Texas Workforce Commission

Report on Texas Growth Occupations - 2019

LMCI
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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 on an annual basis. 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 selected industries.

Data included in this report was the most recent data available as of the end of fiscal year 2019. Thus, the Quarterly Census of Employment and Wage (QCEW) data covers the period through the first quarter of 2019. The Current Employment Statistics (CES) data covers the period through the September 2019 estimates.

Since the end of the national recession of 2008-2009, Texas has been among the leading states in the nation in terms of job growth. Based on employment data from the Current Employment Statistics (CES) program, Texas has experienced 113 consecutive months of annualized employment growth, which dates back to May 2010.

Texas is a diverse state in terms of industry, driven by a continued economic shift to "knowledge-based jobs" in the business and professional services sector and the rapid population growth in Texas that increases demand for jobs across many industries. Four of the largest private major industries were Education and Health Services; Leisure and Hospitality; Professional and Business Services; and Trade, Transportation, and Utilities. Combined, these four major industries accounted for over 68 percent of the jobs in Texas.

The industries showing the highest growth rates in employment in the CES data have been Construction, Professional, Scientific, and Technical Services, Educational Services, and the Finance and Insurance sectors. Industries, like occupations, are adding workers at different paces. For this report, the industry employment levels were also measured over the most recent five-year period available (first quarter 2014 to first quarter 2019) using employment levels reported by Texas employers under the Quarterly Census of Employment and Wages (QCEW) program at TWC. This industry-level staffing data is given to provide comparison and context.

This report also contains TWC's latest projections for employment growth for Texas, released in 2018 with a base year of 2016 and covering the period of 2016 to 2026. As a result, this report uses current employment statistics programs such as the QCEW and CES to develop a better understanding of the current economic situation. The next employment projections, covering the period of 2018 to 2028, will be released in the fall of 2020.

Of the 2.1 Million new jobs projected to be added between 2016 and 2026, 37% will require some form of postsecondary education and training, many of which are high growth professional jobs requiring a college degree. Jobs in construction and

manufacturing will also require training in specific technical skills. 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 requiring some form of post-secondary education, specific technical skill training, and additional on-the-job training.

There is no official definition of a high wage occupation so, for purposes of this report, TWC focuses on growing occupations that pay more than $37,099 a year (i.e. exceed the Texas median pay of $37,099).

To segment Texas occupations by sector, 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 by industry sector in Section II.

II. Apprentices and Participation Trends

In Texas, there are over 17,000 apprentices currently obtaining the skills they need to succeed while earning the wages they need to build financial security. In FY 2018, more than 6,000 individuals entered the apprenticeship system and 2,157 participants graduated.

Apprenticeship in Texas continues to show strong growth, increasing over 56% since 2014. Over 7,500 participants graduated in the last five years. There are currently 454 registered apprenticeship programs in Texas, with 43 new apprenticeship programs established in FY 2018.

Texas has over 300 apprenticeable occupations across all industries. However, there is a traditionally strong showing in Construction and Manufacturing. Over 60 percent of total occupations in the Construction industry are apprenticeable, followed by Manufacturing with over 58 percent.

III. Growth Occupations in Growth Industries

A growing economy in the United States and particularly in Texas and its surrounding states has resulted in more demand for workers. That increased 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 an evolving labor market is part of the mission of TWC. While this report shows the most in-demand occupations in Texas for the 2016 through 2026 period, it is important to remember that each employer needs a unique combination of technical skills, education, work experience, and even soft skills for each of these jobs at each of their workplaces.

This section identifies occupations within major industries as defined in House Bill 2478. 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 2016 to 2026 for occupations that are expected to add over 400 jobs by 2026, unless the industry jobs sited in this publication do not meet the 400-job thresh hold. Industry employment data listed corresponds with the Texas employers identified by that industry's North American Industry Classification System (NAICS) code.

A. Construction

Demand for construction workers remains strong as employment levels in the industry reached a new high 795,600 workers in September 2019 seasonally adjusted according to Current Employment Statistics. Year-over-year this period also marked the largest annual increase in workers at 52,000 added. Across much of Texas, the economy in the Lone Star state has continued to grow due largely to the twin engines of population growth and business expansion. This data is for NAICS code 23.

In the first quarter of 2019, according to the Quarterly Census of Employment and Wages data, employment with Construction companies reached 787,592 workers. Compared to the first quarter 2014, Construction employment was up 20.2 percent.

The occupations within the Construction industry that are projected to add the most jobs from 2016 to 2026 are listed below. The Construction industry continues to experience increased demand from commercial Construction projects and residential building in both urban and suburban areas of Texas. This increased demand, along with increasing openings for experienced line workers and managers who are starting to retire, supports a growing need for trained workers in this industry.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Supervisors of Construction and Extraction Workers	50,070	61,182	11,112	22.2%	$66,280
Plumbers, Pipefitters, and Steamfitters [A]	32,573	41,137	8,564	26.3%	$48,882
Electricians [A]	44,269	52,467	8,198	18.5%	$49,778
Carpenters [A]	30,016	36,110	6,094	20.3%	$40,636
Operating Engineers and Other Construction Equipment Operators [A]	24,056	29,801	5,745	23.9%	$42,664
Heating, Air Conditioning, and Refrigeration Mechanics and Installers [A]	16,966	21,712	4,746	28.0%	$44,852
Construction Managers	21,957	26,681	4,724	21.5%	$96,810
General and Operations Managers	17,485	21,399	3,914	22.4%	$122,053
Welders, Cutters, Solderers, and Brazers [A]	14,154	17,187	3,033	21.4%	$51,813
Office Clerks, General [A]	27,576	30,581	3,005	10.9%	$40,128
Heavy and Tractor-Trailer Truck Drivers [A]	9,750	12,181	2,431	24.9%	$41,124
Cost Estimators	9,414	11,423	2,009	21.3%	$76,418
Sheet Metal Workers [A]	6,826	8,233	1,407	20.6%	$40,131
Structural Iron and Steel Workers [A]	6,592	7,990	1,398	21.2%	$44,525
Drywall and Ceiling Tile Installers [A]	9,039	10,225	1,186	13.1%	$37,993

