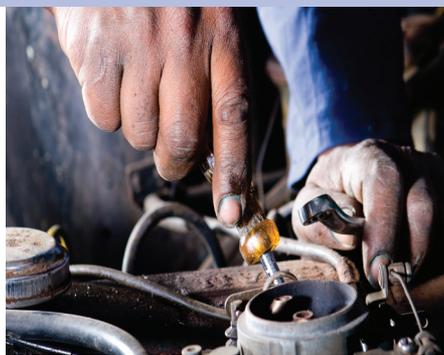




Texas Growth Occupations

ANNUAL REPORT 2016



Texas Workforce Commission

Mission Statement

To promote and support a workforce system
that creates value and offers
employers, individuals, and communities
the opportunity to achieve and sustain
economic prosperity.



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Executive Summary

Texas Labor Code Section 302.019 requires the Texas Workforce Commission (TWC) to gather and study information relating to existing and projected shortages in high-wage, high-demand occupations in Texas annually, including for selected industries.

This report summarizes those findings by industry in Texas. The additional data used in this report is current as of the end of federal fiscal year 2016. Thus, the Quarterly Census of Employment and Wages (QCEW) data covers the period through first quarter 2016. The Current Employment Statistics (CES) data covers the period through the August 2016 estimates. Help Wanted Online (HWOL) data has been incorporated covering third quarter 2016.

Texas recovered robustly after the national recession of 2008-2009, taking only 39 months while the nation took 76. As of August 2016 Texas has experienced 76 consecutive months of annualized employment growth. The state has expanded employment 13.3 percent beyond its pre-recession peak, whereas national employment has expanded by 4.5 percent.

Texas remains driven by a continued economic shift towards high-skilled jobs in the Business and Professional Services sector, while the state's rapid population growth and aging baby-boomer population increases demand for service sector jobs, primarily Leisure and Hospitality and Education and Health Services. These three industries in addition to Trade, Transportation, and Utilities account for over 55 percent of the jobs in Texas.

The occupations showing the highest current demand according to the HWOL data are typical of the Wholesale Trade, Accommodation and Food Services, and Construction industries. These industries also currently show the highest employment growth rates.

For this report, TWC staff measured industry employment levels over the most recent available five-year period (third quarter of 2010 to third quarter of 2015) using employment levels reported by Texas

employers under TWC's QCEW program. This report provides industry-level employment data along with HWOL data to provide comparison and context.

This report also contains TWC's most current short- and long-term projections for employment growth in Texas. Short-term projections were released in February 2016 with a base year of 2015 covering the period of 2015 to 2017. Long-term projections were released in September 2016 with a base year of 2014 covering the period of 2014 to 2024. As a result, this report uses current employment statistics programs such as QCEW, CES and HWOL to better understand the current economic situation. The next short-term employment projections, covering the period of 2017 to 2019, will be released in the Spring 2017.

Due to shifts in the economy, required education and job training for the occupations in this report ranges from professional occupations requiring a college degree, to skilled trades in construction or manufacturing that require specific technical skills training. Some jobs in this report require no post-secondary education. However, higher-paying occupations tend to require:

- a) a bachelor's degree and specific technical skill training, or
- b) some form of post-secondary education, specific technical skill training, and additional on-the-job training.

Since no official definition of a high wage occupation exists, TWC focused in this report on growing occupations that pay more than the Texas median wage of \$34,550 per year.

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. In preparing the projections, TWC examined more than 800 occupations, segmenting them for specific industries. Those growth occupations are listed by industry sector in Section II.

Growth Occupations in Growth Industries

Positive growth continues to drive demand for workers in the United States, particularly in Texas and its surrounding states. In some key occupations, local supply has at times struggled to keep up with demand.

This report focuses on the most in-demand occupations in Texas from 2014 through 2024 (long-term) and 2015 through 2017 (short-term). It is important to remember that even similar job titles will require unique combinations of technical skills, education, work experience, and soft skills based on each employer's unique needs.

This section identifies occupations within major industries as defined in Chapter 302. The charts display staffing and wage information for a specific occupation in that specific industry. Occupations are then ranked by the projected employment change in Texas from 2014 to 2024. Listed industry employment data corresponds with that industry's North American Industry Classification System (NAICS) code.



A. Construction

The construction industry is projected to grow by 27.8 percent from 2014 to 2024, creating the need for 177,390 workers over the course of 10 years. Occupational projections also indicate that in the short and long terms, the highest demand will be for specialty trade workers to fill positions such as Electricians, Plumbers, and Carpenters.

In the first quarter 2016, employment with Construction companies reached 682,677 workers. Help Wanted Online construction data shows strong growth for the industry given third quarter 2016 job postings are up 5.6 percent from last year.

Demand for construction workers continues to rise. Texas second quarter 2016 home sales rose significantly, while housing inventory remains limited at 3.7 months, driving home prices up 7.5 percent from last year. These trends indicate strong demand for residential, commercial and industrial building projects.

Construction occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Electricians	39,740	53,490	13,750	34.6%	\$44,102
Supervisors of Construction Trades and Extraction Workers	43,440	55,330	11,890	27.4%	\$63,419
Plumbers, Pipefitters, and Steamfitters	27,290	35,160	7,870	28.8%	\$45,462
Carpenters	27,930	34,970	7,040	25.2%	\$36,386
Operating Engineers and Other Construction Equipment Operators	23,650	29,650	6,000	25.4%	\$40,173
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	14,680	19,910	5,230	35.6%	\$41,932
Office Clerks, General	24,000	29,200	5,200	21.7%	\$35,946
General and Operations Managers	17,280	22,160	4,880	28.2%	\$117,172
Construction Managers	21,080	25,160	4,080	19.4%	\$90,378
Welders, Cutters, Solderers, and Brazers	13,450	16,460	3,010	22.4%	\$53,933

