

To: Gulf Coast Workforce Board Members

From: Mike Temple  
Carol Kimmick  
David Baggerly  
Michelle Ramirez

Date: November 18, 2015

Subj: Board Meeting Materials for Tuesday, December 1, 2015

---

The next meeting of the Gulf Coast Workforce Board is scheduled for **10:00 a.m., Tuesday, December 1, 2015** in H-GAC's second floor conference rooms A, B and C, 3555 Timmons Lane, Houston.

**Reports.** Chair Guthrie will provide his usual update to members on items of interest, and we would like to welcome two new Board members: Scott Marshall, representing Jacobs, and Fred Welch, representing the Greater Conroe Economic Development Council. Audit/Monitoring Committee Chair Joe Garcia will report on the committee's November meeting. Education Committee Chair Birgit Kamps will discuss members' meeting, also in November, and an additional focus for the committee's work. Finally, Career Office Committee Chair Karlos Allen will help recognize system staff for outstanding customer service.

**Action.** Procurement Committee Vice Chair Bobbie Henderson will report recommendations to fund contracts for public information/outreach and a special demonstration project for youth, in total not to exceed \$1.2 million for both services.

**Information.** David Baggerly will report on our performance to-date, and we will report as usual on the Board's expenditures against its budget.

Ron Borski will brief us on developments in the economy and then discuss employment in the downstream energy industry.

We look forward to seeing you on December 1<sup>st</sup>. 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, December 1, 2015 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 October 2015 meeting minutes
5. Declare Conflicts of Interest
6. Consider Reports
  - a. *Chair's Report.* The Board Chair will discuss items of interest, including the introduction of new Board members.
  - b. *Audit/Monitoring.* The Committee Chair will present an update from the committee's November 2015 meeting.
  - c. *Education.* The Committee Chair will report on members' most recent meeting in November 2015.
  - d. *Career Office.* The committee will note Workforce Solutions staff recognized for their customer service.
7. Take Action
  - a. *Procurement.* The Committee Vice Chair will present recommendations for funding contracts for public information/outreach and a special demonstration project for disconnected youth.
8. Receive Information
  - a. *System Performance.* Report on current performance.
  - b. *Expenditures.* Report on expenditures.
9. Look at the Economy

Report on current economic data and trends in the Houston-Gulf Coast area, including information on the downstream energy industry.
10. Take Up Other Business
11. Adjourn



**Workforce Solutions**

Workforce Solutions is an equal opportunity employer/program.

Auxiliary aids and services are available upon request to individuals with disabilities.

Please contact H-GAC at 713.627.3200 at least 48 hours in advance to request accommodations.

Deaf, hard-of-hearing or speech-impaired customers may contact:

Relay Texas 1-800-735-2989 (TTY) or 711 (Voice).

Equal opportunity is the law.

**MINUTES OF  
THE GULF COAST WORKFORCE BOARD  
TUESDAY, OCTOBER 6, 2015**

---

**MEMBERS PRESENT:**

Gerald Andrews	Betty Baitland	Sara Bouse
Carl Bowles	Joe Garcia	Cheryl Guido
Mark Guthrie	John Hebert	Bobbie Henderson
Guy Robert Jackson	David Joost	Paulette King
Jeff Labroski	Jerry Nevlud	Linda O'Black
Dale Pillow	Janice Ruley	Allene Schmitt
Connie Smith	Shunta Williams	Toy Wood
Madeleine York		

**H-GAC STAFF MEMBERS PRESENT**

Mike Temple  
David Baggerly  
Ron Borski  
Parker Harvey

Mr. Mark Guthrie, Chairman, called the meeting to order at approximately 10:00 a.m., on Tuesday, October 6, 2015, 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 AUGUST 4, 2015 MEETING**

Chair Guthrie asked if there were any additions or corrections to minutes for the August 4, 2015 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 that on August 13, 2015 several Board members attended the Texas Workforce Commission (TWC) and Department of Assistive and Rehabilitation Services (DARS) public hearing to provide comments related to the transition of vocational rehabilitation services from DARS to TWC. Chair Guthrie, Mr. Mike Temple and Mr. Peter Beard each gave testimony at the meeting, which Chair Guthrie noted was well attended.

Chair Guthrie said that TWC issued the written transition plan for DARS vocational rehabilitation programs in the past week, but that he has not had time to review it.

Chair Guthrie reported that on August 18, 2015 he attended the Texas Association of Workforce Boards (TAWB) meeting in Fort Worth. At that meeting, Mr. Mike Temple was elected the President of the Executive Directors Council. He also noted that the Federal Reserve gave a presentation at the meeting explaining how Workforce Boards and the Federal Reserve could work together and share information.

Chair Guthrie reported that in the last week of September he attended the U.S. Business Leadership Network (BLN) Conference in Austin. The USBLN is a group of business professionals who share best practices in and who are interested in employing people with disabilities. Chair Guthrie noted that he was pleased that some of the Gulf Coast's Board staff and contractors also attended and explained that he sees great potential for linkages between our Employer Services Division and with the BLN, which also has an affiliate in the Houston area. The BLN has a tool that will assist companies to help comply with the 7.0% goal applicable to federal contractors for employment of people with disabilities.

Chair Guthrie gave an update on the proposed pilot project to place on a temporary basis, a few vocational rehabilitation counselors in a busy career office to help us assess and consider how to best combine and better link career office operations and vocational rehabilitation counselors. Chair Guthrie explained that after the August Board meeting, he wrote a letter to the Commissioner of DARS and the Assistant Commissioners and also copied Mr. Larry Temple, Executive Director of TWC in which he asked the Commissioner of DARS to reconsider her objection to the pilot project. Chair Guthrie also mentioned that he received a response back from the DARS Commissioner citing a lack of resources to move forward with the project. In the meantime, the Workforce Board staff has worked with the local DARS, DBS (Division of Blind Services) and DRS

(Division of Rehabilitation Services) teams to beef up our itinerant office visit program by vocational rehabilitation counselors.

Two Career Office grand opening celebrations are scheduled – October 15<sup>th</sup> at 9:00 am for the Baytown office and October 22<sup>nd</sup> at 2:00 pm for the Rosenberg office.

Chair Guthrie explained that he planned to attend the Texas Rehabilitation Action Network Conference in late October to learn more about vocational rehabilitation services and the Annual TWC Conference in Dallas in November and will report back on both conferences at the December 1, 2015 Workforce Board meeting.

Chair Guthrie advised that our long standing Board member, Evelyn Timmins recently learned that her husband has an aggressive and fast moving brain cancer. Chair Guthrie asked that everyone keep Evelyn, her husband and their family in their thoughts and prayers.

Chair Guthrie concluded his report and no action was taken.

#### Audit/Monitoring Committee Report

Chair Joe Garcia reported that the committee met on Wednesday, September 30, 2015 at the new Rosenberg Career Office and received an update on the monitoring activity.

- QA Reviews. The Quality Assurance Team completed its reviews in August. Highlights include:
  - Follow-up visits to the Baytown and Southwest offices resulted in acceptable ratings for both locations.
  - All other office locations had acceptable ratings, with four of the smaller offices – Columbus, Sealy, Liberty, and Katy Mills – rating as above average.
  - Employer Service, operated by Employment and Training Centers, had an acceptable rating.
  - Follow-up visits to NCI-operated offices with accessibility issues found that all issues had been resolved.
  - Overall, the offices and units are doing well in protecting the security of customer's personal information; however, we continue to find a small number of instances of non-compliance. There is not a pattern to these instances, and the QA team will continue to monitor this and remind contractors to be vigilant.
- Payment Office vendors. From October 2014 through August 2015 the QA team checked on 1,523 child care vendors out of a total of 2,097 vendors with agreements. The goal is to reach all active vendors (i.e., those with children covered by our financial aid) and not all of the 2,097 are active. During the most recent visits, the financial aid payment office (FAPO) issued two service improvement plans – one vendor was holding automated attendance cards for

parents and another had the card reader locked in an office/not accessible to parents.

- Financial Reviews. The QA team noted in the August reports that all financial reviews for workforce contractors have been completed. There were minor findings; all of which have been resolved. The QA team also completed all financial reviews for the adult education providers and is in the process of resolving the findings from those reports. Six of the seven providers had not submitted cost allocation plans and there were other minor findings.
- 2016 QA Visits. In September the QA team began a new round of reviews, starting with the staffing specialist units operated by Interfaith and NCI. These units are primary locations in which the system finds candidates for job openings that employers have posted with Workforce Solutions. The QA team is focusing this year on improving the operation of these units and the level of service to employers who post with Workforce Solutions.

Chair Garcia concluded his report and no action was taken.

### **TAKE ACTION**

There were no action items on the agenda and no action was taken.

### **RECEIVE INFORMATION**

#### System Performance

Mr. David Baggerly reviewed the Year End System Performance measures for October 2014 through August 2015. 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 25,452 employers this year which is almost 18% of the 144,799 employers identified for the Gulf Coast area. We provided services to 26,796 employers through August 2015.

Employer Loyalty – our performance indicates our employer customers value our services and return to us for additional services. Of a possible 22,719 employers, 13,953 returned to The Workforce Solutions for additional services through August 2015.

More and Better Jobs –

New jobs created – This information is captured quarterly and reflects a two year average.

Customers employed by the 1<sup>st</sup> quarter after exit – Reporting for the quarter ending September 2014, 230,991 of the 295,960 customers who exited from services were employed by the quarter after exit.

Higher Real Incomes –

Exiters with Earnings Gains of at least 20% - Reporting for the quarter ending March 2014, 105,504 of the 311,970 customers who exited had earnings gains of at least 20%.

A Better Educated and Skilled Workforce –

Customers pursuing education diploma, degree or certificate who achieve one - Reporting for the quarter ending March 2015, 2,156 customers pursuing an education diploma, degree or certificate exited in the period July 2014 – March 2015. 1,029 achieved a diploma, degree or certificate by the quarter after exit.

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, 2014, the state reports we are meeting or exceeding the target for seven of nine measures. The two measures we are not meeting are:

- Total Education Achievement. The target for this measure is 80.9%. Our performance in the year was 69.8%. The Board is working with contractors to improve services to help customers attain their educational goal.
- Youth Placed in Employment or Education. The target for this measure is 67.0%. Our performance in the year was 62.1%. The Board is working with contractors to improve services to help customers attain their educational and employment goals.

Adult Education

- Last year, 20,548 students received Adult Basic Education services. All of these students participated in a minimum of 12 hours of classroom instruction.

	FY 15	FY 16
--	-------	-------

	Target	Board Performance	Target	Board Performance
Total Students (12 Hour Students)*	22,986	20,548	23,429	3,938
Total Students (Total)	25,540	22,853	26,032	4,329

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

#### Expenditure Report

Mr. Mike Temple reviewed the Financial Status Report for eight months ending August 31, 2015 and stated that everything is on target and looked good. Mr. Temple also noted that Financial Aid expenditures are running slightly ahead, but that he does not anticipate exceeding the total budget at the end of the year. Mr. Temple also noted that we are doing a better job of spending the Adult Education funds.

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

#### Update – On-Going Projects

Mr. Temple introduced Mr. Raymond Wilburn, the Regional Director for the Texas Veterans Commission Region IV and his assistant Mr. Fred Gibbs, Regional Employment Representative. Mr. Temple explained that the system is very fortunate to work with both men and asked them to address the Board. Mr. Wilburn gave the Board a brief history on the Texas Veterans Commission and the services they performed. Mr. Wilburn reported that their team in 2014 received an award and trophy for placing the most veterans in employment and now in 2015 they have won again for placing 764 veterans in employment.

Mr. Temple reminded the Board that the Texas Legislature recently passed legislation moving responsibility for vocational rehabilitation services into the Workforce Commission. Staff from the Workforce Solutions system and the Department of Assistive and Rehabilitative Services' two divisions have been working together to improve our connections to each other with an eye to the eventual consolidation of our service delivery systems.

Together we have taken several steps:

- Welcomed representatives from DARS Division of Rehabilitation Services and its DBS, Division of Blind Services to the Workforce Solutions Regional Management Team – the team consists of Workforce Solutions contractors that work on issues related to system operations.
- Started the process of increasing the itinerant presence of DARS DRS and DBS counselors in Workforce Solutions career offices and providing an itinerant presence of Workforce Solutions staff in DRS and DBS locations.



- DARS staff will start providing blindness awareness training and disability awareness training for the staff in all the Workforce Solutions offices.
- The Board staff and DARS regional DRS and DBS staff are continuing to work together to support the two systems eventual integration.

#### Homeless Coalition

Workforce Solutions continues to develop our relationship with the Homeless Coalition to find the best way to knit the systems together, so that individuals experiencing homelessness not only have easy access to housing, but also to employment. With some funding provided through the Coalition, as well as Workforce Solution basic system resources, the plan is to locate a small number of Workforce Solutions staff in several of the housing access centers to make it easier for individuals looking for housing to also look for work at the same time. Placement of additional navigators to help the staff and homeless service providers understand the workforce system and the workforce system staff to understand the needs of individuals experiencing homelessness. And second to help individual customers navigate from the housing access centers to the career offices when necessary.

#### Houston Housing Authority

The Houston Housing Authority cut the ribbon on the space at its Cuney Homes property (located in Houston's 3<sup>rd</sup> Ward) for efforts to better help residents go to work. The housing authority received a major funding grant from the U.S. Department of Housing and Urban Development for this project, and the Board and Workforce Solutions are partners in the endeavor. Workforce Solutions will have a small office site on the property with staff to offer seminars, work with residents on career plans, and help residents get into jobs.

#### United Way

Workforce Solutions has worked for several years with the United Way's THRIVE network which is designed to help low-income families build their financial assets and attain financial resiliency. Growing out of that work is a project with the United Way, the Greater Houston Partnership, and Workforce Solutions supporting efforts of a group of area community-based organizations to expand and improve their ability to recruit, skill-up, and prepare individual clients for the middle skill jobs in the region's key industries.

#### Employer Projects

Workforce Solutions is involved in a number of employer-based projects that include:

- Finding a way to build a center for construction industry occupational certifications in the western part of the region;
- Funding a prototype project with Jacobs to hire and train new industrial construction workers and then support their further development and increase their skill levels and specializations in various trades as they continue to work;
- Discussions with health care and petrochemical manufacturers about building apprenticeship programs.

Mr. Temple also noted that the annual Veterans Day Job Fair – Red, White and You on November 12, 2015 will be held at Minute Maid Park from 9:00 am to 1:00 pm.

The Education Committee will meet on Tuesday, November 3, 2015 at 10:00 am, and the Procurement Committee will meet on Wednesday, November 4, 2015 at 2:00 pm. Both meetings will be held here at H-GAC offices and all Board members are welcome to attend.

October is Disability Awareness month and we are participating in activities throughout the region. The City of Houston Mayor's office for People with Disabilities awarded David Spears, one of our highly experienced navigators in the Workforce Solutions system the Care Award 2015.

Chair Guthrie encouraged Board members to attend the Education and Procurement Committee meetings as the committee meetings are very informative and this is where much of the Board's work is done.

Mr. Guthrie also mentioned that our latest Report Card will be published soon and it will indicate that our education system needs significant attention. The Education Committee is a good way to help focus that effort.

Mr. Temple concluded his updates 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) experienced a seasonal decrease in August falling to 4.6%. The rate of unemployment in the H-W-S MSA was lower than the nation's 5.2%, but slightly higher than the state's 4.4%. The H-W-S MSA experienced a loss of 11,800 jobs in August; down 0.4% as companies supporting the energy industry continue to cut payrolls. Healthiest over-the-year growth has been tied to population driven sectors including Retail Trade, Education and Health Services (Private) and Leisure and Hospitality. A rising number of industry sectors reported losses over the year including; Mining and Logging, Construction, Manufacturing, Wholesale Trade, Transportation Warehousing and Utilities and Financial Activities.

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

### **Workforce Demands – In the Educational Services Industry**

Mr. Parker Harvey reported that as an institution, education provides the basis for knowledge and skill acquisition designed to prepare individuals for a lifetime of gainful employment. It is typically divided into three or four distinct stages based on the approximate age of the student and often begins with preschool. This is followed by primary school, secondary school, and postsecondary education, the last of which is increasingly recognized as important to securing higher paying jobs.

Mr. Harvey noted that this report examines the educational services industry in the Gulf Coast region with an emphasis on trends among primary and secondary public school teachers including student-teacher ratios, shortages, wages, turnover, and years of experience over the past two decades in addition to standard labor market information regarding the outlook for the industry and its occupations.

### **Primary and Secondary Public Schools** (as of fall 2013)

- 1,223,785 students
- 1,487 schools across 77 Independent School Districts (ISDs)
- 74,703 Fulltime Equivalent (FTE) teachers
- 149,355 FTE total staff
- Teacher turnover rate of 16.4%

### **Higher Education** (as of fall 2013)

- 330,499 students enrolled in public postsecondary education (in or out of region)<sup>0</sup>
- 137,168 students enrolled in 4-year universities (in or out of region)
- 193,331 students enrolled in public community colleges and technical schools (in or out of region)
- 8,550 students enrolled in 4-year private institutions (in region)
- 10 public community college systems
- 6 public 4-year universities
- 3 private 4-year universities

In terms of contribution to total employment, educational services in the Gulf Coast region is on par with other major industries such as accommodation and food services, healthcare, retail, and energy. As of the first quarter of 2015, education comprised 9.6% of total employment, or 280,455 jobs.