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Apprenticeships are very common within the Construction industry. All but four of the listed occupations are considered apprenticeable occupations. They include Plumbers, Pipefitters, and Steamfitters, Electricians, Carpenters, Operating

Engineers and Other Construction Equipment Operators, Heating, Air Conditioning and Refrigeration Mechanics and Installers, Welders, Cutters, Solderers, and Brazers, General Office Clerks, Heavy and Tractor-Trailer Truck Drivers, Sheet Metal Workers, Structural Iron and Steel Workers, and Drywall and Ceiling Tile Installers.

All but one apprenticeable occupation share a high school diploma as their minimum education and all occupations except Drywall and Ceiling Tile Installers, show an Average Annual Wage of over $40,000.

A high school diploma or equivalent is the typical education needed for entry into a majority (60 percent) of the 2016-2026 high growth occupations shown in preceding table; however, additional and on-the-job training for certifications and hard skills is usually required.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Blueprints	Driver's License
Microsoft Office	Commercial Driver's License
Electrical systems	Class A Commercial Drivers License
Quality control	Occupational Safety & Health Administration Certification
Freightplus	General contractor
Preventive maintenance	EPA certification
Ear plugs	HVAC Certification
Safety vests	HAZMAT
Backhoes	NCCER
Scaffolding	Journeyman Plumber

B. Manufacturing

In the last five years, demand for Manufacturing workers has varied, rebounding the last two years according to the Current Employment Statistics. This data is for NAICS codes 31-33.

According to seasonally adjusted Current Employment Statistics data, the number of workers in Texas Manufacturing reached 913,400 in September 2019, and was up 6.6 percent since September 2017.

In general, the Manufacturing industry has staffing issues that are often evolving with more automation and computerization occurring. New educated and specialized staff are needed during a time of expanding demand for manufactured products. This has meant that production plants are faced with hiring line workers who either need to have years of experience, or expanded education and training to be effective at their jobs.

The occupations within Manufacturing companies that are projected to add the most jobs and grow at the fastest rates from 2016 to 2026 are listed below.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Welders, Cutters, Solderers, and Brazers [A]	24,810	28,603	3,793	15.3%	$42,605
Machinists [A]	18,871	22,115	3,244	17.2%	$46,634
First-Line Supervisors of Production and Operating Workers	32,169	35,372	3,203	10.0%	$71,994
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	19,352	21,459	2,107	10.9%	$71,418
Industrial Machinery Mechanics [A]	9,931	11,867	1,936	19.5%	$57,005
Heavy and Tractor-Trailer Truck Drivers [A]	14,478	16,405	1,927	13.3%	$42,184
General and Operations Managers	15,883	17,553	1,670	10.5%	$145,403
Industrial Engineers [S A]	9,263	10,925	1,662	17.9%	$104,022
Computer-Controlled Machine Tool Operators, Metal and Plastic [S A]	10,136	11,600	1,464	14.4%	$41,470
Structural Metal Fabricators and Fitters [A]	5,460	6,731	1,271	23.3%	$42,049
Maintenance Workers, Machinery [A]	6,557	7,715	1,158	17.7%	$44,832
Maintenance and Repair Workers, General [A]	10,079	11,020	941	9.3%	$42,613
Software Developers, Applications [S]	6,093	7,028	935	15.3%	$114,362
Production, Planning, and Expediting Clerks [A]	10,279	11,192	913	8.9%	$50,744
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders [A]	7,313	8,212	899	12.3%	$39,921

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The high growth occupations listed in the manufacturing industry contain three STEM occupations, Industrial Engineers which is projected to increase by 17.9 percent by 2026 and Computer-Controlled Machine Tool Operators, Metal and Plastic with a projected increase of 14.4 percent. The third, Software Developers, Applications is projected to increase by 15.3 percent.

Eleven of the 15 occupations listed require a high school diploma or equivalent for entry. However, most of the occupations are considered apprenticeable, including,

Welders, Cutters, Solderers, and Brazers, Machinists, Industrial Machinery Mechanics, Heavy and Tractor-Trailer Truck Drivers, Industrial Engineers, Computer-Controlled Machine Tool Operators[1], and Structural Metal Fabricators and Fitters. Completing the list are Machinery Maintenance Workers, General Maintenance and Repair Workers, Production, Planning, and Expediting Clerks and Coating, Painting, and Spraying Machine Setters, Operators and Tenders. Seven occupations are projected to grow by at least 15 percent over the next 10 years with Applications Software Developers having the highest 2018 average annual salary of $114,362.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Class A Commercial Drivers License
Freightplus	Commercial Driver's License
Preventive maintenance	Security clearance
Quality Assurance	HAZMAT
Blueprints	Driver's License
Software development	Occupational Safety & Health Administration Certification
Java	Secret Clearance
Microsoft PowerPoint	Six Sigma Green Belt
Python	Certified Quality Engineer
Tractor-trailers	Six Sigma Black Belt

[1] Computer-Controlled Machine Tool Operators, Metal and Plastic

C. Agriculture and Forestry

In the last five years, demand for Agriculture and Forestry workers increased modestly, according to the Quarterly Census of Employment and Wages data. This data is for NAICS code 11.

In the first quarter of 2019, the number of workers with Agriculture and Forestry employees in Texas reached 58,810, up 4.6 percent from the same quarter in 2014.