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Supervisors of Construction Trades & Extraction Workers	44,550	49,780	5,230	11.7%	\$63,419
Electricians	39,900	44,520	4,620	11.6%	\$44,102
Plumbers, Pipefitters, & Steamfitters	30,020	33,400	3,380	11.3%	\$45,462
Carpenters	29,740	33,070	3,330	11.2%	\$36,386
Operating Engineers & Other Construction Equipment Operators	24,430	27,240	2,810	11.5%	\$40,173
Construction Managers	26,150	28,940	2,790	10.7%	\$90,378
Office Clerks, General	22,800	25,120	2,320	10.2%	\$35,946
General & Operations Managers	19,680	21,910	2,230	11.3%	\$117,172
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	15,680	17,480	1,800	11.5%	\$41,932
Welders, Cutters, Solderers, & Brazers	11,580	12,890	1,310	11.3%	\$53,933

B. Manufacturing

Texas produces more than 11 percent of total manufactured goods in the United States.¹ It also exports more goods by dollar value to Mexico and Canada than it does to any other country. Despite a strong dollar, which typically reduces demand for exports, the Dallas Fed's manufacturing production index posted a third consecutive positive reading in September,² suggesting manufacturing output continues to expand in Texas.

The Quarterly Census of Employment and Wages program has shown manufacturing employment is up 30,808 jobs since first quarter 2011. Nondurable goods employment is up over the year, yet an increase in automation has led to a slowing in demand for durable goods manufacturing employment. The

increase in automation and productivity has driven up manufacturing wages for 83 consecutive months according to the Dallas Fed's monthly Manufacturing Outlook survey,³ possibly due to an increase in demand for higher-skilled employees.

Manufacturing industry employment is expected to increase by 7.2 percent by 2024. This increase spans a broad range of skill sets including Industrial Machinery Mechanics; Computer Controlled Machine Tool Operators; and Welders, Cutters, Solderers, and Brazers, among others.

The occupations within Manufacturing expected to increase in the near and long term are listed below and on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Industrial Machinery Mechanics	10,990	14,090	3,100	28.2%	\$53,735
Supervisors of Production and Operating Workers	32,130	34,910	2,780	8.7%	\$65,899
Computer-Controlled Machine Tool Operators, Metal and Plastic	12,180	14,580	2,400	19.7%	\$38,654
Welders, Cutters, Solderers, and Brazers	25,550	27,730	2,180	8.5%	\$38,816
Heavy and Tractor-Trailer Truck Drivers	12,890	15,000	2,110	16.4%	\$37,806
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	20,250	22,070	1,820	9.0%	\$67,189
Chemical Equipment Operators and Tenders	11,420	13,220	1,800	15.8%	\$62,004
Maintenance Workers, Machinery	7,110	8,660	1,550	21.8%	\$45,173
General and Operations Managers	16,750	17,990	1,240	7.4%	\$134,993
Inspectors, Testers, Sorters, Samplers, and Weighers	25,340	26,560	1,220	4.8%	\$40,643

¹Dallas Federal Reserve, <http://www.dallasfed.org/news/releases/2016/nr160125.cfm>

²Dallas Federal Reserve, <http://www.dallasfed.org/microsites/research/surveys/tmos/2016/1610/tmos1610.pdf>

³Dallas Federal Reserve, <http://www.dallasfed.org/microsites/research/surveys/tmos/2016/1610/tmos1610.pdf>

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Industrial Machinery Mechanics	11,940	12,330	390	3.3%	\$53,735
Heavy & Tractor-Trailer Truck Drivers	12,270	12,600	330	2.7%	\$37,806
Chemical Equipment Operators & Tenders	9,790	10,050	260	2.7%	\$62,004
Chemical Plant & System Operators	5,800	5,960	160	2.8%	\$68,482
Separating, Filtering, Clarifying, Precipitating, & Still Machine Setters, Operators, & Tenders	2,940	3,070	130	4.4%	\$48,305
Maintenance Workers, Machinery	6,640	6,730	90	1.4%	\$45,173
Chemical Engineers	3,360	3,430	70	2.1%	\$116,733
Dental Laboratory Technicians	1,700	1,770	70	4.1%	\$40,361
Chemists	2,060	2,110	50	2.4%	\$78,094
Chemical Technicians	2,650	2,690	40	1.5%	\$58,702

C. Agriculture and Forestry

Though Texas' Agriculture and Forestry industry is one of the smallest in terms of employment, it leads the nation in many ways. The industry produces the most cattle, cotton, hay, sheep, goats and mohair of any state in the nation.⁴ Texas also has the most farms and ranches in the country: 248,800 covering 130.2 million acres.⁵

In Texas and across the nation, this industry has been using fewer and fewer workers in recent decades as farming methods have become more efficient. Farms now tend to be fewer in number, larger and more expensive to operate, but also much more productive.

From the first quarter of 2011 to the first quarter of 2016 the Agriculture and Forestry industry in Texas grew by 1.0 percent, adding 574 jobs. The industry is projected to add nearly 6,700 jobs by 2024, growing to 64,850 jobs total.



Agriculture and Forestry job postings decreased approximately 15 percent when comparing the third quarter of 2015 to the same quarter in 2016. However, it is worth noting that Texas' Agriculture and Forestry employers post openings online less often compared to employers in other industries.

Agriculture and Forestry industry jobs projected to add the most positions over the long (2014-2024) and short (2015-2017) terms are listed on the next page.

⁴Texas Department of Agriculture (<https://texasagriculture.gov/About/TexasAgStats>)

⁵Texas Department of Agriculture (<https://texasagriculture.gov/About/TexasAgStats>)

