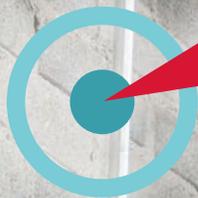




**Texas Workforce Commission
Report on Texas Growth
Occupations**



**Texas Workforce Commission Mission:
To promote and support a workforce
system that creates value and
offers employers, individuals, and
communities the opportunity to
achieve and sustain economic
prosperity.**





Texas Workforce Commission Report on Texas Growth Occupations

Texas Growth Occupations Report: High-Wage, High-Demand Occupations in a Changing Labor Market

Report for Texas Legislature
For House Bill 2478
83rd Regular Session (2013)



A Message from the Commissioners

The Texas Workforce Commission (TWC) is pleased to present the first annual report on Texas high-wage and high-growth occupations, as specified by HB 2478. The bill, enacted by the 83rd Legislature, directed TWC to gather and study information relating to existing and projected shortages of high-wage, high-demand occupations for 14 industries.

Industry employment levels were measured for the previous five years and projections were developed through 2022. Results are presented in the following pages. Significantly, the study found that many high-growth, high-wage occupations require either a two-year or four-year college degree or some other form of post-secondary education. Additionally, these occupations require specific technical skills and on-the-job training.

As requested by the legislation, TWC will provide recommendations that support the objectives highlighted in this report.

Andres Alcantar
TWC Chairman and
Commissioner Representing
the Public

Ronald Congleton
Commissioner Representing Labor

Esperanza "Hope" Andrade
Commissioner Representing Employers



Texas Workforce Commission Report on Texas Growth Occupations

Table of Contents

I. Executive Summary	4
II. Discussions and Data for High Growth Occupations in Target Industry Sectors in Texas	5
A. Construction Industry	5
B. Manufacturing Industry	6
C. Agriculture and Forestry Industry	7
D. Health Care and Social Services Industry	8
E. Educational Services Industry	9
F. Transportation & Warehousing Industry	10
G. Mining, Quarrying, Oil and Gas Industry	11
H. Utilities Industry	12
I. Wholesale Trade Industry	13
J. Retail Trade Industry	14
K. Finance and Insurance Industry	15
L. Professional, Scientific and Technical Services Industry	16
M. Accommodations, Hospitality & Food Services Industry	17
III. Conclusions	18
IV. Appendices	18
A-1 Methodology	18
A-2 Top Quartile Occupations in Texas by Growth Job Openings and Pay	20
A-3 Top Occupations With Minimum Thresholds of Openings, Growth Rates and Pay Across Any Industry	21
A-4 Recent Industry Employment Growth Rates	22



Texas Workforce Commission Report on Texas Growth Occupations

I. Executive Summary

House Bill 2478 requires the Texas Workforce Commission (TWC) to gather and study information relating to existing and projected shortages in high-wage, high-demand occupations in this state. HB 2478 (83rd Legislature, Regular Session, Section 302.019) also directed TWC to include information on existing and projected shortages in high-wage, high-demand occupations in different industries.

Since the end of the recession of 2008-2009, Texas has led the nation in job growth. Based on employment data produced by the Current Employment Statistics program, Texas has experienced 49 consecutive months of annualized employment growth, which dates back to October 2010.

That overall economic growth has appeared in a growing number of workers in different industries in Texas. The Texas jobs expansion largely has been pushed by continued economic shift to “knowledge-based jobs” in the business and professional services sector, expansion in the oil and natural gas sector, as well as the rapid population growth of Texas that increases demand for jobs across many industries.

Industries, like occupations, are adding workers at different paces. The industries showing the highest growth rates in employment have been the mining (including oil and gas) and logging, construction, professional and business services, and education services sectors. For this report, the industry employment levels were measured for the last five-year period; second quarter 2010 to second quarter 2014 using employment levels reported by Texas employers for the Quarterly Census of Employment and Wages program at TWC. This industry staffing data is to provide comparisons and context.

This report also shows TWC’s latest projections for employment growth for Texas industries and occupations through 2022. The recent energy boom and rapid population growth in Texas have impacted these job projections.

There are many high-growth professional jobs requiring a college degree, and also jobs in construction and manufacturing that require training in specific technical skills. A result of changes in the economy is that the higher demand, higher pay occupations tend to fall into one of these categories:

- a) Jobs requiring a bachelor’s degree and specific technical skill training.
- b) Jobs not requiring a college degree but requiring some form of post-secondary education, specific technical skill training, and additional on-the-job training.

TWC developed a working definition of high wage for this report. This report focuses on growing occupations that pay more than \$33,000 a year (i.e. exceeding the Texas median pay of \$32,880).

For segmenting the occupations in Texas, TWC follows statistical data standards set by the agency’s contracts with the U.S. Bureau of Labor Statistics and the Employment and Training Administration division of the U.S. Department of Labor. TWC examined more than 800 occupations in Texas in making the occupational projections and segmenting those occupations for specific industries. Those growth occupations within industries are listed on separate pages in Section II.

II. Growth Occupations in Growth Industries

A growing economy in the United States, particularly in Texas and its surrounding states, has resulted in more demand for workers. That growing demand for workers is focused in key occupations where local supply has at times struggled to keep up with demand.

Predicting the occupations most in demand in this changing labor market is part of the mission for the staff at the TWC. While this report shows the most in-demand occupations now and projected for the future in Texas, it is important to remember that each employer has a unique combination of technical skills, education, work experience, and even soft skills needed for each of these jobs at each of their workplaces.