The Agriculture and Forestry industry in Texas had been using fewer workers in recent decades as farming methods have become more efficient. But a robust economy in Texas and globally, coupled with the population boom in Texas, has driven up demand for what Texas grows, which is increasing demand for workers in this historic industry.

The occupations within Agriculture and Forestry that had average wages above the statewide median and are projected to remain relatively stable or grow in employment from 2016 to 2026 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 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
First-Line Supervisors of Farming, Fishing, and Forestry Workers [A]	1,517	1,653	136	9.0%	$54,450
Animal Trainers [A]	454	529	75	16.5%	$41,059
Farm Equipment Mechanics and Service Technicians [A]	323	361	38	11.8%	$40,114
First-Line Supervisors of Production and Operating Workers	54	58	4	7.4%	$56,214
Payroll and Timekeeping Clerks [A]	111	109	-2	-1.8%	$38,133
Office Clerks, General [A]	606	595	-11	-1.8%	$37,255
Logging Equipment Operators	596	585	-11	-1.8%	$43,684

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Though commonly under 400 jobs, the numeric change in the growing occupations shows that there is a need for trained individuals to fill projected openings within

this industry. Not unlike the construction industry, a high school diploma or equivalent is the typical education needed for entry into most of the high growth occupations. However, the agriculture and forestry industry requires specialized, additional or on-the-job training to acquire the hard skills and certifications preferred for these occupations.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Hazard analysis and critical control points	Food safety programs
Quality control	Driver's License
Microsoft Office	Occupational Safety & Health Administration Certification
Preventive maintenance	HAZMAT
Quality Systems	Health Insurance Portability and Accountability Act - HIPPA
Microsoft PowerPoint	Forklift certification
Corporate social responsibility	Safe Quality Food
Spreadsheet software	EPA certification
Database software	Six Sigma certification
Animal health	Certified Pet Dog Trainer

D. Health Care and Social Assistance

In the last five years, demand for Health Care and Social Assistance workers in Texas expanded robustly, according to the Quarterly Census of Employment and Wages. This data is for NAICS code 62.

In the first quarter of 2019, the number of workers with Health Care and Social Assistance employers in Texas was 1.681 million, up 14.5 percent from the same quarter in 2014.

The Health Care and Social Assistance industry has become the dominant industry for employment in Texas – and the United States – in the last decade. Demand for health care workers in Texas is expected to continue to increase as the state has growing populations of both old and young people, who are the primary customers of the Health Care and Social Assistance industry.

This sector is faced with training challenges as employers are demanding higher educated workers due to market demands and 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 that are projected to add the most jobs and grow at the fastest rates from 2016 to 2026 are listed below.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Registered Nurses [S]	181,073	227,276	46,203	25.5%	$72,781
Licensed Practical and Licensed Vocational Nurses [S A]	61,358	73,471	12,113	19.7%	$47,003
Medical and Health Services Managers [S A]	18,872	24,863	5,991	31.7%	$102,453
Office Clerks, General [A]	36,597	41,183	4,586	12.5%	$38,299
Physicians and Surgeons, All Other [S]	16,399	20,609	4,210	25.7%	$215,356
Respiratory Therapists [S]	11,182	15,255	4,073	36.4%	$60,026
Physical Therapists [S]	13,419	17,487	4,068	30.3%	$93,662
Nurse Practitioners [S]	7,929	11,707	3,778	47.6%	$112,031
Radiologic Technologists [S A]	14,935	18,464	3,529	23.6%	$58,483
Medical Records and Health Information Technicians [S A]	12,951	15,895	2,944	22.7%	$41,406
General and Operations Managers	11,742	14,686	2,944	25.1%	$118,580
Physician Assistants [S]	5,919	8,860	2,941	49.7%	$110,484
Speech-Language Pathologists [S]	8,001	10,623	2,622	32.8%	$82,122
Dental Hygienists [S]	11,228	13,781	2,553	22.7%	$75,723
Health Technologists and Technicians, All Other [S A]	8,250	10,704	2,454	29.7%	$42,595

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Of the listed high growth occupations within the Health Care and Social Assistance industry, 87 percent are classified as STEM occupations. Of these STEM occupations, all but one are projected to grow by at least 20 percent over the next ten years. Seven out of thirteen of these occupations have typical education for entry as a bachelor's degree or above.

The middle skill occupations include Respiratory Therapists, Licensed Practical and Licensed Vocational Nurses, Radiologic Technologists, Dental Hygienists, Medical Records and Health Information Technicians, and All Other Health Technologists and Technicians, all of which are also STEM occupations, but cite typical education of an associate's degree or a post-secondary nondegree award.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Pediatrics	Certified Registered Nurse
Critical care	Basic Life Support
Medical-surgical nursing	Certification in Cardiopulmonary Resuscitation
Emergency room	Advanced Cardiac Life Support
Electronic Medical Records	Pediatric Advanced Life Support
Geriatrics	Continuing Education
Quality Assurance	Basic Cardiac Life Support
Behavioral health	Licensed Vocational Nurse
AIDET	Licensed Practical Nurse
Microsoft Office	Driver's License

E. Educational Services

In the last five years, demand for Educational Services workers in Texas grew at a steady pace, according to the Quarterly Census of Employment and Wages. This data is for NAICS code 61.

In the first quarter of 2019, the number of workers in Educational Services in Texas was 1.230 million, up 8.1 percent from the same quarter in 2014.

The Educational Services industry in Texas is facing growing demand from a marketplace that increasingly needs better educated workers for a more "knowledge-based economy" as well as an expanding population bringing more students into schools.