#### Major Types of Educational Services

Educational services can be divided into three major types based on government level of affiliation or private ownership of the entities providing services:

- Local government educational services
- State government educational services
- Private educational services

Of these, local government educational services are the largest at 70.6% of education-related employment as of Q1 2015. Within this subset of education, 92% of jobs are found in primary and secondary public schools with the remainder found in junior colleges. All of the 38,713 jobs in state government educational services are located within public colleges and universities. Employment in private educational services is spread across all levels of education from primary and secondary schools to colleges and

universities to educational support services. Of the total 44,162 jobs in private education, the largest concentrations of employment are found in colleges and universities (16,605) and primary and secondary schools (13,341).

### The Seasonal Nature of Education Jobs

Educational services are one of a handful of unique industries that displays a highly regular seasonal pattern of employment each year. Employment begins to fall in June with the official end of the school year, experiences its steepest declines in July, and reaches its lowest levels in August with the majority of these losses temporary. In the following month of September, the bulk of employment is regained coinciding with the start of the new school year. Job numbers increase throughout October and historically have peaked in November although mid to late spring has become the norm in recent years.

### Teacher Shortages Post Recession & Budget Cuts

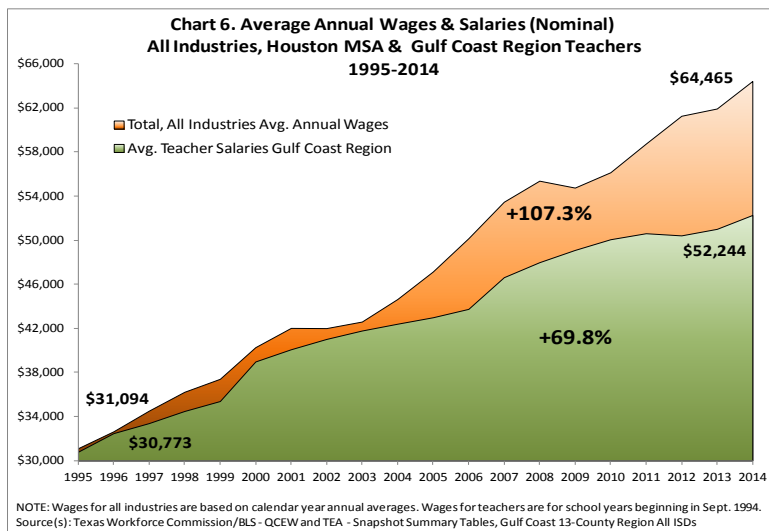
The period from 2007 to present is significant in that it includes the Great Recession, which impacted the Gulf Coast later than the U.S., and its after-effects on local education, particularly with regard to teachers. Over the 2007-2008 to 2013-2014 school years, the number of teachers in the Gulf Coast region rose by 1,558, or 2.1%. At the same time the student population increased by 109,278 for a faster rate of growth of 9.8%. Throughout this seven-year period students saw uninterrupted growth year-over-year and have likely never experienced declines. In contrast, teachers in the Gulf Coast experienced their first-ever recorded job losses in 2010-2011 followed by a more dramatic loss in 2011-2012 for cumulative decline of 4,565 jobs, or 6%. Despite a partially restored budget in 2013, increased hiring, and pay raises for existing teachers, back-to-back years of job losses were largely responsible for a shortfall in the number of teachers needed to keep pace with student population growth. In fact, an additional 5,614 teachers on top of the 3,192 hired over the 2012-2013 and 2013-2014 school years would have been needed in order for the seven-year growth rate of teachers to match that of students.

A natural consequence of fewer teachers serving a growing number of students is a rising student-to-teacher ratio. Over the past two decades, this ratio declined across the Gulf Coast region reaching a 20-year low of approximately 15.2 students per teacher during the three school years between 2007 and 2010. In the wake of layoffs related to budget cuts in 2011, the ratio rose dramatically reaching an all-time high of 16.6 in 2012-2013. In the following year the student-teacher ratio fell slightly to 16.4 yet this remained above the 20-year average of 15.9 students for every teacher.

While in reality the exact magnitude of any teacher shortages may have been more or less pronounced among certain grades, schools, districts, etc., on average an additional 2,110 teachers would have been needed for the 2013-2014 school year in order to lower the student-teacher ratio from 16.4 down to the 20-year average. Multiple years of intensive recruitment efforts may be required in order to lower the ratio back to the historical average.

## The Wage Gap

Teachers' wages in the Gulf Coast have historically fallen below the average for all industries in the area. In 1995, the wage differential between these groups was a mere \$321 and by 2014 the gap had widened to \$12,221. This was the result of average wages across all industries rising substantially faster at 107.3%, more than doubling over two decades compared to teachers who saw an increase of only 69.8% over this same timeframe.



## Turnover and the Impact on Teachers' Years of Experience

Teacher turnover, which can be voluntary or involuntary, is a complex phenomenon influenced by various factors such as burnout, poor working conditions, and pressure to raise student test scores, budget-related layoffs, and wages that fail to keep up with the cost of living. An increase in turnover is of concern as it can adversely impact the pipeline of future talent and lead to an inconsistent quality of instruction from one school year to the next. After a steep increase in the mid-1990s, teacher turnover oscillated between 13.8% and 17%, the latter rate registering as the 20-year high, until the onset of the Great Recession in late 2007. As the effects of the recession intensified, many teachers opted to remain in their positions given the level of economic uncertainty, and consequently turnover rates plunged reaching the second-lowest level in 20 years at 11.8% in 2009-2010. Since that school year, turnover has once again surged, hitting 16.4% and reaching levels not seen in almost 15 years. Unlike the modest improvements in staffing and student-teacher ratios related to a partially restored education budget, teacher turnover has shown no signs of abating as of the 2013-2014 school year.

Studies have shown that teachers begin to achieve significant gains in effectiveness as instructors at around the five-year mark. Unfortunately, 40% to 50% of new teachers also leave the profession within the first five years. For this reason there has been a growing emphasis not only on recruitment of new teachers, but also reducing turnover and increasing retention, particularly during the early stages of teachers' careers. For most of the past 20 years, the proportion of teachers with five or fewer years of experience in the

Houston area rose steadily from a low of 32.8% in 1994-1995 and to a high of 40.2% in 2008-2009. On one hand this resulted in an overall teacher workforce with relatively less experience, which was also reflected in the declining average years of experience reaching an all-time low of 10.7. At the same time this indicated that new teachers were entering the field in growing numbers, potentially creating a pipeline of future talent for years to come. Also at the same time the most highly tenured educators have also begun leaving the field due to retirement, career changes, or other reasons. This leaves teachers that are relatively more experienced on average (i.e. more than five years) but are not yet eligible for retirement as a fast-growing contingent within the educator workforce. Consequently, a failure to attract and retain sufficient numbers of new teachers in the short to medium-term may result in acute shortages in the future.

#### Projected Growth in the Educational Services Industry

The demand for qualified educators in the Gulf Coast Region will remain strong into the foreseeable future as our young population continues to grow and more individuals recognize the importance of postsecondary education.

As of 2012, there were 277,420 jobs in educational services (public and private) according to estimates produced by the Texas Workforce Commission. This sector is projected to add 70,260 jobs between 2012 and 2022 for an above average growth rate of 25.3%.

Elementary & Secondary Schools, Public & Private are expected to increase payrolls by 51,550 from 2012 to 2022 and will account for the largest number of jobs in education representing two-thirds of total educational services employment by 2022. This industry is projected to grow 28.3% over the decade for the third-highest growth rate of any education-related industry.

Colleges and Universities, Public & Private are expected to increase payrolls from 62,340 in 2012 to 74,480 in 2022. This industry is the second-largest within educational services and is projected to account for one out every five education-related jobs in the region throughout the decade despite a slower-than-average growth rate of 19.5%.

Junior Colleges, Public & Private are expected to add 3,520 jobs between 2012 and 2022 and will account for about 7% of total education employment throughout the decade. Similar to colleges and universities, this education industry is projected to grow slower than average at 17.6%.

All other educational services industries (public and private) combined, are projected to grow from 12,670 to 15,710 jobs between 2012 and 2022. Within this group, Educational Support Services, Public & Private are projected to have the fastest growth rate of any education-related industry at 29.5% however this industry also has some the lowest employment levels making up only 0.5% of education employment throughout the decade.

#### Projected Growth in Primary & Secondary School Teacher & School Counselor Occupations

As of 2012, there were 90,900 Preschool, Primary, Secondary, & Special Education Teachers in the Gulf Coast region according to estimates produced by the Texas Workforce Commission. Collectively these occupations are projected to add 28,270 jobs between 2012 and 2022 for an above average growth rate of 31.6%.

Elementary School Teachers Ex. Special Education are the largest subset of Preschool, Primary, Secondary, & Special Education Teachers, comprising 36.3% of employment.

This detailed occupation is expected to grow by 11,650 jobs between 2012 and 2022 for the second-highest growth rate among this group of occupations at 35.3%.

Secondary School Teachers, Ex. Special & Career/Technical Education are the second-largest subset of Preschool, Primary, Secondary, & Special Education Teachers accounting for one in four jobs in this group. Secondary School Teachers are expected to add 6,240 jobs over the 10-year projection period for an above average growth rate of 27%.

Middle School Teachers, Ex. Special & Career/Technical Education are the third-largest occupation with 16,470 jobs or 18.1% of total employment among Preschool, Primary, Secondary, & Special Education Teachers. Middle School Teachers had the highest projected growth of 35.4% between 2012 and 2022.

In 2012, there were 5,200 Educational, Guidance, School, & Vocational Counselors in the Gulf Coast region. This detailed occupation is expected to add a total of 1,290 jobs by 2022 for a slightly above average growth rate of 24.8%.

#### Projected Growth in Postsecondary Teacher Occupations

As of 2012, there were 30,750 Postsecondary Teachers in the Gulf Coast region according to estimates produced by the Texas Workforce Commission. Collectively these occupations are projected to add 7,250 jobs between 2012 and 2022 for a slightly below average growth rate of 23.6%.

Health Specialties Teachers are the largest subset of Postsecondary Teachers comprising 16.6% of employment in this occupational group. Over the 10-year projection period Health Specialties Teachers are expected to add 2,100 jobs for a growth rate that is 75% higher than the average of all occupations at 23.8%.

Mr. Harvey recapped some highlights of his report.

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

#### Occupations Requiring Coding Skills – Gulf Coast Region

Mr. Borski reported that “Coder” is a broad term used to reference individuals whose primary function is to write the computer code that allows software programs to run. There is a long list of occupations that require the ability to write computer code.

Computer programming projects vary widely and can require as little as a few days or a year. The work is highly detailed and requires very specific knowledge of programming languages depending on the purpose of the program. A coder’s task usually begins after the computer programmer, software developer or engineer completes design specifications for a particular program.

While a computer programmer typically complete tasks of a much larger scale than a coder, they are often the first that comes to mind when referencing coding. In the job market, programmers often are referred to by the language they specialize in or by the type of function they perform or environment in which they work, for example java programmer, COBOL programmer, database programmers, mainframe programmers, or Web programmers.

The following provides some data related to occupations requiring coding skills including:

- Past and future employment estimates
- Job advertisement data; hiring trends - Wanted Analytics
- Wages
- Education

The number of computer programmers working in the Gulf Coast Region peaked at the end of the dot-com boom in 2000 at 11,770. By 2012 the number of computer programmers in the region had declined to less than half of what they were in 2000.

Reasons for declining demand for computer programmers:

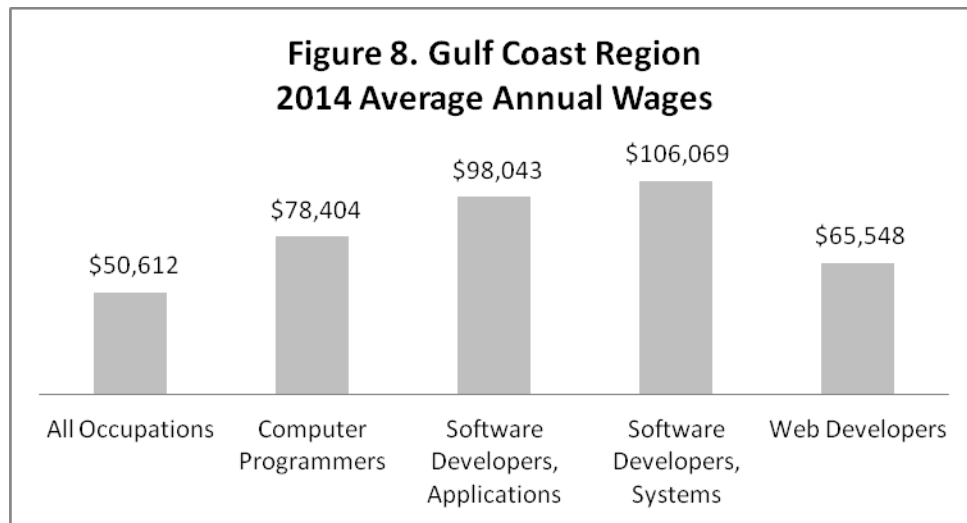
- Consolidation of system and application development
- Automation of programming functions and other advancements allowing users to design, write, and implement functions by other types of information workers
- Offshore outsourcing

Web developers is another occupation requiring a substantial amount of coding skills. While historical projection data is not available, current projections estimate job growth to be above average.

In a semiannual review of total monthly ads for the top computer occupations requiring coding skills peaked in July 2013 at 3,018 and have since declined by 30.7% to 2,091.

Computer occupations requiring coding skills pay wages well above average.





The most common degrees of choice are computer science, mathematics, or information systems, while others take special courses in computer programming to supplement their field of expertise such as accounting, engineering, or finance.

Most workers in the related occupations have a bachelor's degree or higher. Computer programmers and web developers have the highest concentration of workers with an educational attainment level less than a bachelor's degree.

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

### **OTHER BUSINESS**

No one presented other business.

Mr. Guthrie wished everyone a Happy Thanksgiving.

### **ADJOURN**

There was no further business to come before the Board, and Chair Guthrie adjourned the meeting at approximately 11:00 am.

## Audit/Monitoring Committee Update for December 2015

---

- **Operations Reviews.** We have reviewed operations for the following system units:
  - **Tracking Units.** These units track customer service and activities for career offices and other Workforce Solutions contractors. Neighborhood Centers operates one unit, and Interfaith, the other. Both Interfaith and NCI tracking units are **acceptable**.
  - **Financial Aid Call Center.** The first quarterly review of eligibility at the Call Center found no problems.
  - **Career Offices.** We reviewed service for non-custodial parents, referred to us from family courts in Brazoria, Galveston and Harris counties for non-payment of child support. Neighborhood Centers operates the service with staff located in six offices. The service exceeds expectations, surpassing targets for helping parents get and keep jobs.

We continue to monitor the records for Trade Act services.

We continue revisits to offices with facility maintenance/repair issues that affect accessibility ratings. Interfaith offices with remaining needs for minor repairs include Bay City, Conroe, Cypress Station, Huntsville, Wharton and Willowbrook.

- **Employer Service.** We completed the first of our two annual reviews of Employer Service. We rated the unit as **acceptable** and have recommended some adjustments to the on-the-job training activity to improve records management.
  - **Financial Aid Payment Office.** From October 2015 through November 2015 we checked on 84 child care vendors out of a total of 1,520 active vendors. We found no problems.
- **Financial Reviews.** Interfaith had its annual review with one issue: minor staff overtime paid in error. Interfaith acknowledged the error and refunded the overpayment.

## **Education Committee**

---

### **November 2015 Meeting**

The Education Committee met on Tuesday, November 3, 2015 at 10:00 a.m. in H-GAC Conference Rooms B/C. Chair Birgit Kamps led the meeting attended by the following members: Vice Chair Allene Schmitt, Karlos Allen, Sara Bouse, Bill Crouch, David Joost, Ray Laughter, Dale Pillow and Board Chair Mark Guthrie.

### **Strategic Discussion**

Chair Kamps led a discussion in which the committee affirmed its purpose is to address the Board's result of an educated workforce by increasing the percentage of residents who are high school graduates and who earn post-secondary credentials for work in high-skill, high-growth occupations.

After discussion, the committee members reached consensus on a strategy that engages employers to understand the education/training needs for their workforces and raises awareness of Workforce Solutions' resources to address those needs. This strategy is in addition to the committee's continuing focus on producing and widely distributing career information and labor market data for customers, particularly for students, parents, teachers and counselors.

To begin implementing the employer-based strategy, the committee recommended focus groups to:

- Gather input about needs for basic education and skills training;
- Explore willingness to participate in work-based learning activities including internships; and
- Test support for life-long learning and development of a workplace culture that supports growth for both the company and individual.

In conjunction with the focus groups, staff will develop printed material for use in Employer Service marketing that describes basic education service available through Workforce Solutions and helps promote work-based and workplace learning.

Board Chair Mark Guthrie recognized that this strategy aligns with the recommendations in the report *Making Career Preparation Work for Students* from the Council of Chief State School Officers:

- Enlist the employer community as a lead partner
- Set a higher bar for the quality of career preparation programs
- Make career readiness matter to schools and students

Chair Kamps asked staff to develop the employer focus groups, working with the Employer Service staff.

## **Adult Education and Literacy Update**

Board staff provided an update on Adult Education and Literacy activities. Board Chair Guthrie requested additional scrutiny of provider enrollment results. In light of the 20% reduction of formula-based funding following the transfer from the Texas Education Agency, demand for services should exceed current capacity. Discussion suggested funding reductions led to structural changes that affect offerings and enrollment, as well as changes in the demand for service. Board staff will conduct additional review and report findings.

## **Career Planning Resources Update**

Board staff provided a demonstration of the recent updates to Workforce Solutions' career exploration materials, including a revised online web presence.

The Committee agreed to reconvene following the upcoming release of the Workforce Report Card and review development of the employer-based strategy.