This section identifies occupations within major industries. The charts display staffing and wage information for a specific occupation in that specific industry. Occupations listed in this section are ranked by the projected change in employment in Texas from 2012 to 2022.

The Texas Legislature requested growth occupations in key industries that are experiencing staffing changes. Industry employment data listed corresponds with the Texas employers identified by that industry's North American Industry Classification System (NAICS) code.

A. Construction Industry

Demand for construction workers has spiked across much of Texas in the last five years as the economy in the Lone Star State grew with population expansion and business expansion. This data is for NAICS code 23.

In the second quarter of 2014, according to TWC's Quarterly Census of Employment and Wages data, employment with construction companies reached 678,914 workers in the second quarter of 2014. Compared to the second quarter 2010, that construction employment was up 13.6 percent.

The occupations within construction companies that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below. In general, the construction industry is seeing increased demand with industrial construction projects concentrated along the Texas Gulf Coast as well as commercial construction projects in the big cities and residential building in suburban areas. This has led to increased demand for workers, who often require years of training, along with the related issue of experienced line workers and managers who are starting to retire.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
First-Line Supervisors of Construction Trades/Extraction Workers	36,470	46,350	9,880	27.1%	\$56,288
Electricians	33,300	41,020	7,720	23.2%	\$42,628
Carpenters	24,300	30,930	6,630	27.3%	\$33,359
Construction Managers	23,360	29,240	5,880	25.2%	\$79,966
Operating Engineers & Other Construction Equipment Operators	22,670	28,460	5,790	25.5%	\$38,907
Plumbers, Pipefitters, & Steamfitters	24,630	30,210	5,580	22.7%	\$46,961
General & Operations Managers	17,640	21,740	4,100	23.2%	\$106,097
Heating, AC, & Refrigeration Mechanics & Installers	15,010	18,780	3,770	25.1%	\$41,525
Cost Estimators	7,730	10,110	2,380	30.8%	\$64,546
Welders, Cutters, Solderers, & Brazers	8,270	10,190	1,920	23.2%	\$51,890

B. Manufacturing Industry

In the last five years, demand for manufacturing workers changed course and grew, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS codes 31-33.

In the second quarter of 2014, the number of workers in Texas manufacturing companies reached 888,121, up 9.5 percent from the same quarter in 2010.

In general, the manufacturing industry has staffing issues similar to the construction industry where retiring workers and managers need to be replaced during a time of increased market demand for manufactured products. This has meant production plants are faced with hiring line workers who often need to have years of experience to be effective at their jobs as demand for their work has been rising.

The occupations within manufacturing companies that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Machinists	24,500	31,890	7,390	30.2%	\$40,279
Industrial Machinery Mechanics	12,420	17,320	4,900	39.5%	\$50,350
Inspectors, Testers, Sorters, Samplers, & Weighers	23,780	28,480	4,700	19.8%	\$38,431
First-Line Supervisors of Production & Operating Workers	31,770	36,260	4,490	14.1%	\$62,986
Welders, Cutters, Solderers, & Brazers	24,300	28,790	4,490	18.5%	\$35,493
Computer-Controlled Machine Tool Operators	9,850	13,590	3,740	38.0%	\$37,645
Sales Representatives, Wholesale/ Manufacturing	18,570	21,310	2,740	14.8%	\$65,646
General & Operations Managers	17,600	20,180	2,580	14.7%	\$121,660
Maintenance & Repair Workers	12,460	14,280	1,820	14.6%	\$40,468
Heavy & Tractor-Trailer Truck Drivers	11,130	12,950	1,820	16.4%	\$36,285

C. Agriculture and Forestry Industry

In the last five years, demand for agriculture and forestry workers grew, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 11.

In the second quarter of 2014, the number of workers with agriculture and forestry employers in Texas reached 58,977, up 0.8 percent from the same quarter in 2010.

The agriculture and forestry industry in Texas had been using fewer workers in recent decades as farming methods have become more efficient. But a rebounding economy in Texas and globally has driven up demand for what Texas grows, which is increasing demand for workers in this historic industry.

The occupations within agriculture and forestry employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below. It should be noted that due to limited staffing in this industry, many of these occupations do not have the numeric change of at least 400 jobs.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Farmers, Ranchers, & Other Agricultural Managers	5,280	5,790	510	9.7%	\$90,272
Logging Equipment Operators	570	670	100	17.5%	\$36,748
Payroll & Timekeeping Clerks	440	490	50	11.4%	\$34,156
Bookkeeping, Accounting, & Auditing Clerks	550	590	40	7.3%	\$33,011
Agricultural Inspectors	160	180	20	12.5%	\$41,811
Commercial Pilots	170	180	10	5.9%	\$98,852
First-Line Supervisors of Mechanics, Installers, & Repairers	160	170	10	6.3%	\$53,988
Accountants & Auditors	130	140	10	7.7%	\$56,593
Transportation, Storage, & Distribution Managers	60	70	10	16.7%	\$91,186
Industrial Machinery Mechanics	40	50	10	25.0%	\$38,543

D. Health Care and Social Assistance Industry

In the last five years, demand for health care and social assistance workers in Texas grew, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 62.

In the second quarter of 2014, the number of workers with health care and social assistance employers in Texas was 1.483 million, up 10.1 percent from the same quarter in 2010.

The health care and social assistance industry has become the dominant industry of employment for Texas – and the United States – in the last decade. Demand for health care workers in Texas is only expected to grow as the state has growing populations of old and young people, who are the primary customers of the health care and social assistance. This sector is also faced with training challenges as employers are demanding higher educated workers due to market demands and even industry expectations. This industry is also challenged with high turnover in key occupations, which increases worker demand.