The occupations within the Educational Services industry that are projected to add the most jobs from 2016 to 2026 are listed below. Thirteen of the 15 occupations listed are above the 2018 Texas average wage of $49,720. Of those, Education Administrators, Elementary and Secondary School and Nursing Instructors and Teachers, Postsecondary make significantly more than the average Texas salary.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Elementary School Teachers, Except Special Education	143,517	172,825	29,308	20.4%	$56,536
Secondary School Teachers, Except Special and Career/Technical Education	105,746	127,485	21,739	20.6%	$58,207
Education Administrators, Elementary and Secondary School	24,696	29,858	5,162	20.9%	$85,649
Educational, Guidance, School, and Vocational Counselors [A]	22,046	26,515	4,469	20.3%	$60,807
Self-Enrichment Education Teachers	11,248	14,391	3,143	27.9%	$46,792
Kindergarten Teachers, Except Special Education	13,642	16,535	2,893	21.2%	$56,477
Health Specialties Teachers, Postsecondary [S]	8,780	11,255	2,475	28.2%	$139,778
Preschool Teachers, Except Special Education	10,723	13,155	2,432	22.7%	$50,935
Coaches and Scouts	10,663	13,015	2,352	22.1%	$52,788
Instructional Coordinators	11,280	13,512	2,232	19.8%	$66,006
Special Education Teachers, Kindergarten and Elementary School	10,623	12,740	2,117	19.9%	$57,783
Registered Nurses [S]	8,900	10,443	1,543	17.3%	$64,502
Librarians	7,784	9,196	1,412	18.1%	$63,132
Computer User Support Specialists [A]	8,326	9,722	1,396	16.8%	$43,521
Nursing Instructors and Teachers, Postsecondary [S]	4,549	5,885	1,336	29.4%	$71,553

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Of the 15 high growth occupations in this industry, 12 of them require at least a bachelor's degree, of which Health Specialties Teachers in Postsecondary Education,

Registered Nurses, and Nursing Instructors and Teachers in Postsecondary Education are identified as STEM occupations. Overall, Nursing Instructors and Teachers, Postsecondary has the highest percentage job growth projected at 29.4 percent, followed by Health Specialties Teachers, Postsecondary at 28.2 percent. These occupations are directly related to the high growth health care industry.

The following table shows the hard skills and certifications associated with the high growth high demand occupations within this industry:

Hard Skills	Certifications
Bilingual	Special Education
Microsoft Office	Certification of Teaching
Microsoft PowerPoint	Driver's License
Bilingual Spanish	English as Second Language
Technical support	Certified Registered Nurse
Pediatrics	State Board for Educator Certification
Microsoft Windows	First Aid certification
Defibrillators	Early Childhood Education
English speaker	Child Development Associate
Student information systems	Certification in Cardiopulmonary Resuscitation

F. Transportation and Warehousing

In the last five years, demand for Transportation and Warehousing workers in Texas increased, according to the Quarterly Census of Employment and Wages. This data is for NAICS codes 48-49.

According to seasonally adjusted Current Employment Statistics data, the average number of people employed in the Transportation and Warehousing industry in Texas was 498,122, up 25.1 percent from the same quarter in 2014.

The Transportation and Warehousing industry in Texas has seen increasing employment in the last five years, particularly in distribution-center warehouses. Current Employment Statistics data shows that warehousing and storage employment rose by 32,800 jobs, increasing by 58.6 percent.

As the economy grows, both businesses and consumers typically buy more goods; those goods must be moved, stored, and distributed on their way to consumers' homes. This warehousing of goods has driven up demand for workers in this sector and is expected to continue as Texas continues to bolster its transportation infrastructures. A high turnover rate among truck drivers creates an additional challenge in this industry.

The occupations within Transportation and Warehousing that are projected to add the most jobs are listed below, all of which have wages above the 2018 Texas median wage of $37,099. Airline Pilots, Copilots and Flight Engineers specifically make considerably more than the median salary at $204,951.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Heavy and Tractor-Trailer Truck Drivers [A]	92,118	109,743	17,625	19%	$ 46,980
Light Truck or Delivery Services Drivers	21,838	26,143	4,305	20%	$ 48,993
Flight Attendants	15,397	17,939	2,542	17%	$ 58,873
Postal Service Mail Carriers	23,229	25,153	1,924	8%	$ 51,624
Cargo and Freight Agents [A]	9,839	11,623	1,784	18%	$ 45,705
Bus and Truck Mechanics and Diesel Engine Specialists [A]	6,795	8,032	1,237	18%	$ 49,140
General and Operations Managers	6,070	7,236	1,166	19%	$ 122,829
Aircraft Mechanics and Service Technicians [A]	9,428	10,537	1,109	12%	$ 69,326
Sales Representatives, Services, All Other	5,622	6,729	1,107	20%	$ 65,932
Reservation and Transportation Ticket Agents and Travel Clerks	9,783	10,796	1,013	10%	$ 49,166
Customer Service Representatives	8,671	9,678	1,007	12%	$ 40,527
Airline Pilots, Copilots, and Flight Engineers [S]	10,185	11,119	934	9%	$ 204,951
Dispatchers, Except Police, Fire, and Ambulance [A]	8,445	9,358	913	11%	$ 42,827
Maintenance and Repair Workers, General [A]	4,325	5,092	767	18%	$ 52,913
Production, Planning, and Expediting Clerks [A]	3,413	4,083	670	20%	$ 48,332

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Out of the 15 occupations listed above, 7 are apprenticeable and all but 2 are considered middle skill jobs requiring at least a High School Diploma or equivalent, with additional on the job training required to meet the varying needs of employers.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Freightplus	Class A Commercial Drivers License
Tractor-trailers	Commercial Driver's License
Flatbed trucks	HAZMAT
Supply chain logistics	Tanker and Hazmat Endorsement
Life insurance	Transportation Worker Identification Credential
Tanker trucks	DOT Medical card
Flatbed trailers	Driver's License
Integrated Decision Support Corporation Expert Fuel	International Federation of Technical Analysts
Equipment Maintenance	Automotive Service Excellence
Microsoft Office	Occupational Safety & Health Administration Certification

G. Mining, Quarrying, and Oil and Gas Extraction

In the last five years, demand for Mining, Quarrying, and Oil and Gas Extraction industry workers in Texas has varied, based on Quarterly Census of Employment and Wages. This data is for NAICS code 21.