## **Education Committee**

---

### **November 2015 Discussion**

#### **Background**

The Gulf Coast Workforce Board created the Education Committee after the 2005 Workforce Report Card highlighted the critical nature of our education system to the overall prosperity of the region and success of the Board's mission in achieving its results.

The Education Committee's charge is to identify how the Board uses its policy making role, its influence and its resources to improve the region's education system. In March 2006, the Committee adopted the following mission statement:

***To influence and assist the education system in increasing the percentage of area residents who are high school graduates and who earn post-secondary credentials for work in high-skill, high-growth occupations.***

This mission is focused on the educational attainment measures in our strategic plan:

- Percentage of population with education credential
- Percentage of population with a post-secondary degree
- Percentage of population pursuing an educational credential who earn one

Although the mission is broad, it encompasses the following important issues identified by the Board:

- The critical involvement of area businesses in local secondary school education to make sure students are prepared to work in the region's key industries and demand occupations;
- Strategies to increase participation in and graduation from high school, and post-secondary education and training institutions for all students and particularly minority and immigrant students; and,
- Strategies to support the region's higher education institutions and link them to the jobs employers need filled.

The Committee's initial focus was to help improve high school graduation rates. Members agreed a natural niche for the Education Committee and the Board was providing good, accurate and youth-friendly labor market information. More recently, the Education Committee focused its attention on the integration of Adult Education and Literacy services into the workforce system.

The Chair will lead a discussion on moving the Committee's mission forward.

# **Education Committee**

---

## **November 2015**

### **Adult Education and Literacy Update**

#### **Background**

Beginning in July 2014, the Gulf Coast Workforce Board received funding from the Texas Workforce Commission to provide adult education and literacy services to 25,540 customers across the region through a consortium that includes:

- Region 6 Education Service Center
- Brazosport College
- College of the Mainland
- Harris County Department of Education
- Houston Community College System
- Lone Star College
- San Jacinto College
- Wharton County Junior College

Adult education and literacy services include literacy instruction, adult basic and secondary education, English Language Acquisition, civics and citizenship instruction, as well as basic skills integrated with occupational skills training.

#### **Current Situation**

At the end of the first contract year, the region has performed adequately on enrollment – serving 22,986 students or 91% of goal, but faltered on educational achievement – reaching only 72% of goal. Board staff continues to work with contractors to improve performance on both enrollment and educational achievement.

In addition to the administration of funding, Board staff has also made efforts to integrate adult education and literacy services into the region's workforce system. This includes:

- Adding a representative from adult education and literacy to the Workforce Solutions Regional Management Team
- Creating an online referral tool to connect customers interested in adult education services to a local service provider
- Driving availability of services in all 13 counties
- Hosting a Workforce and Adult Education Integration Forum in Conroe, TX, that brought together representatives from adult education, workforce, nonprofit literacy organizations, libraries, and other key stakeholders to discuss strategies for better integration.

## Next Steps

Board staff and contractors will continue efforts to improve enrollment, educational achievement, and system integration. These efforts include:

- Three workgroups made up of representatives from adult education and literacy providers and Workforce Solutions career office staff to address the following system integration issues:
  - Transitions and career pathways courses – this workgroup will identify necessary components to be implemented in Transitions and Career Pathways courses across the Consortium, resulting in a best practice model.
  - Customer engagement and recruitment models – this workgroup will focus on developing wide-spread, effective recruitment and referral strategies that immediately engage customers and can be implemented across the 13-county region.
  - Instruction and skills alignment – this workgroup will identify strategies and actual practices that detail vertical connection points from secondary education to post-secondary education to employment, including credit articulation, work experience, stacked credentials and workplace learning.
- Starting and sustaining adult education and literacy classes in Workforce Solutions career offices;
- Creating a system-wide distance learning plan that will expand services to customers in outlying counties and will accelerate the completion of adult education instruction toward a GED.
- Centralizing professional development and increasing course offerings in career awareness and readiness and how to access and connect customers to Workforce Solutions resources.

# Education Committee

---

## November 2015

### Career Exploration Resources Update

#### Background

The Gulf Coast Workforce Board and its Education Committee have endeavored to influence the education system and customers towards high-skill, high-growth opportunities. Utilizing an assortment of detailed reports and innovative resources, we have worked to communicate critical labor market information to the region a number of ways. Workforce Solutions staff, school districts, and other community based organizations use this information to help customers make informed decisions regarding career choices.

#### Current Situation

We recently developed a comprehensive page on the Workforce Solutions website that centralizes our many career exploration resources in one, easy-to-find location – [www.wrksolutions.com/careerexploration](http://www.wrksolutions.com/careerexploration).

The Career Exploration webpage features information about our occupations in demand lists, industry and occupation profiles, job family charts, career videos, career assessment tools, and our When I Grow Up curriculum.

- [Where the Jobs Are](#) - A comprehensive list of occupations projected to offer the largest number of employment opportunities now and in the immediate future.
- [High-High Skill, High-Growth Occupations](#) - The occupations on this list represent jobs that have growth, openings and salaries greater than average for the entire region!
- [High-Skill, High-Growth Booklet](#) - The booklet contains brief descriptions about each high-skill, high-growth occupation, provides useful facts and offers interesting labor market information about popular career choices.
- [Industry/Occupation Profiles](#) - The Industry/Occupation Profiles go beyond simple labor market information to offer a more detailed view of each of our high-skill, high-growth occupations.
- [Job Family Chart](#) - The chart provides a graphical representation to help compare and contrast a number of different occupations within a given industry.
- [Workforce Solutions YouTube Career Videos](#) - These videos provide a virtual look at each of our high-skill, high-growth occupations.
- [Choices Planner](#) - The planner helps individuals build comprehensive portfolios based on interests, values, skills and experience to explore potential career matches and locate training and employment opportunities
- [When I Grow Up](#) - The When I Grow Up curriculum offers engaging career lessons, activities and resources for educators, parents and young people (Grades Pre-K - 12).



Our staff, partners, and customers may access these resources to research training opportunities and careers within high-skill, high-growth occupations. We developed a [companion guide](#) and delivered a number of training sessions throughout the region to help individuals understand how to best use each resource. We will continue adding additional resources and sharing information to help steer customers towards well-paying career opportunities.

## Career Exploration Resource Guide

At Workforce Solutions we strive to help employers meet their human resource needs and individuals build careers, so both can compete in the global economy.

There are a number of career choices for customers to choose, but recognizing which occupations lead to sufficient wages and adequate employment opportunities can be challenging. To help customers prepare for good job opportunities we have developed a career exploration resource guide for demand occupations in the Gulf Coast region.

These resources provide critical labor market information on selected occupations about salaries, job openings, job growth and education and training requirements. Customers may use these tools to help them make informed decisions about career choices and occupational training opportunities.

Visit [www.wrksolutions.com/careerexploration](http://www.wrksolutions.com/careerexploration) for more information.

- **Demand Occupation Lists**

Lists present detailed labor market information about demand occupations in the Gulf Coast region.

- **Where the Jobs Are** – A comprehensive list of occupations projected to offer *the largest number* of employment opportunities now and in the immediate future.

***How to use the Where the Jobs Are list:***

*It is no secret that the more job openings there are in a specific occupation, the greater the chance for a customer to find employment if they possess the skills and qualifications. The Where the Jobs Are list is a fantastic resource to use for customers interested in locating occupations that present the greatest employment opportunities. There is additional labor market information to help customers weigh their options as they review the list. Customers can use [ONET](http://onet.org) to find out more information about an occupation, [WorkInTexas.com](http://WorkInTexas.com) to locate employer openings and our education and training vendor network to locate potential training opportunities.*

- **High-Skill, High-Growth Occupations** – A condensed list of occupations projected to offer *the best employment* opportunities based on projected openings, growth, salary, and education requirements. This list also indicates which occupations Workforce Solutions will support with education and training scholarships. Visit our [Training & Education](#) page to locate approved education and training vendor programs.

***How to use the High-Skill, High-Growth Occupations list:***

*Sometimes customers do not want to research through hundreds of occupations and piles of labor market data to figure out the best jobs. We have done this research for customers and compiled it all into our High-Skill, High-Growth Occupations list. Use this list with customers who are interested in quickly identifying the top occupations in the region and comparing key labor market factors. The occupations on this list represent jobs that have growth, openings and salaries greater than average for the region! Customers may also be eligible for a Workforce Solutions scholarship to train towards or improve their skills within one of these occupations! Provide this list to customers as a resource for them to review.*

Workforce Solutions is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Relay Texas Numbers: 1-800-735-2989 (TDD) 1-800-735-2988 (voice) or 711

**1-888-469-JOBS (5627)**  
**www.wrksolutions.com**

08/24/15

  
**Workforce Solutions**

- **High-Skill, High-Growth Booklet**

The booklet repackages the information found on the High-Skill, High-Growth Occupations list in a more reader-friendly format. The booklet also contains brief descriptions about each occupation, provides useful facts about certain occupations, and offers interesting labor market information about other popular career choices that may not be considered high-skill or high-growth. Customers and staff may research approved education and training vendor programs by visiting our [Training & Education](#) page.

***How to use the High-Skill, High-Growth Booklet:***

*The booklet is a more detailed, attractive version of the High-Skill, High-Growth list. It is best used when presenting information to a customer or group of customers about the occupations which are most-in-demand in our region. This is a great career exploration tool to display at a staff member's desk or in a common resource area. Individuals may even review the online version of the booklet or print their own copy from our website.*

- **Industry/Occupation Profiles**

The Industry/Occupation Profiles present an in-depth look at our high-skill, high-growth occupations. Each profile goes beyond simple labor market information to offer a more detailed view of each occupation, to include suggested high school coursework, training providers and major employers who hire individuals within the respective occupation.

***How to use the Industry/Occupational Profiles:***

*For customers who want to explore detailed information about the best occupations in the region, use the Occupational Profiles. Our labor market analysts and industry experts put together an insider's view of each of our high-skill, high-growth occupations. This is not general information; they have customized each profile for the Gulf Coast region! Customers may view the information online or print their own copy to delve into at their leisure.*

- **Job Family Chart**

The chart provides a graphical representation of a number of different occupations within a given industry. At a glance, customers can view how important labor market elements, such as salary and job openings, compare to other occupations within the same industry. We have started with the construction industry, but welcome your feedback as we work on developing guides for other industries.

***How to use the Job Family Chart:***

*The job family chart is best used with customers who are interested in starting a new occupation or doing something different and don't know where to begin. When customers are unsure about potential career options and paths that exist within an industry, the chart provides a quick overview of several occupational choices along with key labor market criteria to help them compare and make informed decisions.*

Workforce Solutions is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Relay Texas Numbers: 1-800-735-2989 (TDD) 1-800-735-2988 (voice) or 711

**1-888-469-JOBS (5627)**  
**www.wrksolutions.com**

08/24/15

  
**Workforce Solutions**

- **Additional Resources for Individuals**

Check out some of our other career exploration tools for both individuals and educators!

- **Workforce Solutions YouTube Career Videos** – These videos provide a closer look at each of our high-skill, high-growth occupations. Use the videos if you would like to see occupations in action! Think of it as a virtual field trip or job shadow.
- **Choices Planner** – The planner helps customers build comprehensive portfolios based on interests, values, skills, and experience to explore potential career matches and locate training and employment opportunities.

***How to use the Choices Planner:***

*The Choices planner is an intensive tool ideally used with customers who are first thinking about career options or who would like to make a career change. Customers will answer a number of different questions and participate in several activities as they work towards finding their best career matches.*

- **The Princeton Review Career Quiz** – There are 24 questions on personal interests to help measure career compatibility. It groups people into a color code and provides compatible occupations. The occupations listed are generated from The Princeton Review's *Guide to Your Career*.
- **Keirsey Temperament Sorter** – Measuring personality, there are 70 questions dealing with feelings toward specific situations and personal preferences. It groups personalities into four areas, each containing four subgroups. This helps to identify personal strengths and weaknesses.

- **Additional Resources for Educators**

- **Occupational Poster Series** – Our posters provide large visual representations of our high-skill, high-growth occupations. Complete with labor market information and descriptions about each occupation, these posters can be printed in 8 1/2 x 11 flyer sizes or as large as 11x17 or 22x34.

***How to use the Occupational Posters:***

*The occupational posters present images of individuals working within our high-skill, high-growth occupations. Coupled with the descriptions and important labor market information, the posters provide a much clearer picture of each of our targeted occupations. Many organizations print large versions of these posters to display in common areas frequented by customers.*

Workforce Solutions is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Relay Texas Numbers: 1-800-735-2989 (TDD) 1-800-735-2988 (voice) or 711

- **When I Grow Up**

The When I Grow Up curriculum offers career lessons, activities and resources for educators, parents and young people in grades Pre-K – 12. The curriculum uses fun and exciting activities to expose young people to a variety of high-skill, high-growth career possibilities and important labor market information.

***How to use When I Grow Up:***

*The lessons were originally designed for educators to use with students; however, organizations, staff, parents and young people, are encouraged to use the lessons too! They are best when used with groups, but some of the lessons work remarkably well with individuals.*

*The [High School](#) curriculum has a number of lessons which focus on skills identification, career exploration and employability and job search skills. The When I Grow Up Workbook ([Digital](#), [PDF](#)) not only illuminates many of these lessons in a cool, interactive way, but it also helps students translate their interests and values into potential career options.*

*There are a number of other resources to explore within the curriculum, such as, [Texas Reality Check](#), [The Hard Facts](#), [My Next Move](#) and the [My Future, My Way Workbook](#).*

Workforce Solutions is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. Relay Texas Numbers: 1-800-735-2989 (TDD) 1-800-735-2988 (voice) or 711

**1-888-469-JOBS (5627)**  
**www.wrksolutions.com**

08/24/15

  
**Workforce Solutions**

## **Career Office Committee**

---

## **Customer Service Award**

### **Background**

As we have noted to you in previous meetings, our contractors regularly identify staff members they believe best exhibit the I AM Workforce Solutions principles of excellent customer service. The Regional Management Team—made up of Board staff and contractor management—reviews nominations and selects one or more individuals for recognition.

### **I AM Workforce Solutions Awards**

❖ **Danny Phillips**, Office Manager  
Workforce Solutions - Westheimer

Danny has reinvigorated the culture of the Westheimer office since his arrival, raising staff morale in the process. He has been a catalyst for change, creating an atmosphere that is inviting, encouraging, and hopeful. Danny reinforces the basic principles of Workforce Solutions by displaying exceptional customer-service skills to customers, staff, and employers. The evidence is in his professionalism and the manner in which he gives customers top priority. He received the Texas Veterans Commission Workforce Center Award as well as the Best Career Office with the most referrals award from Dress for Success. As a member of several focus groups, he consistently strives to improve operations and processes. Lending himself and his staff to fulfill the needs of the Workforce system – volunteering/participating in organizational events or providing fill-ins for short-staffed offices – he is the definition of team dedication!

Danny *IS* Workforce Solutions

## **Procurement Committee**

---

### **Public Outreach 2015**

The Procurement Committee met on November 4, 2015 to consider recommendations for contracts to provide public outreach services and a demonstration project targeting disconnected young adults.

Committee Vice Chair Bobbie Henderson led the meeting attended by the following members: Karlos Allen, Willie Alexander, Tony Jones, Sara Bouse, John Hebert, Allene Schmitt, Gil Staley and Board Chair Mark Guthrie.

The committee heard brief presentations from each of the six bidders for public outreach services, followed by six of the seven bidders for the demonstration project.

### **Background**

For many years, the Gulf Coast Workforce Board has contracted for public outreach services. Over the years, we've called the services by different names – advertising, public relations, public information, communications, marketing, etc.

With the help of our contractor, we created unified identity for the newly formed system and branded it as The WorkSource in 2001. From there, we created a full suite of materials to present our services to employers and customers. Finally, we set out to generate awareness of our system and drive employers and customers to utilize our services. In 2009, The WorkSource became Workforce Solutions, as did all Board operations across Texas. In 2014, we launched a new website using a modern content management system.

Much has changed since 2001. Workforce Solutions has fewer local offices, yet serves more employers and people. Demand for our service increases while our resources do not. The regional economy has moved through both prosperity and recession. Web and mobile technology have transformed the delivery and consumption of information.

### **Request for Proposals**

Our current contract for public outreach services ends in February 2016.

We released a request for proposals for public outreach/public information in July 2015. We solicited proposals from qualified firms to provide the following services:

- strategic counsel,
- graphic design and production,
- digital/web, and
- related services as needed.

We received proposals from six firms – Deutser, eSiteful, Etched Communications, Gilbreath Communications, Outreach Strategists and Savage Brands.

- All firms bid on all four service areas.
- All of the bidders are locally owned and operated.
- One bidder is the current public information contractor
- One bidder is the current web development contractor.

## Proposal Review

The staff read and scored proposals on four dimensions:

- 1) the qualifications and availability of professional staff,
- 2) experience developing strategies and providing services comparable to what we need,
- 3) relevant expertise, and
- 4) financial terms.

Following the initial review, we invited the four top-scoring bidders to provide oral presentations.

### ***Deutser***

Deutser is a local firm that offers sophisticated creative work, particularly in print and video. The agency has several client accounts that align with Workforce Solutions, including UpSkill Houston from the Greater Houston Partnership, Houston Community College and Collaborative for Children. The firm is capable of delivering requested services with strengths in the areas of strategic counsel and graphic design/production. Deutser is also the most expensive of all bidders.