The occupations within health care and social assistance employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Registered Nurses	159,530	207,910	48,380	30.3%	\$68,056
Licensed Practical & Licensed Vocational Nurses	60,070	77,750	17,680	29.4%	\$44,032
Medical & Health Services Managers	14,380	18,990	4,610	32.1%	\$95,149
Medical Records & Health Information Technicians	13,070	17,200	4,130	31.6%	\$36,002
General & Operations Managers	13,000	17,030	4,030	31.0%	\$96,790
Radiologic Technologists	12,490	16,430	3,940	31.5%	\$53,409
Medical & Clinical Laboratory Technicians	9,820	13,740	3,920	39.9%	\$36,155
Dental Hygienists	11,700	15,200	3,500	29.9%	\$71,477
Surgical Technologists	8,770	12,270	3,500	39.9%	\$43,756
Physical Therapists	9,680	12,920	3,240	33.5%	\$92,517

E. Education Industry

In the last five years, demand for education services workers in Texas dipped, according to TWC’s Quarterly Census of Employment and Wages. This data is for NAICS code 61.

In the second quarter of 2014, the number of workers with education services employers in Texas was 1.136 million, down 0.3 percent from the same quarter in 2010.

The education industry in Texas is facing more demand from a marketplace that wants better educated workers for a more “knowledge-based economy” as well as a growing population bringing more students into schools.

The occupations within education employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Secondary School Teachers, Ex. Special & Career/Technical Education	98,050	118,150	20,100	20.5%	\$51,918
Education Administrators, Elementary/Secondary School	21,790	26,270	4,480	20.6%	\$76,035
Educational, Guidance, School, & Vocational Counselors	19,090	22,950	3,860	20.2%	\$55,663
Kindergarten Teachers, Ex. Special Education	13,150	16,890	3,740	28.4%	\$49,921
Graduate Teaching Assistants	17,630	20,250	2,620	14.9%	\$35,393
Special Education Teachers, Kindergarten & Elementary School	11,910	14,310	2,400	20.2%	\$51,373
Instructional Coordinators	9,850	12,230	2,380	24.2%	\$64,273
Vocational Education Teachers, Postsecondary	11,710	13,770	2,060	17.6%	\$48,726
Registered Nurses	10,390	12,310	1,920	18.5%	\$58,845
Computer User Support Specialists	9,600	11,490	1,890	19.7%	\$48,386

F. Transportation and Warehousing Industry

In the last five years, demand for transportation and warehousing workers in Texas rose, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS codes 48-49.

In the second quarter of 2014, the number of workers with transportation and warehousing employers in Texas was 463,539, up 11.1 percent from the same quarter in 2010.

The transportation and warehousing industry in Texas was one of the first sectors to feel the impact of a rebounding national economy. When an economy grows, then companies buy more goods and consumers buy more goods. Those goods tend to be moved and stored. More moving and storing of goods has driven up demand for workers in this sector and is expected to continue as Texas continues to bolster its transportation infrastructure of roads, airports, and ship ports. High turnover rates among truck drivers create additional challenges in this industry.

The occupations within transportation and warehousing employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Heavy & Tractor-Trailer Truck Drivers	80,900	100,290	19,390	24.0%	\$42,364
Light Truck or Delivery Services Drivers	16,500	18,550	2,050	12.4%	\$44,694
Flight Attendants	7,700	9,580	1,880	24.4%	\$48,320
Cargo & Freight Agents	5,180	6,940	1,760	34.0%	\$35,300
Dispatchers, Ex. Police, Fire, & Ambulance	7,430	9,020	1,590	21.4%	\$38,485
General & Operations Managers	6,540	8,040	1,500	22.9%	\$107,486
First-Line Supervisors of Transportation & Material-Moving Operators	6,690	8,130	1,440	21.5%	\$59,236
Bus/Truck Mechanics & Diesel Engine Specialists	6,010	7,330	1,320	22.0%	\$41,918
First-Line Supervisors of Office & Administrative Support Workers	6,670	7,980	1,310	19.6%	\$59,396
Airline Pilots, Copilots, & Flight Engineers	4,190	5,210	1,020	24.3%	\$148,197

G. Mining, Quarrying, Oil and Gas Industry

In the last five years, demand for mining, quarrying, oil & gas industry workers in Texas rose, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 21.

In the second quarter of 2014, the number of workers at mining, quarrying, oil & gas employers in Texas was 301,604, up 49.3 percent from the same quarter in 2010.

Recent improvements in hydraulic fracturing – or fracking – as a way to extract oil and natural gas has fundamentally changed the energy industry. Since 2010, demand for oil field workers has spiked in the Eagle Ford Shale region (located in the middle of San Antonio, Laredo, McAllen, Victoria, and Corpus Christi) as well as the Permian Basin region (located around Midland, Odessa, San Angelo, and Abilene). And while more wells have been drilled in these areas, the energy companies based in Houston, Dallas, Fort Worth, El Paso, and San Antonio have also expanded their own headquarters staffs to take advantage of new oil and gas supplies as well as continued energy demand across the United States.

