

Texas Workforce Commission

# Report on Texas Growth Occupations - 2020

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 2020. Thus, the Quarterly Census of Employment and Wage (QCEW) data covers the period through the first quarter of 2020. The Current Employment Statistics (CES) data covers the period through the September 2020 estimates.

Despite the unprecedented event that is COVID-19 and the steps taken to try and mitigate the spread of the disease, the Texas economy enjoyed unprecedented growth with Total Nonagricultural employment reaching a historic high 13 million in employment for February 2020. The unemployment rate was at or slightly above a series low 3.4 percent for much of 2019 and early 2020. Series-low unemployment rates were also reflected in nearly all 26 Metropolitan Statistical Areas in 2019 and prior to the pandemic. The Texas economy is expected to continue to grow and prosper in the future.

Six major industries enjoyed year-over-year employment growth for over 100 consecutive months prior to COVID-19 including Construction, Trade, Transportation, & Utilities, Financial Activities, Professional & Business Services, Education & Health Services and Leisure & Hospitality. Education & Health Services expanded annually every month since the beginning of the series dating back to 1990. These industries represent a wide spectrum of the Texas economy, each demanding workers with different skill sets and who can adapt to changing technology and business strategies.

This report also considers TWC's latest projections for employment growth for Texas, released in 2020 with a base year of 2018 and covering the period of 2018 to 2028. Despite using a base year before the pandemic, industry projection models weigh long-term industry trends dating back to 1990. The next employment projections, covering the period of 2020 to 2030, will be released in the fall of 2022.

Of the 1.7 Million new jobs projected to be added between 2018 and 2028, 40.7 percent 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 postsecondary 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 the Texas median annual wage of \$38,013.

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 III.

## **II. Apprentices and Participation Trends**

In Texas, there are over 20,000 apprentices currently obtaining the skills they need to succeed while earning the wages they need to build financial security. In FY 2019, more than 8,000 individuals entered the apprenticeship system and 1,966 participants graduated.

Apprenticeship in Texas continues to show strong growth, increasing over 81% since 2014. Over 9,800 participants graduated in the last six years. There are currently 389 registered apprenticeship programs in Texas, with 63 new apprenticeship programs established in FY 2019.

Texas has over 300 apprenticeable occupations across all industries. The Construction and Manufacturing sectors continue to have a strong presence within the apprenticeship programs. About 60 percent of total occupations in these sectors are apprenticeable. However, opportunities are becoming more diverse, as apprenticeship programs expand within all industry sectors.

# 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 2018 through 2028 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. Each industry shown below lists only those occupations which pay above the Texas median annual wage, as stated in Section I, ordering them by projected employment growth in Texas from 2018 to 2028. Up to 20 high-wage high-demand occupations are listed for each industry. 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 reached the highest point in the history of the series on February 2020 with 797,000 jobs according to Current Employment Statistics data. Additionally, the construction industry experienced 31 consecutive months of growth up to February 2020 while annual growth continued for 105 months ending March 2020. This data is for NAICS code 23.

During the first quarter of 2020, Quarterly Census of Employment and Wages (QCEW) reported construction employment reaching 802,876 jobs in Texas. First quarter 2020 comparisons of Average Employment to previous years show 2.0 percent growth over one year, 14.6 percent growth over five years, and 36.2 percent growth over ten years.

The occupations within the Construction industry that are projected to add the most jobs from 2018 to 2028 are listed below. This 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 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Supervisors of Construction and Extraction Workers	55,140	64,955	9,815	17.8%	\$66,145
Electricians <sup>A</sup>	48,347	55,780	7,433	15.4%	\$51,007
Plumbers, Pipefitters, and Steamfitters <sup>A</sup>	36,241	42,787	6,546	18.1%	\$50,117
Operating Engineers and Other Construction Equipment Operators <sup>A</sup>	28,494	34,076	5,582	19.6%	\$44,872
Carpenters <sup>A</sup>	30,974	35,601	4,627	14.9%	\$42,037
Construction Managers	25,201	29,533	4,332	17.2%	\$96,538
Cement Masons and Concrete Finishers <sup>A</sup>	21,111	25,109	3,998	18.9%	\$38,457
General and Operations Managers <sup>A</sup>	22,205	26,045	3,840	17.3%	\$119,469
Heating, Air Conditioning, and Refrigeration Mechanics and Installers <sup>A</sup>	17,298	20,515	3,217	18.6%	\$45,514
Heavy and Tractor-Trailer Truck Drivers <sup>A</sup>	12,962	15,562	2,600	20.1%	\$41,603
Welders, Cutters, Solderers, and Brazers <sup>A</sup>	11,328	13,381	2,053	18.1%	\$54,647
Office Clerks, General <sup>A</sup>	27,442	28,996	1,554	5.7%	\$40,891
Cost Estimators	9,709	11,225	1,516	15.6%	\$78,000
Structural Iron and Steel Workers <sup>A</sup>	8,373	9,865	1,492	17.8%	\$46,720
Telecommunications Line Installers and Repairers <sup>A</sup>	4,334	5,559	1,225	28.3%	\$44,333
Electrical Power-Line Installers and Repairers <sup>A</sup>	4,047	5,095	1,048	25.9%	\$57,540
Business Operations Specialists, All Other <sup>A</sup>	6,344	7,357	1,013	16.0%	\$82,803 <sup>†‡</sup>
Roustabouts, Oil and Gas	4,297	5,242	945	22.0%	\$38,557
Sheet Metal Workers <sup>A</sup>	6,021	6,869	848	14.1%	\$44,673
Excavating and Loading Machine and Dragline Operators	3,967	4,805	838	21.1%	\$41,564 <sup>†‡</sup>

**A - Apprenticeable occupation** means an occupation approved for apprenticeship by the United States Department of Labor, Bureau of Apprenticeship and Training.