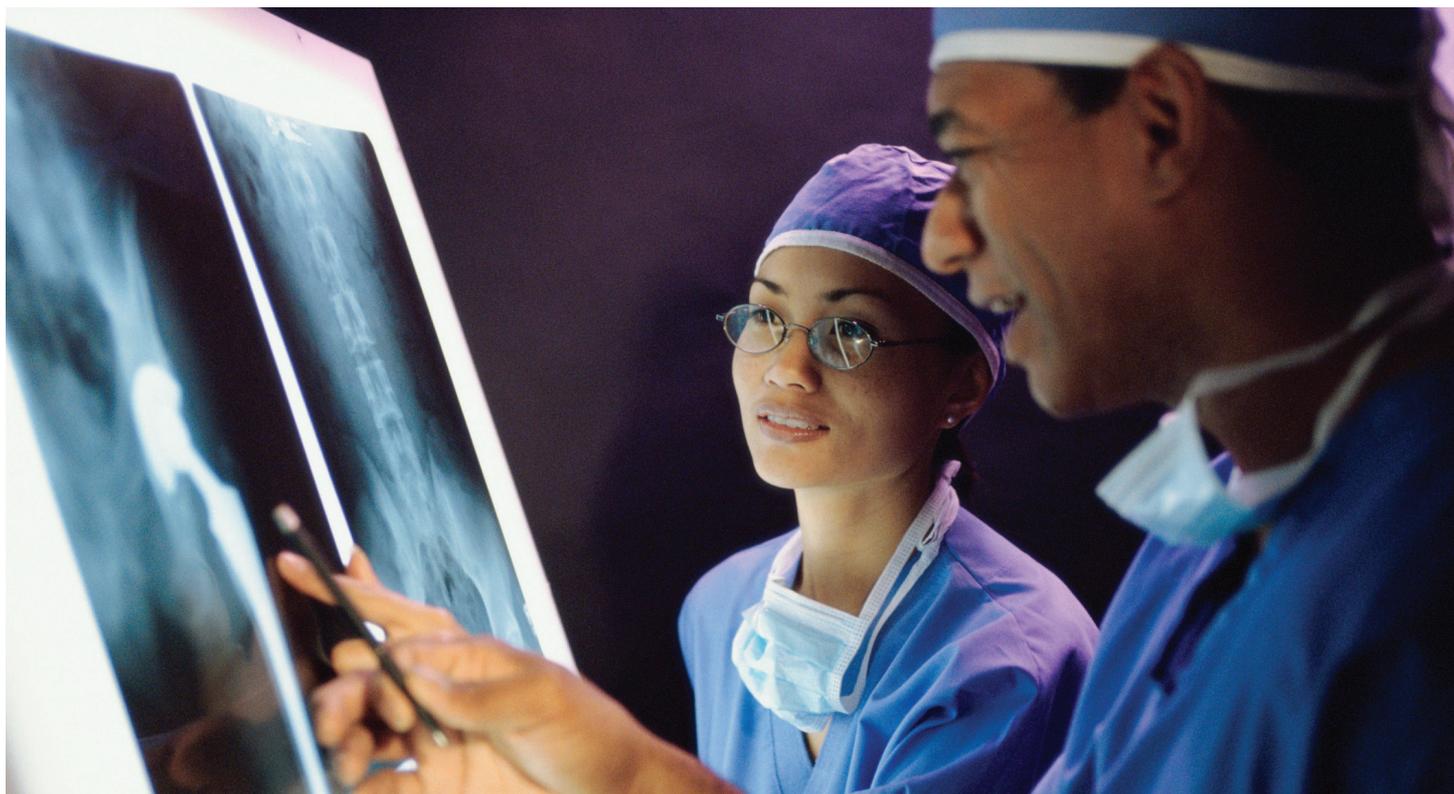
Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Farmers, Ranchers, and Other Agricultural Managers	5,300	5,640	340	6.4%	\$74,378
Logging Equipment Operators	640	770	130	20.3%	\$38,588
Supervisors of Farming, Fishing, and Forestry Workers	2,200	2,270	70	3.2%	\$50,065
Food Scientists and Technologists	190	220	30	15.8%	\$57,968
Production, Planning, and Expediting Clerks	130	150	20	15.4%	\$49,532
Commercial Pilots	120	140	20	16.7%	\$66,176
Maintenance Workers, Machinery	60	70	10	16.7%	\$36,421
Supervisors of Production and Operating Workers	70	80	10	14.3%	\$40,911
Bookkeeping, Accounting, and Auditing Clerks	430	430	0	0.0%	\$36,018
Supervisors of Office and Administrative Support Workers	70	70	0	0.0%	\$59,324

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Supervisors of Mechanics, Installers, & Repairers	50	50	0	0.0%	\$65,979
Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	20	20	0	0.0%	\$37,751
Maintenance Workers, Machinery	60	50	-10	-16.7%	\$36,421
Supervisors of Production & Operating Workers	80	70	-10	-12.5%	\$40,911
Logging Equipment Operators	710	680	-30	-4.2%	\$38,588

* Due to limited coverage in this industry, many agricultural workers are self-employed and are not covered by Unemployment Insurance and therefore are not sampled by the Occupational Employment Statistics (OES) program.



D. Health Care and Social Assistance

The Health Care and Social Assistance industry grew to 1,531,120 positions in first quarter 2016. The industry has averaged 2.8 percent annual growth over the past 5 years, resulting in 196,291 jobs added. According to long term industry projections, Health Care and Social Assistance employment is expected to grow to approximately 1,892,000 jobs by 2024, posting the strongest growth of the 11 industries in this report at 32.2 percent.

Ambulatory Health Care Services, which consists of doctors' and dentists' offices, outpatient care centers and medical and diagnostic laboratories, comprises about 45 percent of the Health Care and Social Assistance industry. Ambulatory Health Care Services has averaged 3.0 percent annual growth over the past five years, slightly faster than Health Care and Social Assistance overall.

A consistent need for nurses drives occupational demand within the Health Care and Social Assistance industry. According to Help Wanted Online, the industry job postings are up 2.3 percent over-the-year in third quarter of 2016. Registered Nurses (RNs) account for one in four job postings in the industry. Licensed Practical and Licensed Vocational Nurses (LVNs), Nursing Assistants and Medical Assistants are also among the top 5 most listed positions. This strong demand is reflected in short- and long-term occupational projections, both of which indicate that RNs and LVNs will add the most positions over the coming years.