The occupations within mining, quarrying, oil and gas employers that are projected to add at least 400 jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Roustabouts, Oil & Gas	25,030	32,500	7,470	29.8%	\$34,361
Service Unit Operators; Oil/Gas/ Mining	23,500	31,160	7,660	32.6%	\$47,664
Petroleum Engineers	13,420	21,020	7,600	56.6%	\$163,266
First-Line Supervisors of Construction Trades/Extraction Workers	10,650	14,250	3,600	33.8%	\$76,697
Heavy & Tractor-Trailer Truck Drivers	10,620	13,680	3,060	28.8%	\$42,313
Rotary Drill Operators, Oil & Gas	9,190	11,980	2,790	30.4%	\$69,489
Derrick Operators, Oil & Gas	8,990	11,710	2,720	30.3%	\$48,622
Geoscientists	6,800	9,020	2,220	32.6%	\$164,365
Extraction Workers Helpers	5,760	7,450	1,690	29.3%	\$34,559
Accountants & Auditors	5,690	7,520	1,830	32.2%	\$85,338

H. Utilities Industry

In the last five years, demand for utilities workers in Texas dipped, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 22.

In the second quarter of 2014, the number of workers with utilities employers in Texas was 80,161, down 0.4 percent from the same quarter in 2010.

Technological advances have meant utilities had limited need for workers. Meanwhile, the utilities industry has been dominated by Baby Boomer workers, who are now starting to retire with "the Great Shift Change." Those retirements come as economic growth and population growth in Texas is creating more demand for energy delivery. The result is sudden demand of new and replacement workers for utility jobs, which mostly require years of training.

The occupations within utilities employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below. It should be noted that due to limited staffing in this industry, many of these occupations do not have numeric changes of at least 400 jobs.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Industrial Machinery Mechanics	1,500	1,940	440	29.3%	\$55,882
Electrical Engineers	1,050	1,320	270	25.7%	\$91,722
Electrical Repairers; Powerhouse/ Substation/Relay	1,020	1,250	230	22.5%	\$66,066
Water Treatment Plant & System Operators	1,340	1,530	190	14.2%	\$35,709
Control & Valve Installers & Repairers	1,250	1,410	160	12.8%	\$48,082
General & Operations Managers	1,400	1,550	150	10.7%	\$126,013
Secretaries & Administrative Assistants	840	980	140	16.7%	\$35,527
Plumbers, Pipefitters, & Steamfitters	700	840	140	20.0%	\$45,167
Power Plant Operators	2,690	2,820	130	4.8%	\$66,096
Office Clerks, General	1,620	1,720	100	6.2%	\$34,107

I. Wholesale Trade Industry

In the last five years, demand for wholesale trade workers in Texas grew, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 42.

In the second quarter of 2014, the number of workers with wholesale trade employers in Texas was 572,639, up 15.4 percent from the same quarter in 2010.

The wholesale trade industry has been experiencing rising demand due to a growing economy in Texas and across North America. The companies in this sector have been trying to take advantage of the economic growth by putting more sales professionals into the field while also trying to fill management positions that have been staffed by Baby Boomer supervisors who are set to retire.

The occupations within wholesale trade employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Sales Representatives, Wholesale/ Manufacturing	80,310	97,550	17,240	21.5%	\$66,927
Heavy & Tractor-Trailer Truck Drivers	19,740	24,530	4,790	24.3%	\$40,098
General & Operations Managers	17,220	20,810	3,590	20.8%	\$133,572
Customer Service Representatives	15,400	18,470	3,070	19.9%	\$35,932
Sales Representatives, Wholesale/ Manufacturing, Technical & Scientific Products	13,380	15,910	2,530	18.9%	\$80,377
Bookkeeping, Accounting, & Auditing Clerks	10,760	13,010	2,250	20.9%	\$36,954
First-Line Supervisors of Non-Retail Sales Workers	7,670	9,280	1,610	21.0%	\$84,512
Industrial Machinery Mechanics	3,290	4,800	1,510	45.9%	\$44,982
First-Line Supervisors of Office & Administrative Support Workers	6,010	7,230	1,220	20.3%	\$59,921
Computer Systems Analysts	4,030	5,210	1,180	29.3%	\$88,894

J. Retail Trade Industry

In the last five years, demand for retail trade workers in Texas grew, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS codes 44-45.

In the second quarter of 2014, the number of workers with retail trade employers in Texas was 1.248 million, up 10.0 percent from the same quarter in 2010.

Population growth across most of Texas coupled with a growing economy has pushed up demand for retail goods. Retail companies have been adding workers to jobs across the board from sales people to stocking clerks to drivers to managers.

The occupations within retail trade employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
First-Line Supervisors of Retail Sales Workers	89,090	105,920	16,830	18.9%	\$42,653
Auto Service Technicians & Mechanics	21,050	25,370	4,320	20.5%	\$39,399
General & Operations Managers	16,190	19,360	3,170	19.6%	\$96,206
First-Line Supervisors of Office & Administrative Support Workers	13,460	16,170	2,710	20.1%	\$38,560
Pharmacists	12,100	14,200	2,100	17.4%	\$118,022
First-Line Supervisors of Mechanics, Installers, & Repairers	4,440	5,310	870	19.6%	\$58,973
Sales Managers	4,520	5,330	810	17.9%	\$115,401
Heavy & Tractor-Trailer Truck Drivers	3,590	4,250	660	18.4%	\$33,364
Auto Body & Related Repairers	3,160	3,800	640	20.3%	\$39,270
First-Line Supervisors of Food Preparation & Serving Workers	2,310	2,820	510	22.1%	\$36,632

K. Finance and Insurance Industry

In the last five years, demand for finance and insurance services workers in Texas rose, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 52.

