the basic or occupational skills and credentials he or she needs to get a job, keep a job or get a better job.

Workforce Solutions has a network of education and training vendors authorized to use our scholarship dollars for basic skills, upgrade or occupational skills training. Customers who are eligible for our scholarship assistance choose from our network providers to obtain the training they want and need.

These standards and guidelines describe the rules and process we use to build and maintain the Education and Training Vendor Network.

I. Categories

We have three categories of education and training vendors:

- » **Basic Skills** – Providers of adult education/literacy or GED preparation, high school diplomas, English as a Second Language, and developmental classes that prepare individuals to enter occupational skills training
- » **Occupational Skills** – Providers of certificates, associate degrees, and bachelor degrees that prepare an individual to enter employment in one of the Board’s High-Skill, High-Growth Occupations Supported by Scholarships.
- » **Upgrade** – Providers of certificate, seminar or course-based training related to one of the Board’s High-Skill, High-Growth Occupations. Short-duration workshops, seminars, or courses equip customers with industry-recognized certifications and/or build on existing skills. Upgrade training may include testing/assessment to demonstrate competency and may also include training to allow an individual to transition existing skills from one occupation or industry to another.

II. Building the Education & Training Vendor Network

There are two principal ways in which vendors join the Workforce Solutions network.

A. Soliciting Vendors to Fill Gaps

We solicit education and training vendors in order to fill specific gaps in our current training offerings – that is, new or specifically targeted occupations or skill needs – identified as a part of our work with the region’s employers.

At least once every year, we look at the vendors on our list and assess the availability of training in our three categories to ensure we have sufficient choices for customers.

We promote the addition of vendors to our network through the following methods:

- » Publicizing education and training vendor opportunities on our website
<http://wrksolutions.com>
- » Soliciting vendors for specific needs related to a particular industry, occupation, or geographic location

B. Open Application

We accept applications from vendors at any time for

- » Basic skills training
- » Occupational skills training for our High-Skill, High-Growth Occupations supported by Workforce Solutions scholarships
- » Upgrade training related to our High-Skill, High-Growth Occupations

III. Applying to be a Vendor

A. Selecting the Appropriate Application

We have two different applications for education and training vendors. Those who apply to offer basic skills training use our Basic Skills Training Application. Vendors who want to offer occupational skills or upgrade training apply using the Texas Workforce Commission's Eligible Training Provider System (ETPS).

Vendors must have been providing education and training services for at least one year, and we may ask for proof, including performance information. We will not approve start-up organizations.

Workforce Solutions' Financial Aid Payment Office staff will offer technical assistance to vendors wishing to apply to be part of the network.

B. Application Review and Approval

- » Workforce Solutions' Financial Aid Payment Office processes and approves vendor applications.
- » The application review and approval process for basic skills training may take up to 60 days to complete.
- » The application review and approval process for occupational skills or upgrade training may take up to 120 days.
- » All approved education and training vendor programs are listed on our Education & Training Vendor Network to provide easy access for our customers to approved programs and providers.
- » If we deny an application, we will provide the applicant vendor with a written description of the denial and explain why.
- » Once we approve an application, the Financial Aid Payment Office will contact the vendor to sign a vendor agreement, if one does not already exist.

- » Approving a vendor's application to place basic skills, occupational skills or upgrade training for one or more programs on our network does not mean we guarantee that any of our customers will choose that vendor or program. When we approve a vendor's application, we make that vendor available to our customers, should any of them choose that vendor and its program for training.
- » Occupational skills training vendor program(s) (i.e. curriculum, credential, etc) must prepare students for employment within an occupation on our High-Skill, High-Growth Occupations Supported by Scholarship list.
- » Similarly, upgrade training must help students gain additional skills or credentials related to our High-Skill, High-Growth Occupations list.

C. Renewal

1. Vendors must renew programs on the Education & Training Vendor Network annually.
2. We process renewals for the basic skills in the same way we process new applications.
3. Currently, occupational skills and upgrade training programs are certified through 2017. We will provide information before the end date for these programs about how vendors may recertify. We may request updated information from the vendor before renewing the application.

IV. Evaluating Performance

A. Occupational Skills and Upgrade. We evaluate the effectiveness of a vendor's occupational skills and upgrade training programs by compiling performance information in the following critical areas:

- » Attained Credential Rate (at least 60% of students attain a credential)
- » Entered Employment Rate (at least 60% of students get a job after training)
- » Average Hourly Wage at Placement (student earnings must be at least 80% of the statewide average entry-level hourly wage for the occupation as displayed in the performance area of the application on ETPS)

- B. Basic Skills.** For basic skills training programs, we gather performance information regarding attained credential and completion rate (at least 60% of students attain a credential or complete training).
- C. Customer Satisfaction.** Occasionally, we may survey our customers who have used basic skills, occupational skills or upgrade training vendors and ask for feedback on the vendors and their programs. We may use the results in evaluating vendors.
- D. Report Card.** We will publish performance results for all Education & Training Vendor Network members and programs at least annually in our Training Provider Report Card. We may also publish results of customer satisfaction surveys.
- E. Monitoring.** We visit vendors periodically to monitor performance, payment arrangements, and training delivery.

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20. A description of how one-stop centers are implementing and transitioning to an integrated, technology-enabled intake and case management information system for programs carried out under WIOA and by one-stop partners.

One-Stop Intake Technology and Case Management Information Systems

The Gulf Coast Workforce Board recognizes the importance of using data to drive decision-making and has made availability and evaluation of data a key part of its strategic development and oversight processes and consumer education efforts.

The Gulf Coast Workforce Board and its one stop career offices have access to a number of state provided Labor Market Information and Career Exploration Services such as:

- **Texas Rapid Access to Career and Economic Resources (TRACER)** website provides employment statistics to assist job seekers and employers in making informed decisions
- **Wage Information Network (WIN)** allows users to examine wage data for an area – or within an industry in an area – and to compare that wage with other areas of the state.
- **Standard Occupational Components for Research and Analysis of Trends in Employment System (SOCRATES)** at <http://socrates.cdr.state.tx.us> and other robust tools made available by LMCI were designed to assist local planners in gaining insight into their labor market structure, characteristics, and patterns
- **Reality Check** – TexasRealityCheck.com (<http://www.texasrealitycheck.com>) is one of the more frequently used resources in the LMCI tool box and also features a widely used iPhone application. The website allows students to make lifestyle choices, create a budget, and then view the occupations and preferred education levels that support those choices.
- **Texas Career Alternatives Resource Evaluation System (Texas CARES)** – Texas CARES at www.texascaresonline.com is a multimedia career information system designed for individuals to explore different careers and related educational opportunities in Texas and around the world.
- **Texas Consumer Resource on Education and Workforce Statistics (Texas CREWS)** – TexasCREWS at <http://www.txcrews.org> is a dashboard tool that provides information about Texas' public two-year and four-year postsecondary institutions; evaluates 30 programs/institutions on the basis of resulting wages and student loan levels; and enables parents and students to make informed decisions about college and thereby obtain the best return on their educational investment.
- The Board also has access to State provided Participant Eligibility, Service Tracking, and Case Management Systems:

- **WorkInTexas.com** – WorkInTexas.com is Texas’ Labor Exchange System, as mandated by the Wagner-Peyser Act, and operated in cooperative effort with JobCentral, the National Labor Exchange system. WorkInTexas.com is a comprehensive online job search resource and job matching system developed and maintained by TWC, and provides:
 - » extensive job matching options based on skills and experience;
 - » links to labor market and career development information; and
 - » free, 24-hour-a-day access.

Employers can post jobs, search résumés, recruit candidates, get labor market information, and receive a variety of other services available through a network of statewide Workforce Solutions Offices. Individuals seeking a new job, different job, or an additional job can post their résumé, search job listings (including Texas state agency jobs), obtain employer contact information to apply for jobs, get information about the job market, and receive a variety of other services also available through Workforce Solutions Offices.

- **The Workforce Information System of Texas (TWIST)** – TWIST is the integrated intake, eligibility, case management, and reporting system for employment and training services. It was designed as a central repository for customer information. TWIST ultimately decreases duplication within and across the Texas workforce system while streamlining the provision of services to customers. It enables Workforce Solutions Office staff to enter intake information for customers only once for multiple employment and training programs and to retrieve it statewide. TWIST also includes interfaces with other automated systems – WorkInTexas.com, the UI benefits system, and the Texas Health and Human Services Commission’s system
- **Child Care Attendance Automation** – Child Care Attendance Automation (CCAA) allows parents to record attendance using a swipe card at a point-of-service device located at the authorized child care facility. Parents also can use an interactive voice response system using the authorized child care provider’s phone. Attendance recorded through CCAA is transferred to TWIST on a weekly basis, and TWIST is used to process payments to providers based on the CCAA attendance records.
- **Texas Educating Adults Management System (TEAMS)** – TEAMS is Texas’ state-of-the-art, web-enabled system that maintains student-level data, including demographic, assessment, and outcome data, as well as class, site, program, and provider information. TEAMS users can analyze class, site, or program information through the use of standard reports generated at the user level. TEAMS provides a wide range of information about adult education, including snapshots of student and program performance, personnel qualifications, and staff development activities.

- **Cash Draw and Expenditure Reporting** – TWC’s online Cash Draw and Expenditure Reporting (CDER) system is a web application used by Boards to draw funds from their program allocations. All financial transactions are handled through this online system, and Boards are no longer required to submit paper documents or Excel spreadsheets. CDER has significantly decreased manual processing and greatly improved the reporting of data to all parties.
- **Quarterly Wage Records** – TWC makes extensive use of quarterly wage records, both for required and ad hoc reporting. TWC uses Texas wage records and those obtained from other states through the Wage Record Interchange System (WRIS) for required WIOA, Wagner-Peyser, and Trade Adjustment Assistance (TAA) reporting. A fuller discussion of the use of quarterly wage records is contained in the Program Data section of this plan.

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- 21. The Board policy to ensure that priority for adult individualized career services and training services will be given to recipients of public assistance, other low-income individuals, and individuals who are basic skills deficient, consistent with WIOA §134(c)(3)(E) and §680.600 of the Final Regulations.**

Financial Aid Criteria for Customers

Workforce Solutions dollars for financial aid are limited. Sometimes we have more eligible customers requesting financial aid than we have funds at the moment. When that happens, we place eligible customers on a wait list, or registry.

- As funds become available for customers on our wait list, we offer financial aid to customers using priority criteria and the date of application to determine who we offer assistance to first.
- When we do not have a wait list, the priority criteria do not apply, and we offer financial aid to eligible customers on a first-come, first-served basis.

Applying Priority Criteria

We apply priority criteria only when we have a wait list for substantial financial aid. We offer financial aid to eligible customers in order of priority, using our registries.

1. Workforce Opportunity and Innovation Act Adult. We fund financial aid applications from eligible WIOA Adult First Priority customers in the order noted above. Then we fund the applications from eligible WIOA Adult Second Priority customers the in order noted above.

When there are no remaining First or Second Priority customers on the registry, we offer funding to eligible WIOA Adults on the registry in the order of their application dates.

- First Priority includes eligible WIOA Adult customers, in this order:
 - » Qualified veterans or qualified spouses who are low-income or basic skills deficient
 - » All other eligible individuals who are low-income or basic skills deficient

- Second Priority includes eligible WIOA Adult customers, in this order:
 - » Qualified veterans or qualified spouses who are at or below the Workforce Solutions self-sufficiency income level
 - » All other eligible individuals who are at or below the Workforce Solutions self-sufficiency income level
- 2. Workforce Opportunity and Innovation Act Dislocated Worker. We fund financial aid applications for eligible WIOA Dislocated Worker First Priority customers and then we offer funding to eligible WIOA Dislocated Workers on the registry in the order of their application dates.
- First Priority includes eligible WIOA Dislocated Worker customers who are:
 - » Qualified veterans or qualified spouses of veterans

Applications from eligible customers in priority groups always go to the top of a wait list.

When we do not have a wait list (i.e., there are no customers on a registry) the priority criteria do not apply. We offer financial aid to eligible customers on a first-come, first-served basis.

We offer short-term financial aid to any eligible customer requesting the assistance.

The Financial Aid Call Center determines eligibility, establishes and maintains the financial aid registries identifies customers with priority, and offers financial aid to customers using the priority criteria.

22. Boards may impose limits on the duration and amount of ITAs. If the state or Board chooses to do so, the limitations must be described in the Local Plan, but must not be implemented in a manner that undermines WIOA's requirement that training services are to be provided in a manner that maximizes customer choice in the selection of an Eligible Training Provider. Exceptions to ITA limitations may be provided for individual cases and must be described in Board policies.

ITA Limitations

The Board help customers who request financial assistance for training to help them get a job, keep a job, or get a better job. We advise the customer as to how we can help them achieve their goals and provide relevant information about award limits and support services. We also help identify sources of assistance in addition to WFS financial aid.

If a customer request financial assistance for training, we:

- Discuss the types of occupations and training programs in which they're interested.
- Review the High Skill/High Growth occupations list, especially those we support with scholarships*.
- Determine suitability by checking for their understanding of the nature of the occupation they choose, their readiness to enter and complete the training, their ability to meet scholastic and financial obligations during training, and any barriers that may prevent them from being successful in that field.
- Review the approved vendors/schools.
- Review the training provider report card.
- Discuss and/or provide FAFSA website <https://fafsa.ed.gov> to get information and to submit a free application for federal student aid.
- Help identify additional sources of financial aid assistance.
- Schedule or arrange assessments as necessary.
- Begin developing the employment plan (to the extent you can based on your discussion); include steps both you and the customer will take before your next meeting, such as career exploration, assessment appointments, wage/demand research, gathering documents, creating a budget, finding a part-time job, locating other resources, etc...

Award limits apply to a 12-month period. The costs of these services are included in the total available for a Workforce Solutions scholarship. Other limits do not apply.

- Up to \$3,000 for basic skills training
- Up to \$6,000 for occupational skills training
- Up to \$6,000 for upgrade skills training

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23. A description of the design framework for youth programs in the local area, and how the 14 program elements required in §681.460 of the Final Regulations are to be made available within that framework.

Youth Program Design

The Board intends to follow the youth design framework set forth by the Texas Workforce Commission which places an increased emphasis on individual participant needs by adding new components to the objective assessment and individual service strategy. The incorporation of career pathways as part of both the objective assessment and development of the individual service strategy will aid in the development of a successful plan for the customer. Through the expanded use of work experience and on-the-job training, the program design will meet the requirements to include effective connections to employers, including small employers, in in-demand industry sectors and occupations.

Youth Program Design

The design framework of Board's local youth programs will include:

- Provisions for an objective assessment of each youth participant, including a review of the academic and occupational skill levels and service needs, for the purpose of identifying appropriate services and career pathways for participants and informing the individual service strategy. The objective assessment will include a review of:
 - » basic skills;
 - » occupational skills;
 - » work experience;
 - » employability;
 - » interests;
 - » aptitudes;
 - » support service needs; and
 - » developmental needs.

- Development and modification of individual service strategy for each youth participant that:
 - » is directly linked to one or more youth performance indicators;
 - » identifies appropriate career pathways that include education and employment goals;
 - » considers career planning and the results of the objective assessment; and
 - » prescribes achievement objectives and services for the participant; and
- Provide case management of youth participants, including follow-up services. The Board will ensure that Workforce Solutions Office staff:
- provide youth participants with information regarding the full array of services available through the Board or other providers or partners; and
- refer youth participants to appropriate training and educational programs that have the capacity to serve them either on a sequential or concurrent basis.

In order to meet the basic skills and training needs of applicants who do not meet the eligibility requirements of a particular program or who cannot be served by the program, the Board will ensure that youth are referred for further assessment, as necessary, or referred to appropriate programs to meet the skills and training needs of the youth.

Youth Program Elements

The Board will ensure that the following 14 services are available to youth participants:

1. Tutoring, study skills training, instruction, and evidence-based dropout prevention and recovery strategies that lead to completion of the requirements for a secondary school diploma or its recognized equivalent (including a recognized certificate of attendance or similar document for individuals with disabilities) or for a recognized postsecondary credential
2. Alternative secondary school services, or dropout recovery services, as appropriate
3. Paid and unpaid work experiences that have academic and occupational education as a component of the work experience, which may include the following types of work experiences:
 - » Summer employment opportunities and other employment opportunities available throughout the school year;
 - » Pre-apprenticeship programs—a program or set of strategies designed to prepare individuals to enter and succeed in a registered apprenticeship program and has a documented partnership with at least one, if not more, registered apprenticeship programs;

- » Internships and job shadowing;
- » OJT opportunities

Work experience is a planned, structured learning experience that takes place in a workplace for a limited period of time. Work experience may be paid or unpaid, as appropriate, and may take place in the private for-profit sector, the nonprofit sector, or the public sector. Labor standards apply in any work experience in which an employee/employer relationship, as defined by FLSA or applicable state law, exists.

4. Occupational skills training, which includes priority consideration for training programs that lead to recognized postsecondary credentials that align with in-demand industry sectors or occupations in the workforce area involved, if the Board determines that the programs meet the quality criteria described in WIOA §123.

Occupational skills training is an organized program of study that provides specific vocational skills that lead to proficiency in performing actual tasks and technical functions required by certain occupational fields at entry, intermediate, or advanced levels.

Boards must give priority consideration to training programs that lead to recognized postsecondary credentials that align with in-demand industry sectors or occupations in the workforce area. Such training must:

- » be outcome oriented and focused on an occupational goal specified in the individual service strategy;
- » be of sufficient duration to impart the skills needed to meet the occupational goal; and
- » result in attainment of a recognized postsecondary credential

5. Education offered concurrently with and in the same context as workforce preparation activities and training for a specific occupation or occupational cluster
6. Leadership development opportunities, including community service and peer-centered activities encouraging responsibility and other positive social and civic behaviors

Leadership development opportunities are opportunities that encourage responsibility, confidence, employability, self-determination, and other positive social behaviors, such as:

- » exposure to postsecondary educational possibilities;
- » community and service learning projects;
- » peer-centered activities, including peer mentoring and tutoring;
- » organizational and teamwork training, including team leadership training;
- » training in decision making, including determining priorities and problem solving;
- » citizenship training, including life skills training such as parenting and work behavior training;

- » civic engagement activities that promote the quality of life in a community; and
- » other leadership activities that place youth in a leadership role such as serving on youth leadership committees, such as a Standing Youth Committee.

Positive social and civic behaviors are outcomes of leadership opportunities that are incorporated by Boards as part of their menu of services and that focus on areas that may include the following:

- » Positive attitude development;
- » Self-esteem building;
- » Openness to work with individuals from diverse backgrounds;
- » Maintaining healthy lifestyles, including being alcohol and drug free;
- » Maintaining positive social relationships with responsible adults and peers and contributing to the well-being of one's community, including voting;
- » Maintaining a commitment to learning and academic success;
- » Avoiding delinquency;
- » Postponing parenting;
- » Responsible parenting, including child support education;
- » Positive job attitudes and work skills; and
- » Keeping informed in community affairs and current events.

7. Support services, as defined in WIOA §3(59), which enable an individual to participate in WIOA activities. These services include, but are not limited to, the following:

- » Linkages to community services;
- » Assistance with transportation;
- » Assistance with child care and dependent care;
- » Assistance with housing;
- » Needs-related payments;
- » Assistance with educational testing;
- » Reasonable accommodations for youth with disabilities;
- » Referrals to health care; and
- » Assistance with uniforms or other appropriate work attire and work-related tools, including such items as eyeglasses and protective eye gear.

8. Adult mentoring for a duration of at least 12 months that may occur both during and after program participation

Adult mentoring for youth must:

- » be a formal relationship between a youth participant and an adult mentor that includes structured activities in which the mentor offers guidance, support, and encouragement to develop the competence and character of the youth;
- » include a mentor who is an adult other than the assigned youth case manager; and
- » at a minimum, match the youth with an individual mentor with whom the youth interacts on a face-to-face basis. Group mentoring activities and mentoring through electronic means are allowable as part of mentoring activities.

9. Follow-up services for not fewer than 12 months after the completion of participation

Follow-up services for youth may include:

- » leadership development opportunities and support services;
- » regular contact with a youth participant's employer, including assistance in addressing work-related problems;
- » assistance in securing better-paying jobs, career pathway development, and further education or training;
- » work-related peer support groups;
- » adult mentoring; and
- » services necessary to ensure the success of youth participants in employment and/or postsecondary education.

All youth participants must receive some form of follow-up services for a minimum duration of 12 months. Follow-up services may be provided beyond 12 months at the Board's discretion. The types of services provided and the duration of services must be determined based on the needs of the individual, and therefore, the type and intensity of follow-up services may differ for each participant. However, follow-up services must include more than only a contact attempted or made for securing documentation in order to report a performance outcome.