**† - OES** occupation used for 2019 wages has a different occupation code.

**‡ - OES** occupation used for 2019 wages has a different occupation title.

Apprenticeships are common within the Construction industry. Fifteen of the listed occupations are considered apprenticeable occupations. They include:

- Electricians
- Plumbers, Pipefitters, and Steamfitters
- Operating Engineers and Other Construction Equipment Operators
- Carpenters
- Cement Masons and Concrete Finishers
- General and Operations Managers
- Heating, Air Conditioning, and Refrigeration Mechanics and Installers
- Heavy and Tractor-Trailer Truck Drivers
- Welders, Cutters, Solderers, and Brazers
- Office Clerks, General
- Structural Iron and Steel Workers
- Telecommunications Line Installers and Repairers
- Electrical Power-Line Installers and Repairers
- Business Operations Specialists, All Other
- Sheet Metal Workers

A high school diploma or equivalent is the typical education needed for entry into a majority of the 2018 to 2028 high growth occupations shown in the preceding table. However, additional and on-the-job training for certifications and specialized skills are usually required. Occupations which typically require a high school diploma are:

- Supervisors of Construction and Extraction Workers
- Electricians
- Plumbers, Pipefitters, and Steamfitters
- Operating Engineers and Other Construction Equipment Operators
- Carpenters
- Welders, Cutters, Solderers, and Brazers
- Office Clerks, General
- Structural Iron and Steel Workers
- Telecommunications Line Installers and Repairers
- Electrical Power-Line Installers and Repairers
- Sheet Metal Workers
- Excavating and Loading Machine and Dragline Operators



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

<b>Specialized Skills</b>	<b>Certifications</b>
Repair	Driver's License
Scheduling	Electrician Certification
Project Management	Plumbing License
Budgeting	Plumbing Certification
Plumbing	Environmental Protection Agency Certification
HVAC	Occupational Safety and Health Administration Certification
Construction Management	CDL Class A
Electrical Work	Project Management Certification
Estimating	First Aid CPR AED
Hand Tools	Project Management Professional (PMP)

## **B. Manufacturing**

The Manufacturing industry's average employment in first quarter 2020 was 908,977, representing a five-year increase of 13,041 jobs (1.5 percent). But growth in Manufacturing slowed more recently. On a year-over-year basis, employment in Manufacturing increased by 6,646 compared to the first quarter 2019's increase of 35,415.

This data is for NAICS codes 31-33.

In general, staffing issues are often evolving in the Manufacturing industry, 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 need to have either 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 2018 to 2028 are listed below.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Welders, Cutters, Solderers, and Brazers <sup>A</sup>	26,530	29,471	2,941	11.1%	\$43,198
Machinists <sup>A</sup>	18,778	20,557	1,779	9.5%	\$46,133
Industrial Engineers <sup>S A</sup>	11,277	12,495	1,218	10.8%	\$104,596
Industrial Machinery Mechanics <sup>A</sup>	12,299	13,490	1,191	9.7%	\$56,669
First-Line Supervisors of Production and Operating Workers	32,965	34,138	1,173	3.6%	\$69,002
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	17,904	18,866	962	5.4%	\$71,783
Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers	16,642	17,336	694	4.2%	\$39,012
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders <sup>A</sup>	7,151	7,841	690	9.6%	\$40,378 <sup>†</sup>
Maintenance Workers, Machinery <sup>A</sup>	5,368	6,043	675	12.6%	\$46,799
General and Operations Managers <sup>A</sup>	16,831	17,491	660	3.9%	\$135,110
Software Developers, Applications <sup>S A</sup>	7,077	7,535	458	6.5%	\$119,483 <sup>†‡</sup>
Electronics Engineers, Except Computer <sup>S</sup>	5,332	5,790	458	8.6%	\$124,607
Mechanical Engineers <sup>S A</sup>	10,497	10,923	426	4.1%	\$99,636
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic <sup>S A</sup>	1,443	1,864	421	29.2%	\$61,901 <sup>†‡</sup>

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**S - STEM** is defined to consist of 176 occupations related to functional areas dealing with science, technology, engineering, and math.

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The high growth occupations listed in the manufacturing industry contain five STEM occupations.