Health Care and Social Assistance occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Registered Nurses	168,960	225,170	56,210	33.3%	\$69,977
Licensed Practical and Licensed Vocational Nurses	58,430	75,000	16,570	28.4%	\$45,566
Office Clerks, General	37,670	47,550	9,880	26.2%	\$37,889
Dental Assistants	23,620	30,090	6,470	27.4%	\$35,109
Medical and Health Services Managers	15,990	21,030	5,040	31.5%	\$98,857
Physical Therapists	11,380	15,580	4,200	36.9%	\$98,912
Medical Records and Health Information Technicians	12,700	16,750	4,050	31.9%	\$37,729
General and Operations Managers	11,770	15,700	3,930	33.4%	\$102,629
Radiologic Technologists	14,340	18,020	3,680	25.7%	\$55,646
Nurse Practitioners	6,850	10,460	3,610	52.7%	\$105,806

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Registered Nurses	166,330	173,600	7,270	4.4%	\$69,977
Licensed Practical & Licensed Vocational Nurses	62,440	64,840	2,400	3.8%	\$45,566
Office Clerks, General	35,420	36,880	1,460	4.1%	\$37,889
General & Operations Managers	13,060	13,830	770	5.9%	\$102,629
Medical & Health Services Managers	16,170	16,890	720	4.5%	\$98,857
Dental Assistants	22,700	23,390	690	3.0%	\$35,109
Physical Therapists	10,450	11,100	650	6.2%	\$98,912
Medical Records & Health Information Technicians	12,750	13,250	500	3.9%	\$37,729
Speech-Language Pathologists	6,370	6,840	470	7.4%	\$90,365
Nurse Practitioners	6,550	7,000	450	6.9%	\$105,806



E. Educational Services

Demand for Educational Services will continue to grow in Texas due to an ever-expanding population. From 2010 to 2015, Texas added 2,224,751 people—more than any other state in the nation. During this span, school enrollment for persons three years of age and older jumped by 343,157 students, a 4.8 percent increase. Enrollment growth was even more drastic over 10 years with 1,299,782 students added since 2005, a 20.8 percent increase.

Quarterly Census of Employment and Wage data shows Educational Services employment added 28,509 jobs over five years beginning first quarter 2011, a 22.4 percent gain that puts industry employment at 155,791 jobs for first quarter 2016. The industry is expected to expand by another 21.7 percent from 2014 to 2024 according to the Texas Workforce Commission's long term industry projections, despite recent HWOL job listings down 16.1 percent over the year for the third quarter 2016 for Educational Services.

TWC's occupational projections data estimate that Elementary, Secondary, and Middle School Teachers as well as Educational Administrators for both public and private Texas schools will all increase by 24.6 percent by 2024. In the near term, non-teaching occupations like Instructional Coordinators, Computer User Support Specialists, and Registered Nurses are also in demand. Educational Services occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Elementary School Teachers	137,720	171,550	33,830	24.6%	\$52,822
Secondary School Teachers	100,550	125,250	24,700	24.6%	\$53,625
Middle School Teachers	69,040	86,050	17,010	24.6%	\$53,072
Education Administrators, Elementary and Secondary School	23,140	28,840	5,700	24.6%	\$79,452
Educational, Guidance, School, and Vocational Counselors	20,940	25,840	4,900	23.4%	\$57,974
Kindergarten Teachers	14,090	17,580	3,490	24.8%	\$52,486
Health Specialties Teachers, Postsecondary	11,840	15,250	3,410	28.8%	\$108,525
Self-Enrichment Education Teachers	9,350	12,300	2,950	31.6%	\$40,033
Special Education Teachers, Kindergarten and Elementary School	11,720	14,590	2,870	24.5%	\$53,525
Instructional Coordinators	11,260	13,810	2,550	22.6%	\$67,732

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Secondary School Teachers	109,650	113,190	3,540	3.2%	\$53,625
Educational, Guidance, School, & Vocational Counselors	20,380	21,160	780	3.8%	\$57,974
Health Specialties Teachers, Postsecondary	13,420	14,200	780	5.8%	\$108,525
Self-Enrichment Education Teachers	8,250	8,780	530	6.4%	\$40,033
Kindergarten Teachers	14,880	15,370	490	3.3%	\$52,486
Vocational Education Teachers, Postsecondary	11,050	11,430	380	3.4%	\$54,501
Instructional Coordinators	10,900	11,280	380	3.5%	\$67,732
Computer User Support Specialists	9,960	10,300	340	3.4%	\$42,832
Registered Nurses	9,410	9,740	330	3.5%	\$60,119
Preschool Teachers	8,060	8,330	270	3.3%	\$51,664



F. Transportation and Warehousing

The Transportation and Warehousing industry grew to an estimated 481,186 positions in first quarter 2016. The industry has averaged 3.6 percent annual growth over the past five years, adding 77,735 jobs. According to long term industry projections, Transportation and Warehousing employment is expected to grow to approximately 561,000 positions by 2024.

Truck Transportation makes up about 30 percent of the overall Transportation and Warehousing industry, and has averaged 4.3 percent annual growth over the past five years. According to Help Wanted Online, Transportation and Warehousing postings are down 22.2 percent over the year in third quarter of 2016. However, job postings for Heavy and Tractor-Trailer Truck Drivers have increased almost 60 percent over the year. Both short- and long-term occupational projections reflect this demand, as Heavy & Tractor-Trailer Drivers and Light Truck or Delivery Services Drivers are expected to add the most positions in the overall Transportation and Warehousing industry over both time frames.

Air Transportation employment grew to approximately 60,600 positions in first quarter 2016 and is poised for continued growth with upcoming expansions at Austin-Bergstrom and Dallas/Fort Worth international airports, among others, near completion. From 2014 to 2024, Airline Pilots, Copilots, and Flight Engineers, Flight Attendants, and Aircraft Mechanics and Service Technicians are expected to add a combined 7,700 positions, long-term occupational projections indicate.