10. Comprehensive guidance and counseling, which may include drug and alcohol abuse counseling, as well as referrals to counseling, as appropriate to the needs of the individual youth

11. Financial literacy education

The financial literacy education program element includes activities that:

- » support the ability of participants to create budgets, initiate checking and savings accounts, and make informed financial decisions;
- » support participants in learning how to effectively manage spending, credit, and debt, including student loans, consumer credit, and credit cards;
- » teach participants about the significance of credit reports and credit scores, what their rights are regarding their credit and financial information, how to determine the accuracy of a credit report and how to correct inaccuracies, and how to improve or maintain good credit;
- » support a participant's ability to understand, evaluate, and compare financial products, services, and opportunities and to make informed financial decisions;
- » educate participants about identity theft, ways to protect themselves from identify theft, and how to resolve cases of identity theft and in other ways understand their rights and protections related to personal identity and financial data;
- » support activities that address the particular financial literacy needs of non-English- speaking participants, including providing support through the development and distribution of multilingual financial literacy and education materials;
- » provide financial education that is age appropriate and timely, and provides opportunities to put lessons into practice, such as by access to safe and affordable financial products that enable money management and savings; and
- » implement other approaches to help participants gain the knowledge, skills, and confidence to make informed financial decisions that enable them to attain greater financial health and stability by using high quality, age appropriate, and relevant strategies and channels, including, when possible, timely and customized information, guidance, tools, and instruction.

12. Entrepreneurial skills training

Entrepreneurial skills training provides the basics of starting and operating a small business. Such training must develop the skills associated with entrepreneurship, including, but not limited to, the ability to:

- » take initiative;
- » creatively seek out and identify business opportunities;
- » develop budgets and forecast resource needs;
- » understand various options for acquiring capital and the trade-offs associated with each option; and
- » communicate effectively and market oneself and one's ideas.

Approaches to teaching youth entrepreneurial skills include, but are not limited to, the following:

- » Entrepreneurship education that provides an introduction to the values and basics of starting and running a business. Entrepreneurship education programs often guide youth through the development of a business plan and may also include simulations of business start-up and operation.
- » Enterprise development, which provides support and services that incubate and help youth develop their own businesses. Enterprise development programs go beyond entrepreneurship education by helping youth access small loans or grants needed to begin business operation and by providing more individualized attention to the development of viable business ideas.
- » Experiential programs that provide youth with experience in the day-to-day operation of a business. These programs may involve the development of a youth-run business that young people participating in the program work in and manage. Or, they may facilitate placement in apprentice or internship positions with adult entrepreneurs in the community.

13. Services that provide labor market and employment information about in-demand industry sectors or occupations available in the workforce area, such as career awareness, career counseling, and career exploration services

14. Activities that help youth prepare for and transition to postsecondary education and training

24. A description of how the Board will encourage Registered Apprenticeship programs in its area to register with the eligible training provider system in order to receive WIOA funding.

Registered Apprenticeship

The registered apprenticeship system provides opportunities for workers seeking high-skilled, high paying jobs and for employers seeking to build a qualified workforce. It is a unique, flexible training system that combines job-related technical instruction with structured on-the-job learning experiences. Over time, the registered apprenticeship system has evolved to address advancing technologies and to meet new training and human resource development needs.

As a Board, we work to achieve this goal by offering the following solutions to our local employers and job seekers:

- Connecting with businesses in diverse fields and advanced industry sectors to inform them of the Apprenticeship opportunity
- Consulting with employers to assist them with listing their Registered Apprenticeship programs in the Eligible Training Provider System
- Creating a solution for employers to achieve supply and demand of needed workers by tapping into our database of jobseekers

25. A description of the Board’s strategy and commitment to support ApprenticeshipTexas efforts across the state, as applicable.

ApprenticeshipTexas

Once Registered Apprenticeship programs are registered in the Eligible Training Provider System, the Gulf Coast Board continues to support them in the following ways:

- Providing OJT to qualified candidates
- Providing supportive services during the registered apprenticeship
- Providing AEL services as needed
- Providing access to community-based partners and their services as needed

DRAFT

PART C: PUBLIC COMMENT

26. A description of the process used by the Board, consistent with WIOA §108(d), to provide a 30-day public comment period before submission of the plan, including an opportunity to have input into the development of the Local Plan, particularly for representatives of businesses, education, and labor organizations. Comments submitted during the public comment period that represent disagreement with the plan must be submitted with the Local Plan.

The Local Plan is available to the public for review [at www.wrksolutions.com/LocalPlan](http://www.wrksolutions.com/LocalPlan).

On December 21, 2016, the Gulf Coast Workforce Board announced publication of the plan via email to more than 900 individuals representing business, education and labor organizations. The email included a web link the plan and an invitation to provide comment.

Interested individuals submitted their comments by using an online response form or emailing comments@wrksolutions.com.

The Gulf Coast Workforce Board also hosted a community forum on January 5, 2017, 9-11 a.m. at Workforce Solutions – Southeast (12148-B Gulf Freeway, Houston, Texas 77034). Those who attended worked in groups to review the plan and develop individual and group responses.

All comments received through January 19, 2017 are attached.

Online Comments



As a public entity, Workforce Solutions is most effective when we can rely on the participation of all stakeholders in the regional economy. To that end, the Gulf Coast Workforce Board invites you to review our Local Plan and provide feedback.

In the 2017-2020 plan, you will see how the Board:

- Projects labor market conditions and identifies the needs for skilled workers
- Sets the strategic direction for Workforce Solutions and the Board's investments to meet the region's needs for an educated and skilled workforce
- Describes how Workforce Solutions is organized to deliver high-quality, valued service for the region's employers and people
- Ensures the public workforce system is open and accessible to its customers and accountable to funders, local elected officials and stakeholders

The plan will be available for public comment until January 19, 2017. Please click the thumbnail below to view the draft of the plan (PDF). To provide feedback, you may click the "Submit Comments" link or email comments@wksolutions.com. We value your participation and appreciate you taking the time to respond.



1. **Name:** Rolonda Clements Martin
Company Name (if applicable): Goodwill Industries of Houston
Economic Interest: Business, Education and Labor

Comment: "I think the local plan is great and all tools will be an asset in the work we do serving those persons trying to move themselves to a point of self-sufficiency."

Board Response: Thank you for your feedback. We value all organizations involved in the workforce development system and see the plan as a foundation for ongoing collaboration.

2. **Name:** Leonard Dorsey
Company Name (if applicable): Chinese Community Center
Economic Interest: Business, Economic Development and Community Partnerships

Comment: “The content of this Local Workforce Development Plan was detailed and very organized. It surely addressed and highlighted the economic challenges this region has faced and the results in growth from its collaborative efforts. My analysis on the regional workforce development would include a more strategic approach to eliminating barriers to employment for our immigrant, veteran, and homeless communities. Great resource of information and a vital tool for all community partners.”

Board Response: Thank you for your comments. We continue to work with our partners at the Coalition for the Homeless, Combined Arms and other veterans service organizations, and organizations in the region working with immigrants and refugees to refine our service and our approach for these customers.

3. **Name:** Malik Risher
Company Name: Top Golf
Economic Interest: Other

Comment: “Welding and Blacksmithing”

Board Response: *We contacted this commenter to request more information and have not received a reply.*

4. **Name:** April Walters
Company Name (if applicable): The Training Center of Air Conditioning & Heating
Economic Interest: Education

Comment: “We need to improve communication between the WS offices and the Training Providers. Potential students tour our facility, are given a Cost Obligation Form and then sent to a WS office. Most are often "forced" or "talked into" going to Lone Star. We are not only a TP but an employer as we own a commercial air conditioning company. Our training is completed in 14 weeks and we put good quality AC technicians into the marketplace. We could put more into the field with better support from WS. Students are getting excellent training and then excellent jobs. It is hard to be successful if WS talks students out of going to our school! Lone Star is a 2 year program with only a 10% graduation rate! Why would WS send them there instead of our school?”

Board Response: Thank you for your comments, and we appreciate you letting us know about your relationship with our local offices. We will look into the practices at those offices. It is not our policy to discourage customers from choosing a particular training provider; however, we do provide information on all available providers for customers eligible for and interested in our scholarships. We encourage our customers to make their own choices.

5. **Name:** Mitch Thames
Company Name (if applicable): Bay City Chamber of Commerce and Agriculture
Economic Interest: Education, Economic Development and Community Partnerships

Comment: “Make sure we keep everything local, this plan cannot be run from Houston. The smaller part just go away. Keep our offices and support near us, and make sure they have the ability to be our friends and neighbors. Education make sure the dollars are available for rural settings where a few dollars will go a long way in helping us reach our goals.”

Board Response: Thank you for your feedback. Our 24 Workforce Solutions career offices are located throughout the 13-county Houston-Galveston region, and we work to ensure that those offices are part of and responsive to the communities which they serve. Our financial aid for scholarships is available to eligible customers throughout the region, including the communities outside the metropolitan area, and we strive to ensure that our network includes training providers throughout the region.

6. **Name:** Ann Penn
Company Name (if applicable): Academy of Dental Assisting
Economic Interest: Labor

Comment: “Looking for an assistant”

Board Response: *We contacted this commenter and determined that she was interested in applying to be a part of Workforce Solutions training provider network. We provided her with information on how to apply.*

7. **Name:** David Campbell
Company Name (if applicable): Acoustic Edge Institute
Economic Interest: N/A

Comment: “Thank you for your support in advance. I am in admissions at Acoustic Edge Institute. I receive calls daily from employers who are looking for qualified technicians all over the nation. We are able to place 100% of our students that are wanting to go to work. Every car audio shop, custom car shop, upholstery shop, RV Dealer, Airplane shop and many more, are needing 12 volt technicians. We are able to place more students than any other school out there.

If you are truly wanting job placement, I would suggest you verify my last statement and give me a call.”

Board Response: *We contacted this commenter to request more information and have not received a reply.*

Community Forum Comments



Workforce Solutions invites you to attend a Community Forum where the Gulf Coast Workforce Board will present its Local Plan and enable representatives of businesses, education and labor organizations to comment in an open discussion.

The comprehensive four-year plan identifies and describes policies and procedures as well as local activities. It aims to not only show how Workforce Solutions' operations align with elements in the Texas Workforce Commission's state plan, but also how it collaborates with local business, education, labor and community organizations to support the regional economy. The Gulf Coast Workforce Board would appreciate your attendance and participation in sharing your thoughts and feedback on the plan. In addition, the plan will also be available for public comment online for 30 days.

Community Forum
January 5, 2017
9 - 11 a.m.
Workforce Solutions - Southeast Office
12148-B Gulf Freeway
Houston, Texas 77034

[Get Directions](#)



First Name	Last Name	Organization/Company
Gayland	Capps	Alvin Community College
Jennifer	Edenfield	Brazosport Independent School District
C.B. "Bix"	Rathburn	Galveston County
Sabrina	Schwetner	Hitchcock Industrial Development Corporation
R. Ronald	Sokol	Safety Council Texas City
Marsha	Tuha	Lee College
Willie	Alexander	W.J. Alexander & Associates (Board member)
Roni	Archer	Pasadena Chamber of Commerce
Jeffrey	Sjostrom	Galveston Economic Development Partnership
Robert	Thomas	Aldine Independent School District
Kimberly	Crow	Alief Independent School District
Bill	Marshall	Alief Independent School District
Erica	Jordan	Lone Star College
Deborah	Roberts	Lone Star College
Christina	Todd	Lone Star College

Attendees worked in groups to form the collective responses provided below. In addition, they also individually filled out a questionnaire with their personal responses.

Group 1:

1. Use this plan to generate sub regional dialogue and buy in from small businesses, large employers, ISD's and community colleges.
2. Recognize the importance of non-primary jobs.
3. Success depends on continued communication and collaboration.
4. Workforce Demands will remain critical issues for our region.

Group 2:

This report is a valuable document across all industry/develop a relationship between industry, education and government to identify strategies to fill the workforce pipeline.

Group 3:

The plan and data area a great start, and we hope they will be a catalyst for further discussion in the region with industry, economic development, and education, etc.

Budget Committee

Proposed 2017 Board Budget

Background

Each year the Workforce Board approves a budget showing how it uses the revenues it receives to achieve the results set out in the Board's strategic plan: competitive employers, an educated workforce, more and better jobs, and higher incomes.

The budget describes how the Board will use its resources to both operate Workforce Solutions and leverage results in the region.

The Budget Committee met on Tuesday, January 31, 2017 with Committee Chair Willie Alexander, Committee and Board Vice Chair Gerald Andrews, Board Chair Mark Guthrie, and members Sarah Janes, Scott Marshall, Doug Karr, and Jerry Nevlud attending.

Current Situation

The proposed 2017 budget at just under \$215 million is 1.4% more than in 2016. At this time we are projecting a slight increase in our revenue, although we are uncertain how actions at the federal level may affect the funds available to us. We will keep Board members apprised of any changes as we are made aware of them.

We expect a modest decrease in our general revenue – the funds we use to power Workforce Solutions. However, we project an increase in special funds.

- While the base revenue we use for the system will decrease, this decline will be offset to a large degree by an increase in special revenue – principally dollars specifically to assist workers laid off from the energy industry and dollars for adult education.
- We will also have funds from our collaborative efforts with the Homeless Coalition and the Houston Housing Authority to support our service.
- Our early education dollars have increased slightly from last year.
- We have included the performance award dollars we received at last year's state workforce conference in this revenue estimate.

Proposed 2017 expenditures are in line with contracts the Board approved for Workforce Solutions in August 2016.

This proposed 2017 budget – along with any adjustments we may make mid-year – will also include a portion of the funds we would use for Workforce Solutions contracts beginning in fall 2017, including the adult education consortium.

- We propose service for employers be maintained at a comparable level to 2016. These dollars are used to support consulting, talent acquisition, and talent development initiatives for the region's employers.
- We plan to increase the number of existing adult education sites and add new locations where feasible. We will have additional opportunities for adult education career pathways and integrated basic/occupational skills training.
- In the proposed budget, we have combined the line item for special projects with career services funding. This reflects the need to closely link special projects to our career offices to ensure those projects' success.
- Later this year, we will need to conduct a procurement for the Workforce Solutions system. After the February Board meeting, we will schedule a Procurement Committee meeting to present our recommendations for the procurement process and timelines.

We are proposing a Board operations budget of \$5.9 million, an increase of 11% from 2016. Board operations represent 2.7% of the total system budget.

- In last year's budget, we added three positions to the staff. Budgeted personnel costs represented those three positions for the period that each would be filled – which for each was less than a full year. In 2017, we are not proposing adding any additional staff, however the increase in personnel cost results from full-year salary and benefits for each of those three positions, upgrading our quality assurance position to a manager level, and H-GAC's merit pool.
- H-GAC provides a pool of funds for merit raises in most years. Managers recommend raises based on an evaluation of employees' performance. This year the pool has been set at 3%.
- We're also proposing an increase of 12% over 2016 for financial monitoring costs. We anticipate doing more work during this year preparing for the procurement and the possibility of additional contractors later in the year.
- Building on the success of our public information/outreach contractors last year, we propose providing them with additional funds to further expand their activities.

Results

With this budget, we plan to achieve the following:

- Provide service for 22,000 employers and 360,000 individuals
- Spend \$11.0 million on scholarships for more than 3,400 individuals in high-skill, high-growth occupational training
- Provide adult education and literacy for 20,470 individuals
- Support about 21,000 families and 40,000 children with their early education expenses
- Ensure 60% of our employers return for additional services
- Assist in creating 3,200 new jobs
- Help more than 300,000 individuals go to work
- Raise the incomes of 110,000 by at least 20%
- Help 84% of individuals pursuing a post-secondary education attain a certificate or degree

Action

Approve the proposed 2016 budget in amount of \$214,944,634.

GULF COAST WORKFORCE BOARD					
PROPOSED 2017 BUDGET					
SOURCE AND USE					
Source			Use		
General Revenue	\$ 189,375,387		Board Operations		\$ 5,907,699
Special Revenue	24,869,247		System Operations		209,036,935
Other Revenue	700,000		Employers	8,300,000	
			People	200,351,935	
			System	385,000	
Total Revenue	\$ 214,944,634		Total Expenditures		\$ 214,944,634

GULF COAST WORKFORCE BOARD				
PROPOSED 2017 BUDGET				
REVENUE SUMMARY				
	2017	2016	Dollar Variance	Pct Variance
General Revenue	\$ 189,375,387	\$ 191,085,760	\$ (1,710,373)	-1%
Workforce Investment	29,257,255	31,026,407	(1,769,152)	-6%
Employment Service	6,335,652	6,103,864	231,788	4%
Veterans Employment & Training	362,000	362,000	-	0%
Trade Act	1,907,739	2,984,859	(1,077,120)	-36%
Temporary Assistance to Needy Families	15,605,912	15,735,955	(130,043)	-1%
Supplemental Nutrition Assistance	2,900,931	4,006,013	(1,105,082)	-28%
Child Care Development Fund	133,005,898	130,866,662	2,139,236	2%
Special Revenue	\$ 24,869,247	\$ 20,055,758	\$ 4,813,489	24%
Adult Education	18,753,747	15,505,557	3,248,190	21%
National Dislocated Worker Funds	5,315,500	2,468,000	2,847,500	115%
Disconnected Youth	800,000	1,740,090	(940,090)	-54%
Skills Certification	-	342,111	(342,111)	-100%
Other Revenue	\$ 700,000	\$ 720,525	\$ (20,525)	-3%
Coalition for the Homeless	300,000	660,525	(360,525)	-55%
Houston Housing Authority	210,000	60,000	150,000	250%
Performance Awards	190,000	-	190,000	NA
Total	\$ 214,944,634	\$ 211,862,043	\$ 3,082,591	1%

GULF COAST WORKFORCE BOARD						
PROPOSED 2017 BUDGET						
SUMMARY						
		2017	2016	Pct of Total 2017 Budget	Dollar Variance from 2016	Pct Variance from 2016
Board Operations		\$ 5,907,699	\$ 5,346,217	2.7%	\$ 561,482	11%
	Personnel	\$ 3,570,677	\$ 3,210,494	1.7%	\$ 360,183	11%
	Indirect Costs	413,127	386,865	0.2%	26,263	7%
	Consultants	1,050,500	906,210	0.5%	144,290	16%
	Travel	44,100	44,100	0.0%	-	0%
	Rent	208,919	196,818	0.1%	12,101	6%
	Capital Equipment	0	0	0.0%	-	0%
	Other Costs	620,375	601,730	0.3%	18,645	3%
System Operations		\$ 209,036,935	206,515,826	97.3%	2,521,109	1%
	Service for Employers	8,300,000	8,249,167	3.9%	50,833	1%
	Service for People					
	Financial Aid	142,679,997	142,444,115	66.4%	235,882	0%
	Career Services	40,237,593	40,742,932	18.7%	(505,339)	-1%
	Adult Education	17,434,345	14,719,612	8.1%	2,714,733	18%
	System IT support	385,000	360,000	0.2%	25,000	7%
Total		\$ 214,944,634	\$ 211,862,043	100.0%	\$ 3,082,591	1%

Early Education and Care Committee

Financial Aid Policies

The Early Education and Care committee met Wednesday, January 11, 2017 at 2:00 p.m. in H-GAC's Conference Room 4B. Committee Chair Bobbie Henderson, Committee Vice Chair Linda O'Black, and members Allene Schmitt, Bill Crouch and Betty Baitland attended the meeting.

Katherine von Haefen, a representative from United Way's Bright Beginnings, presented information on their early education and care model which has improved both academic outcomes for lower income children and retention rates for teachers and directors.

Staff recommended changes to Board financial aid policies.

Background

The Board sets several policies we use in awarding financial aid to our customers.

In October 2016, the Texas Workforce Commission changed state rules that apply to the financial aid we provide customers for early education and care. The changes in these state rules have an effect on our local policies and processes, and ultimately, our customers.

We are recommending the Board adjust several financial aid policies to accommodate the state's rule changes.

Current Situation

We recommend changes to five financial aid policies.

1. Determining Eligibility

We review a family's income, the working or in-school hours of the parent(s), the age and citizenship of the children, and residence to determine that family's eligibility for our financial aid.

In general, a family must:

- Have an income less than 200% of the poverty level;
- Have one or both parents working, in school, or working and in school for a set number of hours each week;
- Need early education/care assistance for children from birth to 13 years of age who have U.S. citizenship; and
- Reside in the region.

Families remain eligible as long as their (1) incomes are below 85% of the state median income and (2) parents continue to work or attend school.

Families receiving Temporary Assistance for Needy Families or Supplemental Nutrition Assistance who are engaged with Workforce Solutions to go to work are eligible based on their public assistance status.

Current: We determine a customer's eligibility once every 11 months.

Proposed: We will determine a customers' eligibility once every 12 months.

Discussion: This change is in response to a new requirement in the state's rules.

2. Discounting Parent Share

Most parents who receive our financial aid must bear a share of the cost of early education. We determine that share on a sliding scale, taking into account the family's income and size – and then provide financial aid to cover the early education costs, less the parent share.