### ***Gilbreath Communications***

Gilbreath Communications is our current contractor and has provided dedicated service since 2001. The agency's strengths are aesthetically pleasing graphic design and the lowest hourly rates of \$90 to \$110. As a small firm where we are one of the larger clients, Gilbreath has the ability to be responsive to our requests but lacks a demonstrated ability to provide strategic counsel or advanced digital/web service. Relative to the other proposers, Gilbreath is less experienced with new media and strategy to leverage technology.

### ***Outreach Strategists***

Outreach Strategists is a local firm with extensive experience working with news media and political campaigns. This firm demonstrated a strong understanding of public sector service and public policy processes. Outreach Strategists efforts rely primarily on media relations. Outreach Strategists is the only bidder to demonstrate an understanding of the value of labor market information and provide a viable plan to position the Gulf Coast Workforce Board as an



authority on employment and the economy. Outreach Strategists has the capacity to effectively deliver strategic counsel as well as other services related to media relations, media training and video production. The firm lacks strong in-house expertise to service our needs for graphic design/production or digital/web development. The proposed average hourly rate is \$179.

### ***Savage Brands***

Savage Brands is our current contractor for digital/web development. Savage is a full-service agency, but we have only used web design services. The firm demonstrated a clear understanding that we use communications to serve our customers. Savage provides compelling creative work that follows a sound business strategy. This agency showed an understanding of our vast needs and is the only bidder to provide a multi-year budget in order to accommodate all our needs. With 42 years in business, Savage is the oldest of the firms and is most evolved from traditional to digital media. Savage was the only firm who presented a proposal with a comprehensive web and digital component. Savage is capable of delivering all requested services at the rapid manner which we require. The proposed average hourly rate is \$182.

Staff scored the proposals as follows:

<b>Bidder</b>	<b>Score</b>
Savage Brands	394
Outreach Strategists	389
Gilbreath Communications	372
Deutser	361
ESiteful	249
Etched Communications	219

## **Recommendations**

Savage Brands and Outreach Strategists are the top-scoring proposers.

Outreach Strategists is uniquely suited to provide public sector strategic counsel and media relations, and Savage Brands can deliver graphic design and web development as well as other as-needed services.

We believe that the Board and Workforce Solutions will be best served by a combination of service from Savage Brands and Outreach Strategists.

## **Action**

Request the Board adopt committee recommendations to authorize staff to negotiate contracts with Savage Brands and Outreach Strategists, in total amount for both contracts not to exceed \$500,000 for the first year. Contracts will be renewable for up to three additional years depending upon satisfactory performance and availability of funds.

## **Procurement Committee**

---

# **Disconnected Young Adults Demonstration Project**

At its meeting on November 4, 2015, the Procurement Committee considered recommendations for contracts to provide public outreach services and a demonstration project targeting disconnected young adults.

### **Background**

Individuals that are neither in school nor working are considered “disconnected”. Re-engaging these individuals is often a challenge because motivation is low, challenges abound, and appropriate assistance is not always accessible. Young adults that are disconnected also often experience homelessness, truancy, transience, adjudication, and/or enter foster care. One or more of these challenges only makes the distance to re-engagement larger and seemingly more inaccessible.

Traditional “one stop” service centers are built on the idea that individuals can come to one location to receive many services. However proven the model might be, for disconnected individuals, by definition, access is rarely easy. Service delivery approaches that instead seek to bring the service to the individual (rather than the individual to the service) might better serve disconnected young adults.

Our demonstration project will explore a service model that targets this population of young adults within a targeted geography of the region. The model relies on continuous, consistent, and aggressive service that engages the individual in immediate and extensive worksite-based training and employment along a high-skill high-growth occupational pathway. The project targets a geographic area of need that aligns with and expands upon the current City of Houston My Brother’s Keeper efforts.

### **Request for Proposals**

Our project is part of a national demonstration project initiative targeting seven communities around the country with similar target populations and service objectives. The other communities are: Long Beach, CA; Baltimore, MA; Detroit, MI; St. Louis, MO; Camden, NJ; and, Charleston, SC.

We released a request for proposals soliciting qualified organizations to provide the following:

- Outreach, recruitment, and maintenance of mentor and participant cohorts within the target neighborhoods of Settegast, Denver Harbor, and the neighborhoods surrounding Houston ISD’s Scarborough, Wheatley, and Kashmere High Schools, which are the target feeder pattern schools of the My Brother’s Keeper initiative;

- Coordination with existing Workforce Solutions Adult Education and Literacy (AEL) and Employer Service contractors to deliver the work-based training and employment components of the service model;
- Coordination with the existing Workforce Solutions Regional Facilitator team to deliver job search skills and soft skills training components embedded in the service model; and,
- Design and maintenance of an approach that serves individuals at all times, not only when directly engaged in the daily training and employment activities of the model.

We received proposals from seven organizations – Dynamic Educational Systems, Inc. (DESI), Goodwill Industries of Houston, Inc., Healing the Family, Inc., Knowledge-First Empowerment Center, Milestone Technical Institute, SER – Jobs for Progress, and Volunteers of America, Texas.

- Two bidders are existing workforce service contractors for youth services.
- None of the bidders successfully addressed all components of the service model.
- Four of the bidders addressed most of the components with each having some interesting elements in their respective proposals. Each of these proposals requested an amount at or very near the maximum amount of available funding.

## Proposal Review

The staff read and scored proposals on four dimensions:

- 1) the qualifications and availability of professional staff,
- 2) experience with the elements of the service model,
- 3) demonstrated applied knowledge and outreach plan; and,
- 4) financial terms, including a plan for sustainability.

Following the initial review, we invited the four top-scoring bidders to provide oral presentations.

### ***Dynamic Educational Systems, Inc. (DESI)***

DESI is an existing workforce service contractor for youth services in rural counties of the region. DESI's proposal demonstrated experience in serving young adults in urban areas throughout the nation. DESI has established a number of formal partnerships within target communities, including churches, non-profits, schools, and city and county agencies that would facilitate delivering the requested services, specifically the outreach and development of mentor and participant cohorts. DESI addressed all three targeted industries by citing existing MOUs with employers in the target communities. DESI also demonstrated a willingness to adapt current services to the needs of the individual and service model and described an implementation plan that integrated their history of relevant service for young adults.

***Goodwill Industries of Houston***

Goodwill has an extensive history delivering services to individuals with challenges including those with disabilities, transitioning from incarceration, returning from military service, or lacking adequate skills for work. Goodwill's intent to recruit from within its current programs was a highlight of the proposal as it currently directs 20 programs serving as many defined populations. The staff assigned to the project, however, did not have substantial demonstrated experience nor was the staff's experience clearly aligned with the goals of the current project. The targeted industries of the service model were not adequately addressed. Low skill occupations with limited pathways were included in the service design.

***Healing the Family, Inc.***

Relative to the other proposers, Healing the Family had the least amount of demonstrated organizational experience. The organization did demonstrate an extensive network of community connections within its service area, some of which overlapped with the targeted area of this project. The organization's Executive Director has a history of related experience in the Gulf Coast workforce system, but the goals of Healing the Family focus almost exclusively on health and wellness education for young adults in school. We did not see demonstrated experience both serving out-of-school individuals and delivering workforce services.

***SER – Jobs for Progress***

SER – Jobs for Progress offered an extensive plan for delivering service within its existing YouthBuild project. However, SER staff acknowledged that while they intend to expand the model to the logistics and manufacturing industries in subsequent years, the project would focus solely on the construction industry during the funded service year. Within SER's proposal, only one of the three training occupations (welding) is on the Board's High Skill High Growth occupations list. While SER provided a robust list of partners and has extensive workforce service experience serving young adults, the structure of its proposal was limited to one industry, and SER did not present evidence of flexibility or adaptation. The proposal also relied on an outreach approach that was more about serving the organization's hubs of service rather than the needs of an often transient population. SER's proposal also included two subcontractors offering components that were either unnecessary or redundant to existing services.

## Recommendations

Dynamic Educational Systems, Inc. applied substantial related experience to support a rational design and approach for the service model. DESI addressed all the elements of the request and proposed a focused work-based project in all three target industries. We believe DESI would be able to achieve project goals during the initial year.

Because project funding from the U.S. Department of Labor is available on a demonstration basis for only one year, renewal funding would be based on success in performance, the Board's desire to continue or expand the service, and available system funds for future years.

## Action

Request Board adopt committee recommendations to authorize staff to negotiate a contract with Dynamic Educational Systems, Inc. in total amount not to exceed \$700,000.

**Gulf Coast Workforce Board**  
**System Performance**  
October 2014 to September 2015

## 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 25,452 employers this year which is almost 18% of the 144,799 employers identified for the Gulf Coast area. We provided services to 27,292 employers through September 2015.	25,452	27,292	24,907
<u>Employer Loyalty</u> Of a possible 22,719 employers, 13,970 returned to Workforce Solutions for additional services through September 2015.	62%	61.5%	56.8%

## 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.	2,700	2,446	2,865
<u>Customers employed by the 1st Qtr after exit</u> 231,059 of the 296,004 customers who exited service were employed by the quarter after exit.	73%	78.1%	73.3%

## Higher Real Incomes

Measure	Annual Target	Current Performance	Performance Last Year
<u>Earnings Gains of at least 20%</u> 105,547 of the 312,016 customers who exited had earnings gains of at least 20%.	35%	33.8%	33.6%

## A Better Educated Workforce

Measure	Annual Target	Current Performance	Performance Last Year
<u>Customers pursuing education diploma, degree or certificate who achieve one</u> 1,517 of 2,156 customers pursuing an education diploma, degree or certificate exited with a diploma, degree or certificate.	60%	50.2%	51.7%

## 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, 2014, we are meeting or exceeding the target for seven of nine common measures. The common measures we are not meeting are:

- Total Education Achievement - The target for this measure is 80.9%. Our performance in the year was 69.8%.
- Youth Placed in Employment or Education - The target for this measure is 67%. Our performance in the year was 62.1%.

The adult education consortium has multiple measures for production and outcomes. We count beginning in July of each year.

- Enrollments. 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 more than 12 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.

	<b>Target</b>	<b>Year to Date Actual</b>
<b>Total Enrollments</b>	<b>26,500</b>	<b>15,348</b>
12+ Hour Enrollments	25,873	13,204
Transitions	1,277	317
Career Pathways	1,277	212

- Outcomes. There are 11 outcome measures. We measure outcomes after a certain minimum number of class clock hours.

<b>Measure</b>	<b>Target</b>	<b>Year to Date Actual</b>
Adult Basic Education – Beginning Literacy	75%	22.1%
Adult Basic Education – Beginning Basic Education	63%	16.6%
Adult Basic Education – Intermediate Low	63%	19.6%
Adult Basic Education – Intermediate High	56%	15.5%



<b>Measure</b>	<b>Target</b>	<b>Year to Date Actual</b>
English as a Second Language – Beginning Literacy	64%	10.1%
English as a Second Language – Beginning Low	70%	11.5%
English as a Second Language – Beginning High	72%	12.9%
English as a Second Language – Intermediate Low	74%	14.1%
English as a Second Language – Intermediate High	64%	8.5%
Advanced English as a Second Language	66%	8.7%
Adult Secondary Education	64%	16.5%

**GULF COAST WORKFORCE DEVELOPMENT BOARD  
FINANCIAL STATUS REPORT  
For the Ten Months Ended October 31, 2015**

	<b>ANNUAL BUDGET</b>	<b>BUDGET YEAR TO DATE</b>	<b>ACTUAL YEAR TO DATE</b>	<b>DOLLAR VARIANCE</b>
<b>WORKFORCE REVENUES</b>				
WORKFORCE REVENUES	201,905,098	168,254,248	174,071,946	(5,817,698)
<b>WORKFORCE EXPENDITURES</b>				
BOARD ADMINISTRATION	4,813,345	4,011,121	3,874,338	136,783
SYSTEM IT	270,000	225,000	241,678	(16,678)
EMPLOYER SERVICES	8,031,167	6,692,639	7,239,515	(546,876)
RESIDENT SERVICES	188,790,586	157,325,488	162,716,415	(5,390,927)
OFFICE OPERATIONS	38,394,242	31,995,202	31,044,708	950,494
FINANCIAL AID	134,338,344	111,948,620	120,907,190	(8,958,570)
SPECIAL PROJECTS	1,960,900	1,634,083	845,679	788,404
ADULT EDUCATION	14,097,100	11,747,583	9,918,838	1,828,745
<b><i>TOTAL WORKFORCE EXPENDITURES</i></b>	<b>201,905,098</b>	<b>168,254,248</b>	<b>174,071,946</b>	<b>-5,817,698</b>

**VARIANCE ANALYSIS**

Note: Except for Special Projects that are currently funded through September 30, 2015, 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.



Labor Market Information  
OCTOBER 2015 Employment Data

HOUSTON-THE WOODLANDS-SUGAR LAND METROPOLITAN STATISTICAL AREA  
(H-W-S MSA)

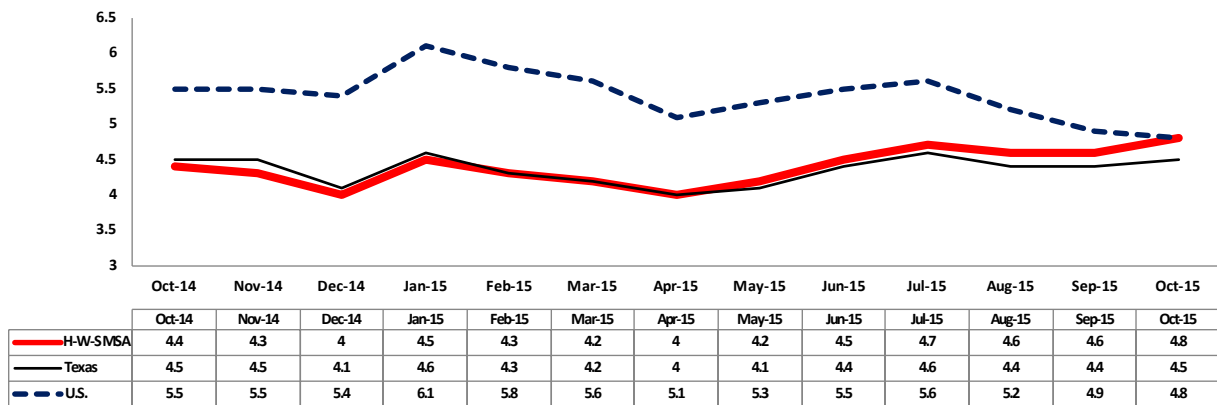
Visit our website at [www.wrksolutions.com](http://www.wrksolutions.com)

THE RATE OF UNEMPLOYMENT IN THE H-W-S MSA WAS ROSE TO 4.8 PERCENT IN OCTOBER. Faced with rising layoffs in the energy sector this was the first October increase since The Great Recession in 2008. The rate of unemployment for Texas also increased in October by one-tenth of a percentage point to 4.5 percent while the national rate fell to 4.8 percent.

**Unemployment Rate (Actual)**

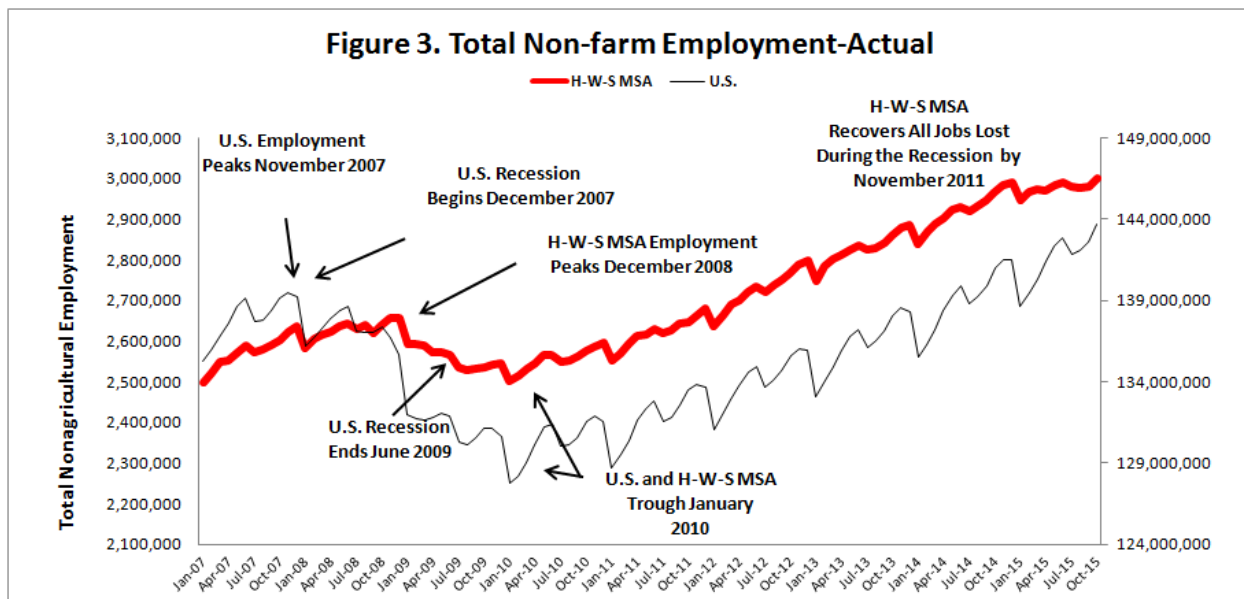
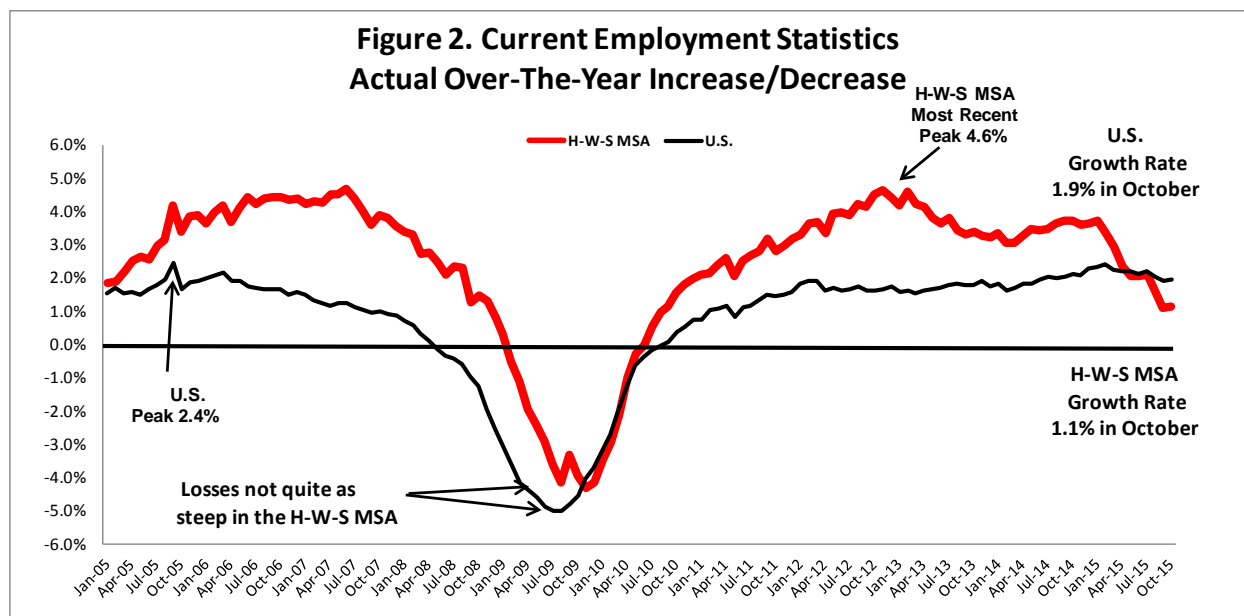
	OCT 2015	SEP 2015	OCT 2014
Civilian Labor Force	3,242,560	3,232,975	3,288,687
Total Employed	3,088,467	3,083,625	3,143,715
Unemployed	154,093	149,350	144,972
Unemployment Rate	4.8%	4.6%	4.4%