In the second quarter of 2014, the number of workers with finance and insurance employers in Texas was 488,736, up 9.6 percent from the same quarter in 2010.

Following the recession of 2008-2009, the financial services sector has rebounded in Texas with rising demand for workers who interact with customers as well as back-office workers.

The occupations within finance and insurance employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Customer Service Representatives	40,320	48,270	7,950	19.7%	\$33,507
Loan Officers	24,570	29,540	4,970	20.2%	\$69,960
First-Line Supervisors of Office & Administrative Support Workers	23,090	27,710	4,620	20.0%	\$57,803
Loan Interviewers & Clerks	22,500	26,950	4,450	19.8%	\$37,637
Personal Financial Advisors	11,700	15,620	3,920	33.5%	\$88,173
Insurance Claims & Policy Processing Clerks	19,880	23,740	3,860	19.4%	\$36,467
Secretaries & Administrative Assistants	12,610	15,630	3,020	23.9%	\$33,649
Claims Adjusters, Examiners, & Investigators	13,200	15,700	2,500	18.9%	\$62,855
Bookkeeping, Accounting, & Auditing Clerks	10,930	13,030	2,100	19.2%	\$37,939
Financial Analysts	8,090	10,050	1,960	24.2%	\$95,243

L. Professional, Scientific and Technical Services Industry

In the last five years, demand for business professional, scientific, and technical services workers in Texas has grown, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 54.

In the second quarter of 2014, the number of workers with business professional, scientific and technical services employers in Texas was 675,166, up 18.9 percent from the same quarter in 2010.

The gradual shift to an American economy that focuses on services is seen in Texas with above-average employment growth in the professional, scientific, and technical services industry. This professional services industry is also shifting to requiring workers with more education than in the past, which is creating training challenges.

The occupations within business professional, scientific, and technical services employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Accountants & Auditors	32,780	42,500	9,720	29.7%	\$76,956
Lawyers	24,970	30,940	5,970	23.9%	\$141,670
Office Clerks, General	29,960	35,770	5,810	19.4%	\$33,882
Software Developers, Applications	14,320	19,610	5,290	36.9%	\$95,319
Civil Engineers	13,460	18,600	5,140	38.2%	\$104,035
Paralegals & Legal Assistants	15,190	20,240	5,050	33.2%	\$51,230
Computer User Support Specialists	11,460	16,250	4,790	41.8%	\$53,772
Software Developers, Systems Software	12,110	16,460	4,350	35.9%	\$102,843
Computer Systems Analysts	13,030	17,220	4,190	32.2%	\$95,582
Bookkeeping, Accounting, & Auditing Clerks	15,910	19,510	3,600	22.6%	\$37,148

M. Accommodations, Hospitality and Food Services Industry

In the last five years, demand for accommodations, hospitality, and food services workers in Texas has grown, according to TWC's Quarterly Census of Employment and Wages. This data is for NAICS code 72.

In the second quarter of 2014, the number of workers at accommodations, hospitality, and food services employers in Texas was 1.077 million, up 18.7 percent from the same quarter in 2010.

The large accommodations, hospitality, and food services industry has also felt the immediate impact of a growing Texas economy, a rebounding American economy, and expansion of the Texas population. Above-average employment growth in this sector has been dispersed across many occupations whose pay ranges are broad.

The occupations within accommodations, hospitality, and food services employers that are projected to add the most jobs and grow at the fastest rates from 2012 to 2022 are listed below.

Occupational Title	Annual Average Employment 2012	Annual Average Employment 2022	Number Change 2012-2022	Growth Rate 2012-2022	Annual Wage 2013
Food Service Managers	13,920	16,600	2,680	19.3%	\$52,859
General & Operations Managers	7,570	9,270	1,700	22.5%	\$72,414
Meeting, Convention, & Event Planners	2,550	3,630	1,080	42.4%	\$37,324
Chefs & Head Cooks	4,370	5,210	840	19.2%	\$44,141
First-Line Supervisors of Office & Administrative Support Workers	2,420	2,900	480	19.8%	\$38,644
Accountants & Auditors	790	950	160	20.3%	\$53,988
Sales Managers	600	730	130	21.7%	\$97,225
First-Line Supervisors of Mechanics, Installers, & Repairers	550	660	110	20.0%	\$52,349
Heavy & Tractor-Trailer Truck Drivers	610	710	100	16.4%	\$33,737
Payroll & Timekeeping Clerks	430	520	90	20.9%	\$34,500

III. Conclusions

TWC reviewed the top growth occupations across the 14 key industries that the Texas Legislature asked for with this report.

There are approximately 800 different occupations in Texas that are tracked by TWC. And employment is growing for almost all of those occupations as Texas experiences an expanding economy after the recession.

These economic changes are impacting employment in all industries in Texas but especially staffing levels in the construction; health care and social assistance; transportation and warehousing; mining, oil and gas; wholesale trade; retail trade; finance and insurance; professional and technical services; as well as the accommodations and food services sectors.

Still, demand for different kinds of occupations varies depending on the need of employers in different industries and in different community locations.

TWC reviewed the top growth occupations across the 14 key industries that the Texas Legislature asked for with this report.

It is important to note that Texas employers are just now starting to experience the retirements of the Baby Boom generation of workers. The workforce for many industries in Texas has been dominated by Baby Boomer workers, many of whom are now in their 60s and had delayed retirement but now are starting to exit the workforce. This demographic phenomenon is increasing demand for many occupations where there is already rising demand due to a growing Texas economy.