Current: We discount the parent share of costs by 40% if the family has six or more members, and we can offer a temporary discount if a parent experiences extenuating circumstances that temporarily affect the parent's ability to pay the required share.

Proposed: In addition to the family size and extenuating circumstances discounts, we will add a discount of 40% for parents who choose a Texas Rising Star Provider.

Discussion: This change is in line with the Board's support for increasing the number of families who access higher quality early education and care.

3. Giving Priority

Despite the large amount of funds we receive every year, we continue to have more families seeking our financial aid than we can accommodate. We place families on a wait list and authorize assistance based on the availability of funds and a set of priorities. The majority of the categories and their order on the priority list are set in state rule; the Board has the option to add to the list.

In addition, there are several kinds of families (primarily those who receive some kind of public assistance and are concurrently engaged with us to go to work) who are, by state rule, always first in priority for financial aid.

Current: We give priority for financial aid to families in the following order:

1. Applicants for Temporary Assistance for Needy Families cash payments;
2. TANF recipients who are participating with us in employment and training activities;
3. TANF employment and training participants who are transitioning off cash payments and into unsubsidized work;
4. Supplemental Nutrition Assistance (food stamp) recipients who are participating with us in employment and training activities;
5. Children in protective services;
6. Children of veterans or their spouses;
7. Children of a foster youth;
8. Children experiencing homelessness;
9. Children of active duty military personnel who are unable to enroll their children in military-funded child care assistance programs;
10. Children of teen parents;
11. Children with disabilities
12. All other eligible families

Proposed: We will give priority for financial aid to families in the following order:

1. Applicants for Temporary Assistance for Needy Families cash payments;
2. TANF recipients who are participating with us in employment and training activities;
3. TANF employment and training participants who are transitioning off cash payments and into unsubsidized work;
4. Supplemental Nutrition Assistance (food stamp) recipients who are participating with us in employment and training activities;
5. Children in protective services;
6. Children of veterans or their spouses;

7. Children of a foster youth;
8. Children experiencing homelessness;
9. Children of active duty military personnel who are unable to enroll their children in military-funded child care assistance programs;
10. Children of teen parents;
11. Children with disabilities
- 12. Siblings in families already receiving our financial aid for one or more children**
- 13. Families participating in Workforce Solutions career, employment or education activities that require the financial aid to successfully complete their service**
14. All other eligible families

Discussion: In past years, priority for financial aid was not much of an issue for us. Generally, we have been able to keep our wait list short and to manage funds so that families with priority status and those without were able to access our assistance.

The 2016 changes to state rules have already altered our ability to move families off the wait list. The priorities list becomes more important as our wait list grows.

Although most of the priorities are the result of state rule, we propose adding two groups (siblings, and families participating in Workforce Solutions career/employment activities). We believe adding these families will help us better support customers currently receiving financial aid who need to add a sibling – as well as those customers who need this financial aid to help them complete education or work activities.

4. Attendance

Parents report their children's attendance daily, and we allow for a certain number of absences that include failure to report attendance using the automated system. The new state rules affect our attendance policy.

Current: We allow parents up to 30 days of absences per child and up to 18 days of failure to report attendance (if the parent lost or damaged the automated attendance card, didn't receive the card, or was unable to report because the provider's terminal was defective). If a parent exhausts these allowed absences and failure-to-report days, we stop the financial aid and prevent the parent from re-applying for assistance for 30 days.

Proposed: The state rules set a uniform limit on absences of 65 days in the parent's 12-month eligibility period. If a parent exhausts the allowed absences, we do not

stop our assistance until the 12-month period ends. Once the eligibility period ends, we stop the financial aid and the parent is unable to reapply for 12 months.

We would adjust an individual child's attendance record and reduce reported absences upon request from a parent or caretaker when:

- The parent lost the automated attendance cards;
- The parent did not receive the automated attendance card;
- The provider had a defective attendance terminal;
- The Texas Department of Families and Protective Services is making the referral for financial aid;
- The staff determine it is appropriate to provide a one-time adjustment for the parent's failure to record attendance; or
- The staff determine there are other exceptional circumstances that prevented a parent from recording attendance.

Discussion: We believe it is appropriate to continue making allowances for absences that result from a lost or damaged card, a card that the parent never received, and problems with a provider's automated attendance terminal. Often referrals from Children's Protective Service at TDFPS have long periods of absences due to the lack of an automated attendance card – we also believe it is appropriate to reduce the reported absences in this case.

We recommend recognizing the need for the staff to be able to make a judgment on extenuating or exceptional circumstances a parent may face that caused a failure to report attendance.

5. Supporting Parents in Training

We support parents who are in school with financial aid for early education expenses. We currently limit our financial aid to a period of two years or 65 semester hours of training, unless the parent is engaged in training for an occupation in one of the Board's High-Skill, High-Growth Jobs. A parent in training must make satisfactory progress toward course or degree completion to continue receiving our financial aid.

Current: At redetermination of eligibility, parents must not have exceeded 65 semester hours or two years unless one of the following applies:

- Parent is attending school or training for an occupation in one of the Board's High-Skill, High-Growth Jobs.
- Parent is working 25 hours/week in addition to attending school or training.
- Parent has a spouse who is working 25 hours per week.

A parent demonstrates satisfactory progress at redetermination by showing us he or she continues to be enrolled in the same course or degree program as when he or she initially started receiving our financial aid.

- Proposed:** At redetermination of eligibility, parents must not have exceeded 65 semester hours unless one of the following applies:
- Parent is attending school or training supported by federal, state or Workforce Solutions funds; or
 - Parent is working 25 hours/week in addition to attending school or training; or
 - Parent has a spouse and together they are working 50 hours per week and at least one parent attends school.

A parent will continue to demonstrate progress at redetermination by showing us he or she is currently enrolled in the same course or degree program.

Discussion: We believe the support for parents in training would be more effective if we removed the strict two-year limit and broadened the training to include any workforce-related course supported with federal (i.e., Pell), state or Workforce Solutions funds.

For many of our parents, training for higher wage jobs generally takes more than two years because they must work while they are also in school. In addition, we have otherwise eligible parents who may be using resources such as Pell grants for training in jobs not currently identified by the Board and high-skill, high-growth.

We are making a slight change in the documentation requirements for making satisfactory progress. We would eliminate the need for a parent to provide us with copies of report cards or a letter from the training institution – but retaining the requirement for the parent to show us proof of current enrollment.

Action

Recommend Board adopt changes to financial aid policies described above.

Nominations Committee

2017 Board Officers

The Nominations Committee will recommend members for 2017 Board officers: Chair and three Vice Chair positions.

Gulf Coast Workforce Board
System Performance
 October 2016 to December 2016

Board Measures

These measures gauge progress toward meeting the results set out in the Board’s strategic plan. There are two sets of measures: one for the entire regional workforce system and one for the Board’s operating affiliate, Workforce Solutions.

We report on the Board measures for Workforce Solutions at each meeting.

More Competitive Employers

Measure	Annual Target	Current Performance	Performance Last Year
<u>Employers Receiving Services</u> (Market Share) We expect to provide services to 22,000 employers this year. We provided services to 8,187 employers through December 2016	22,000	8,187	23,591
<u>Employer Loyalty</u> Our performance indicates our employer customers value our services and return to us for additional services. Of a possible 20,839 employers, 5,708 returned to Workforce Solutions for additional services through December 2016	60.0%	27.4%	56.0%

More and Better Jobs

Measure	Annual Target	Current Performance	Performance Last Year
<u>New jobs created</u> New jobs created in the region as a result of Workforce Solutions partnering with economic development organizations. This information is captured quarterly and reflects a two-year average through December 2016.	3,200	547	612
<u>Customers employed by the 1st Qtr. after exit</u> 53,795 of the 68,970 customers who exited service in the quarter ending December 2015 were employed by the quarter after exit.	76.0%	78.0%	80.3%

Higher Real Incomes

Measure	Annual Target	Current Performance	Performance Last Year
<u>Earnings Gains of at least 20%</u> 23,945 of the 78,611 customers who exited in the quarter ending June 2015 had earnings gains of at least 20%.	36.0%	30.5%	33.4%

A Better Educated Workforce

Measure	Annual Target	Current Performance	Performance Last Year
<u>Customers pursuing education diploma, degree or certificate who achieve one</u> 480 of 731 customers pursuing an education diploma, degree or certificate attained a diploma, degree or certificate by the end of the quarter after exit. Data is from July 2016 through September 2016.	74.0%	65.7%	74.2%

Production

In addition to the Board’s measures, Workforce Solutions works to meet Texas Workforce Commission expectations for production.

For the performance year that began October 1, 2016, we are meeting or exceeding the target for sixteen of twenty state measures.

The measures we are not meeting are:

- Credential Rate – All Customers: The target for this measure is 47.7%. Our performance through March 2015 was 24.7%.
- Median Earnings Q2 Post Exit – Adult: The target for this measure is \$3,910. Our performance through September 2015 was \$3,515.
- Median Earnings Q2 Post Ext – Dislocated Worker: The target for this measure is \$6,980. Our performance through September 2015 was \$5,800.
- Credential Rate – Dislocated Worker: The target for this measure is 63.8%. Our performance through March 2015 was 61.1%.

These are measures for the Adult Education and Literacy funded services. The performance period began July 2016.

- Total enrollments are the number of individuals who begin an adult education class.
- 12+ hour enrollments count the number of individuals who are in class 12 or more clock hours.
- Transitions enrollments count the number of individuals in adult education classes designed to lead to further post-secondary training.
- Career Pathways enrollments counts the number of individuals in contextualized learning (basic education and occupational skills at the same time) classes.
- Integrated English Language and Civics courses will be integrated with some workforce training that result in a job and/or certificate/credential.
- TWC Accelerate Texas includes individuals enrolled in an integrated education and training module.

	Target	Year to Date Actual
<i>Total Enrollments</i>	20,470	14,296
<i>12+ Hour Enrollments</i>	19,131	13,352
<i>Transitions</i>	883	699
<i>Career Pathways</i>	807	352
<i>Integrated English Language & Civics Ed.</i>	665	38
<i>TWC Accelerate Texas</i>	220	125

**GULF COAST WORKFORCE DEVELOPMENT BOARD
FINANCIAL STATUS REPORT
For the Twelve Months Ended December 31, 2016**

	ANNUAL BUDGET	BUDGET YEAR TO DATE	ACTUAL YEAR TO DATE	DOLLAR VARIANCE
WORKFORCE REVENUES				
WORKFORCE REVENUES	211,862,043	211,862,043	199,352,924	12,509,119
WORKFORCE EXPENDITURES				
BOARD ADMINISTRATION	5,346,217	5,346,217	5,325,764	20,453
SYSTEM IT	360,000	360,000	385,036	(25,036)
EMPLOYER SERVICES	8,249,167	8,249,167	8,091,398	157,769
RESIDENT SERVICES	197,906,659	197,906,659	185,550,726	12,355,933
OFFICE OPERATIONS	38,975,400	38,975,400	37,475,222	1,500,178
FINANCIAL AID	142,444,115	142,444,115	136,296,592	6,147,523
SPECIAL PROJECTS	1,767,532	1,767,532	1,607,000	160,532
ADULT EDUCATION	14,719,612	14,719,612	10,171,912	4,547,700
TOTAL WORKFORCE EXPENDITURES	211,862,043	211,862,043	199,352,924	12,509,119

VARIANCE ANALYSIS

Note: Except for Special Projects that are currently funded through September 30, 2016, the "Budget Year to Date" column reflects straight-line estimate of expenditures for the twelve-month period, assuming equal expenditures every month in order to fully expend the budget in a year.

For the Twelve Months Ended December 31, 2016

	budget ytd	actual ytd
Workforce Revenues	211,862,043	199,352,924
Total Revenues	211,862,043	199,352,924
Board Administration	5,346,217	5,325,764
System IT	360,000	385,036
Employment Services	8,249,167	8,091,398
Resident Services	197,906,659	185,550,726
Office Operations	38,975,400	37,475,222
Financial Aid	142,444,115	136,296,592
Special Projects	1,767,532	1,607,000
Adult Education	14,719,612	10,171,912
Total Expenses	211,862,043	199,352,924

FY16 YTD Workforce Revenues

	<u>State</u>	<u>Federal</u>	<u>Total</u>
Jan-16	16,105,685		16,105,685
Feb-16	15,174,831		15,174,831
Mar-16	16,448,421		16,448,421
Apr-16	16,716,256		16,716,256
May-16	16,758,872		16,758,872
Jun-16	18,367,386		18,367,386
Jul-16	17,967,888		17,967,888
Aug-16	18,320,020		18,320,020
Sep-16	16,832,370		16,832,370
Oct-16	14,814,262		14,814,262
Nov-16	14,458,151		14,458,151
Dec-16	12,154,514		12,154,514
Totals	<u>194,118,656</u>	<u>0</u>	<u>194,118,656</u>

Remarks: ES program revenue \$5,234,268.00 from TWC FS-9 report not included in Workforce Board revenue journal.

Updates

As we noted in previous meetings, it is time for the Board to procure the contractors that operate Workforce Solutions for us.

We propose releasing a request for proposals that covers all parts of the Workforce Solutions system in mid-to-late March. This would allow sufficient time for interested bidders to prepare and submit proposals, the staff to review and score those proposals, and the Board's Audit/Monitoring and Procurement committees to review and make recommendations for contracts to the full Board at its August 1, 2017 regular meeting.

Following is our proposed schedule:

March 2017	Issue Request for Proposals
May	Set deadline for submissions
May-June	Staff review and scoring
July	Audit/Monitoring and Procurement committee meetings
August 1	Board meeting to consider contracts

The request would include our Employer Service, the local offices and the supporting financial aid call and payment centers, our early education quality improvement activities, the system training and development contract, and adult education.

For adult education, we propose soliciting organizations that are interested in joining the existing consortium rather than attempting to re-bid the entire consortium. We believe the system has sufficient funds to accommodate other providers in the consortium.

Finally, we plan to have three public information sessions for prospective bidders in late February-early March. These are not a bidder's conference, but an announcement to the community and potentially interested organizations of our intent to procure contractors to operate Workforce Solutions. We would also encourage organizations and individuals attending the sessions to register with us to receive the request when we issue it.

On February 28, we plan to have a session in Houston at the United Way and a session in Sugar Land at the Fluor Auditorium. On March 1, we would have a session at the Greater Conroe Chamber of Commerce in Conroe.



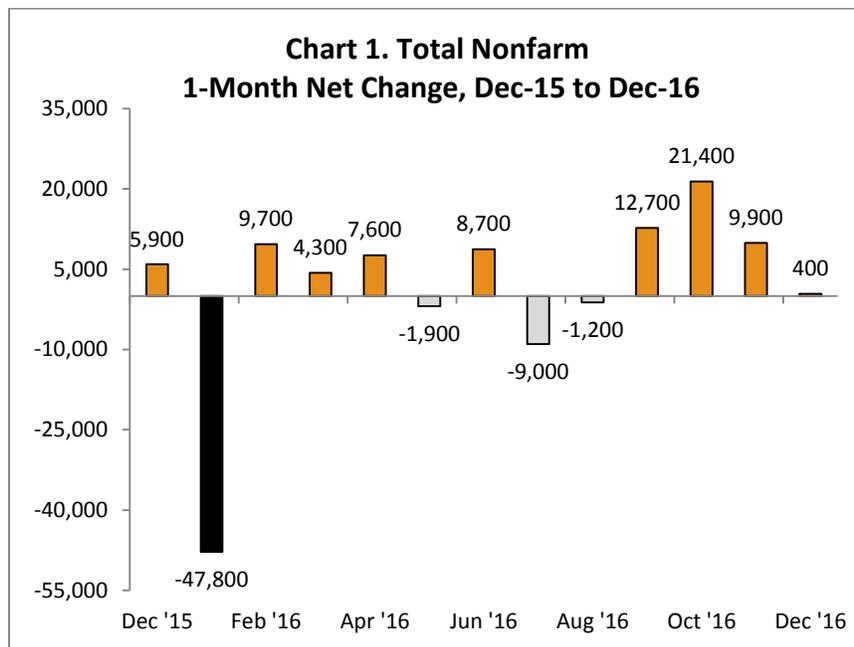
Current Employment Statistics Houston-The Woodlands-Sugar Land December 2016

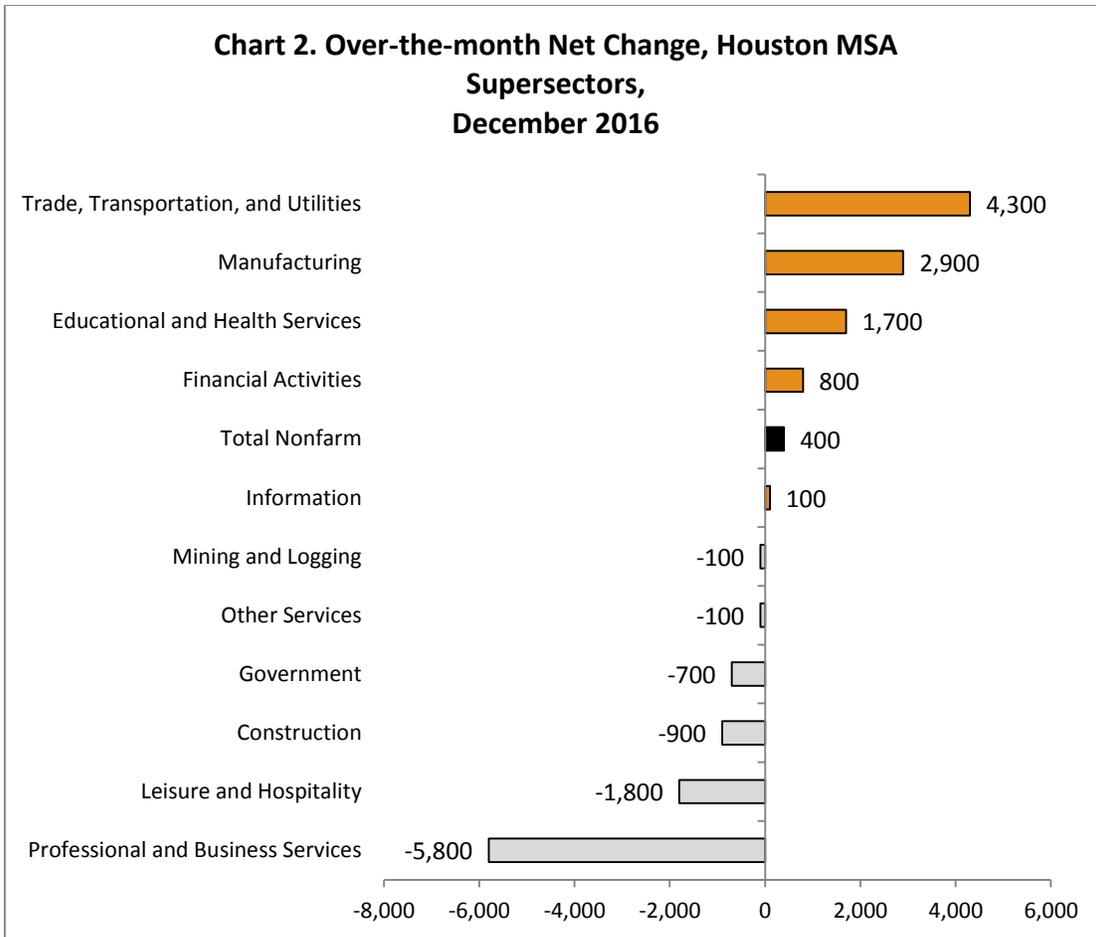
Workforce Solutions is an affiliate of the Gulf Coast Workforce Board, which manages a regional system that helps employers solve their workforce problems and residents build careers so both can compete in the global economy. The workforce system serves the City of Houston and the surrounding 13 Texas Gulf Coast counties including: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