- Industrial Engineers is projected to increase by 10.8 percent by 2028.
- Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic is projected to grow 29.2 percent.
- Software Developers, Applications is projected to grow 6.5 percent.
- Electronics Engineers, Except Computer is projected to grow 8.6 percent.
- Mechanical Engineers is projected to grow 4.1 percent.

Of the 14 occupations listed, seven require a high school diploma or equivalent for entry, while another five require a bachelor’s degree. Ten of the occupations are considered apprenticeable, including

- Welders, Cutters, Solderers, and Brazers
- Machinists
- Industrial Engineers
- Industrial Machinery Mechanics
- Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
- Maintenance Workers, Machinery
- General and Operations Managers
- Software Developers, Applications
- Mechanical Engineers
- Computer Numerically Controlled Tool Programmers

The occupation projected to grow the fastest from 2018 to 2028 is Computer Numerically Controlled Tool Programmers, at 29.2 percent. General and Operations Managers is the growth occupation with the highest annual salary, of \$135,110.

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

Specialized Skills	Certifications
Sales	Driver License
Scheduling	Security Clearance
Customer Service	American Board of Engineering and Technology (ABET) Accredited
Budgeting	Project Management Certification
Product Sales	Six Sigma Certification
Repair	Six Sigma Green Belt Certification
Software Engineering	Six Sigma Black Belt Certification
Project Management	OSHA Forklift Certification
Software Development	Licensed Professional Engineer
Customer Contact	Welding Certification

## 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 2020, the number of workers with Agriculture and Forestry employers in Texas reached 58,866, up 2.1 percent from the same quarter in 2015. In the past year, growth has slowed. The Agriculture and Forestry industry in Texas had been using fewer workers in recent decades as farming methods have become more efficient.

Traditional labor market information may not completely capture the agriculture sector, since many Bureau of Labor Statistics programs are non-agricultural and a significant amount of agricultural labor is not covered by the unemployment tax system.

With that caveat, there are occupations within Agriculture and Forestry that had average wages above the statewide median from 2018 to 2028. They are listed below.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Animal Breeders	436	474	38	8.7%	\$38,870
Animal Trainers <sup>A</sup>	261	288	27	10.3%	\$57,832
Human Resources Specialists <sup>A</sup>	53	52	-1	-1.9%	\$73,274
First-Line Supervisors of Production and Operating Workers	70	60	-10	-14.3%	\$53,361
Bus and Truck Mechanics and Diesel Engine Specialists <sup>A</sup>	115	101	-14	-12.2%	\$54,267
First-Line Supervisors of Office and Administrative Support Workers	209	178	-31	-14.8%	\$59,838
Fallers <sup>A</sup>	186	147	-39	-21.0%	\$54,451
Logging Equipment Operators	655	580	-75	-11.5%	\$43,309

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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. Occupations typically requiring a high school education are as follows:

- Animal Breeders
- Animal Trainers
- First-Line Supervisors of Production and Operating Workers
- Bus and Truck Mechanics and Diesel Engine Specialists
- First-Line Supervisors of Office and Administrative Support Workers
- Fallers
- Logging Equipment Operators

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

<b>Specialized Skills</b>	<b>Certifications</b>
Scheduling	Driver's License
Recruiting	Senior Professional in Human Resources
Technical Recruiting	SHRM Senior Certified Professional
Talent Acquisition	SHRM Certified Professional (SHRM-CP)
Food Safety	Mediation Certification
Human Resource Information System (HRIS)	Six Sigma Green Belt Certification
Office Management	Six Sigma Certification
Social Media	Global Food Safety Initiative (GFSI)
Applicant Tracking System	First Aid CPR AED
Customer Service	Certified Therapeutic Recreation Specialist (CTRS)
Financial Operation	
General Office Duties	
Onboarding	

## **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 2020, the number of workers with Health Care and Social Assistance employers in Texas was 1.7 million, up 13.5 percent from the same quarter in 2015.

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.

The occupations within Health Care and Social Assistance 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 2018	Annual Average Employment 2028	Number Change 2018 - 2028	Percent Growth 2018 - 2028	Average Annual Wage 2019
Registered Nurses <sup>S A</sup>	185,291	217,668	32,377	17.5%	\$74,338
Dental Assistants <sup>A</sup>	28,563	39,302	10,739	37.6%	\$38,682
Licensed Practical and Licensed Vocational Nurses <sup>S A</sup>	62,952	69,583	6,631	10.5%	\$47,434
Medical and Health Services Managers <sup>S A</sup>	25,466	31,047	5,581	21.9%	\$104,303
Dental Hygienists <sup>S</sup>	12,670	17,459	4,789	37.8%	\$76,791 <sup>†</sup>
Physicians and Surgeons, All Other <sup>S</sup>	19,197	22,935	3,738	19.5%	\$216,701 <sup>††</sup>
Nurse Practitioners <sup>S</sup>	10,567	14,290	3,723	35.2%	\$116,842
Speech-Language Pathologists <sup>S</sup>	8,884	12,299	3,415	38.4%	\$78,518
Respiratory Therapists <sup>S</sup>	10,951	14,164	3,213	29.3%	\$60,456
Dentists, General <sup>S</sup>	7,817	10,739	2,922	37.4%	\$186,246
Physician Assistants <sup>S</sup>	7,132	10,024	2,892	40.5%	\$109,540
Physical Therapists <sup>S</sup>	14,654	17,453	2,799	19.1%	\$91,464
Radiologic Technologists and Technicians <sup>S A</sup>	15,290	17,686	2,396	15.7%	\$61,049
Physical Therapist Assistants	7,402	9,556	2,154	29.1%	\$68,702
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	6,214	8,324	2,110	34.0%	\$47,842
General and Operations Managers <sup>A</sup>	10,069	12,140	2,071	20.6%	\$112,956
Medical Records and Health Information Technicians <sup>S A</sup>	12,029	13,920	1,891	15.7%	\$42,908 <sup>††</sup>
Nurse Anesthetists <sup>S</sup>	5,935	7,478	1,543	26.0%	\$170,093
First-Line Supervisors of Office and Administrative Support Workers	12,547	14,071	1,524	12.1%	\$55,389
Occupational Therapists <sup>S</sup>	7,812	9,335	1,523	19.5%	\$86,939