Transportation and Warehousing occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Heavy and Tractor-Trailer Truck Drivers	90,830	114,730	23,900	26.3%	\$43,256
Light Truck or Delivery Services Drivers	17,810	23,010	5,200	29.2%	\$40,900
Flight Attendants	12,550	16,090	3,540	28.2%	\$53,047
Postal Service Mail Carriers	21,440	23,770	2,330	10.9%	\$51,034
Airline Pilots, Copilots, and Flight Engineers	8,070	10,340	2,270	28.1%	\$196,312
Cargo and Freight Agents	8,740	10,980	2,240	25.6%	\$45,631
Dispatchers, Except Police, Fire, and Ambulance	8,800	10,900	2,100	23.9%	\$39,151
Customer Service Representatives	8,210	10,150	1,940	23.6%	\$36,400
Aircraft Mechanics and Service Technicians	8,930	10,820	1,890	21.2%	\$62,554
Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	7,900	9,660	1,760	22.3%	\$60,382

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Heavy & Tractor-Trailer Truck Drivers	93,580	100,060	6,480	6.9%	\$43,256
Light Truck or Delivery Services Drivers	20,190	21,520	1,330	6.6%	\$40,900
Dispatchers, Ex. Police, Fire, & Ambulance	8,820	9,380	560	6.3%	\$39,151
Cargo & Freight Agents	9,700	10,230	530	5.5%	\$45,631
Customer Service Representatives	9,990	10,510	520	5.2%	\$36,400
Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	8,310	8,810	500	6.0%	\$60,382
General & Operations Managers	7,780	8,260	480	6.2%	\$114,297
Bus & Truck Mechanics & Diesel Engine Specialists	6,970	7,430	460	6.6%	\$44,421
Reservation & Transportation Ticket Agents & Travel Clerks	9,980	10,420	440	4.4%	\$41,912
Supervisors of Office & Administrative Support Workers	6,830	7,190	360	5.3%	\$60,447



G. Mining, Quarrying, and Oil and Gas Extraction

The Mining, Quarrying, and Oil and Gas Extractions industry is projected to contract by 16.8 percent from 2014 to 2024, a decline of 49,230 workers over that time. Four of this industry's occupations making above the median Texas wage are projected to add occupations from 2014 to 2024, including Dredge Operators and Lawyers and Paralegals.

Most of the industry contraction projected for the long term has already occurred. From first quarter 2014 to first quarter 2016, Mining, Quarrying, and Oil and Gas Extraction employment contracted by 20.5 percent, totaling 60,230 jobs lost during that time. Given that long-term projections foresee the loss of 49,230 workers starting from 2014, there should be 11,000 jobs added from 2016 to 2024, excluding replacements due to turnover. Help Wanted Online data showed some demand for oil workers across Texas with 1,490 postings in third quarter 2016.

Mining, Quarrying, and Oil and Gas Extraction is expected to grow moderately through 2024. Supply continues to outpace demand as oil producers across the globe continue to rapidly pump while demand slows in India and China.

Mining, Quarrying, and Oil and Gas Extractions occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Lawyers	1,780	1,800	20	1.1%	\$175,295
Dredge Operators	120	140	20	16.7%	\$38,327
Paralegals and Legal Assistants	340	350	10	2.9%	\$66,142
Cartographers and Photogrammetrists	130	140	10	7.7%	\$82,290
Excavating and Loading Machine and Dragline Operators	1,390	1,390	0	0.0%	\$38,445
Loading Machine Operators, Underground Mining	80	80	0	0.0%	\$47,154
Operations Research Analysts	50	50	0	0.0%	\$98,642
Economists	50	50	0	0.0%	\$140,975
Civil Engineering Technicians	30	30	0	0.0%	\$69,511
Technical Writers	30	30	0	0.0%	\$69,234

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Dredge Operators	130	140	10	7.7%	\$38,327
Cost Estimators	90	90	0	0.0%	\$106,775
Billing & Posting Clerks	90	90	0	0.0%	\$39,407
Computer Network Architects	80	80	0	0.0%	\$111,140
Materials Engineers	80	80	0	0.0%	\$98,787
Securities, Commodities, & Financial Services Sales Agents	50	50	0	0.0%	\$101,286
Hazardous Materials Removal Workers	50	50	0	0.0%	\$44,352
Compensation & Benefits Managers	40	40	0	0.0%	\$156,317



H. Utilities

The Texas Utilities industry is projected to grow at a rate of 17.8 percent from 2014-2024, adding 8,550 private-sector jobs during that time. The driving force behind this growth will likely be the increased infrastructure needs for Texas' rapidly expanding population. Of the 80,573 Utilities industry jobs in the first quarter of 2016, 61 percent were in the private sector according to the Quarterly Census of Employment and Wages.

Some of the larger expected growth occupations in the Utilities industry for 2014-2024 include: Electric Power-Line Installers and Repairers, Industrial Machinery Mechanics, Power Plant Operators, Customer Service Representatives, and Wind Turbine Service Technicians.