Total Nonfarm

One Month Change

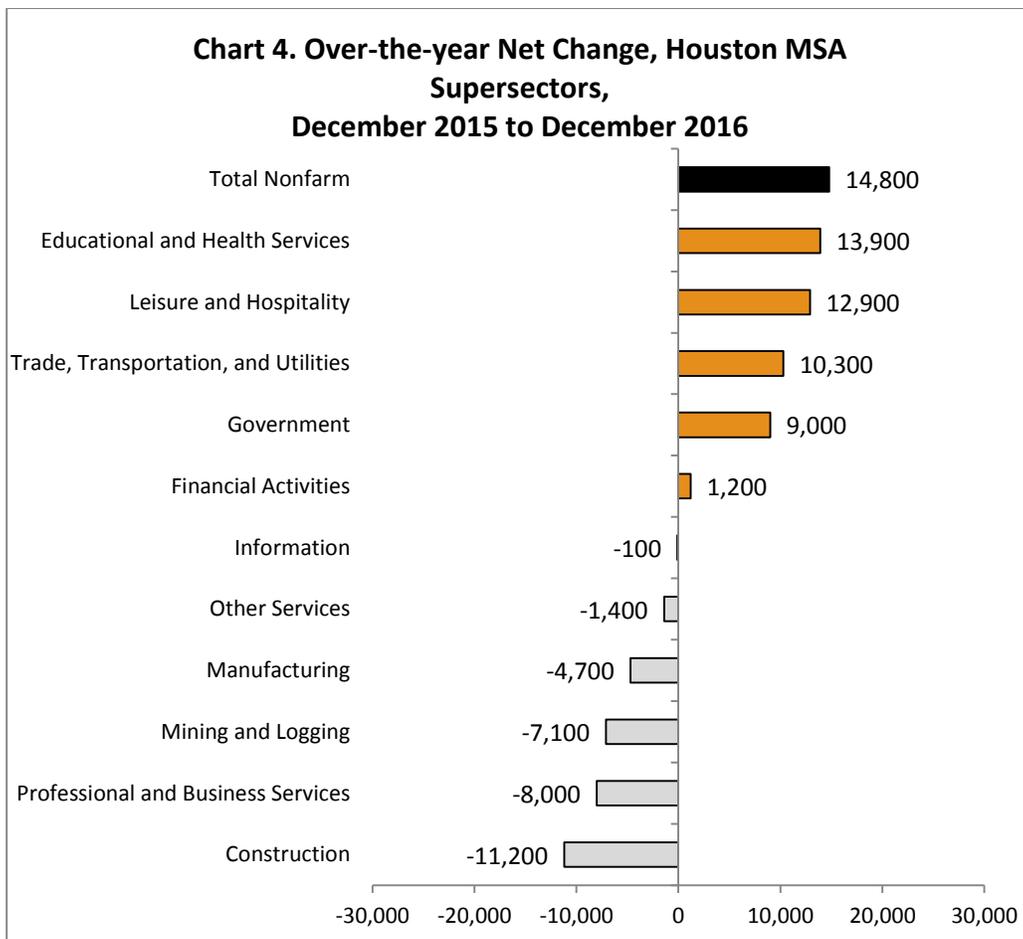
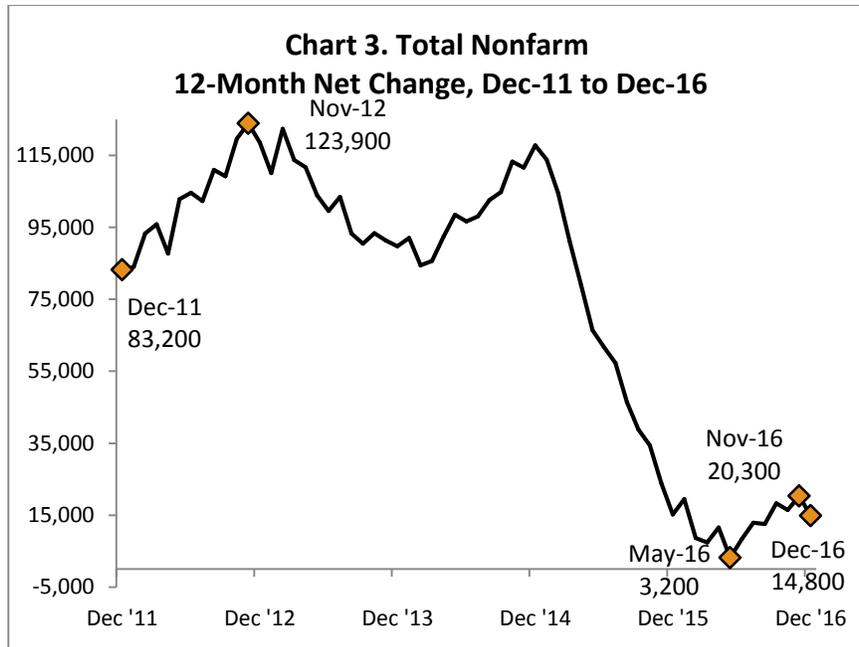
Houston MSA Total Nonfarm employment stood at 3,036,100 in December, up 400 jobs over the month, or 0.0 percent. A year ago Houston registered an over-the-month increase of 5,900 jobs. This was the smallest-ever one-month gain in the month of December since records began in 1990. The largest over-the-month gain on record for Total Nonfarm Employment occurred in February 2013, up 37,400 jobs. The largest one-month decline on record occurred in January 2009, down -65,600 jobs. Historically in the month of December, Total Nonfarm has on average added 11,154 jobs over the month, which indicates that this month's gains are substantially below the long-term average. The primary drivers of this December's growth were Trade, Transportation, and Utilities, Manufacturing, and Educational and Health Services. Gains were also recorded in Financial Activities and Information. The net increase in jobs over the month was partially offset by losses in Professional and Business Services, Leisure and Hospitality, and Construction.





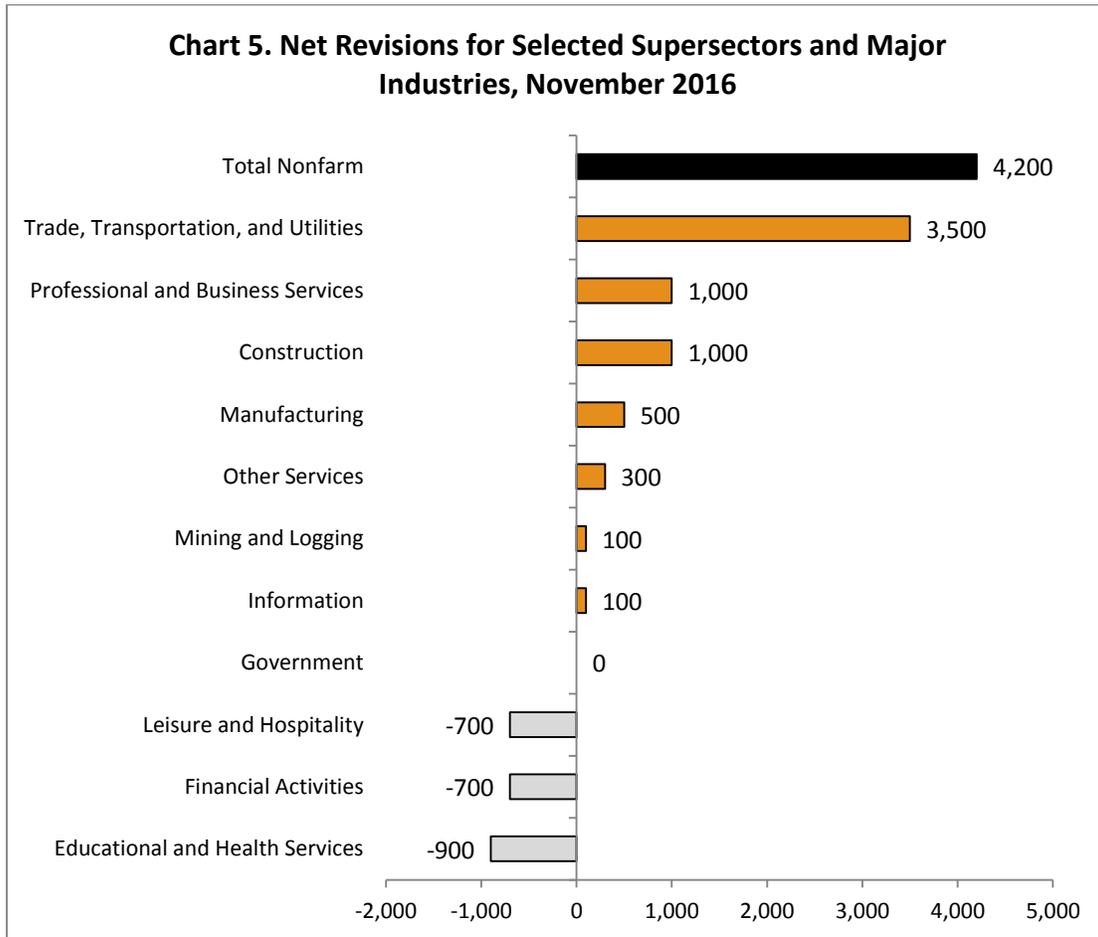
Year over Year Change

Over the year, Total Nonfarm employment was up 14,800, or 0.5 percent. To compare, December 2015 saw a year-over-year gain of 15,200 jobs. The largest over-the-year gain on record for Total Nonfarm Employment occurred in November 2012, up 123,900 jobs. The largest over-the-year decline on record occurred in November 2009, down -115,000 jobs. Currently 6 out of 11 sectors show flat or negative growth year over year: Construction (-11,200), Professional and Business Services (-8,000), and Mining and Logging (-7,100). While subject to revisions in March, December's figure finishes 2016 without any months of year-over-year job losses which also provides additional confirmation that May's low of +3,200 jobs marks the bottom for the downturn that began in late 2014.



Previous Month's Revisions

Total Nonfarm employment was revised upward by 4,200 jobs for an October to November larger net gain of 9,900 compared to an original estimate of 5,700 jobs. An upward revision of +3,500 jobs in Trade, Transportation, and Utilities was the largest contributor followed by Professional and Business Services (+1,000) and Construction (+1,000). Downward revisions in Educational and Health Services (-900), Financial Activities (-700), and Leisure and Hospitality (-700) provided a partial offset of the overall upward revision to Total Nonfarm employment.

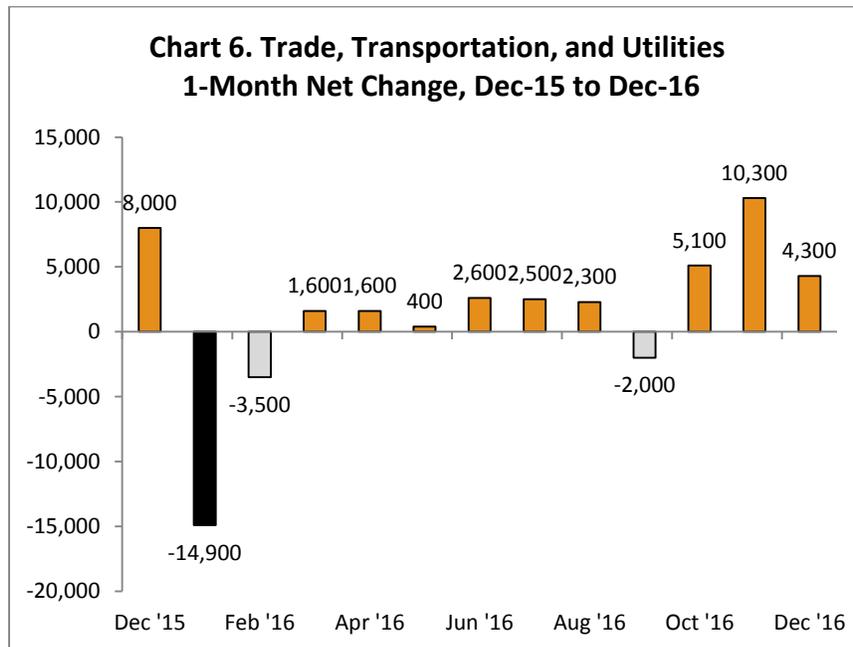


GAINING INDUSTRY HIGHLIGHTS

Trade, Transportation, and Utilities

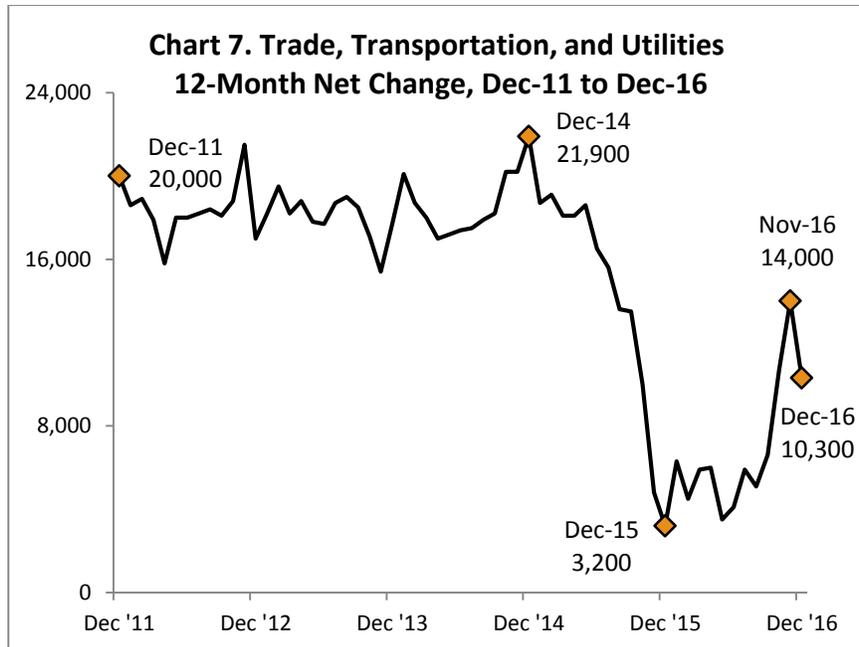
One Month Change

Trade, Transportation, and Utilities was the largest gaining sector over the month up 4,300 jobs, or 0.7 percent. This was the smallest-ever one-month gain in the month of December since records began in 1990. The largest over-the-month gain on record for this sector occurred in November 2012, up 13,900 jobs. The largest one-month decline on record occurred in January 2009, down -22,800 jobs. Historically in the month of December, Trade, Transportation, and Utilities has added an average of 8,538 jobs over the month, which indicates that this month's gains are below the long-term average. Nonetheless there have never been losses recorded in the month of December for this sector since records began in 1990. Retail Trade was the largest contributor to the overall sector's increase, up 4,000 jobs over the month is consistent with seasonal gains on average of 5,800 jobs over-the-month since records began. The second-largest contributor was Wholesale Trade, which added 500 jobs from November to December. Lastly, Transportation, Warehousing, and Utilities offset a portion of the sector's gains with a loss of -200 jobs.



Year over Year and Year to Date

Year over year, Trade, Transportation, and Utilities was up 10,300 jobs, or 1.6 percent. The largest over-the-year gain on record for this sector occurred in August 1998, up 23,300 jobs. The largest over-the-year decline on record occurred in November 2009, down -23,200 jobs. Year to date this sector is up 25,200 jobs compared to the same point in time a year ago when the net change from January to December was an increase of 21,200. Trade, Transportation, and Utilities' share of Houston area Total Nonfarm Employment has risen from 20.8 percent to 21.0 percent over the past year.



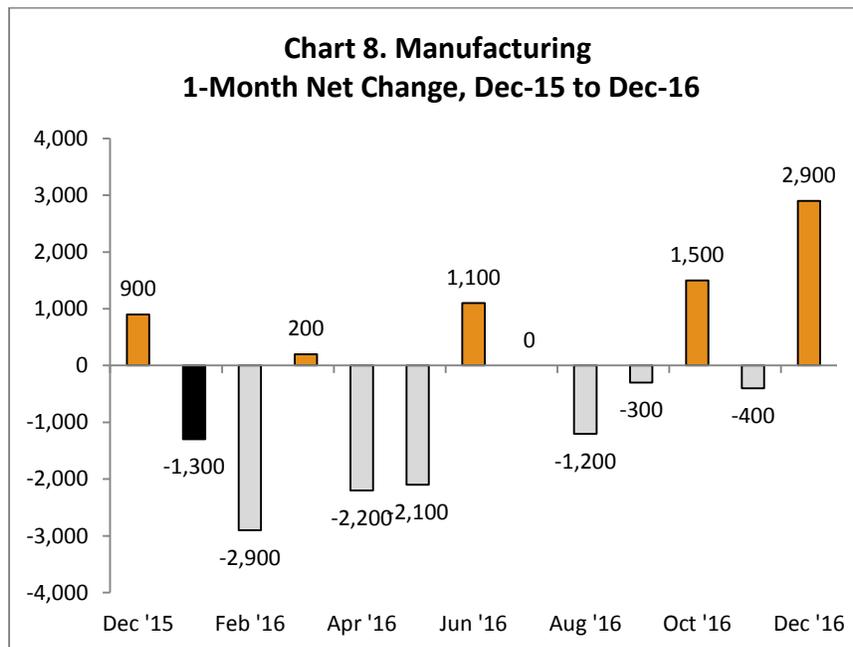
Previous Month's Revisions

Trade, Transportation, and Utilities employment was revised upward by 3,500 jobs for an October to November larger net gain of 10,300 compared to an original estimate of 6,800 jobs. Note that November is typically the strongest month during holiday season for job gains in this sector and therefore the revised figure reaffirms that long-term trend.

Manufacturing

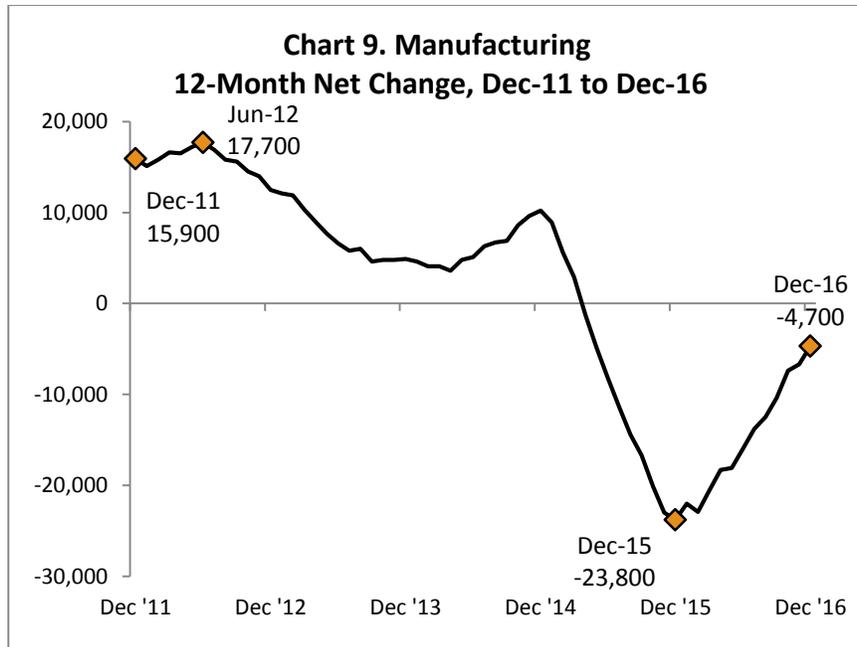
One Month Change

Manufacturing was the second-largest gaining sector over the month up 2,900 jobs, or 1.3 percent. **This was the largest-ever one-month gain in the month of December since records began in 1990.** The largest over-the-month gain on record for this sector occurred in June 1990, up 3,200 jobs. The largest one-month decline on record occurred in January 1999, down -5,200 jobs. Historically in the month of December, Manufacturing has on average added 854 jobs over the month, which indicates that this month's gains are substantially above the long-term average. Non-Durable Goods was the largest contributor to the overall sector's increase, up 1,700 jobs over the month. The second-largest contributor was Durable Goods, which added 1,200 jobs from November to December.



Year over Year and Year to Date

Year over year, Manufacturing was down -4,700 jobs, or -2.0 percent. The largest over-the-year gain on record for this sector occurred in June 2012, up 17,700 jobs. The largest over-the-year decline on record occurred in November 2009, down -28,800 jobs. Year to date this sector is down -3,400 jobs compared to the same point in time a year ago when the net change from January to December was a decrease of -20,700. Since the low for this sector in December 2015, Manufacturing has staged an impressive rebound but cutting job losses by 80% which in turn increases the likelihood of flat to positive job growth occurring in this sector later this year.



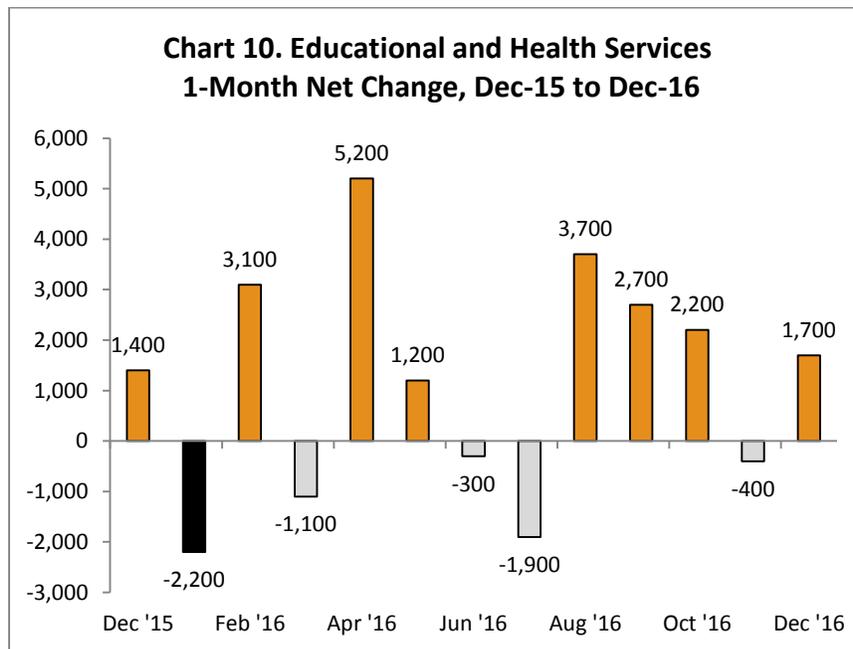
Previous Month's Revisions

Manufacturing employment was revised upward by 500 jobs for an October to November smaller net loss of -400 compared to an original estimate of -900 jobs.