These workforce demographic and economic changes are occurring as Texas employers have also enhanced their employment requirements. Hiring managers are looking for more workers while also demanding workers with more technical skills, more work experience, and more education than in the past.

Such trends lead to rising demand for two kinds of workers in the high-demand, high-wage fields:

- a) Jobs requiring a bachelor's degree and specific technical skill training.
- b) Jobs not requiring a college degree but requiring some form of post-secondary education, specific technical skill training, and additional on-the-job training.

These trends show no signs of slowing down in Texas.

IV. Appendices

A-1 Methodology

As required by the agency's contract with the U.S. Bureau of Labor Statistics (BLS) and the Employment and Training Division of the U.S. Department of Labor (DOL), the Labor Market and Career Information (LMCI) Department collects data and makes projections on employment by industry. In accordance with the statistical methodology established by the DOL and the federal Office of Management and Budget, the LMCI department staff calculated employment data for approximately 800 occupations to analyze pay ranges and growth trends for these different occupations.

TWC's LMCI Department measures many aspects of the Texas labor market. The number of workers employed by companies in different industries is tracked by the Quarterly Census of Employment & Wages

(QCEW), which pulls data from TWC's Unemployment Insurance program that is updated every three months. Wage information for specific occupations is gathered from surveys sent to sampled employers in the Occupational Employment Statistics (OES) program, which updates each year.

Employers supply the data for both of these programs, and TWC analyzed the employment and wage data from both the QCEW and OES programs. This data is further supplemented by monthly employment data from the Current Employment Statistics program surveys of employers in Texas. All of these programs serve to double check each other in identifying staffing trends with employers.

Then, TWC examines the number of workers by industries as the basis for producing industry employment projections. TWC produces these industry employment projections and corresponding occupational employment projections to help job seekers, students, parents, policy makers, and company hiring managers better understand their regional labor market. Occupational employment growth is based on industry growth and other variables, which will include population growth and changing skill requirements by employers. Occupations found within these industries are growing and projected to experience the most employment growth.

Data for about 800 occupations include growth rates, job openings, wages, and typical education required. All this information on industry projections and occupational projections is available online at the LMCI website called Tracer 2 (at <http://www.tracer2.com/>) on the tab listed as "The Future."

The current projections for employment by industry and occupation were completed by TWC in September 2014. These projections track employment trends in Texas going back to 1990. The current projections are for the period of 2012 to 2022. This report also includes industry employment level comparisons from QCEW data for the most recent five years to give context, as Section II of this report shows.

This report focuses on occupations with high job openings and high pay rates, per the request of the Texas Legislature. Not all occupations are specific to a single industry. The appendix of this report includes additional lists of growth occupations as well as a unique list of current occupations in demand.

A "high-wage" job means different things to different people depending on their age, work history, education level, geographic setting, ability to stay at a job long term, and even their expectations in life. The median pay across all occupations in Texas is \$32,880 a year, according to the most recent Occupational Employment Statistics survey of Texas employers. For the purposes of this report, TWC only looked at occupations where pay tends to be more than \$33,000 a year.

This report lists different occupations along with average pay rates. Readers who only want to consider occupations where pay is much higher can easily identify those occupations.

For the purposes of this report, the TWC concentrated on occupations expected to add at least 400 jobs during this 10-year period ending in 2022. Because of the rapid population growth and economic growth in Texas, about two thirds of all the occupations in Texas are anticipated to see strong growth with more than 400 jobs.

A-2 Top Quartile Occupations in Texas by Job Openings and Pay

The following is a list of the “select” occupations in Texas pulled from across all industries in the latest TWC projections. This list is occupations that make both the list of the Top 25th percent in growth job openings by 2022 and the Top 25th percentile in median pay as of 2013. While the rest of this report lists average wages for an occupation, the use of median wages helps for ranking by quartiles and gives a slightly different look at the data.

Occupational Title	Annual Job Openings Due to Growth 2012-2022	Annual Median Wage 2013
Registered Nurses	5,350	\$67,308
General and Operations Managers	3,840	\$97,052
Accountants and Auditors	2,540	\$65,007
Computer Systems Analysts	1,395	\$80,418
Business Operations Specialists, All Other	1,295	\$70,997
Lawyers	1,075	\$115,465
Software Developers, Applications	1,020	\$93,609
Market Research Analysts & Marketing Specialists	985	\$62,367
Construction Managers	945	\$74,662
Management Analysts	935	\$81,822
Petroleum Engineers	875	\$143,209
Software Developers, Systems Software	825	\$96,842
Health Specialties Teachers, Postsecondary	765	\$98,753
Civil Engineers	715	\$87,445
Managers, All Other	710	\$109,107
Network and Computer Systems Administrators	645	\$75,994
Financial Managers	640	\$116,355
Medical and Health Services Managers	580	\$87,637
Sales Rep of Technical & Scientific Products	580	\$76,877
Administrative Services Managers	540	\$87,065
Loan Officers	535	\$59,290
Physicians and Surgeons, All Other	510	\$187,214
Property, Real Estate & Community Assoc. Manager	505	\$59,028
General Sales Managers	480	\$117,397
Pharmacists	470	\$118,873
Education Admin., Elementary & Secondary	460	\$73,679
Logisticians	455	\$78,720
Personal Financial Advisors	450	\$63,196
Financial Analysts	445	\$77,517
Computer and Information Systems Managers	425	\$128,973
Cost Estimators	405	\$61,434
Physical Therapists	375	\$87,450
Architectural and Engineering Managers	370	\$146,371
Mechanical Engineers	365	\$89,920
Dental Hygienists	365	\$71,233

A-3 Top Occupations With Minimum Thresholds of Openings and Pay Across Any Industry

Texas has approximately 800 different occupations. TWC examined the occupations that had average pay of more than \$33,000 a year in 2013 and are projected to add more than 400 jobs per year in Texas. The result is this list of the top growth occupations that are projected to add more than 900 jobs a year, which includes new jobs created by economic growth and jobs to replace workers retiring or exiting the workforce. In Section II, occupations were listed based on staffing and pay for workers working at that occupation within that industry, while this section shows data for occupations across all industries in Texas.