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- ‡ - **OES** occupation used for 2019 wages has a different occupation title.

Of the listed high growth occupations within the Health Care and Social Assistance industry, 75 percent are classified as STEM occupations. Eleven out of twenty of these occupations have typical education for entry as a bachelor’s degree or above. The highest paying STEM occupation is Physicians and Surgeons, All Other with a mean wage of \$216,701. This occupation has an expected 19.5 percent growth rate over the next 10 years.

The middle skill occupations which typically require postsecondary education, apprenticeship, or long-term training include

- Dental Assistants
- Licensed Practical and Licensed Vocational Nurses
- Dental Hygienists
- Respiratory Therapists
- Radiologic Technologists
- Physical Therapist Assistants
- Medical Records and Health Information Technicians

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

Specialized Skills	Certifications
Patient Care	Registered Nurse
Treatment Planning	Advanced Cardiac Life Support (ACLS) Certification
Cardiopulmonary Resuscitation (CPR)	Basic Life Saving (BLS)
Advanced Cardiac Life Support (ACLS)	First Aid CPR AED
Life Support	Basic Cardiac Life Support Certification
Patient/Family Education and Instruction	Licensed Vocational Nurse (LVN)
Teaching	Driver's License
Scheduling	Licensed Practical Nurse (LPN)
Acute Care	American Heart Association Certification
Home Health	Nursing Specialty Certification

## **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 2020, the number of workers in Educational Services in Texas was 1.3 million, up 8.6 percent from the same quarter in 2015. When looking at Current Employment Statistics data the industry shows an 11.8 percent increase in demand for educational workers over the last five years.

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 2018 to 2028 are listed below. Eighteen of the 20 occupations listed are above the 2019 Texas average wage of \$50,490. Of those, Health Specialties Teachers, Postsecondary, General and Operations Managers, Education Administrators, Postsecondary and Business Teachers, Postsecondary make significantly more than the average Texas salary.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Secondary School Teachers, Except Special and Career/Technical Education	107,782	119,583	11,801	10.9%	\$58,017
Self-Enrichment Education Teachers	9,179	13,545	4,366	47.6%	\$46,809
Coaches and Scouts	10,912	14,669	3,757	34.4%	\$50,930
Health Specialties Teachers, Postsecondary <sup>S</sup>	13,185	16,465	3,280	24.9%	\$145,421
Education Administrators, Elementary and Secondary School	27,574	30,739	3,165	11.5%	\$86,356
Educational, Guidance, School, and Vocational Counselors <sup>A</sup>	22,523	25,371	2,848	12.6%	\$60,895
Instructional Coordinators	12,785	14,332	1,547	12.1%	\$66,241
Preschool Teachers, Except Special Education	9,132	10,492	1,360	14.9%	\$52,804
Business Operations Specialists, All Other <sup>A</sup>	12,041	13,130	1,089	9.0%	\$69,035 <sup>†‡</sup>
Vocational Education Teachers, Postsecondary <sup>S</sup>	9,458	10,543	1,085	11.5%	\$57,759
Speech-Language Pathologists <sup>S</sup>	4,818	5,869	1,051	21.8%	\$64,804
Business Teachers, Postsecondary	5,871	6,916	1,045	17.8%	\$93,391
Education Administrators, Postsecondary	9,623	10,568	945	9.8%	\$113,921
Registered Nurses <sup>S A</sup>	8,990	9,868	878	9.8%	\$70,421
Computer User Support Specialists <sup>A</sup>	7,884	8,714	830	10.5%	\$43,486 <sup>†</sup>
General and Operations Managers <sup>A</sup>	4,141	4,967	826	19.9%	\$121,316
Special Education Teachers, Middle School	7,456	8,200	744	10.0%	\$56,716 <sup>†</sup>
Librarians	6,582	7,248	666	10.1%	\$63,062 <sup>†‡</sup>
Accountants and Auditors <sup>S</sup>	4,490	5,025	535	11.9%	\$65,535
English Language and Literature Teachers, Postsecondary	5,134	5,630	496	9.7%	\$62,855

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<sup>‡</sup> - **OES** occupation used for 2019 wages has a different occupation title.