Educational and Health Services

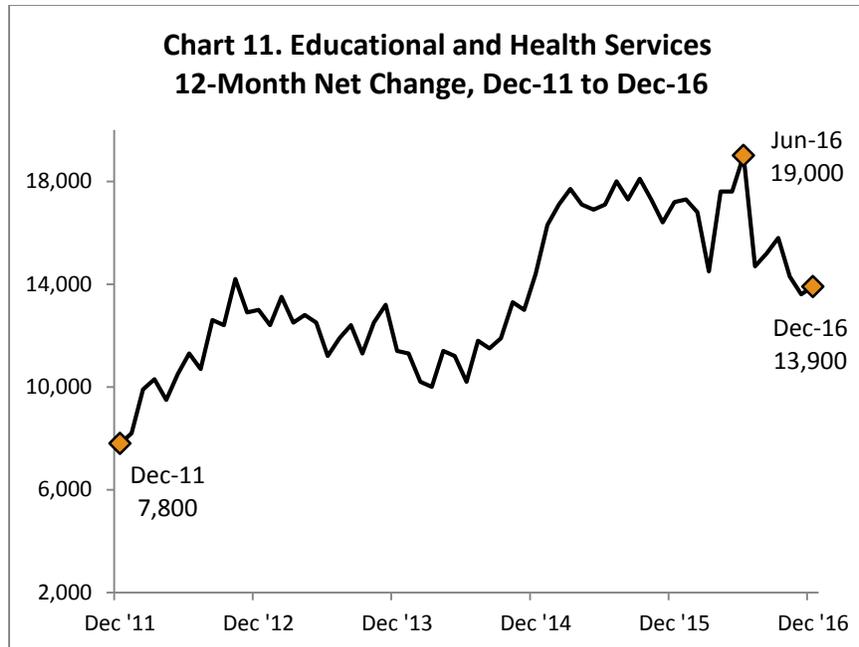
One Month Change

Educational and Health Services was the third-largest gaining sector over the month up 1,700 jobs, or 0.4 percent. This was the largest-ever one-month gain in the month of December since records began in 1990. The largest over-the-month gain on record for this sector occurred in April 2016, up 5,200 jobs. The largest one-month decline on record occurred in February 1990, down -7,300 jobs. Historically in the month of December, Educational and Health Services has on average added 692 jobs over the month, which indicates that this month's gains are substantially above the long-term average. Health Care and Social Assistance was the largest contributor to the overall sector's increase, up 1,900 jobs over the month and within that sub-sector, Ambulatory Health Care Services (i.e. walk-in clinics etc.) was the largest contributor adding 1,600 jobs. One component industry that provided a partial offset was Educational Services, which lost -200 jobs from November to December.



Year over Year and Year to Date

Year over year, Educational and Health Services was up 13,900 jobs, or 3.7 percent. The largest over-the-year gain on record for this sector occurred in June 2016, up 19,000 jobs. The largest over-the-year decline on record occurred in January 1991, down -3,200 jobs. Year to date this sector is up 16,100 jobs compared to the same point in time a year ago when the net change from January to December was an increase of 19,500. Educational and Health Services' share of Houston area Total Nonfarm Employment has risen from 12.5 percent to 12.9 percent over the past year.



Previous Month's Revisions

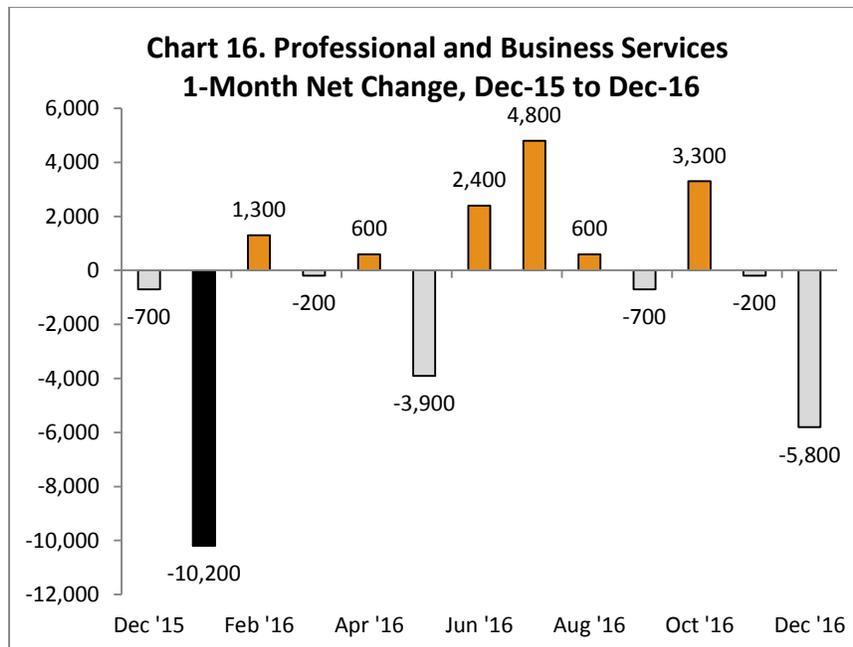
Educational and Health Services employment was revised downward by -900 jobs for an October to November complete erasure of gains leaving a net loss of -400 compared to an original estimate of 500 jobs.

DECLINING INDUSTRY HIGHLIGHTS

Professional and Business Services

One Month Change

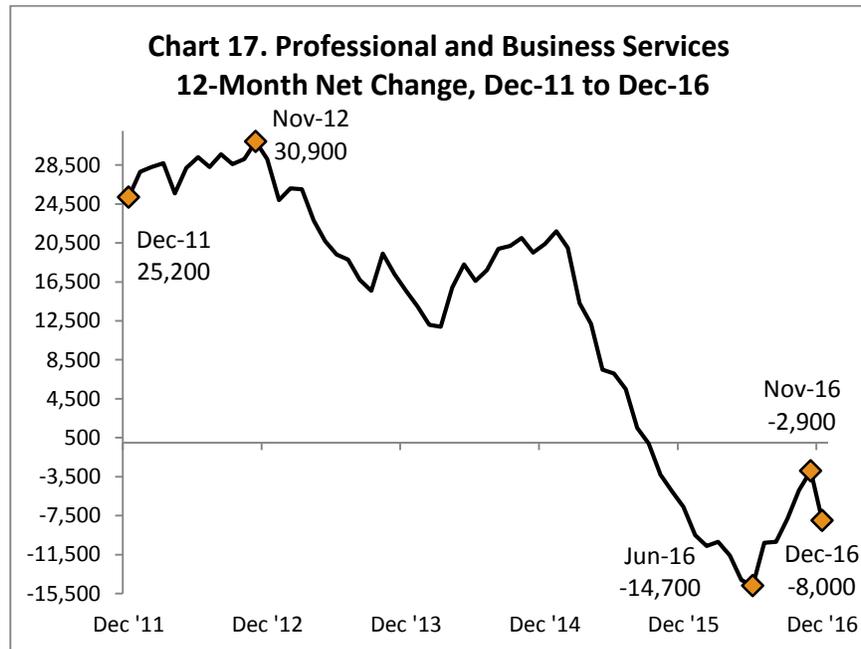
Professional and Business Services was the largest declining sector over the month down -5,800 jobs, or -1.2 percent. This was the largest-ever one-month decline in the month of December since records began in 1990. The largest over-the-month gain on record for this sector occurred in June 2000, up 7,500 jobs. The largest one-month decline on record occurred in January 2009, down -13,700 jobs. Historically in the month of December, Professional and Business Services has on average added 1,150 jobs over the month, which indicates that this month's losses are substantially below the long-term average. Administrative and Support and Waste Management and Remediation Services was the largest contributor to the overall sector's decline, down -5,200 jobs over the month. Within that subsector Administrative and Support Services shed -5,100 of those jobs. The second-largest declining contributor was Professional, Scientific, and Technical Services, which lost -800 jobs from November to December. Lastly, Management of Companies and Enterprises offset a portion of the sector's losses with a gain of 200 jobs. Side note: the cause of this month's severe losses cannot be fully explained however it should be noted that the bulk of the losses did not come from Professional, Scientific, and Technical Services which over the past one to two years has been greatly impacted by overall weakness in the oil and gas industry.



Year over Year and Year to Date

Year over year, Professional and Business Services was down -8,000 jobs, or -1.7 percent. The largest over-the-year gain on record for this sector occurred in November 2012, up 30,900 jobs. The largest over-the-year decline on record occurred in October 2009, down -35,100 jobs. Year to date this sector is up 2,200 jobs compared to the same point in time a year ago when the net change from January to December was an increase of 700. From its most recent peak in December 2014 absolute employment levels have fallen by -14,600 largely as a result of the impact of low oil prices. Professional and Business Services' share of Houston area Total Nonfarm Employment has shrunk from 15.5 percent to 15.2 percent over the past year. December's relapse is concerning and has the

potential to jeopardize the recovery that began in June 2016. As of November 2016, losses had been reduced by 80% however as a result of December's figure, losses have now only been reduced by 46%. Note that benchmark revisions in the coming months should provide some additional clarity on the direction of the overall trend.



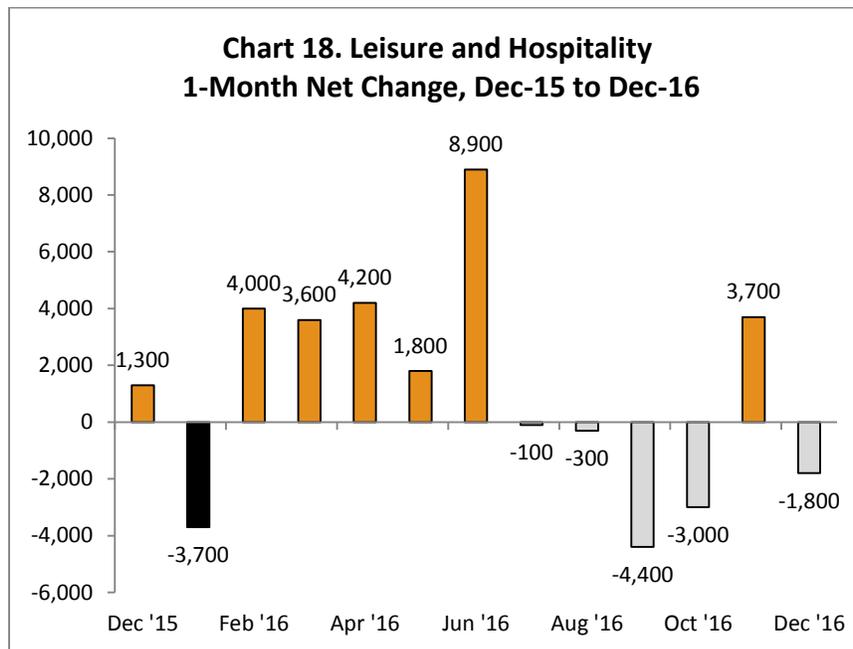
Previous Month's Revisions

Professional and Business Services employment was revised upward by 1,000 jobs for an October to November smaller net loss of -200 compared to an original estimate of -1,200 jobs.

Leisure and Hospitality

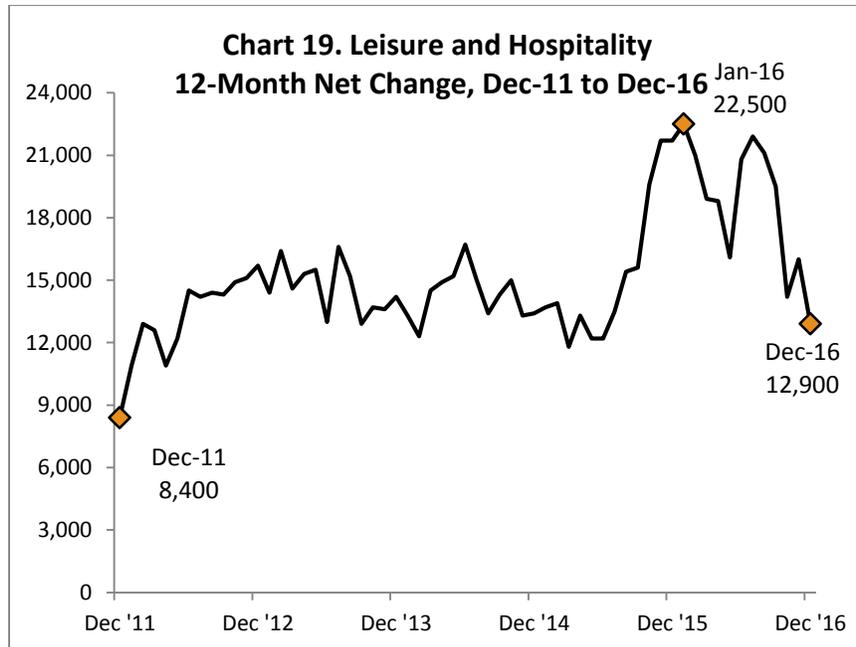
One Month Change

Leisure and Hospitality was the second-largest declining sector over the month down -1,800 jobs, or -0.6 percent. This was the largest-ever one-month decline in the month of December since records began in 1990. The largest over-the-month gain on record for this sector occurred in June 2016, up 8,900 jobs. The largest one-month decline on record occurred in September 2008, down -10,000 jobs. Historically in the month of December, Leisure and Hospitality has on average added 577 jobs over the month, which indicates that this month's losses are substantially below the long-term average. Modest gains have typically been recorded in December punctuated by occasional losses and/or over-the-month net zero changes in employment. Accommodation and Food Services was the largest contributor to the overall sector's decline, down -1,500 jobs over the month. The second-largest declining contributor was Arts, Entertainment, and Recreation, which lost -300 jobs from November to December.



Year over Year and Year to Date

Year over year, Leisure and Hospitality was up 12,900 jobs, or 4.2 percent. The largest over-the-year gain on record for this sector occurred in January 2016, up 22,500 jobs. The largest over-the-year decline on record occurred in August 1991, down -4,100 jobs. Year to date this sector is up 16,600 jobs compared to the same point in time a year ago when the net change from January to December was an increase of 26,200. From its most recent peak in June 2016 absolute employment levels have fallen by -5,900. Leisure and Hospitality's share of Houston area Total Nonfarm Employment has risen from 10.2 percent to 10.6 percent over the past year.



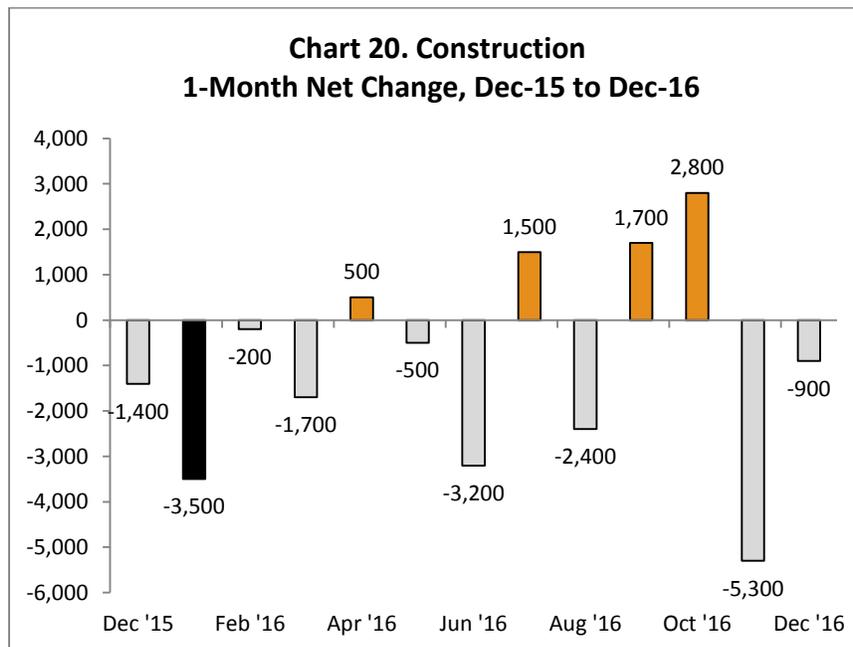
Previous Month's Revisions

Leisure and Hospitality employment was revised downward by -700 jobs for an October to November smaller net gain of 3,700 compared to an original estimate of 4,400 jobs.

Construction

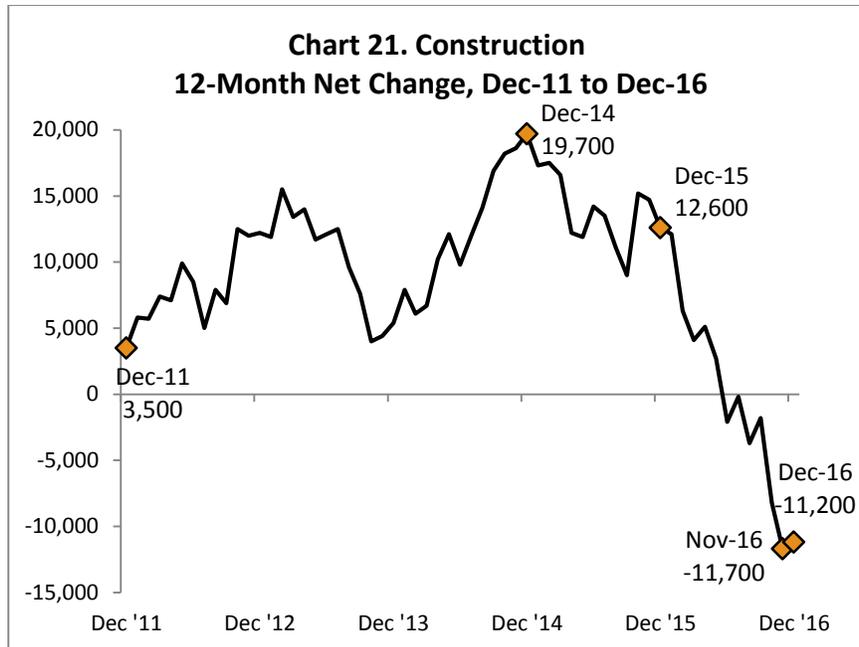
One Month Change

Construction was the third-largest declining sector over the month down -900 jobs, or -0.4 percent. The largest over-the-month gain on record for this sector occurred in October 2015, up 9,200 jobs. The largest one-month decline on record occurred in January 1992, down -10,300 jobs. Historically in the month of December, Construction has on average lost -812 jobs over the month, which indicates that this month's losses are more or less in line with the long-term average. Job losses in Construction have been typical in most Decembers since records began. Construction of Buildings was the largest contributor to the overall sector's decline, down -1,200 jobs over the month. One component industry, Heavy and Civil Engineering Construction, saw no change from November to December. Lastly, Specialty Trade Contractors offset a portion of the sector's losses with a gain of 300 jobs.



Year over Year and Year to Date

Year over year, Construction was down -11,200 jobs, or -5.0 percent. The largest over-the-year gain on record for this sector occurred in December 2014, up 19,700 jobs. The largest over-the-year decline on record occurred in November 2009, down -33,700 jobs. Year to date this sector is down -7,700 jobs compared to the same point in time a year ago when the net change from January to December was an increase of 15,600. From its most recent peak in October 2015 absolute employment levels have fallen by -14,400. Construction's share of Houston area Total Nonfarm Employment has shrunk from 7.4 percent to 7.0 percent over the past year.



Previous Month's Revisions

Construction employment was revised upward by 1,000 jobs for an October to November smaller net loss of -5,300 compared to an original estimate of -6,300 jobs.

UNEMPLOYMENT RATES

Not-Seasonally Adjusted - December 2016

The Houston MSA (not-seasonally-adjusted) unemployment rate stood at 5.3 percent in December, up from November's 4.9 percent and up from 4.6 percent a year ago. This was above the statewide rate of 4.6 percent and above the national rate of 4.5 percent. 175,315 individuals were unemployed in Houston in December, up from November's 162,145 and up from 150,322 in December 2015. The net number of unemployed individuals in Houston has risen by 43,363 since the most recent low of 131,952 in December 2014 however the current month's unemployment level remains below the all-time high of 257,474 recorded in June 2011.