**Figure 1. Rate of Unemployment - Actual**

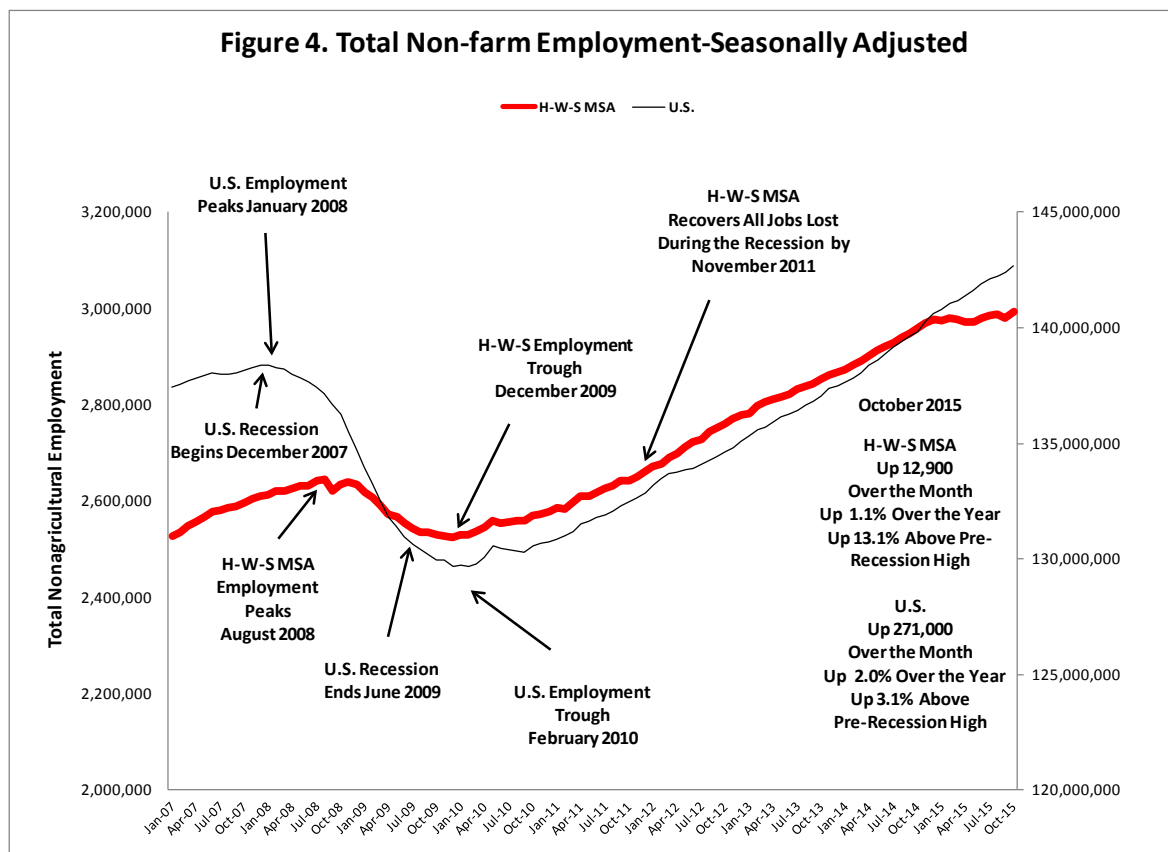


PRELIMINARY ESTIMATES INDICATE THE H-W-S MSA ADDED 20,800 JOBS IN OCTOBER. The 0.7 percent October increase beat expectations due to the sharp slowdown of business activity related to oil and gas exploration and production. Job gains were made possible by an unexpected large increase in Construction as well as hiring at public/private educational institutions, restaurants, and retail stores. Mining & Logging and Manufacturing suffered substantial declines as employers with ties to the energy sector continue to trim payrolls due to weak demands.

PAYROLLS IN THE H-W-S MSA WERE UP 33,100 JOBS OVER THE YEAR WITH THE PACE OF JOB GROWTH FALLING TO 1.1 PERCENT, MUCH WEAKER THAN A 3.7 PERCENT INCREASE ONE YEAR EARLIER. Most of the job growth has been in population driven sectors of the economy such as Leisure & Hospitality, Educational & Health Services, and Local Government. A number of industry sectors were reporting over-the-year losses. Deepest declines have been in Mining, down 3,300 jobs or 2.9 percent, Manufacturing, down 16,400 jobs or 6.4 percent, and Financial Activities, down 4,700 jobs or 3.1 percent. Detailed data can be viewed on pages 8 & 9. Additional comments by super sector can be found beginning on page 3.

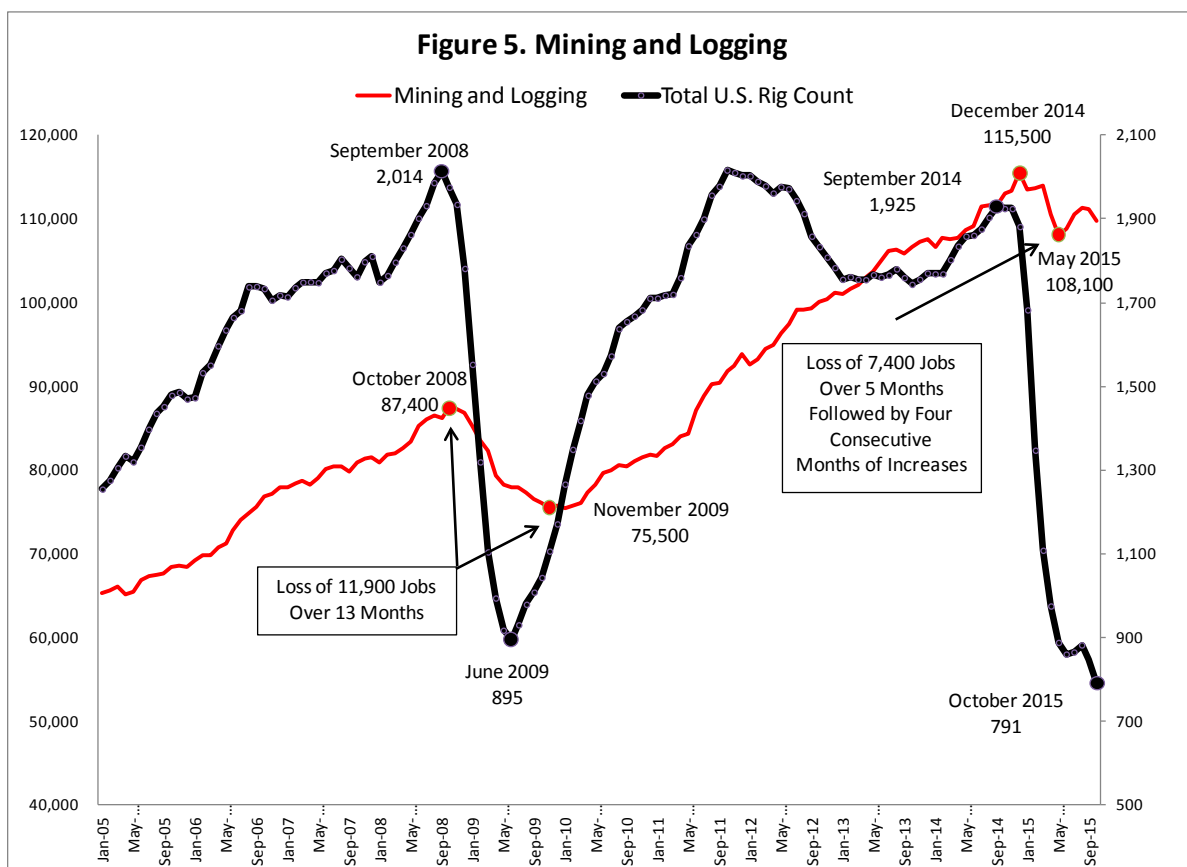


Seasonally adjusted data for the H-W-S MSA and U.S. seen in figure 4 provides an additional view of employment removing the erratic seasonal movement. Seasonally adjusted job growth in the H-W-S MSA remained strong until early 2015 but has since stalled. The pace of job growth at the national level surpassed that of the H-W-S MSA in May, currently up 2.0 percent over the year compared to the H-W-S MSA's increase of 1.1 percent.



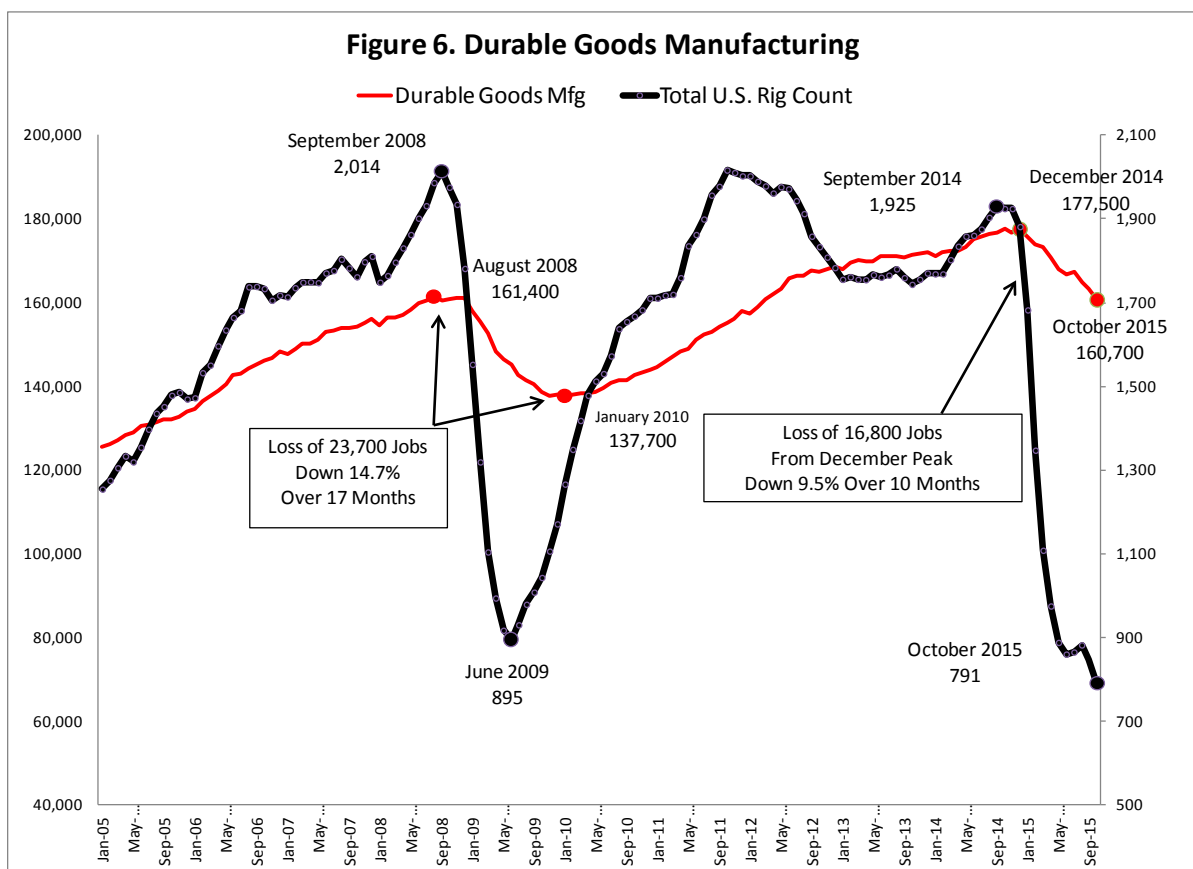
## DETAILS BY SUPER SECTOR

**Mining and Logging** experienced a loss of 1,400 jobs in October. The 1.3 percent decline was in stark contrast from a 1.3 percent increase last October. The super sector was down 3,300 jobs or 2.9 percent over the year. Support Activities for Mining, where most oilfield jobs are found, suffered a loss of 1,700 jobs over the year, down 3.1 percent, and Oil and Gas Extraction was reporting a loss of 1,100 jobs, down 2.0 percent. The Mining and Logging super sector has reduced payrolls by 11,900 jobs (-13.6%) over a thirteen month period after drilling activity collapsed during the Great Recession. Declines in the super sector have not been as deep during the current collapse in drilling activity with payrolls bottoming out at 108,100 in May, down 7,400 jobs (-6.4%) or roughly half as much as during the Great Recession, see figure 5. The average U.S. rig count was 791 in October, down 57 from September and 1,134 (58.9%) from one year earlier. The average Texas rig count was 349 in October, down 18 from September and 550 (61.2%) from one year earlier. With continued low drilling activity and WTI oil prices under \$50 per barrel the probability for additional declines in the super sector are high for the near future.



According to preliminary estimates, **Construction** added 9,300 jobs to payrolls in October. The validity of the estimated increase is highly questionable but if it holds this will be the strongest one month increase for Construction since May 1990. October job gains were widespread across the super sector but Specialty Trade Contractors experienced the strongest increase, up 6,100 jobs or 5.8 percent. Construction was no longer reporting an over-the-year loss as it had in the prior two months with payrolls up 4,200 jobs or 2.0 percent over the year. All of the increase was in Specialty Trade Contractors, up 8,500 or 8.2 percent. A substantial loss in Construction of Buildings was primarily responsible for offsetting job gains in Specialty Trade Contractors, down 3,900 jobs or 6.6 percent.