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Despite the high double-digit growth this industry experienced the previous two years, expansion in this sector has slowed down partially due to lower WTI crude prices; however seasonally adjusted Current Employment Statistics data shows this industry increasing by 27,000 jobs from September 2017 to September 2019, growing by 11.9 percent.

During this time frame, the price of West Texas Intermediate Crude fluctuated, increasing from $49.82 to $70.98 between September 2017 and July 2018, remaining roughly at that level through October 2018 and declining to $49.52 by December 2018. Since then WTI prices have shown improvement, trading for $56.95 a barrel in September 2019. [2]

[2] U.S. Energy Information Administration, https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RWTC&f=M

The occupations within the Mining, Quarrying, and Oil and Gas Extraction industry that are projected to add at least 400 jobs are listed below, all of which are above the 2018 Texas median wage of $37,099. Petroleum Engineers and Geoscientists specifically make considerably more than the median salary at $155,455 and $163,219 respectively.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Service Unit Operators, Oil, Gas, and Mining	15,583	18,067	2,484	16%	$ 50,273
Roustabouts, Oil and Gas	15,424	17,906	2,482	16%	$ 38,714
Heavy and Tractor-Trailer Truck Drivers [A]	10,483	12,118	1,635	16%	$ 44,428
Petroleum Engineers [S]	8,342	9,449	1,107	13%	$ 155,455
Rotary Drill Operators, Oil and Gas [A]	5,510	6,399	889	16%	$ 55,460
Derrick Operators, Oil and Gas	4,299	4,997	698	16%	$ 45,182
Geoscientists, Except Hydrologists and Geographers [S]	4,314	4,840	526	12%	$ 163,219
Geological and Petroleum Technicians [S A]	3,565	4,085	520	15%	$ 69,139
Wellhead Pumpers	3,838	4,342	504	13%	$ 54,461

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

There is a mix of educational requirements associated with the above listed occupations. Forty-four percent require no formal education, while 22 percent require a Bachelor's Degree. An Associate's Degree and Postsecondary Nondegree Awards combine to make up another 22 percent and one occupation requires at least High School Diploma or equivalent.

Geological and Petroleum Technicians, Heavy and Tractor Trailer Drivers and Wellhead Pumpers are high growth occupations in this industry that are also considered middle skill jobs.

Both Petroleum Engineer and Geoscientists are STEM professions, and Geological and Petroleum Technicians are both apprenticeable and STEM occupations. Typical education for Petroleum Engineers and Geoscientists is a Bachelor's Degree and an Associate's Degree is generally required for Geological/Petroleum Technicians.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Preventive maintenance	Commercial Driver's License
Health, Safety, and Environmental	Class A Commercial Drivers License
Microsoft Office	Driver's License
English speaker	Class B Commercial Driver's License
Water hoses	Tanker and Hazmat Endorsement
Two way radios	Occupational Safety & Health Administration Certification
Hydraulic jacks	HAZMAT
Concrete chutes	DOT Medical card
Freightplus	Mining Safety & Health Administration Certification
Artificial lift systems	First Aid certification

H. Utilities

In the last five years, demand for utilities workers in Texas was largely unchanged, according to the Quarterly Census of Employment and Wages data. This data is for NAICS code 22.

In the first quarter of 2019, the number of workers with Utilities employers in Texas was 83,648, up 5.2 percent from the same quarter in 2014. When looking at Current Employment Statistics data the industry shows a 3.1 percent increase in demand for utilities workers in the last two years.

Continuing technological advances have changed the Utilities industry's need for a more skilled worker. Meanwhile, the Utilities industry has been dominated by "Baby Boomer" workers, who are now starting to retire as part of "the Great Shift Change." Those retirements come as economic growth and population increases in Texas are creating more demand for energy delivery. The result is increased demand for 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 2016 to 2026 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 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Electrical Power-Line Installers and Repairers [A]	4,256	4,655	399	9.4%	$63,419
Industrial Machinery Mechanics [A]	1,890	2,064	174	9.2%	$63,120
Power Plant Operators [A]	2,083	2,253	170	8.2%	$77,216
General and Operations Managers	1,096	1,240	144	13.1%	$136,800
First-Line Supervisors of Mechanics, Installers, and Repairers	1,248	1,369	121	9.7%	$76,071
Electrical Engineers [S]	1,121	1,238	117	10.4%	$104,234
Accountants and Auditors [S]	928	1,032	104	11.2%	$81,654
Software Developers, Applications [S]	387	479	92	23.8%	$107,353
Business Operations Specialists, All Other [A]	1,207	1,298	91	7.5%	$80,634
Water and Wastewater Treatment Plant and System Operators [A]	1,408	1,494	86	6.1%	$41,331
First-Line Supervisors of Production and Operating Workers	830	910	80	9.6%	$84,419
Electricians [A]	770	850	80	10.4%	$60,536
Construction Laborers [A]	638	717	79	12.4%	$37,188
Financial Managers [S]	310	388	78	25.2%	$152,951
Control and Valve Installers and Repairers, Except Mechanical Door [A]	1,160	1,232	72	6.2%	$49,321
Market Research Analysts and Marketing Specialists [S]	287	359	72	25.1%	$76,975

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Nine out of 16 occupations listed have an educational requirement of only a High School Diploma or equivalent or less, six of which offer wages of $60,000 and

higher. The remaining seven occupations site a bachelor's degree for entry into the position. Thirteen of the 16 listed above in the Utilities Industry pay above Texas's 2018 Average Annual Wage of $49,720.