Of the 20 high growth occupations in this industry, 17 of them require at least a bachelor's degree, of which the following are identified as STEM Occupations:

- Health Specialties Teachers in Postsecondary Education
- Vocational Education Teachers, Postsecondary
- Speech-Language Pathologists
- Registered Nurses
- Accountants and Auditors

Overall, Self-Enrichment Education Teachers has the highest percentage job growth projected at 47.6 percent followed by Coaches and Scouts at 34.4 percent and Health Specialties Teachers, Postsecondary at 24.9 percent.

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

<b>Specialized Skills</b>	<b>Certifications</b>
Teaching	Certified Teacher
Lesson Planning	Driver's License
Budgeting	Teachers of English To Speakers of Other Languages (TESOL)
Special Education	First Aid CPR AED
Scheduling	Registered Nurse
Staff Development	Child Development Associate (CDA)
Child Care	Special Education Certification
Learning Styles	Counseling Certification
Early Childhood Education	Basic Life Saving (BLS)
Staff Management	Certified Public Accountant (CPA)

## **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.

In the first quarter of 2020 employment in the Transportation and Warehousing industry in Texas was 586,635, up 20.5 percent from the same quarter in 2015.

The Transportation and Warehousing industry in Texas has seen increasing employment in the last five years. The occupation with the highest employment in this industry is Heavy and Tractor-Trailer Truck Drivers. Which has over 100,000 jobs currently and is expected to add over 18,000 jobs by 2028.

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.

The occupations within Transportation and Warehousing that are projected to add the most jobs are listed below, all of which have wages above the 2019 Texas median wage of \$38,013.

Airline Pilots, Copilots and Flight Engineers specifically make considerably more than the median salary at \$187,603.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Heavy and Tractor-Trailer Truck Drivers <sup>A</sup>	102,488	120,894	18,406	18.0%	\$47,145
Light Truck or Delivery Service Drivers	23,336	27,169	3,833	16.4%	\$50,717
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	13,614	15,638	2,024	14.9%	\$60,329 <sup>+</sup>
Bus and Truck Mechanics and Diesel Engine Specialists <sup>A</sup>	7,982	9,258	1,276	16.0%	\$49,740
General and Operations Managers <sup>A</sup>	6,536	7,676	1,140	17.4%	\$117,295
Aircraft Mechanics and Service Technicians <sup>A</sup>	10,654	11,612	958	9.0%	\$73,038
Sales Representatives, Services, All Other	5,523	6,416	893	16.2%	\$63,958 <sup>++</sup>
Dispatchers, Except Police, Fire, and Ambulance <sup>A</sup>	8,788	9,677	889	10.1%	\$43,675
Reservation and Transportation Ticket Agents and Travel Clerks	12,605	13,452	847	6.7%	\$51,943
Petroleum Pump System Operators, Refinery Operators, and Gaugers <sup>A</sup>	2,562	3,358	796	31.1%	\$75,482
Office Clerks, General <sup>A</sup>	12,201	12,946	745	6.1%	\$38,704
Maintenance and Repair Workers, General <sup>A</sup>	4,578	5,294	716	15.6%	\$54,084
Production, Planning, and Expediting Clerks <sup>A</sup>	3,514	4,054	540	15.4%	\$49,488
Airline Pilots, Copilots, and Flight Engineers <sup>S</sup>	9,200	9,737	537	5.8%	\$187,603
Transportation, Storage, and Distribution Managers <sup>A</sup>	3,220	3,740	520	16.1%	\$97,404
First-Line Supervisors of Mechanics, Installers, and Repairers	2,810	3,233	423	15.1%	\$76,824
Accountants and Auditors <sup>S</sup>	2,466	2,886	420	17.0%	\$75,772

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Out of the 17 occupations listed above, 10 are apprenticeable. Meaning most of these occupations require on the job practical training in order to meet the varying needs of employers.

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

Specialized Skills	Certifications
HAZMAT	CDL Class A
Truck Driving	Driver's License
Commercial Driving	CDL Class B
Scheduling	OSHA Forklift Certification
Customer Service	Department of Transportation (DOT) Certified
Logistics	Mobile Electronics Certified Professional (MECP)
Repair	Mobile Electronics Certified Professional
Over The Road	Certified Public Accountant (CPA)
Forklift Operation	Security Clearance
Customer Contact	CDL Class C

## 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.

The annual average number of jobs in the industry has steadily increased over the past few years since 2016. Not seasonally adjusted Current Employment Statistics data show that the number of jobs increased from 211,900 in 2016 to 248,500 in 2019, a 17.3 percent increase.