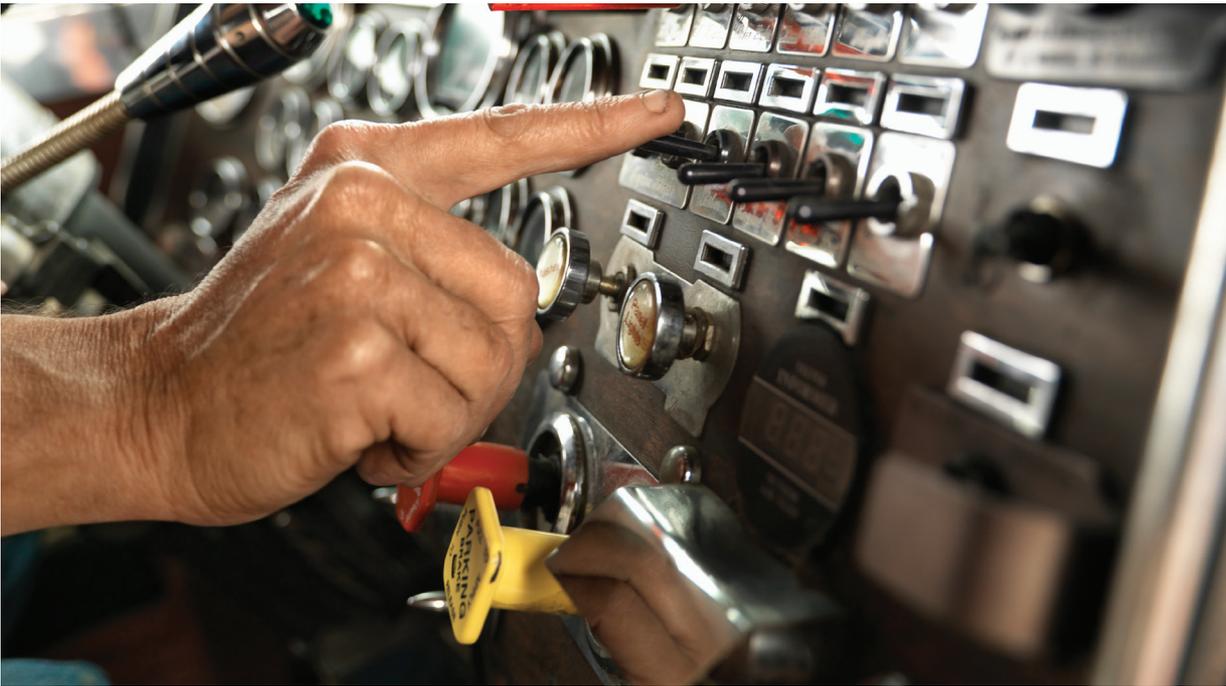
Utilities occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Electrical Power-Line Installers and Repairers	4,580	5,400	820	17.9%	\$59,561
Industrial Machinery Mechanics	1,150	1,630	480	41.7%	\$59,485
Power Plant Operators	2,590	3,060	470	18.1%	\$67,588
Customer Service Representatives	2,170	2,550	380	17.5%	\$38,606
Water and Wastewater Treatment Plant and System Operators	1,630	1,930	300	18.4%	\$37,539
Wind Turbine Service Technicians	210	510	300	142.9%	\$50,782
Control and Valve Installers and Repairers, Except Mechanical Door	1,460	1,720	260	17.8%	\$50,280
General and Operations Managers	1,350	1,590	240	17.8%	\$129,714
Supervisors of Mechanics, Installers, and Repairers	1,350	1,590	240	17.8%	\$74,326
Office Clerks, General	1,800	2,020	220	12.2%	\$36,785

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Water & Wastewater Treatment Plant & System Operators	1,400	1,510	110	7.9%	\$37,539
Power Plant Operators	3,170	3,250	80	2.5%	\$67,588
Industrial Machinery Mechanics	1,260	1,340	80	6.3%	\$59,485
Customer Service Representatives	2,310	2,370	60	2.6%	\$38,606
Office Clerks, General	1,870	1,920	50	2.7%	\$36,785
General & Operations Managers	1,440	1,490	50	3.5%	\$129,714
Electrical Engineers	1,410	1,450	40	2.8%	\$97,571
Supervisors of Mechanics, Installers, & Repairers	1,410	1,450	40	2.8%	\$74,326
Control & Valve Installers & Repairers, Ex. Mechanical Door	1,090	1,130	40	3.7%	\$50,280
Supervisors of Production & Operating Workers	990	1,020	30	3.0%	\$71,159



I. Wholesale Trade

The Wholesale Trade industry in Texas is predicted to grow 22.1 percent from 2014-2024, adding an additional 118,430 jobs during that period. This exceeds the overall statewide Industry forecasted growth rate of 20.7 percent over 10 years. Wholesale Trade has grown by 72,938 jobs over the last five years, a five-year job growth percentage increase of 14.5 percent according to the Quarterly Census of Employment and Wages.

The five largest growth occupations in the Wholesale Trade industry include: Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products; Heavy and Tractor-Trailer Truck Driver; Office Clerks-General; Drivers/Sales Workers; and Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products.

Wholesale Trade occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	74,750	92,750	18,000	24.1%	\$72,223
Heavy and Tractor-Trailer Truck Drivers	23,190	28,610	5,420	23.4%	\$39,303
Office Clerks, General	26,660	31,280	4,620	17.3%	\$35,867
Customer Service Representatives	16,440	20,330	3,890	23.7%	\$36,747
General and Operations Managers	16,040	19,760	3,720	23.2%	\$140,675
Driver/Sales Workers	16,060	19,710	3,650	22.7%	\$34,792
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	14,520	17,910	3,390	23.3%	\$77,681
Supervisors of Non-Retail Sales Workers	8,480	10,520	2,040	24.1%	\$81,762
Supervisors of Office and Administrative Support Workers	7,000	8,630	1,630	23.3%	\$58,061
Parts Salespersons	6,450	7,860	1,410	21.9%	\$38,319

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Sales Representatives, Wholesale & Manufacturing, Ex. Technical & Scientific Products	91,410	99,820	8,410	9.2%	\$72,223
Heavy & Tractor-Trailer Truck Drivers	23,140	26,370	3,230	14.0%	\$39,303
Driver/Sales Workers	17,570	20,410	2,840	16.2%	\$34,792
Office Clerks, General	29,880	32,160	2,280	7.6%	\$35,867
General & Operations Managers	19,100	20,800	1,700	8.9%	\$140,675
Customer Service Representatives	18,700	20,280	1,580	8.4%	\$36,747
Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	16,810	17,960	1,150	6.8%	\$77,681
Supervisors of Non-Retail Sales Workers	9,880	10,870	990	10.0%	\$81,762
Bookkeeping, Accounting, & Auditing Clerks	12,490	13,240	750	6.0%	\$39,054
Supervisors of Office & Administrative Support Workers	7,200	7,920	720	10.0%	\$58,061



J. Retail Trade

Retail Trade is a large, important and growing industry in Texas, where an expanding economy and population have increased demand for retail goods. In the fourth quarter of 2015 alone, gross sales in Texas' Retail Trade industry reached nearly \$120 billion.⁶ Eight of the top 100 U.S. retail companies are headquarter in Texas,⁷ and retailers are adding workers across the board, from sales people to stocking clerks to drivers to managers.

From the first quarter of 2011 to the first quarter of 2016, Texas' Retail Trade industry grew by more than 14 percent, adding 160,283 jobs. The industry is projected to add nearly 250,000 jobs by 2024, growing to 1,494,870 jobs total.

Retail Trade industry jobs projected to add the most positions over the long (2014-2024) and short (2015-2017) terms are listed below. Typical Retail Trade industry jobs such as retail sales people, cashiers and stock clerks and order fillers are projected to grow by the largest number, however these occupations make below the state median wage and therefore do not appear in the charts on the next page.