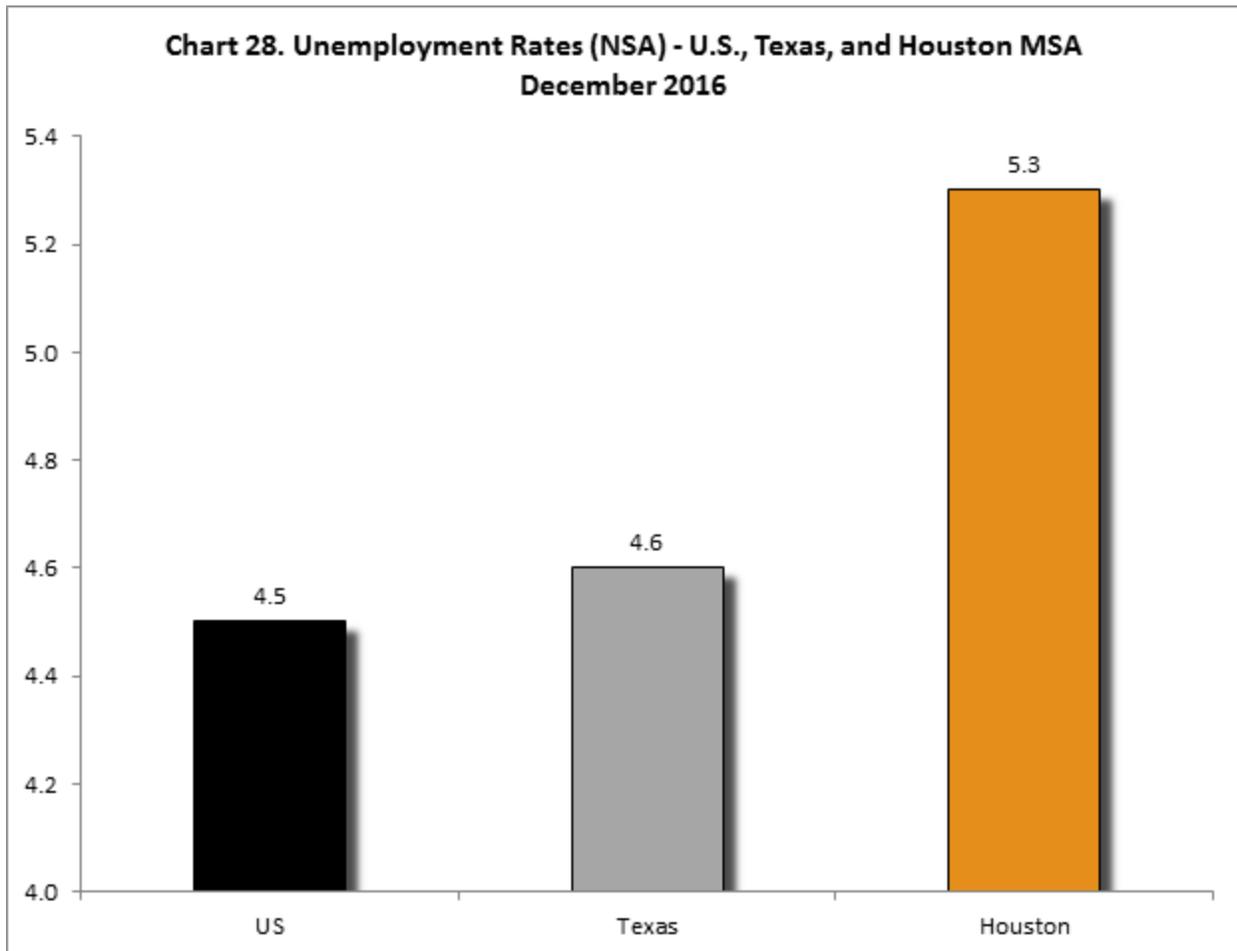
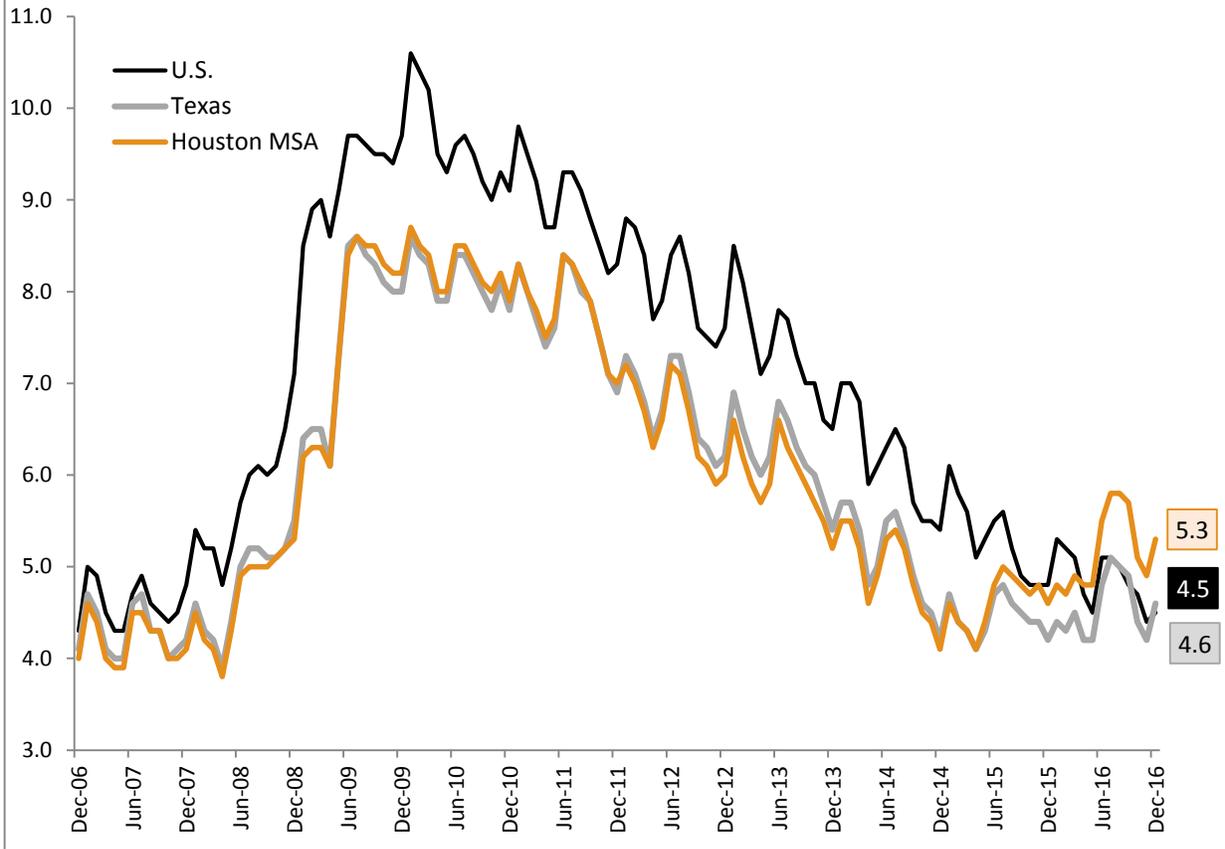
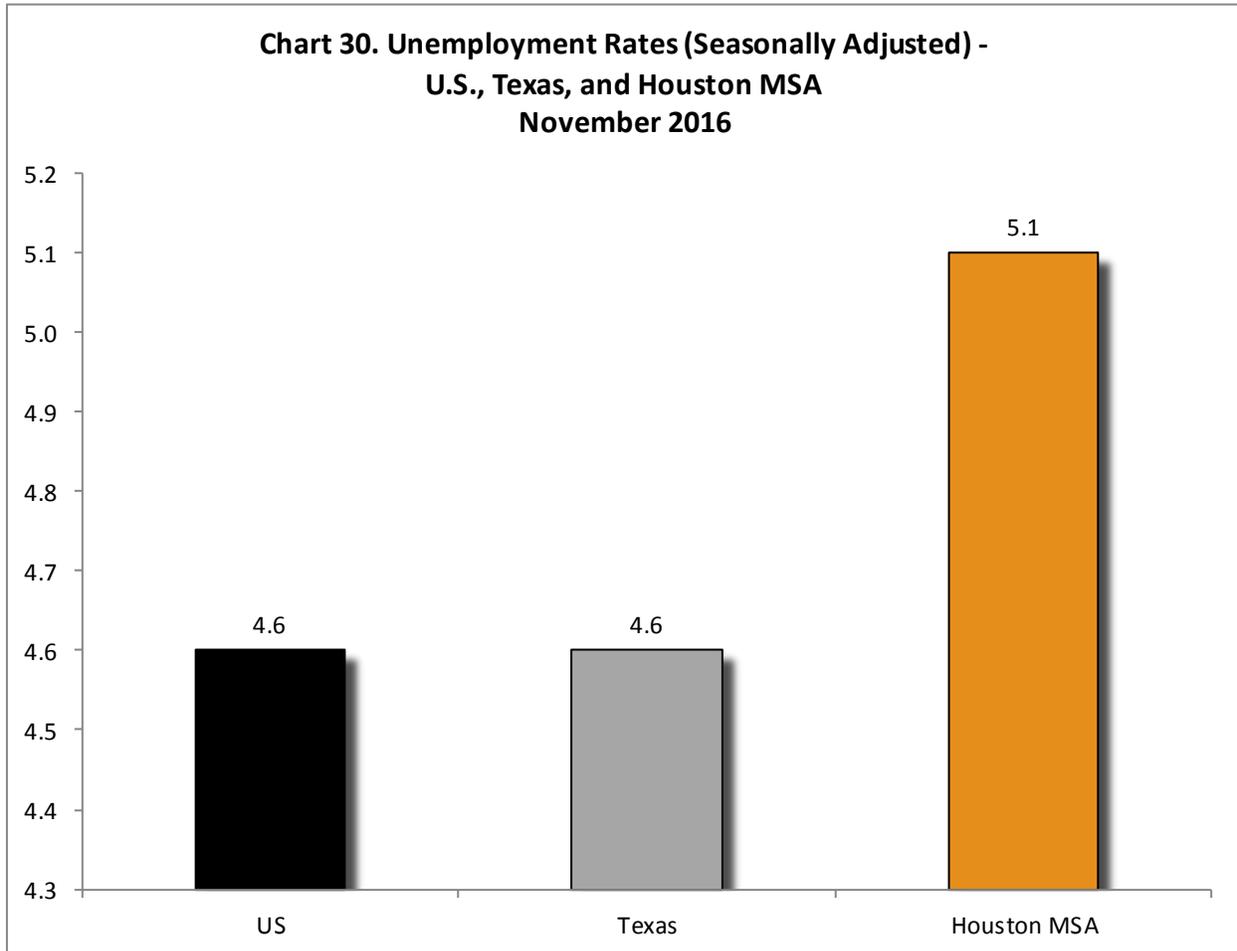


Chart 29. Unemployment Rates (NSA) - U.S., Texas, and Houston MSA, December 2006 to December 2016

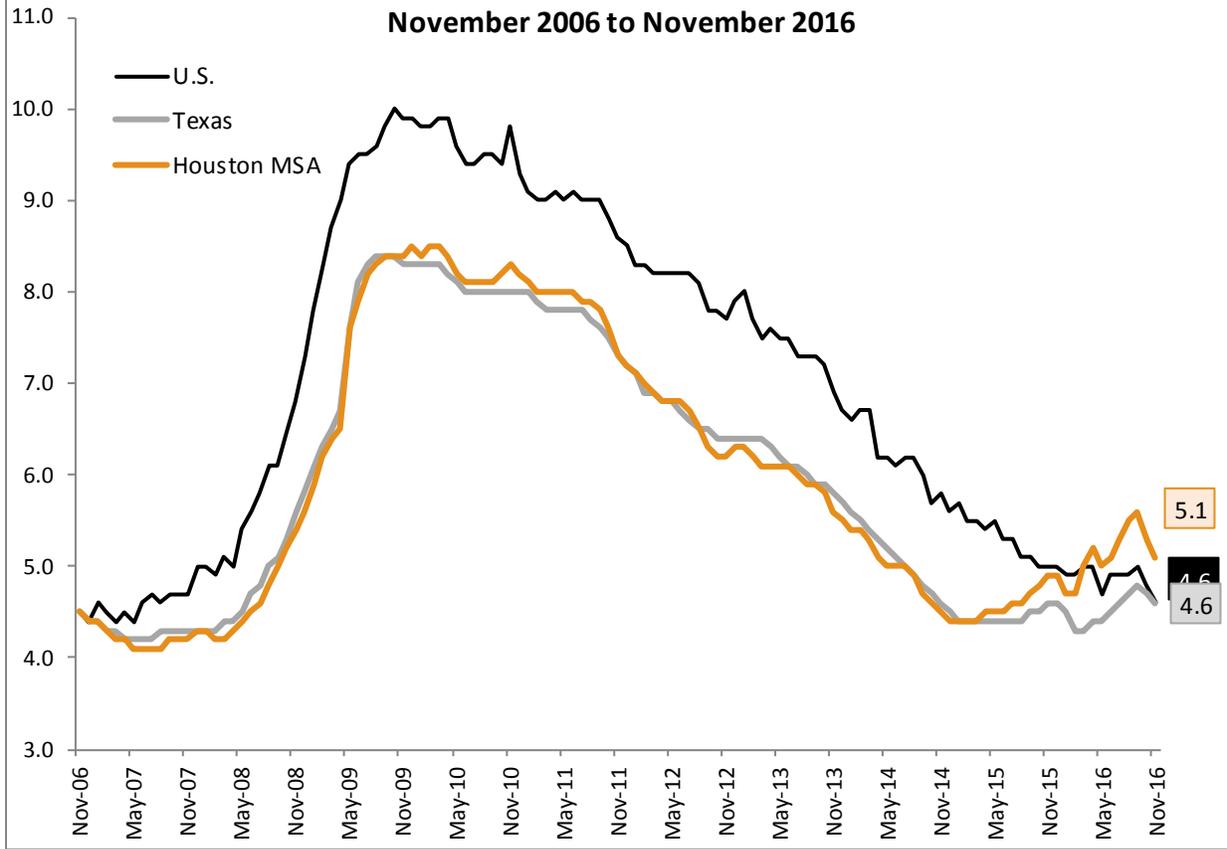


Seasonally Adjusted – November 2016

The Houston MSA (seasonally-adjusted) unemployment rate stood at 5.1 percent in November, down from October's 5.3 percent and up from 4.9 percent a year ago. This was above the statewide rate of 4.6 percent and above the national rate of 4.6 percent. 168,014 individuals were unemployed in Houston in November, down from October's 174,441 and up from 160,154 in November 2015. The net number of unemployed individuals in Houston has risen by 25,326 since the most recent low of 142,688 in January 2015 however the current month's unemployment level remains below the all-time high of 249,727 recorded in March 2010.



**Chart 31. Unemployment Rates (Seasonally Adjusted) -
U.S., Texas, and Houston MSA,
November 2006 to November 2016**



NAICS Industry	Dec-16	Nov-16	Dec-15	Monthly Change	Monthly %	Yearly Change	Yearly %
Total Nonfarm	3,036,100	3,035,700	3,021,300	400	0.0%	14,800	0.5%
Total Private	2,635,500	2,634,400	2,629,700	1,100	0.0%	5,800	0.2%
Goods Producing	534,400	532,500	557,400	1,900	0.4%	-23,000	-4.1%
..Mining and Logging	87,200	87,300	94,300	-100	-0.1%	-7,100	-7.5%
...Oil and Gas Extraction	49,400	49,400	52,000	0	0.0%	-2,600	-5.0%
...Support Activities for Mining	36,300	36,500	41,800	-200	-0.5%	-5,500	-13.2%
..Construction	213,200	214,100	224,400	-900	-0.4%	-11,200	-5.0%
..Construction of Buildings	58,300	59,500	58,500	-1,200	-2.0%	-200	-0.3%
...Heavy and Civil Engineering Construction	49,600	49,600	54,900	0	0.0%	-5,300	-9.7%
...Specialty Trade Contractors	105,300	105,000	111,000	300	0.3%	-5,700	-5.1%
..Manufacturing	234,000	231,100	238,700	2,900	1.3%	-4,700	-2.0%
..Durable Goods	147,400	146,200	154,000	1,200	0.8%	-6,600	-4.3%
...Fabricated Metal Product Manufacturing	54,200	53,800	55,700	400	0.7%	-1,500	-2.7%
...Machinery Manufacturing	41,900	42,200	48,800	-300	-0.7%	-6,900	-14.1%
....Agriculture, Construction, and Mining Machinery Manufacturing	30,400	30,500	34,200	-100	-0.3%	-3,800	-11.1%
...Computer and Electronic Product Manufacturing	15,500	15,400	16,200	100	0.6%	-700	-4.3%
..Non-Durable Goods	86,600	84,900	84,700	1,700	2.0%	1,900	2.2%
...Petroleum and Coal Products Manufacturing	10,000	10,100	9,900	-100	-1.0%	100	1.0%
...Chemical Manufacturing	37,900	37,600	37,700	300	0.8%	200	0.5%
Service Providing	2,501,700	2,503,200	2,463,900	-1,500	-0.1%	37,800	1.5%
..Private Service Providing	2,101,100	2,101,900	2,072,300	-800	0.0%	28,800	1.4%
..Trade, Transportation, and Utilities	637,800	633,500	627,500	4,300	0.7%	10,300	1.6%
...Wholesale Trade	170,200	169,700	172,800	500	0.3%	-2,600	-1.5%
....Merchant Wholesalers, Durable Goods	96,600	96,500	98,400	100	0.1%	-1,800	-1.8%
.....Professional and Commercial Equipment and Supplies Merchant Whc	13,200	13,100	13,100	100	0.8%	100	0.8%
....Merchant Wholesalers, Nondurable Goods	45,500	45,200	45,200	300	0.7%	300	0.7%
...Retail Trade	327,000	323,000	311,600	4,000	1.2%	15,400	4.9%
....Motor Vehicle and Parts Dealers	42,800	42,800	41,300	0	0.0%	1,500	3.6%
....Building Material and Garden Equipment and Supplies Dealers	22,500	22,600	21,400	-100	-0.4%	1,100	5.1%
....Food and Beverage Stores	69,300	69,100	66,800	200	0.3%	2,500	3.7%
....Health and Personal Care Stores	19,900	19,700	19,900	200	1.0%	0	0.0%
....Clothing and Clothing Accessories Stores	31,100	29,600	30,300	1,500	5.1%	800	2.6%
....General Merchandise Stores	69,800	68,100	67,300	1,700	2.5%	2,500	3.7%
.....Department Stores	27,400	26,300	27,100	1,100	4.2%	300	1.1%
.....Other General Merchandise Stores	42,400	41,800	40,200	600	1.4%	2,200	5.5%
...Transportation, Warehousing, and Utilities	140,600	140,800	143,100	-200	-0.1%	-2,500	-1.7%
....Utilities	16,400	16,400	16,100	0	0.0%	300	1.9%
.....Air Transportation	22,200	22,200	21,900	0	0.0%	300	1.4%
.....Truck Transportation	25,200	25,400	25,300	-200	-0.8%	-100	-0.4%
.....Pipeline Transportation	10,400	10,400	10,700	0	0.0%	-300	-2.8%
..Information	31,400	31,300	31,500	100	0.3%	-100	-0.3%
...Telecommunications	13,700	13,700	14,300	0	0.0%	-600	-4.2%
..Financial Activities	153,300	152,500	152,100	800	0.5%	1,200	0.8%
...Finance and Insurance	97,900	97,500	97,000	400	0.4%	900	0.9%
....Credit Intermediation and Related Activities	43,200	43,300	43,600	-100	-0.2%	-400	-0.9%
.....Depository Credit Intermediation	28,600	28,600	28,600	0	0.0%	0	0.0%
....Securities, Commodity Contracts, and Other Financial Investments an	19,800	19,600	19,100	200	1.0%	700	3.7%
....Insurance Carriers and Related Activities	34,000	34,000	33,800	0	0.0%	200	0.6%
...Real Estate and Rental and Leasing	55,400	55,000	55,100	400	0.7%	300	0.5%
..Professional and Business Services	460,600	466,400	468,600	-5,800	-1.2%	-8,000	-1.7%
...Professional, Scientific, and Technical Services	215,000	215,800	219,000	-800	-0.4%	-4,000	-1.8%
...Legal Services	23,900	24,100	24,400	-200	-0.8%	-500	-2.0%
....Accounting, Tax Preparation, Bookkeeping, and Payroll Services	24,900	24,700	23,900	200	0.8%	1,000	4.2%
....Architectural, Engineering, and Related Services	64,400	65,300	71,000	-900	-1.4%	-6,600	-9.3%
....Computer Systems Design and Related Services	33,800	33,700	33,000	100	0.3%	800	2.4%
....Management of Companies and Enterprises	35,100	34,900	36,600	200	0.6%	-1,500	-4.1%
...Administrative and Support and Waste Management and Remediation	210,500	215,700	213,000	-5,200	-2.4%	-2,500	-1.2%
....Administrative and Support Services	198,300	203,400	201,000	-5,100	-2.5%	-2,700	-1.3%
.....Employment Services	77,400	79,100	81,400	-1,700	-2.1%	-4,000	-4.9%
.....Services to Buildings and Dwellings	53,700	54,400	51,200	-700	-1.3%	2,500	4.9%
..Educational and Health Services	391,400	389,700	377,500	1,700	0.4%	13,900	3.7%
...Educational Services	59,800	60,000	57,400	-200	-0.3%	2,400	4.2%
...Health Care and Social Assistance	331,600	329,700	320,100	1,900	0.6%	11,500	3.6%
....Ambulatory Health Care Services	156,600	155,000	150,500	1,600	1.0%	6,100	4.1%
....Hospitals	88,900	88,500	84,300	400	0.5%	4,600	5.5%
..Leisure and Hospitality	321,900	323,700	309,000	-1,800	-0.6%	12,900	4.2%
...Arts, Entertainment, and Recreation	32,700	33,000	30,700	-300	-0.9%	2,000	6.5%
...Accommodation and Food Services	289,200	290,700	278,300	-1,500	-0.5%	10,900	3.9%
....Accommodation	26,500	26,500	25,600	0	0.0%	900	3.5%
....Food Services and Drinking Places	262,700	264,200	252,700	-1,500	-0.6%	10,000	4.0%
..Other Services	104,700	104,800	106,100	-100	-0.1%	-1,400	-1.3%
Government	400,600	401,300	391,600	-700	-0.2%	9,000	2.3%
..Federal Government	29,600	28,700	28,300	900	3.1%	1,300	4.6%
..State Government	74,000	74,700	73,600	-700	-0.9%	400	0.5%
...State Government Educational Services	40,400	40,900	40,100	-500	-1.2%	300	0.7%
..Local Government	297,000	297,900	289,700	-900	-0.3%	7,300	2.5%
...Local Government Educational Services	211,600	212,000	205,100	-400	-0.2%	6,500	3.2%