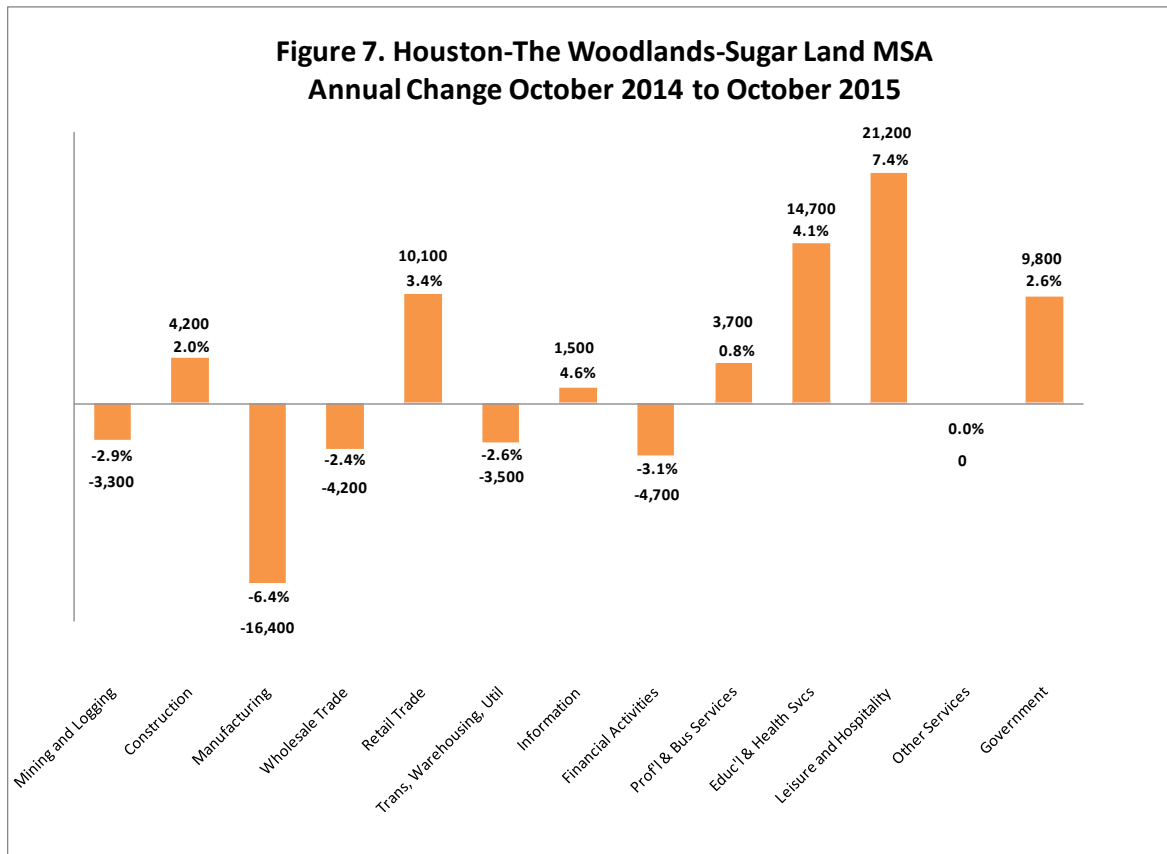
**Manufacturing** reported a loss for the third consecutive month with payrolls down 2,900 jobs or 1.2 percent. Most of the decline was in durable goods manufacturing as manufacturers tied to oil and gas exploration and production reduced payrolls another 2,700 jobs or 1.7 percent. Nondurable goods manufacturers also reduced payrolls in October, down 200 jobs. Job losses continued to mount in Manufacturing with payrolls down 16,400 jobs or 6.4 percent over the year. All of the loss was in Durable Goods Manufacturing, down 16,800 jobs or 9.5 percent over the year. Nondurable Goods Manufacturing added 400 jobs over the year, up 0.5 percent. The job situation for Durable goods manufacturing is similar to that of Mining and Logging. Durable goods manufacturing reduced payrolls by 23,700 jobs (-14.7%) over a seventeen month period after drilling activity collapsed during the Great Recession. Declines in the super sector have not been as deep during the current collapse in drilling activity with payrolls down by 16,800 as of October (-9.5%), see figure 6. The Houston Purchasing Managers Index rose slightly from 47.6% in September to 48.0% in October. Any index below 50 generally indicates contraction near term.



**Trade Transportation & Utilities** added 600 jobs to payrolls in October. The 0.1 percent increase was the weakest for the month of October since 2009 due weak seasonal gains in Retail Trade and declines in Wholesale Trade and Transportation, Warehousing, and Utilities. This was the third consecutive loss in Wholesale Trade and the second consecutive loss in Transportation, Warehousing and Utilities. The pace of job growth in the super sector continued to decline with payrolls up 2,400 jobs or 0.4 percent over the year. Retail Trade was responsible for the increase with payrolls up 10,100 jobs or 3.4 percent over the year. Strongest growth in the retail sector has been at Motor Vehicle and Parts Dealers and Building Material and Garden Equipment and Supplies Dealers. Job losses in Wholesale Trade continued to mount in October, down 4,200 jobs or 2.4 percent over the year, as did payrolls in Transportation, Warehousing, and Utilities, down 3,500 jobs or 2.6 percent over the year.

**Information** reduced payrolls by 600 jobs in October with payrolls up 1,500 jobs or 4.6 percent over the year. About half of the MSA's employment in information resides in telecommunications with the remainder found in newspaper and periodical publishing, software publishing, motion picture and sound recording, and data processing hosting and related services.

**Financial Activities** managed its first increase since June with payrolls up 1,100 jobs or 0.8 percent over the month. Most of the increase was in Real Estate and Rental and Leasing where payrolls were up 800 jobs or 1.6 percent. The super sector continues to report a loss over the year with payrolls down 4,700 jobs or 3.1 percent. Real Estate and Rental and Leasing experienced the deepest decline, down 3,600 jobs or 6.5 percent, followed by Credit Intermediation and Related Activities, down 2,300 jobs or 5.3 percent. Securities, Commodity Contracts, and Other Financial Investments continued to report a healthy increase of 800 jobs over the year, up 4.4 percent.



**Professional and Business Services** reported a loss of 700 jobs in October. The 0.1 percent decline was similar to a loss of 900 jobs incurred in October 2014. The pace of job growth in Professional and Business Services stabilized in October after weakening in August and September, up 3,700 jobs of 0.8 percent from October 2014. Largest job gains have been in Accounting, Tax Preparation, Bookkeeping, and Payroll Services, up 1,200 jobs or 5.4 percent, and Administrative and Support Services, up 4,700 jobs or 2.3 percent. Services to Buildings and Dwellings also reported a healthy increase of 1,600 jobs or 3.3 percent. The sectors most heavily impacted by the current slump in the energy industry have been Architectural, Engineering and Related Services, down 2,800 jobs or 3.7 percent, Management of Companies and Enterprises (where holding companies, corporate, subsidiary, and regional managing offices are found), down 700 jobs or 2.1 percent, and Employment Services (staffing firms), down 2,600 jobs or 3.2 percent. Layoffs in Professional and Business Services are expected to continue in the up and coming months as demand for services decline and businesses continue to restructure.

**Education and Health Services** added 3,100 jobs over the month, up 0.8 percent. Most of the job growth was in Health Care and Social Assistance, up 2,300 jobs 0.7 percent. Educational Services also managed a healthy increase adding 800 jobs to payrolls, up 1.4 percent over the month. Education and Health Services is the second largest contributor of job growth in the H-W-S MSA with payrolls up 14,700 jobs or 4.1 percent over the year. All subsectors were reporting healthy over-the-year increases. More than two-thirds of the job growth has been in the health sector with Ambulatory Healthcare Services up 5,300 jobs or 3.6 percent and Hospitals up 5,900 jobs or 7.4 percent over the year.



**Leisure and Hospitality** added 2,500 jobs over the month, up 0.8 percent. This was the first time the super sector has ever reported an October increase according to records dating back to 1990. Food Services and Drinking Places were responsible for the increase reporting its first October increase since 1994, up 3,400 jobs or 1.4 percent. Leisure and Hospitality has contributed the most new jobs to the H-W-S MSA over the year and was also the fastest growing super sector with payrolls up 21,200 jobs or 7.4 percent. While all subsectors were reporting increases, most of the new jobs are found in Food Services and Drinking Places, up 19,200 jobs or 8.3 percent. Population growth continues to drive demand in the Leisure and Hospitality super sector.

**Other Services** reported an increase of 1,200 jobs in October, up 1.2 percent. Other Services includes, a number of various repair services (industrial equipment, mining machinery and equipment, and many others related to the oil and gas industry). Other establishments in this category include personal care services, dry cleaning and laundry services, and religious and social advocacy organizations.

**Government** experienced a seasonal increase of 8,600 jobs in October as educational institutions increased payrolls for the new school year. The super sector was up 9,800 jobs or 2.6 percent over the year. Most of the increase has been in Local Government, up 9,600 jobs or 3.4 percent.

**NONAGRICULTURAL EMPLOYMENT**  
**Houston-The Woodlands-Sugar Land MSA**

	OCT 2015	Month Change		Year Change	
		Net	Percent	Net	Percent
Total Nonfarm	3,000,600	20,800	0.7%	33,100	1.1%
Total Private	2,608,900	12,200	0.5%	23,300	0.9%
Goods Producing	565,900	5,000	0.9%	-15,500	-2.7%
.Mining and Logging	109,800	-1,400	-1.3%	-3,300	-2.9%
...Oil and Gas Extraction	54,100	-600	-1.1%	-1,100	-2.0%
...Support Activities for Mining	53,700	-200	-0.4%	-1,700	-3.1%
.Construction	214,600	9,300	4.5%	4,200	2.0%
..Construction of Buildings	55,500	1,500	2.8%	-3,900	-6.6%
..Heavy and Civil Engineering Construction	47,200	1,700	3.7%	-400	-0.8%
..Specialty Trade Contractors	111,900	6,100	5.8%	8,500	8.2%
.Manufacturing	241,500	-2,900	-1.2%	-16,400	-6.4%
..Durable Goods	160,700	-2,700	-1.7%	-16,800	-9.5%
...Fabricated Metal Product Manufacturing	58,400	-400	-0.7%	-7,600	-11.5%
...Machinery Manufacturing	56,400	-500	-0.9%	-700	-1.2%
....Agriculture, Construction, and Mining Machinery Manufacturing	40,200	-600	-1.5%	-1,500	-3.6%
...Computer and Electronic Product Manufacturing	16,900	-200	-1.2%	-800	-4.5%
..Non-Durable Goods	80,800	-200	-0.2%	400	0.5%
...Petroleum and Coal Products Manufacturing	9,700	-100	-1.0%	-300	-3.0%
...Chemical Manufacturing	37,500	-100	-0.3%	500	1.4%
Service Providing	2,434,700	15,800	0.7%	48,600	2.0%
.Private Service Providing	2,043,000	7,200	0.4%	38,800	1.9%
..Trade, Transportation, and Utilities	605,700	600	0.1%	2,400	0.4%
...Wholesale Trade	167,900	-400	-0.2%	-4,200	-2.4%
....Merchant Wholesalers, Durable Goods	96,100	0	0.0%	-2,900	-2.9%
.....Professional and Commercial Equipment and Supplies Merchant Wholesale	13,000	200	1.6%	400	3.2%
....Merchant Wholesalers, Nondurable Goods	44,100	-600	-1.3%	-1,700	-3.7%
...Retail Trade	306,600	1,800	0.6%	10,100	3.4%
....Motor Vehicle and Parts Dealers	40,500	100	0.2%	1,600	4.1%
....Building Material and Garden Equipment and Supplies Dealers	22,400	-100	-0.4%	1,400	6.7%
....Food and Beverage Stores	63,200	0	0.0%	1,200	1.9%
....Health and Personal Care Stores	19,100	300	1.6%	400	2.1%
....Clothing and Clothing Accessories Stores	28,300	200	0.7%	-200	-0.7%
....General Merchandise Stores	66,800	600	0.9%	1,200	1.8%
.....Department Stores	21,800	100	0.5%	100	0.5%
.....Other General Merchandise Stores	45,000	500	1.1%	1,100	2.5%
...Transportation, Warehousing, and Utilities	131,200	-800	-0.6%	-3,500	-2.6%
....Utilities	16,200	0	0.0%	400	2.5%
.....Air Transportation	20,400	0	0.0%	-200	-1.0%
.....Truck Transportation	25,900	-100	-0.4%	400	1.6%
.....Pipeline Transportation	10,600	-100	-0.9%	100	1.0%
..Information	34,000	-600	-1.7%	1,500	4.6%
...Telecommunications	15,300	0	0.0%	100	0.7%
..Financial Activities	144,900	1,100	0.8%	-4,700	-3.1%
...Finance and Insurance	92,700	300	0.3%	-1,100	-1.2%
....Credit Intermediation and Related Activities	41,400	-100	-0.2%	-2,300	-5.3%
.....Depository Credit Intermediation	27,800	0	0.0%	-800	-2.8%
....Securities, Commodity Contracts, and Other Financial Investments and Related Activities	19,000	200	1.1%	800	4.4%
....Insurance Carriers and Related Activities	31,900	100	0.3%	100	0.3%
...Real Estate and Rental and Leasing	52,200	800	1.6%	-3,600	-6.5%

<b>NONAGRICULTURAL EMPLOYMENT</b>		<b>Month Change</b>		<b>Year Change</b>	
<b>Houston-The Woodlands-Sugar Land MSA</b>	<b>OCT 2015</b>	<b>Net</b>	<b>Percent</b>	<b>Net</b>	<b>Percent</b>
<b>..Professional and Business Services</b>	<b>472,800</b>	<b>-700</b>	<b>-0.1%</b>	<b>3,700</b>	<b>0.8%</b>
...Professional, Scientific, and Technical Services	219,700	100	0.0%	-1,800	-0.8%
....Legal Services	24,300	-100	-0.4%	-300	-1.2%
....Accounting, Tax Preparation, Bookkeeping, and Payroll Services	23,300	400	1.7%	1,200	5.4%
....Architectural, Engineering, and Related Services	73,400	900	1.2%	-2,800	-3.7%
....Computer Systems Design and Related Services	33,000	500	1.5%	300	0.9%
...Management of Companies and Enterprises	33,100	100	0.3%	-700	-2.1%
...Administrative and Support and Waste Management and Remediation Services	220,000	-900	-0.4%	6,200	2.9%
....Administrative and Support Services	207,900	-1,100	-0.5%	4,700	2.3%
.....Employment Services	79,300	400	0.5%	-2,600	-3.2%
.....Services to Buildings and Dwellings	50,300	-800	-1.6%	1,600	3.3%
<b>..Educational and Health Services</b>	<b>374,300</b>	<b>3,100</b>	<b>0.8%</b>	<b>14,700</b>	<b>4.1%</b>
...Educational Services	56,300	800	1.4%	1,700	3.1%
...Health Care and Social Assistance	318,000	2,300	0.7%	13,000	4.3%
....Ambulatory Health Care Services	149,800	300	0.2%	5,300	3.7%
....Hospitals	85,500	1,000	1.2%	5,900	7.4%
<b>..Leisure and Hospitality</b>	<b>306,300</b>	<b>2,500</b>	<b>0.8%</b>	<b>21,200</b>	<b>7.4%</b>
...Arts, Entertainment, and Recreation	30,600	-900	-2.9%	1,100	3.7%
...Accommodation and Food Services	275,700	3,400	1.2%	20,100	7.9%
....Accommodation	25,900	0	0.0%	900	3.6%
....Food Services and Drinking Places	249,800	3,400	1.4%	19,200	8.3%
<b>..Other Services</b>	<b>105,000</b>	<b>1,200</b>	<b>1.2%</b>	<b>0</b>	<b>0.0%</b>
<b>Government</b>	<b>391,700</b>	<b>8,600</b>	<b>2.2%</b>	<b>9,800</b>	<b>2.6%</b>
.Federal Government	27,700	0	0.0%	0	0.0%
.State Government	73,100	1,100	1.5%	200	0.3%
..State Government Educational Services	40,000	600	1.5%	300	0.8%
.Local Government	290,900	7,500	2.6%	9,600	3.4%
..Local Government Educational Services	201,300	7,600	3.9%	5,100	2.6%

#### UNEMPLOYMENT RATE

	<b>OCT 2015</b>	<b>SEP 2015</b>	<b>OCT 2014</b>
H-W-S MSA	4.8	4.6	4.4
Texas (Actual)	4.5	4.4	4.5
United States (Actual)	4.8	4.9	5.5

**Houston-The Woodlands-Sugar Land MSA:** Includes Austin, Brazoria, Chambers, Ft. Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties. All Data is Subject To Revision.

Sources: U.S. Department of Labor, BLS, Texas Workforce Commission, Institute for Supply Management, Baker Hughes Incorporated, Kiley Advisors, Metrostudy, and The Federal Reserve Bank of Dallas.

# Workforce Demands in Downstream Manufacturing

(Petroleum & Coal Manufacturing and Chemical Manufacturing)

---

## Workforce Solutions

December 2015

*\*Workforce Solutions is an affiliate of the Gulf Coast Workforce Board, which manages a regional workforce 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*

## **AN OVERVIEW OF MANUFACTURING RELATED TO OIL & GAS**

The economy of the Gulf Coast Region is largely centered on the energy industry with roughly half of all jobs tied to it in some way. There are numerous steps that must be made for oil and gas to be found, pumped, shipped, processed, and sold. With that being said, the industry has been classified into three sectors to make it easier to understand and discuss:

- Upstream – the exploration, production, and extraction of oil and gas
- Midstream – the transportation, storage, and wholesale marketing of crude or refined petroleum products
- Downstream – the oil and gas operations that take place after production and up to the point of sale

### **Downstream Manufacturing**

This report will focus on manufacturing related to downstream oil and gas, the final step in the three sector process.

In the downstream sector oil and gas arrives at processing plants where it is **refined and processed into various products for sale and distribution**. The end results of downstream manufacturing are numerous covering a wide variety of products. Some of the products commonly produced include:

- |                                 |                    |
|---------------------------------|--------------------|
| • Gasoline                      | • Synthetic Rubber |
| • Diesel Oil                    | • Asphalt          |
| • Jet Fuel                      | • Lubricants       |
| • Propane                       | • Petroleum Coke   |
| • Heating Oil                   | • Pharmaceuticals  |
| • Liquefied Petroleum Gas (LPG) | • Antifreeze       |
| • Liquefied Natural Gas (LNG)   | • Fertilizers      |
| • Plastics                      | • Pesticides       |

While downstream manufacturing is widely known for its relationship to the transportation and power industry, the products listed above point to a relationship with a much broader range of industries. Downstream manufacturing consists of two industries based on the North American Industry Classification System (NAICS): Petroleum & Coal Product Manufacturing and Chemical Manufacturing.

## **Petroleum & Coal Product Manufacturing (Petroleum Refineries)**

The Petroleum & Coal Product Manufacturing industry **incorporates the transformation of crude petroleum into usable products**. The main process in petroleum refining involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

Distillation - the process of vaporizing liquids, crude oil, or one of its fractions in a closed vessel, collecting and condensing the vapors into liquids.

Cracking - the process of breaking down larger molecules of hydrocarbons into smaller ones. When this is done by heating the oil it is known as 'thermal cracking'. If a catalyst is used it is known as 'catalytic cracking'.