In the Utilities industry, Electrical Engineers, Accountants and Auditors, Software Developers for Applications, Financial Managers, and Market Research Analysts and Marketing Specialists are among the high growth STEM occupations, projecting double-digit growth rates from 2016-2026. These occupations typically require a bachelor's degree with an Average Annual Wage of $81,654 for Accountants and Auditors.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Driver's License
Preventive maintenance	Commercial Driver's License
Switches	Class A Commercial Drivers License
Microsoft PowerPoint	Accounting
Instrumentation	CIP Compliance
Blueprints	Certified Public Accountant
Supervisory control and data acquisition	First Aid certification
Technical support	DOT Medical card
Bucket trucks	Occupational Safety & Health Administration Certification
Electrical distribution	HAZMAT

I. Wholesale Trade

In the last five years, demand for Wholesale Trade industry workers in Texas rose rapidly, according to the Quarterly Census of Employment and Wages. This data is for NAICS code 42.

In the first quarter of 2019, the number of workers with Wholesale Trade employers in Texas was 603,047, up 6.8 percent from the same quarter in 2014.

The wholesale trade industry has experienced rising demand for workers due to a recovering economy in Texas and across North America. The companies in this sector have sought to take advantage of this population and economic expansion 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.

As of 2017, the 15 most in-demand occupations in the Wholesale Industry employed over 210,000 people and is expected to grow another 32,490 by 2026. Ten of the 15 occupations listed pay Average Annual Wages well above the state average of $49,720 according to 2018 data.

The occupations within the Wholesale Trade industry that are projected to add the most jobs and grow at the fastest rates from 2018 to 2028 are listed below.

Occupational Title	Annual Average employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2017
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	72,182	84,020	11,838	16.4%	$70,473
Heavy and Tractor-Trailer Truck Drivers [A]	22,781	26,650	3,869	17.0%	$46,193
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	17,533	20,606	3,073	17.5%	$107,929
General and Operations Managers	14,524	17,068	2,544	17.5%	$136,294
First-Line Supervisors of Non-Retail Sales Workers	8,599	10,050	1,451	16.9%	$81,892
Customer Service Representatives	14,875	16,134	1,259	8.5%	$38,681
Office Clerks, General [A]	25,615	26,833	1,218	4.8%	$38,514
Market Research Analysts and Marketing Specialists [S]	4,126	5,305	1,179	28.6%	$77,555
Sales Managers	5,553	6,502	949	17.1%	$145,616
Software Developers, Applications [S]	2,942	3,828	886	30.1%	$107,506
Sales Engineers	5,104	5,982	878	17.2%	$109,701
Bus and Truck Mechanics and Diesel Engine Specialists [A]	3,651	4,513	862	23.6%	$51,186
Production, Planning, and Expediting Clerks [A]	4,977	5,837	860	17.3%	$47,732
Mobile Heavy Equipment Mechanics, Except Engines [A]	3,866	4,688	822	21.3%	$51,382
Maintenance and Repair Workers, General [A]	4,579	5,381	802	17.5%	$39,396

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Two of the 15 occupations listed, Market Research Analysts and Marketing Specialists and Software Developers, Applications, are STEM occupations with high demand employing over 7,000 workers as of 2018. These occupations typically require a bachelor's degree, pay well over the 2016 Average Annual Wage in Texas and are expected to grow about 30 percent each by 2026.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Driver's License
Freightplus	Class A Commercial Drivers License
Microsoft PowerPoint	Commercial Driver's License
Customer relationship management	HAZMAT
Forklifts	Tanker and Hazmat Endorsement
Preventive maintenance	DOT Medical card
Life insurance	Transportation Worker Identification Credential
Technical support	Occupational Safety & Health Administration Certification
Tractor-trailers	Class B Commercial Driver's License
Salesforce CRM SFDC	Mining Safety & Health Administration Certification

J. Retail Trade

Despite growing competition from online shopping, in the last five years, demand for Retail Trade workers in Texas increased, according to the Quarterly Census of Employment and Wages program. This data is for NAICS codes 44-45.

In the first quarter of 2019, the number of workers in the Retail Trade industry in Texas was 1.317 million, up 6.4 percent from the same quarter in 2014. Population growth across most of Texas, coupled with a strong economy, has pushed up demand for retail goods. Retail Trade 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 from 2016 to 2026 are listed below.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
First-Line Supervisors of Retail Sales Workers [A]	89,295	103,081	13,786	15.4%	$45,446
Automotive Service Technicians and Mechanics [A]	25,141	29,372	4,231	16.8%	$45,158
General and Operations Managers	17,503	20,565	3,062	17.5%	$91,642
First-Line Supervisors of Office and Administrative Support Workers	14,997	17,120	2,123	14.2%	$47,165
Sales Representatives, Services, All Other	10,888	12,505	1,617	14.9%	$43,104
Pharmacists [S]	12,916	14,479	1,563	12.1%	$129,368
First-Line Supervisors of Mechanics, Installers, and Repairers	4,844	5,828	984	20.3%	$62,015
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	5,005	5,866	861	17.2%	$65,623
Automotive Body and Related Repairers [A]	3,478	4,255	777	22.3%	$48,546
Securities, Commodities, and Financial Services Sales Agents	2,607	3,193	586	22.5%	$97,974
Sales Managers	3,307	3,844	537	16.2%	$130,590
First-Line Supervisors of Food Preparation and Serving Workers	2,470	2,928	458	18.5%	$44,908
Bus and Truck Mechanics and Diesel Engine Specialists [A]	1,615	2,031	416	25.8%	$46,497
Accountants and Auditors [S]	2,167	2,570	403	18.6%	$79,517

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Of the top 14 high demand occupations, seven have an Average Annual Wage above the 2018 state average of $49,720 and combined, are projected to grow by nearly 8,000 jobs by 2026.