Occupational Title	Annual Average Employment 2012	Annual Average Job Openings 2012-2022	Annual Average Wage 2013
Registered Nurses	189,380	9,020	\$67,860
Elementary School Teachers, Ex. Special Education	141,030	7,095	\$50,290
General & Operations Managers	172,320	7,065	\$118,250
Heavy & Tractor-Trailer Truck Drivers	161,730	6,290	\$40,570
Accountants & Auditors	105,840	5,685	\$73,600
First-Line Supervisors of Office & Admin. Support Workers	115,420	5,170	\$54,380
Sales Representatives, Wholesale/Mfg, Ex. Technical/Scientific Products	124,190	4,860	\$66,350
Secondary School Teachers, Ex. Special & Career/Technical Education	98,600	4,700	\$51,850
First-Line Supervisors of Retail Sales Workers	130,490	4,435	\$42,840
Maintenance & Repair Workers, General	110,190	4,290	\$33,530
Bookkeeping, Accounting, & Auditing Clerks	128,280	3,880	\$36,310
Licensed Practical & Licensed Vocational Nurses	71,890	3,735	\$43,730
Middle School Teachers, Ex. Special & Career/Technical Education	70,370	3,545	\$50,860
Police & Sheriff's Patrol Officers	57,110	2,760	\$53,030
First-Line Supervisors of Construction Trades/Extraction Workers	63,820	2,290	\$60,570
Auto Service Technicians & Mechanics	51,540	2,220	\$38,250
Computer User Support Specialists	50,790	2,165	\$49,840
Welders, Cutters, Solderers, & Brazers	47,830	2,155	\$39,590
Industrial Machinery Mechanics	30,520	2,145	\$48,840
Computer Systems Analysts	44,140	2,085	\$87,340
Insurance Sales Agents	49,370	2,020	\$57,280
Electricians	50,220	2,015	\$44,110
Construction Managers	64,940	1,970	\$82,810
Inspectors, Testers, Sorters, Samplers, & Weighers	43,240	1,915	\$39,020
Billing & Posting Clerks	43,060	1,890	\$33,920
Lawyers	49,350	1,865	\$134,200
Service Unit Operators, Oil, Gas, & Mining	25,240	1,825	\$47,450
First-Line Supervisors of Mechanics, Installers, & Repairers	39,090	1,820	\$61,100
Machinists	33,100	1,785	\$40,100
Operating Engineers & Other Construction Equip Operators	36,250	1,655	\$38,030