⁶Texas Comptroller of Public Accounts, <http://comptroller.texas.gov/taxinfo/staxqtr/stxqtr02.html>

⁷National Retail Federation, <https://nrf.com/advocacy/retails-impact/tx>

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Supervisors of Retail Sales Workers	90,110	107,420	17,310	19.2%	\$45,883
Automotive Service Technicians and Mechanics	23,550	28,110	4,560	19.4%	\$41,453
General and Operations Managers	16,670	20,220	3,550	21.3%	\$104,354
Supervisors of Office and Administrative Support Workers	13,580	16,430	2,850	21.0%	\$44,426
Pharmacists	12,040	13,690	1,650	13.7%	\$122,151
Supervisors of Mechanics, Installers, and Repairers	4,480	5,570	1,090	24.3%	\$65,579
Automotive Body and Related Repairers	3,530	4,480	950	26.9%	\$43,752
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	4,250	5,150	900	21.2%	\$104,411
Heavy and Tractor-Trailer Truck Drivers	3,820	4,590	770	20.2%	\$35,462
Sales Managers	3,470	4,190	720	20.7%	\$122,291

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Supervisors of Retail Sales Workers	93,390	97,340	3,950	4.2%	\$45,883
Auto Service Technicians & Mechanics	25,040	26,230	1,190	4.8%	\$41,453
General & Operations Managers	17,780	18,630	850	4.8%	\$104,354
Supervisors of Office & Administrative Support Workers	14,120	14,860	740	5.2%	\$44,426
Pharmacists	12,790	13,210	420	3.3%	\$122,151
Supervisors of Mechanics, Installers, & Repairers	5,090	5,360	270	5.3%	\$65,579
Auto Body & Related Repairers	3,600	3,820	220	6.1%	\$43,752
Sales Managers	4,500	4,670	170	3.8%	\$122,291
Heavy & Tractor-Trailer Truck Drivers	3,870	4,010	140	3.6%	\$35,462
Securities, Commodities, & Financial Services Sales Agents	2,080	2,210	130	6.3%	\$103,719



K. Finance and Insurance

From 2014 to 2024, the Finance and Insurance industry is projected to grow by 17.6 percent, resulting in 85,760 jobs added. Projections indicate the most jobs will be available in positions such as Insurance Claims & Policy Clerks, Customer Service Representatives, and Financial Services Sales Agents.

According to TWC's Quarterly Census of Employment and Wages, in the first quarter of 2016 this industry totaled 505,648 jobs.

Dallas has become a large financial player in the state. Large firms such as USAA, Bank of America, and JPMorgan Chase operate large campuses across Texas. Texas' high

population growth will also continue to drive this sector as more residents create demand for loans and insurance policies.

Finance and Insurance occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Customer Service Representatives	48,030	57,440	9,410	19.6%	\$36,159
Insurance Sales Agents	35,890	44,220	8,330	23.2%	\$60,123
Insurance Claims and Policy Processing Clerks	26,130	31,730	5,600	21.4%	\$38,724
Personal Financial Advisors	12,470	16,840	4,370	35.0%	\$107,615
Loan Officers	21,240	25,570	4,330	20.4%	\$78,645
Loan Interviewers and Clerks	20,590	24,790	4,200	20.4%	\$44,211
Supervisors of Office and Administrative Support Workers	23,590	27,600	4,010	17.0%	\$63,151
Securities, Commodities, and Financial Services Sales Agents	22,860	26,860	4,000	17.5%	\$88,900
Claims Adjusters, Examiners, and Investigators	11,790	14,130	2,340	19.8%	\$67,879
General and Operations Managers	8,960	10,820	1,860	20.8%	\$164,190

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Insurance Claims & Policy Processing Clerks	26,870	30,590	3,720	13.8%	\$38,724
Customer Service Representatives	46,190	49,690	3,500	7.6%	\$36,159
Supervisors of Office & Administrative Support Workers	24,060	25,060	1,000	4.2%	\$63,151
Secretaries & Administrative Assistants, Ex. Legal, Medical, & Executive	12,210	13,140	930	7.6%	\$34,793
Securities, Commodities, & Financial Services Sales Agents	23,640	24,500	860	3.6%	\$88,900
Loan Interviewers & Clerks	23,050	23,830	780	3.4%	\$44,211
Financial Analysts	9,250	9,900	650	7.0%	\$102,960
Accountants & Auditors	8,520	9,150	630	7.4%	\$84,866
Loan Officers	23,770	24,390	620	2.6%	\$78,645
General & Operations Managers	8,620	9,230	610	7.1%	\$164,190



L. Professional, Scientific, and Technical Services

From 2014 to 2024, the Professional and Technical Services industry is projected to grow by 26.2 percent, resulting in 168,040 jobs added. Establishments in this industry employ workers in many different occupations. Projections indicate most jobs will be available in highly skilled positions such as Software Developers, Accountants, and Lawyers.

According to the TWC's Quarterly Census of Employment and Wages, in the first quarter of 2016 there were a total of 721,968 jobs in this industry.

This large industry is expected to continue to grow at a rapid pace through 2024. Demand for highly skilled

technology workers will likely drive growth in this industry group. This is a positive sign for Texas since many of these occupations command higher than average salaries.