The only STEM occupations on the list are Pharmacists and Accountants and Auditors. The Average Annual Wage in 2018 for Pharmacists was just over $129,000, the second highest of the top 14 occupations next to Sales Managers whose Average Annual Wage for 2018 was $130,590. Pharmacists are projected to grow an estimated 12.1 percent by 2026 with an increase of over 1,500 in employment for the same period. Pharmacists are considered a high-skill occupation, requiring a doctoral or professional degree.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Box cutters	Driver's License
Dollies	Automotive Service Excellence
Microsoft Office	Medium/Heavy Truck Aftermarket Parts Specialist
Step ladders	Food safety programs
Handheld scanners	Occupational Safety & Health Administration Certification
Flatbed scanners	Pharmacy Technician Certification Board
Freightplus	Accounting
Legal compliance	Class A Commercial Drivers License
Asset protection	Pharmacy Technician
Hand trucks	Doctor of Pharmacy

K. Finance and Insurance

In the last five years, demand for Finance and Insurance industry workers in Texas rose, according to the Quarterly Census of Employment and Wages. This data is for NAICS code 52.

In the first quarter of 2019, the number of workers with Finance and Insurance industry employers in Texas was 542,145, up 11.4 percent from the same quarter in 2014. Following the economic downturn of 2008-2009, the Finance and Insurance sector has rebounded in Texas with rising demand for workers who interact with customers as well as back-office workers.

The occupations within the Finance and Insurance industry that are projected to add the most jobs and grow at the fastest rates from 2016 to 2026 are listed below. Eleven of the 15 occupations shown made well above the average 2018 annual Texas wage of $49,720.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Insurance Claims and Policy Processing Clerks [A]	31,763	37,320	5,557	17.5%	$40,350
Loan Interviewers and Clerks	21,659	25,788	4,129	19.1%	$44,016
Personal Financial Advisors	12,274	15,133	2,859	23.3%	$108,837
Software Developers, Applications [S]	6,634	8,576	1,942	29.3%	$106,481
Accountants and Auditors [S]	8,796	10,433	1,637	18.6%	$88,080
First-Line Supervisors of Office and Administrative Support Workers	23,235	24,832	1,597	6.9%	$60,679
Financial Managers [S]	5,240	6,732	1,492	28.5%	$146,625
General and Operations Managers	7,862	9,347	1,485	18.9%	$149,271
Financial Analysts [S]	8,074	9,536	1,462	18.1%	$101,614
Credit Analysts [S]	6,448	7,566	1,118	17.3%	$83,655
Market Research Analysts and Marketing Specialists [S]	3,720	4,737	1,017	27.3%	$83,236
Business Operations Specialists, All Other [A]	5,247	6,241	994	18.9%	$75,866
Billing and Posting Clerks	4,321	5,213	892	20.6%	$37,500
Management Analysts [A]	5,051	5,868	817	16.2%	$86,116
Bookkeeping, Accounting, and Auditing Clerks [S A]	11,925	12,678	753	6.3%	$44,055

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Of the occupations listed, 7 are identified as STEM occupations and all but one require at least a Bachelor's Degree. Software developers, Applications, Financial Managers and Market Research Analysts and Marketing Specialists are projected to grow more than 25 percent by 2026.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Accounting
Structured query language	Certified Public Accountant
Microsoft PowerPoint	FINRA Series 7
Software development	Accredited Purchasing Practitioner
Java	Continuing Education
Statistical Analysis System	Certified Internal Auditor
Python	Driver's License
Investment management	Certified Financial Planner
Tableau Software	Nationwide Mortgage Licensing System
Credit risk	Certified Information Systems Auditor

L. Professional, Scientific, and Technical Services

In the last five years, demand for Professional, Scientific, and Technical Services workers in Texas continues with steady growth, according to the Quarterly Census of Employment and Wages. This data is for NAICS code 54.

In the first quarter of 2019, the number of workers with Professional, Scientific, and Technical Services industry employers in Texas was 814,594, up 21.4 percent from the same quarter in 2014.

The ongoing 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 require workers with more education than in the past, which is creating training challenges.

The occupations within the Professional, Scientific, and Technical Services industry that are projected to add the most jobs and grow at the fastest rates from 2016 to 2026 are listed below. Fourteen of the top 15 occupations earn more than the 2018 Texas average wage.

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
Software Developers, Applications [S]	23,073	33,324	10,251	44.4%	$109,577
Accountants and Auditors [S]	40,265	49,323	9,058	22.5%	$82,242
Computer Systems Analysts [S A]	22,393	27,080	4,687	20.9%	$102,459
Lawyers	27,903	32,069	4,166	14.9%	$155,112
General and Operations Managers	18,311	22,424	4,113	22.5%	$149,630
Paralegals and Legal Assistants [A]	17,320	21,151	3,831	22.1%	$54,614
Civil Engineers [S]	12,734	16,084	3,350	26.3%	$106,744
Management Analysts [A]	12,734	16,059	3,325	26.1%	$103,886
Computer User Support Specialists [A]	14,951	18,243	3,292	22.0%	$55,044
Sales Representatives, Services, All Other	14,494	17,753	3,259	22.5%	$69,945
Office Clerks, General [A]	33,322	36,216	2,894	8.7%	$40,414
Market Research Analysts and Marketing Specialists [S]	7,748	10,551	2,803	36.2%	$72,996
Software Developers, Systems Software [S]	11,226	13,798	2,572	22.9%	$107,252
Business Operations Specialists, All Other [A]	8,940	11,070	2,130	23.8%	$94,368
Computer and Information Systems Managers [S A]	7,718	9,527	1,809	23.4%	$164,571