The 10 occupations within the Mining, Quarrying, and Oil and Gas Extraction industry that are projected to add the most jobs are listed below, all of which are above the 2019 Texas median wage of \$38,013. Petroleum Engineers make considerably more than the median salary at \$163,749 annually.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Service Unit Operators, Oil and Gas	21,924	26,273	4,349	19.8%	\$48,136
Roustabouts, Oil and Gas	22,478	26,801	4,323	19.2%	\$39,909
Heavy and Tractor-Trailer Truck Drivers <sup>A</sup>	13,593	16,055	2,462	18.1%	\$45,498
Rotary Drill Operators, Oil and Gas <sup>A</sup>	6,839	8,224	1,385	20.3%	\$56,916
Derrick Operators, Oil and Gas	5,847	7,052	1,205	20.6%	\$45,510
Petroleum Engineers <sup>S</sup>	8,855	9,520	665	7.5%	\$163,749
Geological and Petroleum Technicians <sup>S A</sup>	3,803	4,220	417	11.0%	\$61,990 <sup>†‡</sup>
Wellhead Pumpers	6,608	6,900	292	4.4%	\$54,803
Extraction Workers, All Other	1,205	1,472	267	22.2%	\$51,851 <sup>†‡</sup>
Bus and Truck Mechanics and Diesel Engine Specialists <sup>A</sup>	1,166	1,421	255	21.9%	\$48,477

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There is a mix of educational requirements associated with the above listed occupations. Seven out of the ten occupations require a high school diploma or no formal education, while one required a bachelor’s degree. An associate’s degree and postsecondary nondegree awards combine to make up the remaining two occupations.

The following are high growth occupations in this industry that are also considered middle skill jobs:

- Heavy and Tractor-Trailer Truck Drivers
- Geological and Petroleum Technicians
- Bus and Truck Mechanics and Diesel Engine Specialists

Both Petroleum Engineer and Geological and Petroleum Technicians are STEM professions, with Geological and Petroleum Technicians also being apprenticeable. Typical education for Petroleum Engineers is a bachelor’s degree and an associate’s degree is generally required for Geological and Petroleum Technicians.

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

<b>Specialized Skills</b>	<b>Certifications</b>
Repair	Driver’s License
Energy Services	Class A Commercial Driver’s License
Machinery	Class B Commercial Driver’s License
Physical Impairment	Air Brake Certified
Customer Service	Certified Crane Operator
Hydraulic Jacks	OSHA Forklift Certification
Lifting Ability	IT Infrastructure Library (ITIL) Certification
HAZMAT	First Aid CPR AED
Predictive / Preventative Maintenance	Department of Transportation (DOT) Medical Certification
Commercial Driving	Class C Commercial Driver’s License

## **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 2020, the number of workers with Utilities employers in Texas was 83,378, up 4.4 percent from the same quarter in 2015. When looking at Not Seasonally Adjusted Current Employment Statistics data the industry shows a 4.0 percent increase in demand for utilities workers in the last two years.

Continuing technological advances have led to 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 grow at the fastest rates from 2018 to 2028 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 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Electrical Power-Line Installers and Repairers <sup>A</sup>	4,791	5,293	502	10.5%	\$63,195
Industrial Machinery Mechanics <sup>A</sup>	2,345	2,570	225	9.6%	\$70,438
Wind Turbine Service Technicians <sup>A</sup>	569	754	185	32.5%	\$57,945
General and Operations Managers <sup>A</sup>	1,173	1,338	165	14.1%	\$134,918
First-Line Supervisors of Mechanics, Installers, and Repairers	1,377	1,523	146	10.6%	\$77,216
Control and Valve Installers and Repairers, Except Mechanical Door <sup>A</sup>	1,061	1,206	145	13.7%	\$55,594
Electrical Engineers <sup>S</sup>	1,217	1,351	134	11.0%	\$107,573
Business Operations Specialists, All Other <sup>A</sup>	1,107	1,239	132	11.9%	\$88,830 <sup>†‡</sup>
Electricians <sup>A</sup>	1,257	1,379	122	9.7%	\$63,769
Maintenance and Repair Workers, General <sup>A</sup>	752	859	107	14.2%	\$41,830

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Six out of 10 occupations listed have an educational requirement of only a High School Diploma or equivalent., five of which offer wages of \$55,000 and higher. Three of the 10 occupations require a bachelor’s degree for entry into the position. All the occupations listed above in the Utilities industry pay above Texas’s 2019 median wage of \$38,013.

In the Utilities industry, Electrical Engineers are among the high growth STEM occupations, projecting double-digit growth rates from 2018 to 2028. These occupations typically require a bachelor’s degree with an Average Annual Wage of \$107,573

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

<b>Specialized Skills</b>	<b>Certifications</b>
Repair	Driver's License
Scheduling	CDL Class A
Transformers	Electrician Certification
Budgeting	Licensed Professional Engineer
Power Tools	American Board for Engineering and Technology (ABET) Accredited
Electrical Work	CDL Class C
Predictive / Preventative Maintenance	Wastewater Treatment Plant Operator
Schematic Diagrams	Building Performance Institute (BPI)
Customer Service	Wastewater Collection License
Project Management	Plumbing License

## **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 2020, the number of workers with Wholesale Trade employers in Texas was 610,122, up 3.3 percent from the same quarter in 2015.