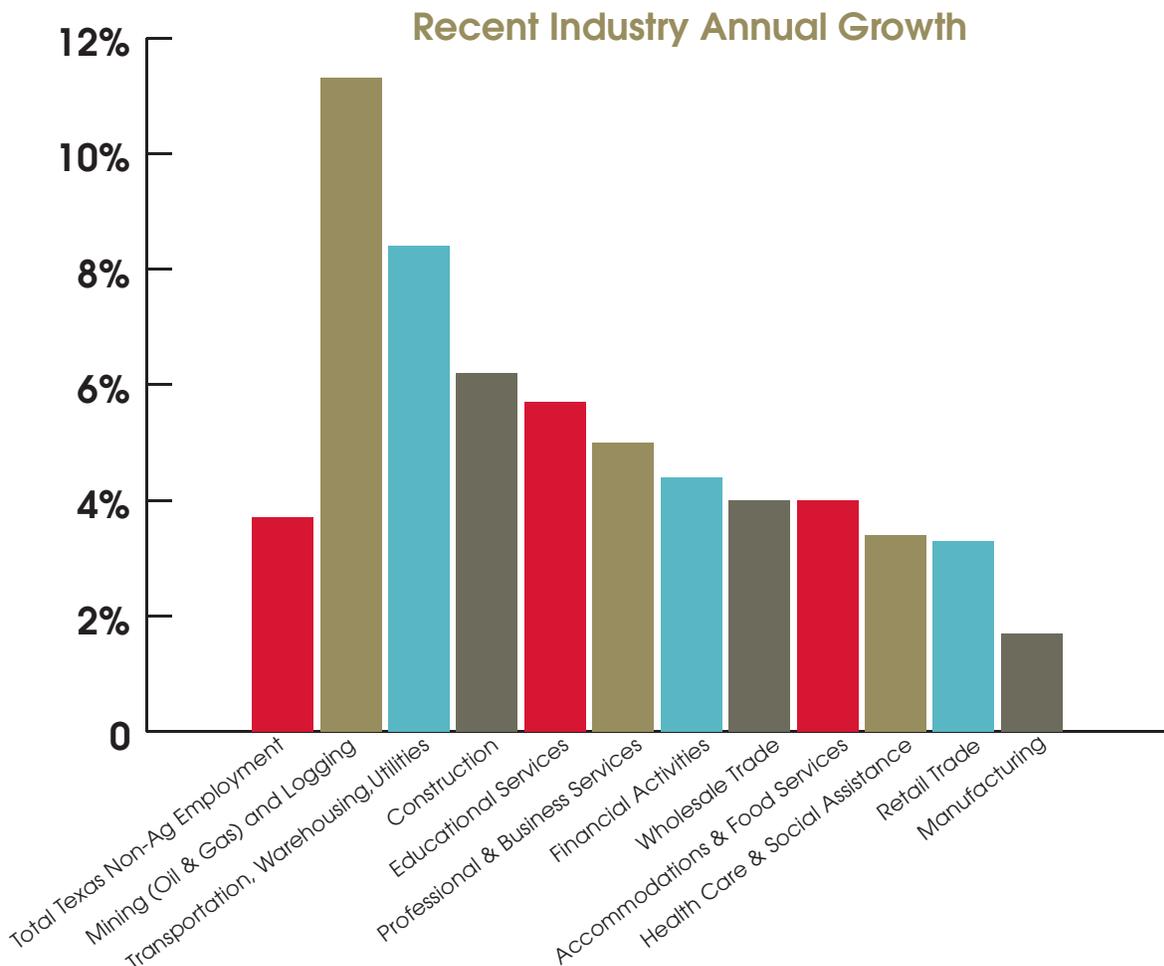
Occupational Title	Annual Average Employment 2012	Annual Average Job Openings 2012-2022	Annual Average Wage 2013
Carpenters	48,750	1,585	\$33,200
Roustabouts, Oil & Gas	27,690	1,545	\$34,010
Software Developers, Applications	40,580	1,540	\$94,700
Management Analysts	37,350	1,515	\$93,150
First-Line Supervisors of Production & Operating Workers	47,410	1,380	\$62,240
Petroleum Engineers	19,280	1,365	\$159,340
Market Research Analysts & Marketing Specialists	24,010	1,315	\$70,000
Civil Engineers	23,410	1,285	\$98,560
Human Resources Specialists	36,760	1,270	\$62,290
Executive Secretaries & Executive Admin Assistants	65,790	1,240	\$51,390
Software Developers, Systems Software	32,240	1,240	\$99,530
Financial Managers	29,610	1,195	\$129,800
Firefighters	25,890	1,180	\$46,850
Sales Representatives, Wholesale/Mfg, Technical/Scientific Products	30,610	1,175	\$84,810
Production, Planning, & Expediting Clerks	26,950	1,165	\$46,920
Securities, Commodities, & Financial Services Sales Agents	26,600	1,150	\$90,120
Preschool Teachers, Ex. Special Education	20,390	1,140	\$34,270
Plumbers, Pipefitters, & Steamfitters	33,830	1,125	\$46,680
Network & Computer Systems Administrators	30,150	1,120	\$80,770
Property, Real Estate, & Community Association Managers	26,170	1,095	\$74,610
Heating, AC, & Refrigeration Mechanics & Installers	23,230	1,090	\$41,810
Education Administrators, Elementary/Secondary School	22,430	1,055	\$76,020
Medical & Health Services Managers	19,120	1,045	\$96,620
Health Specialties Teachers, Postsecondary	18,610	1,045	\$126,360
Loan Officers	26,810	1,030	\$70,040
Insurance Claims & Policy Processing Clerks	21,950	1,025	\$36,370
Sales Managers	23,650	990	\$129,390
Mechanical Engineers	18,250	990	\$97,650
Administrative Services Managers	26,020	965	\$95,700
Educational, Guidance, School, & Vocational Counselors	22,030	955	\$54,730
Bus & Truck Mechanics & Diesel Engine Specialists	22,180	945	\$41,970
Pharmacists	19,950	945	\$116,790
Financial Analysts	20,130	935	\$89,600
Food Service Managers	27,330	930	\$53,210
Real Estate Sales Agents	34,360	925	\$54,920
Medical Records & Health Information Technicians	16,460	920	\$37,020
Paralegals & Legal Assistants	19,720	905	\$52,670
Purchasing Agents, Ex. Wholesale, Retail, & Farm Products	23,970	870	\$62,300
Cost Estimators	14,400	870	\$65,270
Dispatchers, Ex. Police, Fire, & Ambulance	16,910	855	\$37,670
Computer Programmers	22,040	840	\$79,990
First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	16,990	830	\$56,670
Emergency Medical Technicians & Paramedics	14,820	830	\$33,450

A-4 Recent Industry Employment Growth Rate

Industries in Texas are adding workers at different rates. Employment data compiled by the Current Employment Statistics program for the most recent 12-month period is shown below. This is another measurement tool to give another view of the Texas labor economy.

	Nov. 2013	Nov. 2014	Annual Growth
Total Texas Nonfarm Employment	11,301,000	11,742,200	3.9%
Mining (Oil & Gas) and Logging	293,700	323,800	10.2%
Transportation, Warehousing, Utilities	469,700	507,800	8.1%
Construction	615,500	662,800	7.7%
Educational Services	178,200	188,200	5.6%
Financial Activities	682,600	714,000	4.6%
Professional & Business Services	1,478,600	1,545,500	4.5%
Accommodations & Food Services	1,044,500	1,090,800	4.4%
Health Care & Social Assistance	1,319,300	1,374,800	4.2%
Wholesale Trade	566,000	585,100	3.4%
Retail Trade	1,236,900	1,269,300	2.6%
Manufacturing	875,200	891,900	1.9%

Source: Current Employment Statistics, seasonally adjusted data



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