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

Of the occupations listed above, Software Developers, Applications, Accountants and Auditors, Computer Systems Analysts, Civil Engineers, Market Research Analysts and Marketing Specialists, Software Developers, Systems Software, and Computer and Information Systems Managers are also STEM professions and earn considerably more than the 2018 Texas average wage. Software Developers, Applications have an above average growth projected at 44.4 percent and earn more than double the Texas average wage. The typical education required for these STEM professions is a bachelor's degree.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Certified Public Accountant
Java	Accounting
Software development	Driver's License
Microsoft PowerPoint	Professional Engineer
Structured query language	Security clearance
Python	Engineer-In-Training
Public accounting	Business Process Management Programming Languages
Systems Development Life Cycle	Enrolled Agent
Application development	Certified Information Systems Auditor
JavaScript	Secret Clearance

M. Accommodation and Food Services

In the last five years, demand for Accommodation and Food Services workers in Texas has grown, according to Quarterly Census of Employment and Wages. This data is for NAICS code 72.

In the first quarter of 2019, the number of workers at Accommodation and Food Services industry employers in Texas was 1.217 million, up 18 percent from the same quarter in 2014.

The large Accommodation and Food Services industry has also felt the immediate impact of a rebounding economy and the expansion of the population in Texas. Above- average employment growth in this sector has been spread across many occupations, whose pay ranges are broad.

The occupations within Accommodation and Food Services employers that are projected to add the most jobs and grow at the fastest rates from 2016 to 2026 are listed below:

Occupational Title	Annual Average Employment 2016	Annual Average Employment 2026	Number Change 2016-2026	Percent Growth 2016-2026	Average Annual Wage 2018
First-Line Supervisors of Food Preparation and Serving Workers	66,642	84,856	18,214	27.3%	$39,343
Food Service Managers [A]	8,342	10,405	2,063	24.7%	$59,828
Chefs and Head Cooks [A]	6,841	8,420	1,579	23.1%	$53,640
General and Operations Managers	5,904	7,350	1,446	24.5%	$75,054
Sales Representatives, Services, All Other	2,727	3,244	517	19.0%	$50,247
First-Line Supervisors of Office and Administrative Support Workers	1,948	2,272	324	16.6%	$44,537
Meeting, Convention, and Event Planners	1,159	1,382	223	19.2%	$49,224
Public Relations Specialists [A]	881	1,096	215	24.4%	$48,702
Accountants and Auditors [S]	1,027	1,234	207	20.2%	$62,651
First-Line Supervisors of Retail Sales Workers [A]	509	634	125	24.6%	$37,631
Training and Development Specialists [A]	393	505	112	28.5%	$56,342
Human Resources Specialists [A]	543	641	98	18.0%	$56,963
Reservation and Transportation Ticket Agents and Travel Clerks	499	592	93	18.6%	$38,530
Administrative Services Managers [A]	420	499	79	18.8%	$84,992
First-Line Supervisors of Personal Service Workers	386	461	75	19.4%	$48,944

A - Apprenticeable occupation means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.
S - STEM is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

The typical educational requirement for seven out of 15 occupations listed is a Bachelor's Degree. Food Service Managers earned an annual average wage of $59,828. There is one STEM occupation, Accounts and Auditors, in the high growth category for this industry.

The following table shows the hard skills and certifications associated with the high growth occupations within this industry:

Hard Skills	Certifications
Microsoft Office	Driver's License
Microsoft PowerPoint	Accounting
Bilingual	Certified Public Accountant
Customer relationship management	Food safety programs
Generally Accepted Accounting Principles	Security clearance
Food preparation	Occupational Safety & Health Administration Certification
General ledger	Certified Internal Auditor
Public accounting	Certified Information Systems Auditor
Box cutters	Continuing Education
Salesforce CRM SFDC	HAZMAT

IV. Conclusion

TWC reviewed the top growth occupations across the key industries for this report as required by statute.

TWC tracks approximately 800 different occupations in and employment is projected to increase in nearly all those occupations based on the 2016-2026 projections.

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.

V. 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 long-term projections were completed in September 2018 for the period of 2016 to 2026. This report also includes industry employment level comparisons from QCEW data over the most recent five years to give context, as Section II of this report shows.

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

For determination of hard skills, as well as industry certifications, TWC used data from Gartner Inc.'s TalentNeuron for fiscal year 2019. The job listings data captured by TalentNeuron is from online ads from a broad and comprehensive set of job boards.

For topics regarding occupational education requirements, TWC considered typical education identified in the 2016-2026 long term occupational projections. For

middle-skilled occupations, typical education that includes associate's degrees, postsecondary nondegree awards, and some college no degree were included. For higher skilled occupations, bachelor's degrees, master's degrees, and doctoral or professional degrees were considered.

For occupations heavily involved with science, technology, engineering, and math (STEM), TWC used Labor Market and Career Information's web application Texas Labor Analysis.

Occupations considered apprenticeable were derived from the U.S. Department of Labor's Employment and Training Administration apprenticeable occupations listing, updated June 07, 2019.

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 $37,099 a year, according to the 2018 Occupational Employment Statistics estimates of Texas employers which represents the most recent data for the time of this publication. For the purposes of this report, TWC only looked at occupations where the annual pay was estimated to be more than the statewide median, $37,099 a year.