Professional, Scientific, and Technical Services occupations projected to add the most jobs in the long and short term are listed on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Accountants and Auditors	37,380	51,580	14,200	38.0%	\$80,642
Computer Systems Analysts	24,240	34,350	10,110	41.7%	\$97,003
Software Developers, Applications	19,170	26,470	7,300	38.1%	\$99,599
Lawyers	25,570	32,360	6,790	26.6%	\$150,114
Computer User Support Specialists	14,100	19,490	5,390	38.2%	\$56,163
Office Clerks, General	28,940	34,250	5,310	18.3%	\$37,603
Paralegals and Legal Assistants	17,290	22,220	4,930	28.5%	\$51,216
Software Developers, Systems Software	12,990	17,750	4,760	36.6%	\$108,497
General and Operations Managers	16,330	20,790	4,460	27.3%	\$164,736
Management Analysts	13,020	17,130	4,110	31.6%	\$106,122

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Accountants & Auditors	37,670	39,770	2,100	5.6%	\$80,642
Computer Systems Analysts	20,350	21,930	1,580	7.8%	\$97,003
Software Developers, Applications	18,920	20,260	1,340	7.1%	\$99,599
Software Developers, Systems Software	17,040	18,200	1,160	6.8%	\$108,497
Computer User Support Specialists	15,710	16,830	1,120	7.1%	\$56,163
Office Clerks, General	37,620	38,690	1,070	2.8%	\$37,603
Lawyers	28,100	28,970	870	3.1%	\$150,114
Management Analysts	13,790	14,660	870	6.3%	\$106,122
General & Operations Managers	16,870	17,660	790	4.7%	\$164,736
Customer Service Representatives	15,450	16,220	770	5.0%	\$37,589



M. Accommodation and Food Services

The Accommodation and Food Services industry remains among the strongest performing industries in Texas and is projected to grow by 29.7 percent, adding 315,180 jobs over 10 years. This industry tends to grow with population and tourism which have been booming. This industry's growth spans many occupations with a wide range of salaries and education levels such as Event Planners, Chefs, Accountants and Heavy Truck Drivers.

From first quarter 2011 to first quarter 2016, Texas' Accommodation and Food Services industry grew by more than 23.4 percent, adding 211,552 jobs. Over 80

percent of the industry consists of the Restaurants subsector, which has grown 25 percent over the last five years. Special Food Services comprises 4.5 percent of the Accommodation and Food Services industry, but has grown 29.9 percent over the last five, years, likely due to the recent proliferation of food trucks.

This industry's job postings have shown strong over-the-year growth of 14.3 percent as of third quarter 2016. Accommodation and Food Services jobs projected to add the most positions over the long (2014-2024) and short (2015-2017) terms are listed below and on the next page.

Long Term

Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-2024	Percent Growth 2014-2024	Average Annual Wage 2015
Supervisors of Food Preparation and Serving Workers	64,540	88,150	23,610	36.6%	\$35,071
Food Service Managers	9,780	12,780	3,000	30.7%	\$57,298
Chefs and Head Cooks	6,360	8,380	2,020	31.8%	\$41,041
General and Operations Managers	6,500	8,480	1,980	30.5%	\$82,061
Lodging Managers	2,740	3,420	680	24.8%	\$52,439
Supervisors of Office and Administrative Support Workers	2,090	2,590	500	23.9%	\$43,058
Meeting, Convention, and Event Planners	1,280	1,650	370	28.9%	\$46,325
Accountants and Auditors	870	1,090	220	25.3%	\$58,683
Supervisors of Retail Sales Workers	510	680	170	33.3%	\$44,399
Public Relations Specialists	560	720	160	28.6%	\$56,173

Short Term

Occupational Title	Annual Average Employment 2015	Annual Average Employment 2017	Number Change 2015-2017	Percent Growth 2015-2017	Average Annual Wage 2015
Supervisors of Food Preparation & Serving Workers	65,710	70,800	5,090	7.7%	\$35,071
Food Service Managers	12,570	13,430	860	6.8%	\$57,298
General & Operations Managers	6,910	7,350	440	6.4%	\$82,061
Chefs & Head Cooks	5,590	5,970	380	6.8%	\$41,041
Meeting, Convention, & Event Planners	2,490	2,630	140	5.6%	\$46,325
Supervisors of Office & Administrative Support Workers	2,150	2,210	60	2.8%	\$43,058
Accountants & Auditors	850	890	40	4.7%	\$58,683
Heavy & Tractor-Trailer Truck Drivers	630	670	40	6.3%	\$37,045
Public Address System & Other Announcers	560	600	40	7.1%	\$42,798
Public Relations Specialists	540	580	40	7.4%	\$56,173

III. Conclusions

TWC reviewed the top growth occupations across the key industries for this report as required by statute. TWC tracks approximately 800 different occupations and employment is projected to increase in almost all of those occupations across industries with the exception of the Mining, Quarrying, and Oil and Gas Extraction industries which is seeing either slow growth or contraction.

Economic changes can impact employment in all industries in Texas. Still, demand across occupations varies depending on the need of employers in different industries and in different locations.

It is important to note that Texas employers continue 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 sixties and had delayed retirement but now are starting to exit the workforce.

This demographic shift is increasing demand for many occupations.

These workforce demographic and economic changes are occurring as Texas employers also have 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 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. Methodology

The Texas Workforce Commission collects data and makes projections on employment by industry as part of its contracts with the U.S. Bureau of Labor Statistics (BLS) and the Employment and Training Division of the U.S. Department of Labor (DOL). In accordance with the statistical methodology established by the DOL and the federal Office of Management and Budget, the TWC calculated employment data for approximately 800 occupations to analyze pay ranges and growth trends for these different occupations.

TWC measures many aspects of the Texas labor market. The number of workers employed and wages paid by industry are tracked by the Quarterly Census of Employment and Wages (QCEW). This program utilizes data from TWC's Unemployment Insurance program and 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 validate each other in identifying staffing trends with employers.

TWC then examines the number of workers by industry 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.

The current short-term projections for employment by industry and occupation were completed by TWC in February 2016 for the period of 2015 to 2017 and the long-term projections were completed in September 2016 for the period of 2014 to 2024. This report also includes industry employment level comparisons from QCEW data and HWOL data over the most recent five years and over the year to give context, as Section II of this report shows.

This report focuses on occupations with high demand or significant job openings and high pay rates as required by statute. Not all occupations are specific to a single industry.

There is no official definition of a "high-wage" job and the term may be interpreted differently by individuals depending on their age, work history, education level, geographic setting, ability to stay at a job for the long term, and even their expectations in life. The median pay across all occupations in Texas is \$34,550 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 the annual pay was estimated to be more than the statewide median, \$34,550 a year.



TEXAS WORKFORCE COMMISSION

101 East 15th Street
Austin, Texas 78778-0001
512-463-2222

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