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 2018, the 20 most in-demand occupations in the Wholesale industry employed over 220,000 people and are expected to grow another 35,555 by 2028. Sixteen of the 20 occupations listed pay Average Annual Wages above the state average of \$50,490 according to 2019 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 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	76,957	88,792	11,835	15.4%	\$69,200
Heavy and Tractor-Trailer Truck Drivers <sup>A</sup>	27,784	32,174	4,390	15.8%	\$47,651
General and Operations Managers <sup>A</sup>	19,573	22,544	2,971	15.2%	\$131,919
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products <sup>A</sup>	19,032	21,934	2,902	15.2%	\$88,931
Mobile Heavy Equipment Mechanics, Except Engines <sup>A</sup>	7,265	8,413	1,148	15.8%	\$53,722
Sales Managers	7,508	8,642	1,134	15.1%	\$146,352
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	7,595	8,713	1,118	14.7%	\$56,014 <sup>†</sup>
Software Developers, Applications <sup>S A</sup>	4,297	5,401	1,104	25.7%	\$109,535 <sup>†‡</sup>
First-Line Supervisors of Non-Retail Sales Workers	7,231	8,320	1,089	15.1%	\$83,477
Bus and Truck Mechanics and Diesel Engine Specialists <sup>A</sup>	5,305	6,247	942	17.8%	\$52,514
Computer User Support Specialists <sup>A</sup>	6,051	6,926	875	14.5%	\$52,532 <sup>†</sup>
Market Research Analysts and Marketing Specialists <sup>S</sup>	3,293	4,147	854	25.9%	\$67,437
Accountants and Auditors <sup>S</sup>	4,951	5,705	754	15.2%	\$76,504
Sales Engineers	4,762	5,499	737	15.5%	\$123,246
Production, Planning, and Expediting Clerks <sup>A</sup>	4,776	5,503	727	15.2%	\$49,728
Industrial Machinery Mechanics <sup>A</sup>	4,250	4,944	694	16.3%	\$57,678
Financial Managers <sup>S A</sup>	2,295	2,910	615	26.8%	\$152,891
Maintenance and Repair Workers, General <sup>A</sup>	4,041	4,652	611	15.1%	\$40,366
Computer, Automated Teller, and Office Machine Repairers <sup>A</sup>	3,803	4,333	530	13.9%	\$38,802
Software Developers, Systems Software <sup>S A</sup>	3,713	4,238	525	14.1%	\$109,535 <sup>†‡</sup>

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Five of the 20 occupations listed are STEM occupations with high demand employing over 18,500 workers as of 2018. These are:

- Software Developers, Applications
- Market Research Analysts and Marketing Specialists
- Accountants and Auditors
- Financial Managers
- Software Developers, Systems Software

These occupations typically require a bachelor’s degree, pay well over the 2019 Average Annual Wage in Texas and are expected to grow between 14 and 27 percent by 2028.

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

Specialized Skills	Certifications
Sales	Driver's License
Customer Service	CDL Class A
Scheduling	OSHA Forklift Certification
Product Sales	Air Brake Certified
Budgeting	Certified Public Accountant (CPA)
Repair	CDL Class B
Commercial Driving	Department of Transportation (DOT) Medical Certification
Outside Sales	Automotive Service Excellence (ASE) Certification
Merchandising	Department of Transportation (DOT) Certified
Sales Planning	Project Management 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 2020, the number of workers in the Retail Trade industry in Texas was 1.3 million, up 3.6 percent from the same quarter in 2015. 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 salespeople to stocking clerks to drivers to managers.

The occupations within retail trade employers that are projected to add the most jobs from 2018 to 2028 are listed below.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
First-Line Supervisors of Retail Sales Workers <sup>A</sup>	87,571	97,048	9,477	10.8%	\$45,420
General and Operations Managers <sup>A</sup>	22,356	25,248	2,892	12.9%	\$90,432
Automotive Service Technicians and Mechanics <sup>A</sup>	25,217	27,750	2,533	10.0%	\$47,528
Counter and Rental Clerks	8,385	9,537	1,152	13.7%	\$38,313
Sales Representatives, Services, All Other	19,066	20,125	1,059	5.6%	\$41,769 <sup>†‡</sup>
First-Line Supervisors of Mechanics, Installers, and Repairers	5,456	6,261	805	14.8%	\$61,246
First-Line Supervisors of Office and Administrative Support Workers	14,572	15,307	735	5.0%	\$44,255
Pharmacists <sup>S</sup>	11,678	12,406	728	6.2%	\$128,310
Sales Managers	3,865	4,405	540	14.0%	\$128,025
Heavy and Tractor-Trailer Truck Drivers <sup>A</sup>	3,651	4,142	491	13.4%	\$41,933
Automotive Body and Related Repairers <sup>A</sup>	3,137	3,616	479	15.3%	\$43,948
Securities, Commodities, and Financial Services Sales Agents <sup>A</sup>	3,024	3,498	474	15.7%	\$90,455

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Of the top 12 high demand occupations, five have an annual wage above the 2019 average annual wage of \$50,490 and combined, are projected to grow by over 20,000 jobs by 2028.