The Petroleum & Coal Product Manufacturing industry also includes establishments that further process refined petroleum and coal products and create products such as asphalt coatings and petroleum lubricating oils:

- Petroleum & Coal Product Manufacturing
  - Petroleum Refineries
  - Asphalt Paving and Roofing Materials Manufacturing
  - Other Petroleum and Coal Products Manufacturing

**Establishments that manufacture petrochemicals from refined petroleum are classified in Chemical Manufacturing.**

## **Chemical Manufacturing**

The Chemical Manufacturing industry involves the **manufacturing of chemicals using basic processes such as thermal cracking and distillation**. Establishments convert feedstocks derived from petroleum, or from petroleum and natural gas liquids, into petrochemicals. **Refining crude petroleum into petrochemicals is excluded from this industry sector**. The Chemical Manufacturing industry is broken up into several different categories:

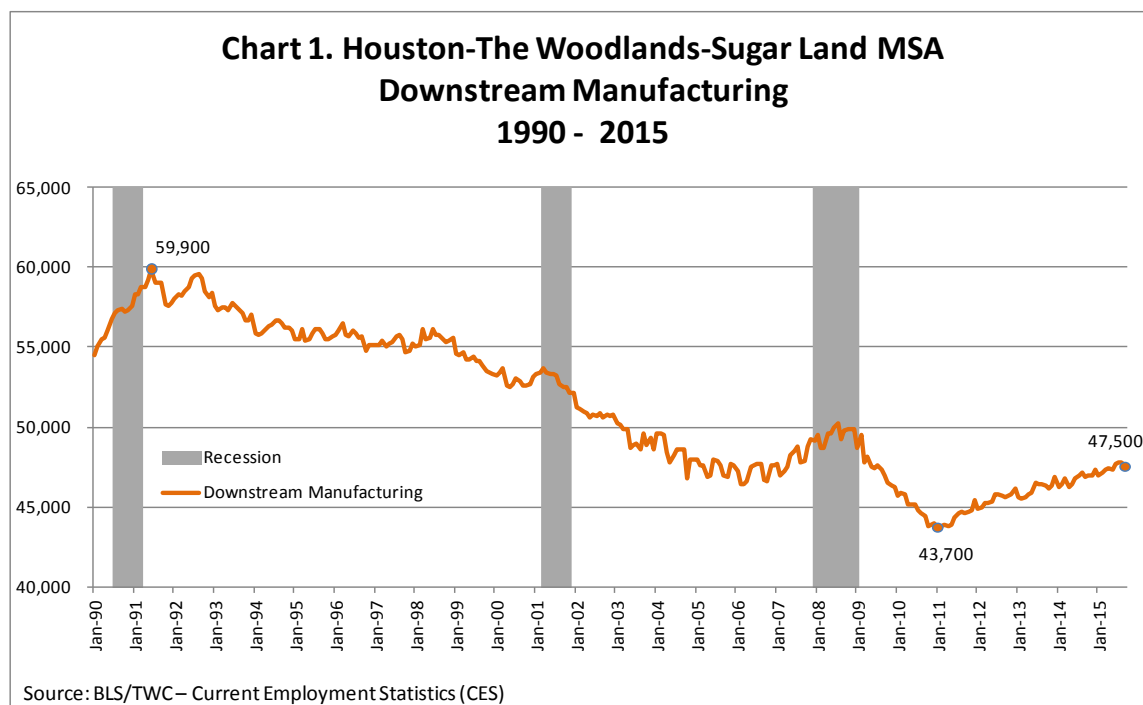
- Chemical Manufacturing
  - Petrochemical Manufacturing
  - Industrial Gas Manufacturing
  - Synthetic Dye and Pigment Manufacturing
  - Other Basic Inorganic Chemical Manufacturing
  - Other Basic Organic Chemical Manufacturing

## Downstream Manufacturing Highlights

- Development of shale resources and the surge of natural gas and natural gas liquid production is contributing to historical low feedstock prices and a flurry of major projects in the chemical and petrochemical industry (over \$48 billion in Texas<sup>1</sup>)
- U.S. producers use natural gas-based feedstock while most European and Asian producers use oil-based feedstock, the difference in the price is giving the U.S. a distinct competitiveness compared to other regions
- Many of the expansions are geared towards increasing exports which are expected to rise dramatically over the next 15 years
- Significant job growth and economic benefits are expected for the region
- Expansions are causing a shortage of craftspeople (welders, pipefitters, riggers, electricians)

## Downstream Manufacturing Employment: Past and Present

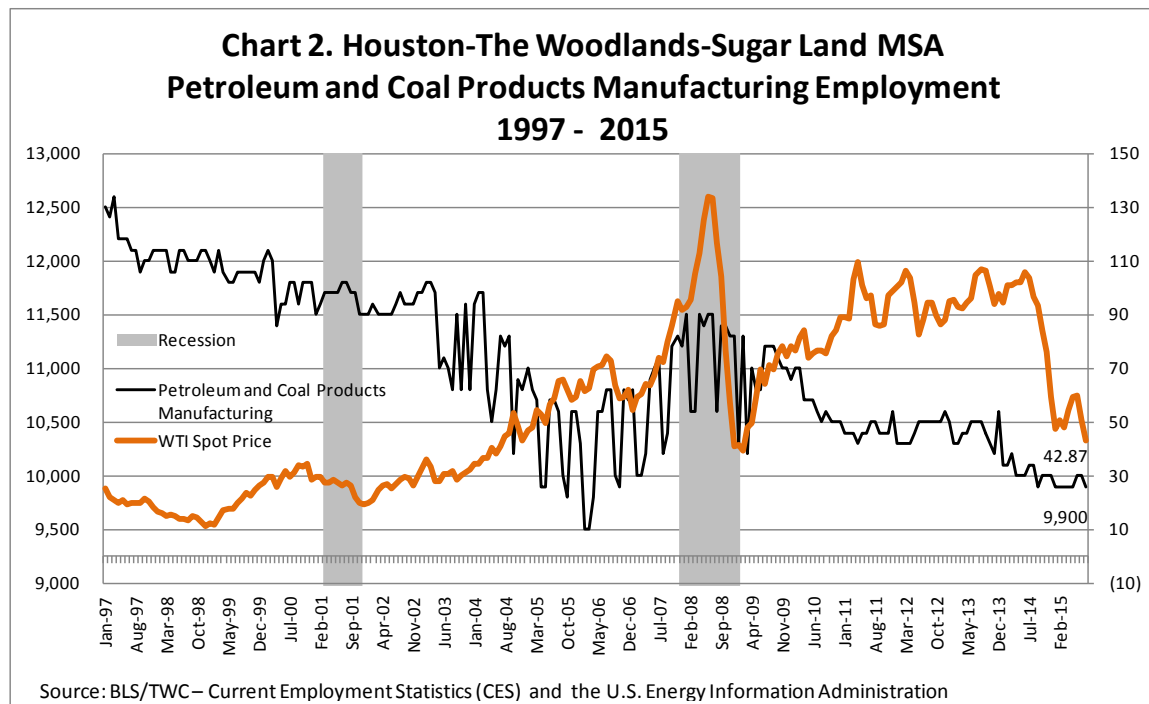
Faced with environmental mandates and rising feedstock costs (natural gas and other hydrocarbon derivative products), the downstream manufacturing sector **endured a long-term period of decline** after peaking in 1991 with employment falling by some 16,000 jobs or 27 percent to 43,700 in January 2011. Recently the industry has become highly profitable from the boom in shale oil-and-gas exploration encouraging billions of dollars in investments. Since January 2011 downstream manufacturing employment has risen by some 3,800 jobs or 8.7 percent (see chart 1).



<sup>1</sup> Texas accounts for 99 projects with a cumulative investment of more than \$48.2 billion by 2023 according to the American Chemistry Council.

## Petroleum and Coal Product Manufacturing (Petroleum Refineries)

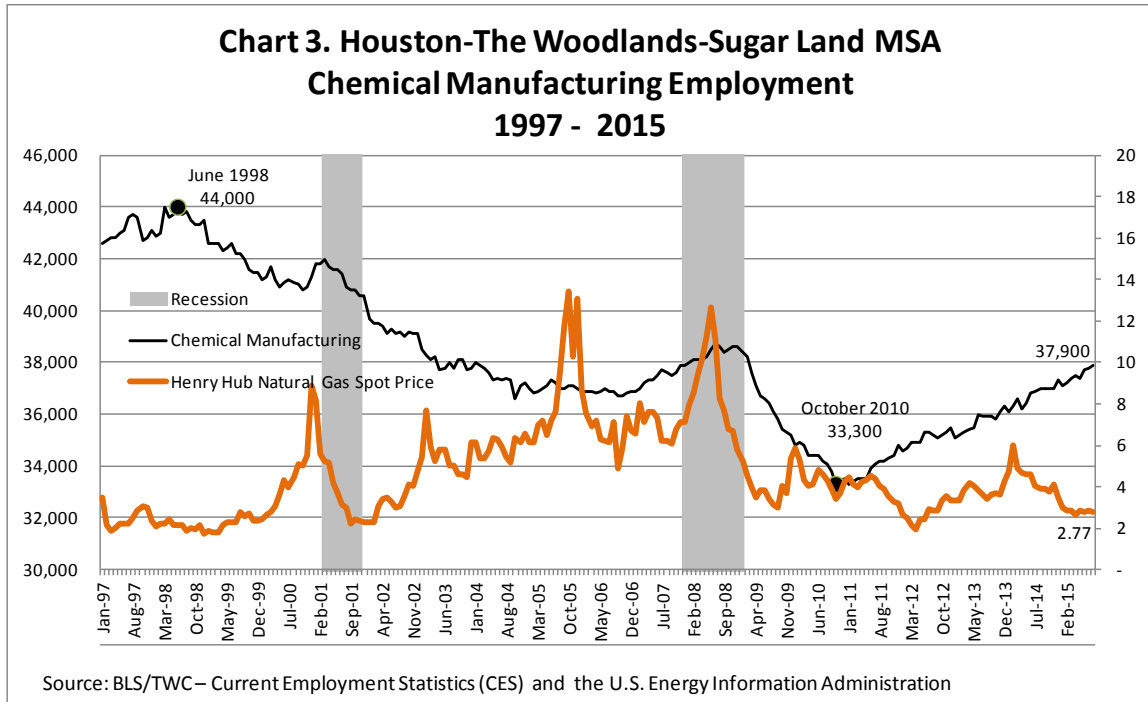
The number of new refineries built in the U.S. over the last forty years is very small; in fact the first new refinery in the Gulf Coast Region since 1975 was built by Kinder Morgan in 2014 becoming operational just this year. Unsurprisingly, **the long-term trend of employment in Petroleum & Coal Product Manufacturing has been negative** (see chart 2). U.S. oil production has skyrocketed by nearly 125 million barrels of oil per month over the last five years according to the U.S. Energy Information Administration. The increase in production has been almost entirely for unconventional oil, or light tight oil (LTO). U.S. refiners have primarily invested in processing medium-to heavy-crude making it difficult to process but recently **refineries have been making low cost changes to process greater quantities of LTO with capacity's to do so expected to increase over the next several years.**



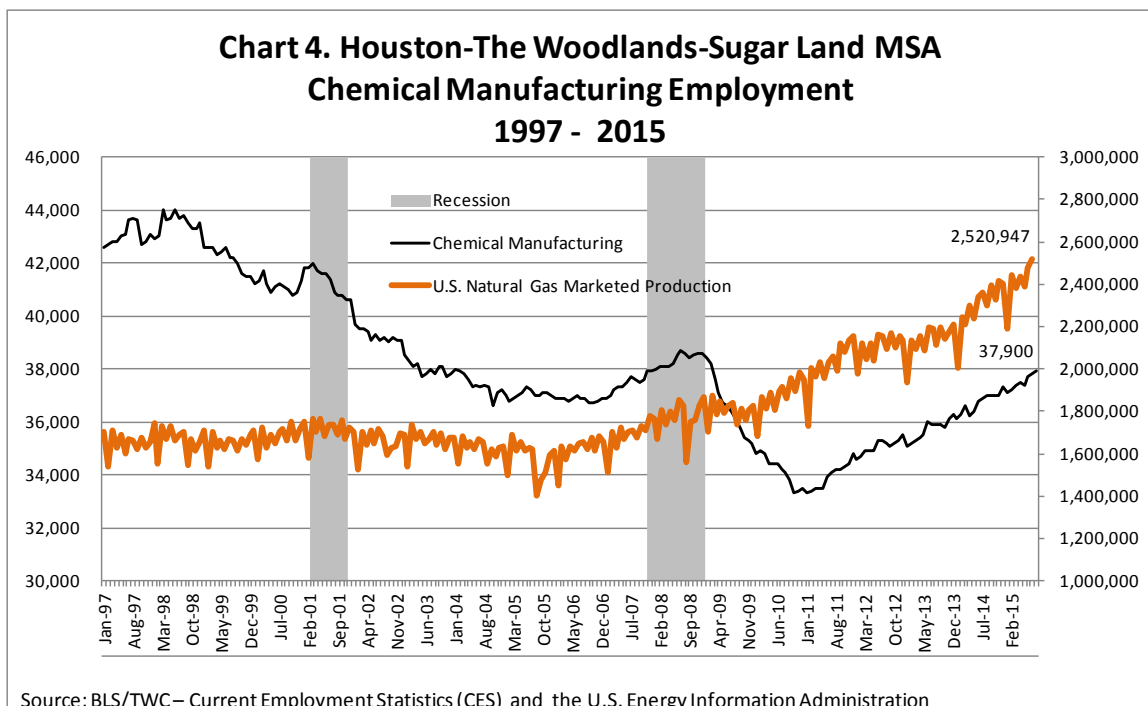
## Chemical Manufacturing

Chemical Manufacturing **has also endured a long-term decline** with payrolls falling from the most recent peak of 44,000 in June 1998 to 33,300 in October 2010, down 24.3 percent. The boom in shale exploration has reversed the decline encouraging billions of dollars in investments. Since October 2010 Chemical Manufacturing employment **has risen by 4,400 jobs or 13.2 percent** (see chart 3). Note the decline in natural gas prices over recent years.





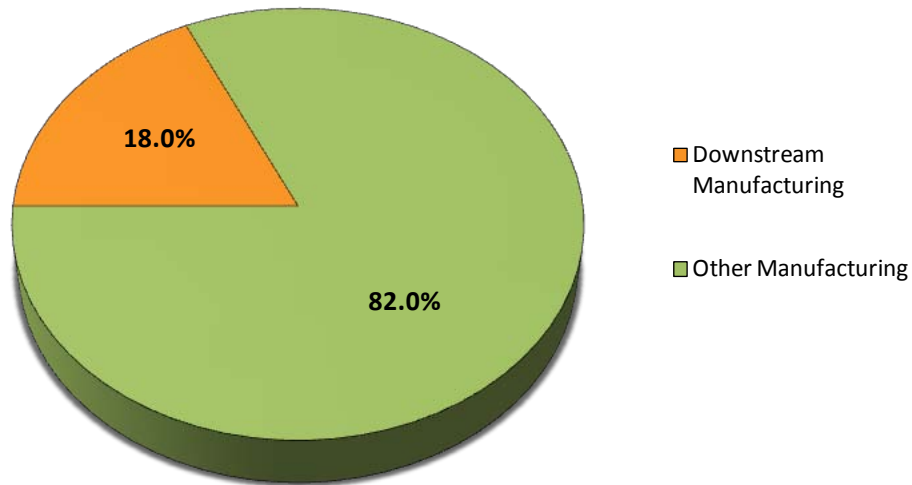
An increase in shale gas production has been the driving factor of a dramatic decline in natural gas prices. With production levels that have dramatically increased in recent years and expectation for it to continue to rise over the next two decades **there has been a resurgence of building and expansions** by many companies that has already resulted in bringing new jobs to the Gulf Coast Region (see chart 4).



## Wages

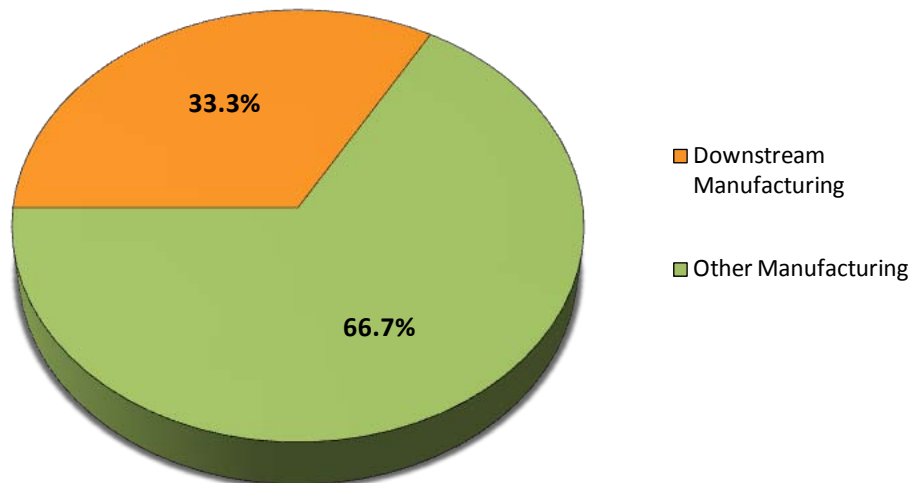
The manufacturing sector as a whole provides above average wages when compared to all industries in the Gulf Coast Region. At \$1,801 per week, manufacturing wages in the region were 33.2 percent above the average for all industries as of first quarter 2015. While downstream manufacturing employment represented 18 percent of the entire manufacturing industry sector in first quarter 2015, total wages paid represented 33.3 percent of all wages across all of manufacturing (see chart 6 and 7).