A Comparative Analysis of Gulf Coast Region 2012-2022 and 2014-2024 Employment Projections

Workforce Solutions is an affiliate of the Gulf Coast Workforce Board, which manages a regional system that helps employers solve their workforce problems and residents build careers so both can compete in the global economy. The workforce system serves the City of Houston and the surrounding 13 Texas Gulf Coast counties including: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

Executive Summary

This report examines changes in industry and occupational growth trends between the 2012-2022 and 2014-2024 Employment Projections as a result of changes in methodology by the Texas Workforce Commission coinciding with a downturn in the Gulf Coast regional economy. The following are the key findings from the analysis:

- Overall projected employment growth for the region was lowered from 23.8 percent to 22.4 percent across projections.
- 124 out of 274 4-digit NAICS industries experienced downward revisions to their projected growth; those related to manufacturing and oil and gas exploration saw the steepest declines.
- 150 industries saw upward revisions to their projected growth; the types of industries varied widely however many were service-sector and/or population driven.
- The number of occupations reported in the Employment Projections fell from 770 to 669 as a result of changes in estimation methodology; a consequence of this change was a larger number of jobs that could not be tied to a specific occupation.
- 7 occupations from the previous High-skill High-growth list were not published in the 2014-2024 Employment Projections; the impact of these omissions on the current High-skill High-growth list proved limited as many highly similar occupations remain.
- 12 “new” occupations not previously found in the 2012-2022 Employment Projections were included in the latest set; most of these were small with less than 400 jobs.
- 320 of the 657 occupations common to both sets of projections saw their projected growth rates decline across projections; as before those experiencing the largest declines were related to manufacturing or oil and gas exploration.
- 338 of the 657 occupations common to both sets of projections saw either no change or increased expectations for job growth; those showing the largest increases were service-sector roles ranging from clerical, to personal, to professional.
- The share of occupations by educational requirements did not change significantly across projections after adjusting for the omitted 113 occupations; however, several individual occupations experienced changes in their respective educational requirements.
- Approximately 30 occupations saw changes in the amount of experience in a related occupation or the amount of on-the-job training required.

Introduction

Over the past two decades, the Employment Projections have remained an essential piece of labor market information used to guide workforce development efforts by entities like the Gulf Coast Workforce Board. Updated every two years and projecting a decade into the future, the projections currently cover the timeframe of 2014 to 2024 and now supersede the previous set of 2012 to 2022. While it may seem contradictory to update long-term projections, these biannual revisions allow the data to reflect changes across various industries and occupations at regular intervals. As new fields and jobs emerge, or the growth prospects of existing industries and occupations change, it is important for workforce development practitioners to have the latest available information that reflects the evolving local economy.

This report will provide a systematic analysis of the differences between the previous 2012-2022 projections and the “new” 2014-2024 projections. The aim of this exercise is to catalog and highlight any and all differences between the two as they relate to changes in the industries and occupations from various standpoints such as projected growth rates, educational and work experience and on-the-job training requirements. This exercise takes on added importance given that the Texas Workforce Commission (TWC), which localizes estimates initially developed by the Bureau of Labor Statistics at the national level, recently changed its methodology. Previously the projections for the various Workforce Development Areas (WDAs) across the state were modeled after statewide estimates. With the advent of the most recent projections, TWC began producing estimates based on local data. This has resulted in significant changes to the number of occupations reported although the impact on topline estimates proved limited. Finally, it should be noted that the new projections for the Gulf Coast Region appear to capture the start of the downturn in the energy industry that began in late-2014. This is evidenced by significant downward revisions to projected growth in various industries and occupations that just a few years ago were expected to increase in many cases by double-digit percentages. The report will begin by exploring the changes in projected growth for industries across both sets of projections, which will then be followed by a similar but more extensive analysis of occupations based on several dimensions.

Changes across the 2012-2022 and 2014-2024 Industry Employment Projections

We begin with the topline employment levels of the two 10-year periods in question. Previously, employment in the 13-county region in 2012 was projected to be 2,987,190 rising to 3,699,620 in 2022 for a net increase of 712,430 jobs. The corresponding figures for 2014-2024 currently stand at 3,121,710 with an anticipated rise to 3,821,030 resulting in a net growth of 699,320 jobs. By advancing the employment projections by two years, the first noteworthy difference between the previous and current sets becomes apparent as the outlook for projected job growth in the Gulf Coast Region has been lowered by 13,110 jobs. This fall in expectations was also reflected in a lower projected growth rate of 23.8 percent for 2012-2022 compared to 22.4 percent for 2014-2024. (See Table 1.)

Table 1. Comparison of 2012-2022 to 2014-2024 Industry Employment Projections, 13-County Gulf Coast Region

Projections Characteristics	2012-2022 Projections	2014-2024 Projections	Net/Pct Point Change across Projections
Average Annual Employment (Base Year)	2,987,190	3,121,710	134,520
Average Annual Employment (Final Year)	3,699,620	3,821,030	121,410
Projected Net Change	712,430	699,320	-13,110
Projected Percent Change	23.8%	22.4%	-1.4 pp

Source: Texas Workforce Commission - LMCI

Industries with the Largest Declines in Growth Expectations across Projections

However, this relatively small decline in percentage point terms (-1.4 pp) at the topline belied lowered growth expectations for many industries that just two years earlier were anticipated to deliver some of the Gulf Coast Region's strongest job growth. In total, 124 out of 274 4-digit NAICS industries for which data were available saw downward revisions in their projected growth to varying degrees. *Steel Product Manufacturing from Purchased Steel (NAICS 3312)* saw the largest decline with a 2012-2022 forecasted growth rate of +28.1 percent that was subsequently lowered to -27.3 percent for net percentage point decline of -55.4. This was followed by *Agriculture, Construction, & Mining Machinery Manufacturing (NAICS 3331)*, previous: +34.5 percent versus current: -20.7 percent, and *Other Fabricated Metal Product Manufacturing (NAICS 3329)*, previous +35.1 percent versus current: -14.9 percent.

In fact, among the top-10 industries experiencing the largest downward revisions in projected growth, seven were manufacturing-related while the remaining three belonged to oil and gas exploration, production, support services, or machinery and equipment rental and leasing. This latter industry was the only among these 10 to maintain a positive projected growth rate albeit significantly less than before. If not already apparent, the common thread among many of the industries with largest downward revisions was there either direct relation to oil and gas or their provision of inputs to the industry in the form of semi-finished materials, parts, or equipment. In short, the current 2014-2024 projections explicitly reflect the downturn in the energy industry that began in the fourth quarter of 2014 and more troublingly

suggest that the region’s most important sector will continue to languish assuming no change in industry fundamentals before 2024. (see Table 2.)

Table 2. Top-10 Industries with Largest Percentage Point Decline in Projected Growth between 13-County Gulf Coast Region 2012-2022 and 2014-2024 Employment Projections

NAICS	Industry Title	Annual Average Employment 2014	Annual Average Employment 2024	Percent Change 2012-2022 Projections	Percent Change 2014-2024 Projections	Percentage Point Change in Projected Growth Rates 2012-2022 vs. 2014-2024
3312	Steel Product Mfg. from Purchased Steel	2,270	1,650	28.1%	-27.3%	-55.4%
3331	Ag., Construction, & Mining Machinery Mfg. ¹	42,680	33,860	34.5%	-20.7%	-55.2%
3329	Other Fabricated Metal Product Mfg. ¹	17,590	14,970	35.1%	-14.9%	-50.0%
2111	Oil & Gas Extraction ¹	54,140	48,610	39.4%	-10.2%	-49.6%
3327	Machine Shops & Threaded Product Mfg.	13,700	10,900	25.3%	-20.4%	-45.7%
3321	Forging & Stamping	2,970	2,390	25.5%	-19.5%	-45.0%
3328	Coating, Engraving, & Heat Treating Metals	7,470	6,320	29.5%	-15.4%	-44.9%
2131	Support Activities for Mining ¹	52,890	42,980	25.3%	-18.7%	-44.1%
5324	Machinery & Equip. Rental & Leasing	7,780	8,650	55.1%	11.2%	-43.9%
3262	Rubber Product Mfg.	1,530	1,250	25.2%	-18.3%	-43.5%

Source: Texas Workforce Commission - LMCI

¹Denotes industry targeted by the Gulf Coast Workforce Board as of 2017.

Industries with the Largest Increases in Growth Expectations across Projections

Conversely, there were 150 industries that saw their projected rates of job growth post either smaller declines going forward, turn from negative to positive, or increase to an even faster pace across the two sets of projections. Some of the industries experiencing the sharpest upward expectation employed relatively few workers (e.g. < 50) therefore it proved useful to limit analysis to industries with a least 1,000 jobs as of 2014. Applying this criterion revealed that *Scientific Research and Development Services (NAICS 5417)* experienced the greatest reversal of fortunes with a previous projected decline of -14.2 percent compared to current projected growth of 18.8 percent. This was followed by *Pipeline Transportation of Natural Gas (NAICS 4862)*, previous: -14.9 percent versus current: 16.4 percent and *Book and News Dealers (NAICS 4512)*, previous: -12.9 percent versus current: 15.6 percent.

Among the remaining industries in the top-10 also seeing improvement across projections were those related to postal services, assisted living facilities, power generation, and office supply stores. While much more varied than the industries now projected to decline compared to the previous projections, in general the ones poised to accelerate consisted of largely service sector industries whose increases in employment are largely a function of the explosive population growth in the Gulf Coast over the past several years. On a final note, two healthcare-related industries not found in the 2012-2022 projections appeared in the current set and displayed relatively high rates of projected growth: *Private and Public*

Specialty Hospitals (NAICS 6223), 30.4 percent and Public and Private Psychiatric and Substance Abuse Hospitals (NAICS 6223), 34.4 percent.

Table 3. Top-10 Industries with Largest Percentage Point Increase in Projected Growth between 13-County Gulf Coast Region 2012-2022 and 2014-2024 Employment Projections¹

NAICS	Industry Title	Annual Average Employment 2014	Annual Average Employment 2024	Percent Change 2012-2022 Projections	Percent Change 2014-2024 Projections	Percentage Point Change in Projected Growth Rates 2012-2022 vs. 2014-2024
5417	Scientific Research & Development Services	6,000	7,130	-14.2%	18.8%	33.1%
4862	Pipeline Transportation of Natural Gas	6,110	7,110	-14.9%	16.4%	31.2%
4512	Book & News Dealers	1,670	1,930	-12.9%	15.6%	28.5%
4911	Postal Services, Public & Private	9,400	10,750	-7.8%	14.4%	22.1%
6233	Continuing Care & Assisted Living Facilities	8,890	12,550	22.4%	41.2%	18.8%
2211	Power Generation & Supply	12,260	14,910	4.5%	21.6%	17.1%
4532	Office Supplies, Stationery, & Gift Stores	4,790	5,310	-5.9%	10.9%	16.8%
3231	Printing & Related Support Activities	5,450	5,310	-18.3%	-2.6%	15.7%
6117	Educational Support Services, Public & Private	1,660	2,390	29.5%	44.0%	14.5%
6216	Home Health Care Services	47,920	72,890	38.5%	52.1%	13.6%

Source: Texas Workforce Commission - LMCI

¹Only includes industries with average annual employment in 2014 of 1,000 jobs or more.

Comparison of Occupational Projections 2012-2022 vs. 2014-2024

The 2012-2022 projections included occupational projection data for 770 detailed occupations out of an approximate 820 total possible occupations at the 6-digit SOC level. It is to be expected that locally some occupations would lack sufficient data to be published either due to limited sample size and/or concerns over possible disclosure of respondent identifiable information. In other cases, certain occupations may simply be absent from the regional economy. Due to the inability to publish data on roughly 50 occupations, topline *reported* total employment differed from *summed* employment of all individual occupations. In the case of the 2012-2022 projections, reported employment in the base year stood at 2,987,190 while summed employment stood at 2,981,970. This translated to a difference of 5,220 jobs or 0.2 percent of total employment that could not be ascribed to any particular occupation. Similar results were found for 2022 indicating that overall, the previous set of projections were highly comprehensive in their reporting on the full range of occupations in the Gulf Coast Region.

Occupations Omitted from the 2014-2024 Employment Projections

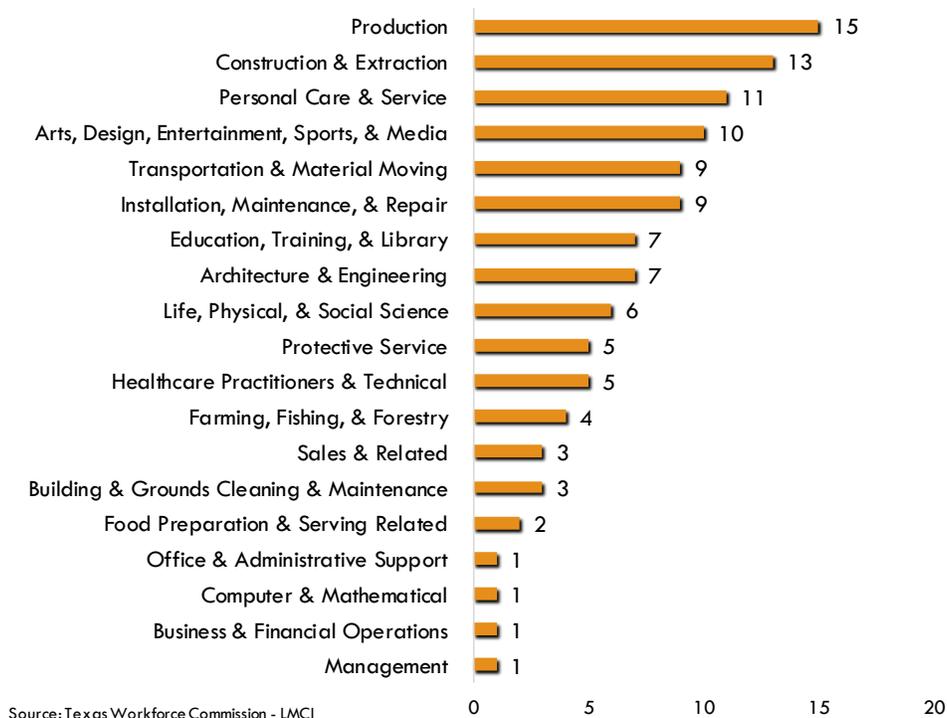
In contrast, the 2014-2024 occupational projections told a somewhat different story. First, data were reported for only 669 detailed occupations. This equated to 13.1 percent decrease in the total number of detailed occupations compared to the previous set of projections. Performing a cross verification

process, it was determined that 113 occupations that were present in the 2012-2022 projections were absent from the 2014-2024 projections. However, there were 12 “new” occupations, which will be examined in a later section, that were present in the 2014-2024 projections but absent from the earlier 2012-2022 projections. The net result was a difference of 101 occupations between the previous and current projections.

Regardless, the smaller number of total occupations reported in the current projections resulted in a much larger number of jobs about which we have no information compared to the previous projections. In this instance, for base year 2014, total reported employment was 3,121,710 compared to a summed total of 3,078,540. This resulted in eight times more jobs (43,170, 1.4 percent of total employment) that could not be ascribed to any particular occupation. Similar results were found for reported and summed projected totals in 2024.

Returning to the 113 occupations omitted from the 2014-2024 projections, the following is a count of these “missing” occupations by major occupational group. *Production Occupations* lost the largest number of detailed occupations with 15, followed by *Construction and Extraction* (13), *Personal Care and Service* (11), *Arts, Design, Entertainment, Sports, and Media* (10), *Transportation and Material Moving* (9) and *Installation, Maintenance, and Repair* (9). Note that these figures do not reflect the addition of “new” occupations not present in the 2012-2022 projections. (See Chart 1.)

Chart 1. Count of Occupations in Previous 13-County Gulf Coast Region 2012-2022 Occupational Employment Projections but Excluded from 2014-2024 Projections by Major Occupational Group



“New” Occupations Included in the 2014-2024 Employment Projections

As mentioned, the 2014-2024 projections included 12 “new” occupations not found in the previous projections. The common thread among these occupations was that most were quite small with 30 up to 380 jobs, excluding the outlier *Teachers and Instructors, All Other, Excluding Substitute Teachers*. This occupation had an average annual employment of 3,220 in 2014 projected to rise to 3,990 in 2024 and was one of three designated “All Other.” Collectively, these new occupations came from an assortment of eight distinct occupational groups with no one group dominating. Altogether this group added up to 4,930 jobs in 2014 and with a projected increase to 5,930 jobs in 2024 although four are expected to see no growth over the 10-year period. (See Table 4.)

Table 4. “New” Occupations Present in 13-County Gulf Coast Region 2014-2024 Projections Not Found Previous in 2012-2022 Projections

NAICS	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Net Change 2014-2024	Percent Change 2014-2024
15-2091	Mathematical Technicians	120	130	10	8.3%
19-1032	Foresters	30	30	0	0.0%
19-2011	Astronomers	40	40	0	0.0%
19-2043	Hydrologists	40	50	10	25.0%
23-1012	Judicial Law Clerks	30	30	0	0.0%
23-1021	Admin. Law Judges, Adjudicators, & Hearing Officers	380	410	30	7.9%
25-3097	Teachers & Instructors, All Other, Exc. Substitute Teachers	3,220	3,990	770	23.9%
27-2011	Actors	270	320	50	18.5%
27-2099	Entertainers/Performers, Sports & Related Workers, All Other	180	210	30	16.7%
39-3019	Gaming Service Workers, All Other	180	180	0	0.0%
47-4071	Septic Tank Servicers & Sewer Pipe Cleaners	260	320	60	23.1%
51-2011	Aircraft Structure, Surfaces, Rigging, & Systems Assemblers	180	220	40	22.2%
-	Total	4,930	5,930	1,000	20.3%

Source: Texas Workforce Commission - LMCI

Occupations with the Largest Declines in Growth Expectations across Projections

As noted earlier topline growth expectations for industries, which also applies to occupations, saw only a slight decline from 23.8 percent to 22.4 percent between 2012-2022 and 2014-2024. However, among the 657 occupations common to both sets of projections, 320 or just under half saw their projected growth rates decline across projections. Limiting analysis to occupations with average annual employment in 2014 of at least 1,000 jobs yielded similar results to those observed among industries with lowered growth outlooks. All of the top-10 occupations in this instance were related to manufacturing or direct oil and gas exploration.

“Missing” Occupations’ Impact on the Current Gulf Coast Workforce Board

High-skill High-growth Occupation List as of 2017

Among these 113 occupations “missing” from the 2014-2024 projections, seven were previously designated as High-skill High-growth based on 2012-2022 projection data. As was the case among the “new” occupations described earlier, most of these occupations were fairly small with most containing fewer than 340 jobs. One exception, *Computer Hardware Engineers*, was estimated to have 1,560 jobs in 2012 rising to 1,870 in 2022. It should however be noted that the absence of these occupations from the current High-skill High-growth list does not signify a lack of support on the part of the Gulf Coast Workforce Board. Currently and in past, the Board has typically included nearly all *Engineers, Primary, Secondary and Special Education Instructors, and Healthcare practitioner and Technical Occupations* regardless of size, growth, rates etc. due to persistent demand for workers in these fields. Therefore, while not explicitly targeted by the Board, their association with other similar High-skill High-growth occupations ensures that they will continue to be recognized as providing strong career prospects for region’s workforce. (See table below)

Occupations Designated as High-skill High-growth in 2012-2022 Projections Not Published in 2014-2024 Projections

NAICS	Industry Title	Annual Average Employment 2012	Annual Average Employment 2022	Net Change 2012-2022	Percent Change 2012-2022
17-2021	Agricultural Engineers	10	10	0	0.0%
17-2061	Computer Hardware Engineers	1,560	1,870	310	19.9%
17-2161	Nuclear Engineers	160	200	40	25.0%
25-2023	Career/Technical Education Teachers, Middle School	340	440	100	29.4%
25-2059	Special Education Teachers, All Other	140	170	30	21.4%
29-1022	Oral & Maxillofacial Surgeons	80	100	20	25.0%
29-1023	Orthodontists	200	240	40	20.0%
-	Total	2,490	3,030	540	21.7%

Source: Texas Workforce Commission - LMCI

Welding, Soldering, & Brazing Mach Setters/Operators/Tenders (SOC 51-4122), not to be confused with *Welders, Cutters, Solderers, & Brazers (SOC 51-4121)*, were projected to grow 51.3 percent during the 2012-2022 timeframe which stood in stark contrast to their 2014-2024 projected decline of -18.4 percent. This translates to 69.7 percentage point decrease between the previous and current projections. This was followed by *Heat Treating Equipment Setters, Operators, & Tenders (SOC 51-4191)* previous: +29.3 percent versus current: -26.2 percent, and *Milling & Planing Machine Setters, Operators, & Tenders (SOC 51-4035)* previous: +17.4 percent versus current: -30.8 percent. Lastly, the final two in this top-10 list: *Petroleum Engineers (SOC 17-2171)* and *CNC Machine Tool Operators, Metal/Plastic (SOC 51-4011)*, were the only occupations in this group to maintain positive growth expectations in 2014-2024 with projected increases of +6.5 percent and +9.0 percent respectively, however these figures were down significantly from +48.7 percent and +49.7 percent just a few years earlier. (See Table 5.)

Table 5. Top-10 Occupations with Largest Percentage Point Decline in Projected Growth between 2012-2022 and 2014-2014, 13-County Gulf Coast Region Employment Projections¹

NAICS	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Percent Change 2012-2022 Projections	Percent Change 2014-2024 Projections	Percentage Point Change in Projected Growth Rates 2012-2022 vs. 2014-2024
51-4122	Welding, Soldering, & Brazing Mach Setters/Oprs/Tenders	1,520	1,240	51.3%	-18.4%	-69.7%
51-4191	Heat Treating Equipment Setters, Oprs, & Tenders	1,220	900	29.3%	-26.2%	-55.5%
51-4035	Milling & Planing Machine Setters, Oprs, & Tenders	1,590	1,100	17.4%	-30.8%	-48.2%
51-4034	Lathe/Turning Mach Tool Setters/Oprs/Tenders	3,620	2,540	17.1%	-29.8%	-46.9%
47-5013	Service Unit Operators, Oil, Gas, & Mining ²	7,860	6,540	28.7%	-16.8%	-45.5%
47-5012	Rotary Drill Operators, Oil & Gas	4,550	3,770	28.3%	-17.1%	-45.5%
47-5011	Derrick Operators, Oil & Gas	3,400	2,860	28.4%	-15.9%	-44.2%
47-5071	Roustabouts, Oil & Gas	8,330	7,090	27.4%	-14.9%	-42.3%
17-2171	Petroleum Engineers ²	10,700	11,400	48.7%	6.5%	-42.1%
51-4011	Computer-Controlled Machine Tool Oprs, Metal/Plastic	5,240	5,710	49.7%	9.0%	-40.8%

Source: Texas Workforce Commission - LMCI

¹Only includes occupations with average annual employment in 2014 of 1,000 jobs or more.

²Denotes High-skill High-growth occupation targeted by the Gulf Coast Workforce Board as of 2017.

Occupations with the Largest Increases in Growth Expectations across Projections

In a continuation of the parallels previously observed between industries and occupations, the occupations with the most upwardly revised expectations were much more varied than those projecting declines. Once again limiting analysis to occupations with at least 1,000 jobs as of 2014, we find that services tended to dominate with Data Entry Keyers (SOC 43-9021) posting the largest reversal of this group. Previously this occupation was expected to decline -17.7 percent between 2012-2022. It is now anticipated to grow 7.0 percent between 2014-2024 for 24.7 percentage point increase. This was perhaps one of the most surprising developments across projections given that this occupation’s job duties according to O*Net Online consist of “Operat[ing] a data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.” Given trends in automation along with these activities largely being subsumed within general office functions, the driving forces behind this trend are uncertain. Two possibilities include the incorporation of new on-the-ground knowledge into the estimation process or that the rapid population growth of the past several years will offset declines that might have otherwise occurred.

Other occupations experiencing sharp upward revisions in growth expectations were *Postal Service Mail Carriers* (SOC 43-5052), previous: -6.9 percent versus current: 16.5 percent, and *Reinforcing Iron & Rebar Workers* (SOC 47-2171) previous: +23.8 percent versus current: +46.9 percent. The latter occupation may be related to the rapid growth in the *Construction* that continued to take place through 2014 although year-over-year job growth in this sector has now been in a state of decline since mid-2016. Lastly, one occupation deserving an honorable mention and excluded from the above analysis due to its sub-1,000 employment level was that of *Wind Turbine Service Technicians* (SOC 49-9081). Among all 657 occupations common to both sets of projections, this occupation related to alternative energy not

only had the largest upward revision of any occupation but also held the title of the occupation with the fastest projected growth rate. Over the 2012-2022 timeframe this occupation was already projected to grow substantially faster than average at 44.9 percent. Current projections now anticipate a growth rate of 96.8 percent, effectively doubling this occupation’s job count over the 10-year period. (See Table 6.)

Table 6. Top-10 Occupations with Largest Percentage Point Increases in Projected Growth between 2012-2022 and 2014-2014, 13-County Gulf Coast Region Employment Projections¹

NAICS	Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Percent Change 2012-2022 Projections	Percent Change 2014-2024 Projections	Percentage Point Change in Projected Growth Rates 2012-2022 vs. 2014-2024
43-9021	Data Entry Keyers	5,000	5,350	-17.7%	7.0%	24.7%
43-5052	Postal Service Mail Carriers	5,510	6,420	-6.9%	16.5%	23.4%
47-2171	Reinforcing Iron & Rebar Workers	1,430	2,100	23.8%	46.9%	23.1%
35-3022	Counter Attendants; Cafeteria/Food Concession/Coffee Shop	17,760	24,700	17.3%	39.1%	21.8%
47-2181	Roofers	1,080	1,440	14.0%	33.3%	19.4%
43-5021	Couriers & Messengers	1,490	1,840	5.8%	23.5%	17.7%
43-5053	Postal Service Mail Sorters/Processors/Processing Mach Oprs	1,480	1,560	-10.4%	5.4%	15.8%
35-1011	Chefs & Head Cooks	2,720	3,720	21.9%	36.8%	14.9%
35-3011	Bartenders	8,900	12,640	28.0%	42.0%	14.1%
43-4181	Reservation & Transportation Ticket Agents & Travel Clerks	2,150	2,610	8.4%	21.4%	13.0%

Source: Texas Workforce Commission - LMCI

¹Only includes occupations with average annual employment in 2014 of 1,000 jobs or more.

Changes in Typical Educational Requirements across Projections

Given the loss of over 100 occupations between the two sets of projections, it was worth examining the extent to which the share of occupations by typical education required also changed. Among the eight official levels of educational attainment, the number of occupations requiring a *high school diploma or equivalent* saw the largest decrease, down from 329 to 257. This resulted in its share falling from 43 percent to 38 percent of all occupations. The number of occupations requiring *bachelor’s degree* also saw a modest decline from 163 to 158, however its share of occupations actually *rose* from 21 percent to 24 percent. Beyond these changes, the proportions of occupations by typical educational requirement saw little to no movement. At first glance the above dynamic between high school diplomas and bachelor’s degree would seem to reinforce the notion that educational requirements increase over time, especially between high school and traditional four-year postsecondary education as these remain the two largest categories. While in the long-run this might prove true, adjusting for the occupations eliminated from the 2014-2024 projections revealed that the majority of the change could attributed an over-representation of excluded occupations requiring only a high school diploma and an under-representation of occupations requiring a bachelor’s degree. Once this was taken into account, the magnitude of the changes between these educational levels dropped substantially indicating that the overall mix of educational requirements for occupations has not changed significantly across employment projections. (See Table 7.)

Table 7. Count and Percent Share of Occupations by Typical Education Required, 2012-2022 and 2014-2024, 13-County Gulf Coast Region Occupational Employment Projections

Typical Education Required	No. of Occupations Requiring Typical Education (2012-2022)	No. of Occupations Requiring Typical Education (2014-2024)	Pct of Occupations Requiring Typical Education (2012-2022)	Pct of Occupations Requiring Typical Education (2014-2024)
Less than high school/No formal educational credential*	92	83	12%	12%
High school diploma or equivalent	329	257	43%	38%
Some college, no degree	4	6	1%	1%
Postsecondary non-degree award	39	39	5%	6%
Associate's degree	47	40	6%	6%
Bachelor's degree	163	158	21%	24%
Master's degree	37	31	5%	5%
Doctoral or professional degree	59	55	8%	8%
Total	770	669	100%	100%

Source: Texas Workforce Commission - LMCI

*Beginning with the 2014-2024 projections, "less than high school" is now referred to as "no formal educational credential."

Despite the overall mix of occupations by typical education seeing little change, there were individual occupations whose educational requirements increased and in some cases actually decreased. Of the 657 occupations common to both 2012-2022 and 2014-2024 projections, a total of 25 saw changes in reported typical educational requirements. Table 8. visualizes these changes as "positive or negative steps" based on a low to high educational sequence starting with *no formal credential* and concluding with a *doctoral or professional degree*. Seven occupations saw increases from *high school diploma* to *bachelor's degree*. This change is indicated by four "+" signs which can be interpreted as a process of skipping over potential intermediate levels of education: *some college, no degree, a postsecondary non-degree award, and an associate's degree*. Again, given that the most common educational pathway is from high school to college, and that roughly two-thirds of all occupations require either a high school diploma or a bachelor's degree, this finding was not surprising in and of itself. However, from a "middle-skills" perspective this dynamic is less than optimal as signifies an occupation rapidly evolving from low-skilled to high-skilled which may exclude workers who do not follow a traditional educational trajectory or prefer a shorter-duration postsecondary experience.

As for the remaining changes in educational requirements, two occupations saw increases from *high school diploma* to *postsecondary non-degree award*, while three saw increases from *no formal credential* to *high school diploma*. The most noteworthy change given persistently high demand for the occupation occurred among *Registered Nurses (29-1141)*, whose educational requirements now reflect the need for a Bachelor of Science in Nursing compared to the previous requirement of an *associate's degree*. As mentioned, several occupations saw decreases in requirements with five declining from *high school diploma* to *no formal credential*. One occupation, *Recreation Workers (39-9032)*, saw the largest

decrease in educational requirements from *bachelor's degree* to a *high school diploma or equivalent*. (See Table 7.)

Table 8. Occupations Experiencing Changes in Typical Educational Requirements, 2012-2022 and 2014-2024, 13-County Gulf Coast Region Occupational Employment Projections

SOC	Occupational Title	2012-2022 Typical Ed. Requirements	2014-2024 Typical Ed. Requirements	Change in Ed. Requirement
11-9199	Managers, All Other	High school	Bachelor's	+ + + +
13-1021	Buyers & Purchasing Agents, Farm Products	High school	Bachelor's	+ + + +
13-1022	Wholesale & Retail Buyers, Ex. Farm Products	High school	Bachelor's	+ + + +
13-1023	Purchasing Agents, Ex. Wholesale, Retail, & Farm Products	High school	Bachelor's	+ + + +
13-1199	Business Operations Specialists, All Other	High school	Bachelor's	+ + + +
21-1011	Substance Abuse & Behavioral Disorder Counselors	High school	Bachelor's	+ + + +
27-1013	Fine Artists, Inc. Painters, Sculptors, & Illustrators	High school	Bachelor's	+ + + +
43-4161	Human Resources Assistants, Ex. Payroll & Timekeeping	High school	Associate's	+ + +
49-3052	Motorcycle Mechanics	High school	Postsecondary non-degree	+ +
49-3023	Auto Service Technicians & Mechanics	High school	Postsecondary non-degree	+ +
39-2021	Nonfarm Animal Caretakers	No formal credential	High school	+
53-7072	Pump Operators, Except Wellhead Pumps	No formal credential	High school	+
53-7073	Wellhead Pumps	No formal credential	High school	+
19-4061	Social Science Research Assistants	Associate's	Bachelor's	+
29-1141	Registered Nurses	Associate's	Bachelor's	+
43-3031	Bookkeeping, Accounting, & Auditing Clerks	High school	Some college, no degree	+
27-1012	Craft Artists	High school	No formal credential	-
27-2042	Musicians & Singers	High school	No formal credential	-
33-9091	Crossing Guards	High school	No formal credential	-
33-9092	Lifeguards, Ski Patrol, & Other Rec. Protective Svc. Workers	High school	No formal credential	-
47-4031	Fence Erectors	High school	No formal credential	-
51-1011	First-Line Supervisors of Production & Operating Workers	Postsecondary non-degree	High school	--
29-9099	Healthcare Practitioners & Technical Workers, All Other	Bachelor's	Postsecondary non-degree	--
53-5021	Captains, Mates, & Pilots of Water Vessels	Bachelor's	Postsecondary non-degree	--
39-9032	Recreation Workers	Bachelor's	High school	---

Source: Texas Workforce Commission - LMCI

*Beginning with the 2014-2024 projections, "less than high school" is now referred to as "no formal educational credential."

+ Indicates the number of steps in increased educational requirements, exclusive of the initial educational requirement.

- Indicates the number of steps in decreased educational requirements, exclusive of the initial educational requirement.

Note: the assumed educational sequence from low to high is as follows: no formal credential, high school diploma, some college no degree, postsecondary non-degree award, associate's degree, bachelor's degree, master's degree, doctoral or professional degree.

Changes in Work Experience in a Related Occupation Required across Projections

The dimension *Work Experience in a Related Occupation* can also provide complementary occupational information along with the *Typical Educational Requirements* previously discussed. Per the Bureau of Labor Statistics, the former "captures experience that is commonly considered necessary by employers or is a commonly accepted substitute for other, more formal types of training or education." While it is not

especially common for an occupation to require related work experience (roughly only 1 in 10 have this requirement), of the 657 occupations common to both 2012-2022 and 2014-2024 projections, nine saw changes in the amount of work experience required in a related occupation. Similar to the step-sequence employed in the previous analysis, a “+” or “-” was used to indicate movement between the three possible amounts of work experience: *none*, *less than 5 years*, and *5 years or more*. Six saw increases from *none* i.e. no work experience in a related occupation required to *less than 5 years*. A single occupation, *General & Operations Managers (SOC 11-1021)*, saw an increase from *less than 5 years* to *5 years or more*. Two saw decreases in work experience required with one dropping from *5 years or more* to *less than 5 years* while another fell from *less than 5 years* to no work experience required. (See Table 9.)

Table 9. Occupations Experiencing Changes in Work Experience in a Related Occupation Required, 2012-2022 and 2014-2024,

SOC	Occupational Title	2012-2022 Work Experience in a Related Occupation Required	2014-2024 Work Experience in a Related Occupation Required	Change in Work Exp. Requirement
11-9111	Medical & Health Services Managers	None	Less than 5 years	+
13-1075	Labor Relations Specialists	None	Less than 5 years	+
13-1141	Compensation, Benefits, & Job Analysis Specialists	None	Less than 5 years	+
25-1081	Education Teachers, Postsecondary	None	Less than 5 years	+
29-2053	Psychiatric Technicians	None	Less than 5 years	+
53-5021	Captains, Mates, & Pilots of Water Vessels	None	Less than 5 years	+
11-1021	General & Operations Managers	Less than 5 years	5 years or more	+
45-2021	Animal Breeders	Less than 5 years	None	-
11-9033	Education Administrators, Postsecondary	5 years or more	Less than 5 years	-

Source: Texas Workforce Commission - LMCI

+ Indicates an increase in the amount of work experience in related occupation required, exclusive of the initial work experience level required.

- Indicates an decrease in the amount of work experience in related occupation required, exclusive of the initial work experience level required.

Note: the assumed work experience sequence from low to high is as follows: none, less than 5 years, 5 years or more.

Changes in On-the-job Training Required across Projections

A third and final feature of the occupational employment projections that provides additional insight into job requirements is that of *On-the-job Training (OJT)*. This dimension differs from *Typical Education and Work Experience* in that according to the Bureau of Labor Statistics it is “training or preparation that is typically needed, once employed in an occupation, to attain competency in the occupation. Training is occupation specific rather than job specific; skills learned can be transferred to another job in the same occupation.” For an incumbent worker, a change in the amount of on-the-job training required can have a significant impact on the amount of time needed to reach proficiency, hence given the changes across projections previously discussed, it was worth examining the OJT from this perspective as well. We again employ a step-sequence to quantify the changes, which in order from low to high are: *none* i.e. no OJT

required, *short-term, moderate, long-term, apprenticeship, and internship/residency*. Of the 657 occupations common to both 2012-2022 and 2014-2024 projections, 23 saw changes in the amount of on-the-job training required with 13 seeing increases and 10 seeing decreases. *Personal Financial Advisors (SOC 13-2052)* increased from *none* to *long-term on-the-job training*, which was the largest change among these 23 occupations. Four occupations increased from *none* to *short-term OJT*. Seven occupations experienced a rise from *short-term* to *moderate* while another increased from *moderate* to *long-term*. One occupation experienced a decline from *long-term* on-the-job training to *moderate*. Three decreased from *moderate-term OJT* to no on-the-job training required while two decreased from *moderate* to *short-term*. This was the same as the number of occupations experiencing a decrease from *long-term* to *short-term OJT* and from *short-term OJT* to *none*. Lastly, it should be noted that of the six types of on-the-job training, including the *none* category, two types: *Apprenticeship* and *Internship/Residency* did not appear in the above analysis as there were no occupations that experienced changes to or from these OJT requirements. (See Table 10.)

Table 10. Occupations Experiencing Changes in On-the-job Training Required, 2012-2022 and 2014-2024, 13-County Gulf Coast Region Occupational Employment Projections

SOC	Occupational Title	2012-2022 On-the-job Training Required	2014-2024 On-the-job Training Required	Change in OJT Requirement
13-2052	Personal Financial Advisors	None	Long-term	+++
27-3011	Radio & Television Announcers	None	Short-term	+
39-9032	Recreation Workers	None	Short-term	+
49-2011	Computer, Automated Teller, & Office Machine Repairers	None	Short-term	+
49-2097	Electronic Home Entertainment Equip.Installers & Repairers	None	Short-term	+
33-3052	Transit & Railroad Police	Short-term	Moderate	+
41-3099	Sales Representatives, Services, All Other	Short-term	Moderate	+
43-3021	Billing & Posting Clerks	Short-term	Moderate	+
43-4041	Credit Authorizers, Checkers, & Clerks	Short-term	Moderate	+
51-2021	Coil Winders, Tapers, & Finishers	Short-term	Moderate	+
51-2022	Electrical & Electronic Equipment Assemblers	Short-term	Moderate	+
51-2023	Electromechanical Equipment Assemblers	Short-term	Moderate	+
49-3021	Auto Body & Related Repairers	Moderate	Long-term	+
29-9011	Occupational Health & Safety Specialists	Short-term	None	-
43-4161	Human Resources Assistants, Ex. Payroll & Timekeeping	Short-term	None	-
49-9098	Helpers--Installation, Maintenance, & Repair Workers	Moderate	Short-term	-
51-6063	Textile Knitting & Weaving Mach. Setters, Ops., & Tenders	Moderate	Short-term	-
41-9022	Real Estate Sales Agents	Long-term	Moderate	-
15-1151	Computer User Support Specialists	Moderate	None	--
21-1011	Substance Abuse & Behavioral Disorder Counselors	Moderate	None	--
29-2054	Respiratory Therapy Technicians	Moderate	None	--
49-3023	Auto Service Technicians & Mechanics	Long-term	Short-term	--
49-3052	Motorcycle Mechanics	Long-term	Short-term	--

Source: Texas Workforce Commission - LMCI

+ Indicates the number of steps in increased on-the-job training requirements, exclusive of the initial educational requirement.

- Indicates the number of steps in decreased on-the-job training requirements, exclusive of the initial educational requirement.

Note: the assumed on-the-job training sequence from low to high is as follows: none, short-term, moderate, long-term, apprenticeship, internship/residency