**Chart 6. Gulf Coast Region, Downstream Manufacturing Employment as Share of Total Manufacturing Employment 1st Qtr 2015**



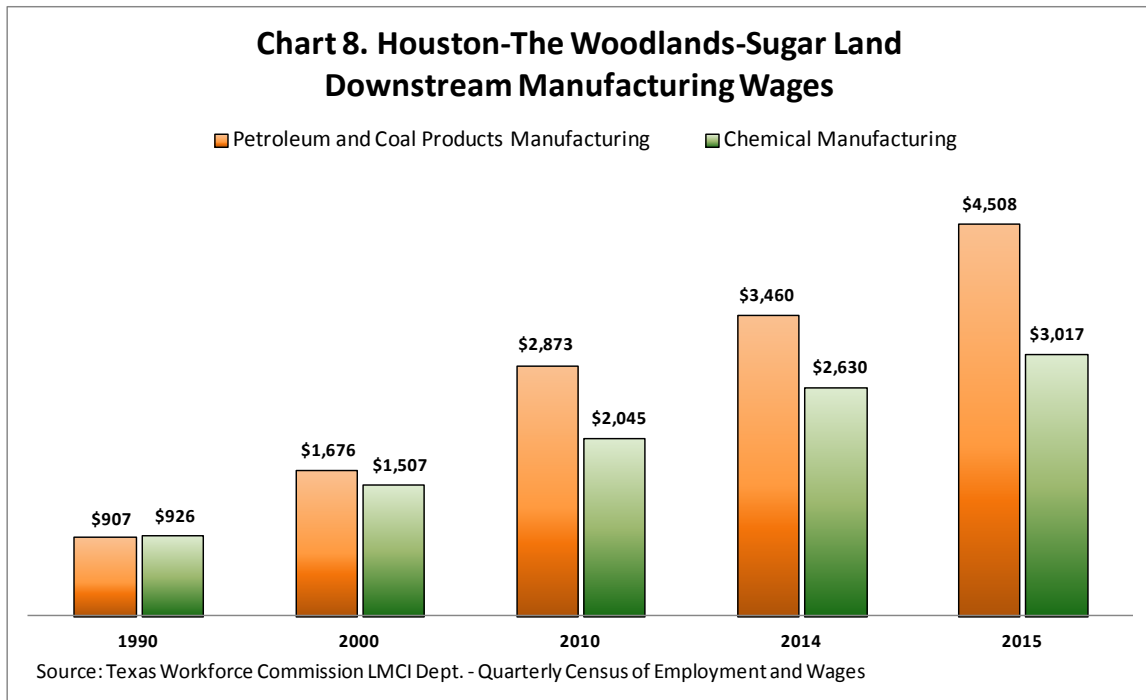
Source: Texas Workforce Commission LMCI Dept. - Quarterly Census of Employment and Wages

**Chart 7. Gulf Coast Region, Downstream Manufacturing Wages as Share of Total Manufacturing Wages - 1st Qtr 2015**



Source: Texas Workforce Commission LMCI Dept. - Quarterly Census of Employment and Wages

Average weekly wages for the two subsectors of downstream manufacturing, Petroleum & Coal Product Manufacturing and Chemical Manufacturing, were almost identical 25 years ago. Wages for both subsectors have grown substantially since then with petroleum & coal product manufacturers taking the lead with the average weekly wage rising 397.0 percent while wages in chemical manufacturing rose 225.8 percent. Wages in Petroleum & Coal Products Manufacturing experienced an especially large boost in first quarter 2015 as refiners reap the benefits of low cost oil<sup>2</sup>.



<sup>2</sup> The average weekly wage is the numeric calculation of total wages divided by the number of employees, divided by the number of weeks in a quarter. This figure represents wages covered by the Texas Unemployment Compensation Act and includes bonuses, commissions and cash values or remuneration received in any medium other than cash.

## Challenges

### Workforce Shortages

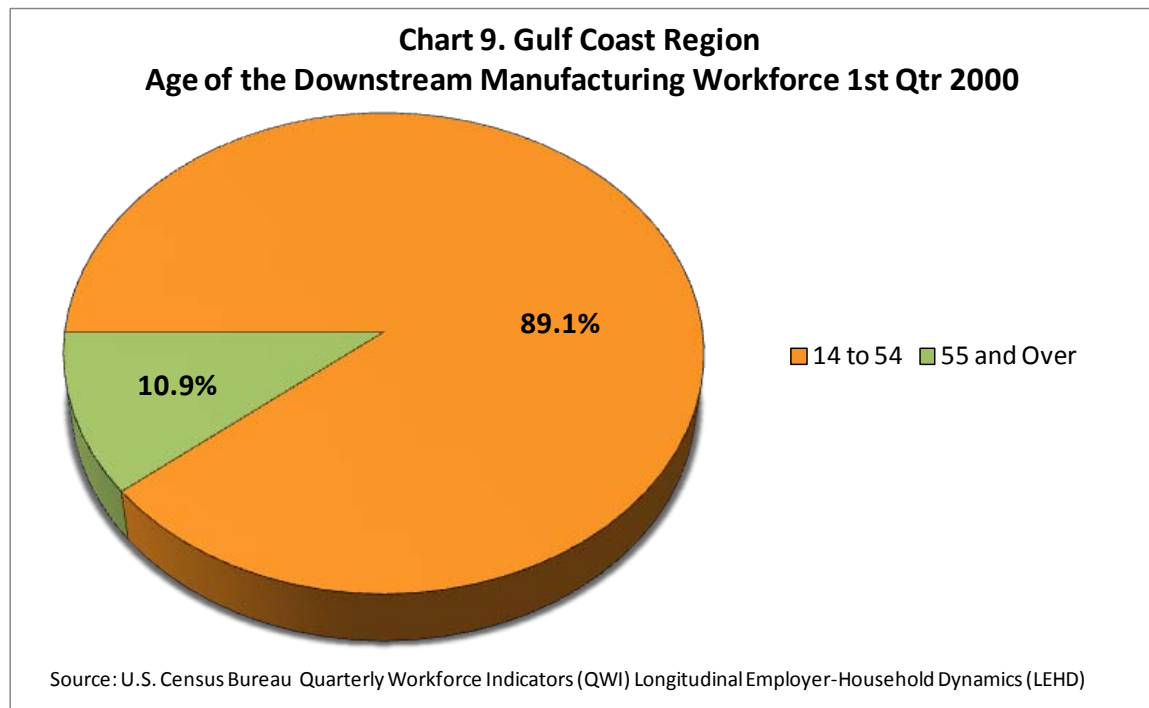
Recent expansions under development and the supporting infrastructure of additional pipelines compound workforce shortages in the construction phase. The shortages are sometimes so acute that project deadlines may be missed or projects cancelled.

### An Aging Workforce

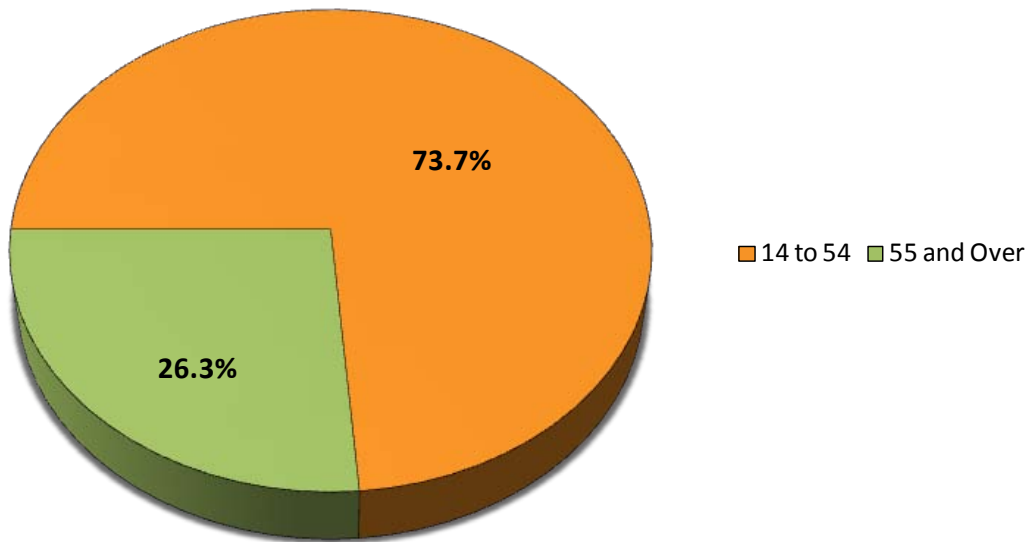
Another factor contributing to the workforce shortage is an aging population. The percentage of the population that is 55 and over has risen by 5 percent since 2000 and is expected to rise another 3 percent by 2018 to 23.36 percent.

Population by Age								
	2000 Census		2010 CENSUS		2013 ESTIMATE		2018 FORECAST	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	4,854,389	100.00%	6,087,133	100.00%	6,366,422	100.00%	7,064,464	100.00%
Age 55+	739,122	15.23%	1,156,059	18.99%	1,294,545	20.33%	1,650,040	23.36%

The age of the downstream manufacturing workforce is increasing rapidly with the number approaching retirement age compounding the workforce shortages in the region. The percentage of workers ages 55 and over in downstream manufacturing has more than doubled from 10.9 percent in 2000 to 26.3 percent in 2014 (see chart 9 and 10).



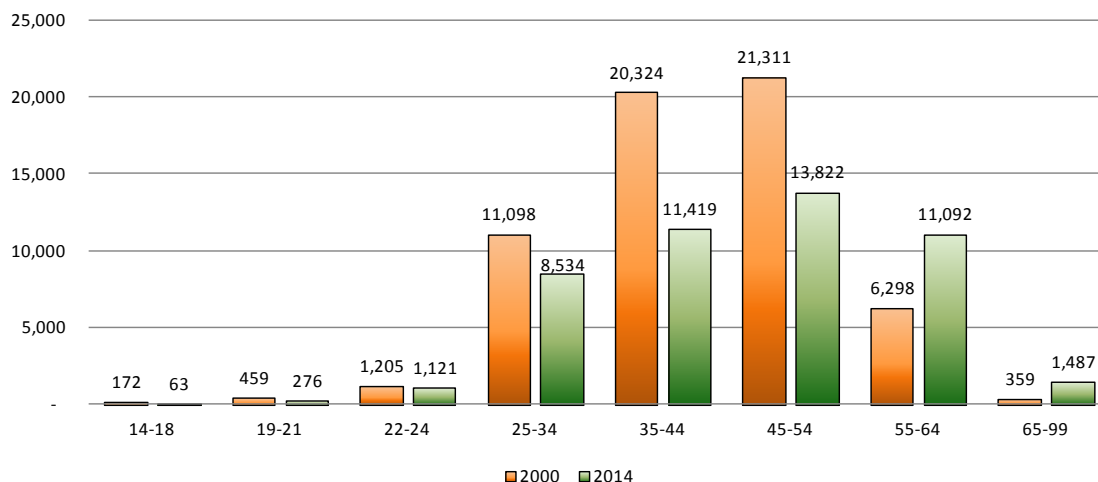
**Chart 10. Gulf Coast Region**  
**Age of the Downstream Manufacturing Workforce 1st Qtr 2014**



Source: U.S. Census Bureau Quarterly Workforce Indicators (QWI) Longitudinal Employer-Household Dynamics (LEHD)

The increased share of employees 55 and over is in part due to smaller retirement portfolios, improved health and along with it an increased life expectancy. Nevertheless, with more than 12,000 rapidly approaching retirement age in downstream manufacturing the industry is posed to lose a large portion of their skilled employees (see chart 11). As baby boomers exit the workforce local companies are faced with the task of facilitating the transfer of knowledge and skills to incoming workers.

**Chart 11. Gulf Coast Region**  
**Age of the Downstream Manufacturing Workforce**



Source: U.S. Census Bureau Quarterly Workforce Indicators (QWI) Longitudinal Employer-Household Dynamics (LEHD)

### Downstream Manufacturing Employment: Future

Employment in the downstream manufacturing industry peaked at approximately 60,000 back in 1991 but the twenty years that followed the industry incurred long-term declines with payrolls falling to near 44,000 by 2011. **Since 2011, workforce demands for the industry have made a dramatic reversal.**

### **Industry Projections: 2012 to 2022**

The Gulf Coast Region's employment is projected to add **712,430 jobs** from **2012 to 2022**. The 23.8% growth rate is higher than the previously projected 22.7% for the period of 2010 to 2020.

The pace of job **growth in downstream manufacturing** is predicted to be 16.0 percent over the ten year period. While projections are lower than the average of all industries for the entire Gulf Coast Region, they have skyrocketed from a ten year projected increase of 1.0 percent just four years earlier.

Projections indicate that Petroleum & Coal Products Manufacturing and Chemical Manufacturing are expected to expand at a similar pace, 16.5 percent and 15.8 percent respectively. The industry is expected to add more than new 7,500 jobs over the ten year period (see table 1). Total demand for new employees is actually higher since the projections do not include replacement demand of those leaving the industry due to job change or retirement.

**Table 1. Gulf Coast Region Downstream Manufacturing Industries Projections 2012-2022**

Industry Code	Industry Title	Annual Average Employment 2012	Annual Average Employment 2022	Net Change	Percent Change
324	<b>Petroleum &amp; Coal Products Manufacturing</b>	12,200	14,210	2,010	16.5%
3241	Petroleum & Coal Product Manufacturing	12,200	14,210	2,010	16.5%
325	<b>Chemical Manufacturing</b>	35,090	40,650	5,560	15.8%
3251	Basic Chemical Manufacturing	20,810	24,250	3,440	16.5%
3252	Resin, Rubber, & Artificial Fibers Manufacturing	3,930	4,110	180	4.6%
3253	Agricultural Chemical Manufacturing	1,180	1,380	200	16.9%
3254	Pharmaceutical & Medicin Manufacturing	1,210	1,400	190	15.7%
3255	Paint, Coating, & Adhesive Manufacturing	2,380	2,770	390	16.4%
3256	Soap, Cleaning Compound & Toiletry Manufacturing	1,250	1,460	210	16.8%
3259	Other Chemical Product & Prepararation Manufacturing	4,320	5,290	970	22.5%
	<b>Total Downstream Manufacturing</b>	<b>47,290</b>	<b>54,860</b>	<b>7,570</b>	<b>16.0%</b>

Source: Texas Workforce Commission LMCI Dept.

## Occupations in Downstream Manufacturing

The following table represents the top 20 occupations in the downstream manufacturing industry and their projected 2022 employment levels (see table 2). The total number of people working in the Gulf Coast Region across all industries under the capacity of each occupation is actually larger.

**Table 2. Gulf Coast Region Top 20 Downstream Manufacturing Occupations**

Occupation Code	Industry Title	Annual Average Employment 2012	Annual Average Employment 2022	Net Change	Percent Change	Annual Average Number of Job Openings*	Mean Annual Wage 2014
51-9011	Chemical Equipment Operators & Tenders	4,490	5,160	670	14.9%	255	\$58,159
51-8093	Petroleum Pump System Operators, Refinery Operators, & Gaugers	3,330	3,860	530	15.9%	350	\$62,910
51-1011	First-Line Supervisors of Production & Operating Workers	3,170	3,640	470	14.8%	510	\$72,717
51-8091	Chemical Plant & System Operators	3,010	3,410	400	13.3%	180	\$64,381
17-2041	Chemical Engineers	1,630	1,880	250	15.3%	135	\$128,304
51-9023	Mixing & Blending Machine Setters, Operators, & Tenders	1,580	1,830	250	15.8%	120	\$35,575
49-9041	Industrial Machinery Mechanics	1,180	1,620	440	37.3%	825	\$53,178
19-4031	Chemical Technicians	1,100	1,260	160	14.5%	115	\$56,933
49-9071	Maintenance & Repair Workers, General	1,070	1,230	160	15.0%	1,145	\$37,315
51-9111	Packaging & Filling Machine Operators & Tenders	1,010	1,130	120	11.9%	205	\$33,380
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	730	850	120	16.4%	680	\$42,181
17-2112	Industrial Engineers	660	770	110	16.7%	285	\$113,276
11-3051	Industrial Production Managers	650	740	90	13.8%	165	\$126,623
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	650	730	80	12.3%	515	\$68,691
17-2171	Petroleum Engineers	590	680	90	15.3%	735	\$168,282
49-9043	Maintenance Workers, Machinery	500	650	150	30.0%	160	\$43,998
17-2141	Mechanical Engineers	560	640	80	14.3%	390	\$106,532
19-2031	Chemists	560	630	70	12.5%	75	\$75,350
43-5061	Production, Planning, & Expediting Clerks	520	570	50	9.6%	365	\$52,255
51-2092	Team Assemblers	460	530	70	15.2%	650	\$28,905

\*Annual average number of job openings due to growth and replacement needs across all industries in the Gulf Coast Region.

Source: Texas Workforce Commission LMCI Dept.

Seven of the top 20 downstream manufacturing occupations are currently on the Gulf Coast Workforce Board's list of targeted high-skill high-growth occupations:

- Petroleum Pump System Operators, Refinery Operators, & Gaugers
- Chemical Plant & System Operators
- Chemical Engineers
- Industrial Machinery Mechanics
- Industrial Engineers
- Petroleum Engineers
- Mechanical Engineers

### **Projection Limitations**

Industry and occupation projections are funded by the Employment and Training Administration, U.S. Department of Labor and updated every two years. The methodology involves four primary steps:

- Identify industry historical trends
- Develop industry employment projections
- Develop occupation staffing patterns for each industry
- Develop occupation employment projections

The projections will foretell the general industry and occupational trends and act as an indicator of relative magnitude and probable direction as opposed to an estimate of absolute values. Additional detail on projection methodology and its limitations can be found at:

<http://www.tracer2.com/?PAGEID=67&SUBID=114>