The only STEM occupation on the list is Pharmacists. The Average Annual Wage in 2019 for Pharmacists was \$128,310, the highest of the top 12 occupations. A close second was Sales Managers whose Average Annual Wage in 2019 was \$128,025. Pharmacists are projected to grow an estimated 6.2 percent by 2028 with an increase of over 700 in employment for the same period. Pharmacists are considered a high-skill occupation, requiring a doctoral or professional degree.

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

<b>Specialized Skills</b>	<b>Certifications</b>
Retail Industry Knowledge	Driver's License
Store Management	Automotive Service Excellence (ASE) Certification
Sales	Pharmacy Technician Certification Board (PTCB)
Merchandising	CDL Class A
Customer Service	Food Handler Certification
Scheduling	Pharmacist License
Store Operations	American Council of Pharmaceutical Education (ACPE)
Inventory Management	Project Management Certification
Retail Management	Food Safety Manager Certification
Sales Goals	OSHA Forklift Certification

## **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 2020, the number of workers with Finance and Insurance industry employers in Texas was 557,627, up 11.6 percent from the same quarter in 2015.

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 2018 to 2028 are listed below.

Sixteen of the 20 occupations shown made above the average 2018 annual Texas wage of \$50,490.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Securities, Commodities, and Financial Services Sales Agents	39,491	47,151	7,660	19.4%	\$77,633
Loan Interviewers and Clerks	21,077	25,096	4,019	19.1%	\$42,865
Loan Officers <sup>S</sup>	17,413	20,776	3,363	19.3%	\$82,350
Financial Managers <sup>S A</sup>	8,965	11,658	2,693	30.0%	\$134,060
First-Line Supervisors of Office and Administrative Support Workers	20,664	23,117	2,453	11.9%	\$58,520
Software Developers, Applications <sup>S A</sup>	6,581	8,513	1,932	29.4%	\$107,341 <sup>†‡</sup>
Accountants and Auditors <sup>S</sup>	10,213	12,103	1,890	18.5%	\$83,226
General and Operations Managers <sup>A</sup>	8,918	10,619	1,701	19.1%	\$146,174
Financial Analysts <sup>S</sup>	8,477	10,104	1,627	19.2%	\$90,592 <sup>†‡</sup>
Operations Research Analysts <sup>S</sup>	4,045	5,493	1,448	35.8%	\$83,580
Office Clerks, General <sup>A</sup>	19,874	21,251	1,377	6.9%	\$40,047
Business Operations Specialists, All Other <sup>A</sup>	6,430	7,619	1,189	18.5%	\$80,363 <sup>†‡</sup>
Market Research Analysts and Marketing Specialists <sup>S</sup>	3,496	4,534	1,038	29.7%	\$78,097
Billing and Posting Clerks	6,279	7,278	999	15.9%	\$38,100
Brokerage Clerks	4,718	5,693	975	20.7%	\$53,280
Management Analysts <sup>A</sup>	5,352	6,294	942	17.6%	\$86,107
Bookkeeping, Accounting, and Auditing Clerks <sup>S A</sup>	12,954	13,768	814	6.3%	\$44,153
Compliance Officers <sup>A</sup>	3,804	4,515	711	18.7%	\$73,202
Computer User Support Specialists <sup>A</sup>	4,107	4,817	710	17.3%	\$53,338 <sup>†</sup>
Computer Systems Analysts <sup>S A</sup>	5,092	5,784	692	13.6%	\$93,002 <sup>†</sup>

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Of the occupations listed, nine are identified as STEM occupations and all but eight require at least a bachelor’s degree. The following are projected to grow more than 25 percent by 2026.

- Financial Managers
- Software Developers, Applications
- Operations Research Analysts
- Market Research Analysts and Marketing Specialists

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

<b>Specialized Skills</b>	<b>Certifications</b>
Customer Service	Certified Public Accountant (CPA)
Mortgage Lending	Mortgage License
Accounting	Driver's License
Project Management	Series 7
Budgeting	Series 6
Sales	Certified Information Systems Auditor (CISA)
Customer Contact	Insurance License
SQL	Life and Health Insurance License
Scheduling	Series 63
Mortgage Underwriting	Project Management Certification

## **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 2020, the number of workers with Professional, Scientific, and Technical Services industry employers in Texas was 853,440, up 20.2 percent from the same quarter in 2015.

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 from 2018 to 2028 are listed below. Eighteen of the top 20 occupations earn more than the 2019 Texas average wage.

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Software Developers, Applications <sup>S A</sup>	30,459	42,808	12,349	40.5%	\$105,358 <sup>†‡</sup>
Accountants and Auditors <sup>S</sup>	42,448	54,243	11,795	27.8%	\$80,804
General and Operations Managers <sup>A</sup>	22,539	29,725	7,186	31.9%	\$149,562
Sales Representatives, Services, All Other	18,938	24,922	5,984	31.6%	\$70,588 <sup>†‡</sup>
Lawyers	28,739	34,607	5,868	20.4%	\$148,253
Computer Systems Analysts <sup>S A</sup>	20,014	25,802	5,788	28.9%	\$105,891 <sup>†</sup>
Management Analysts <sup>A</sup>	12,724	18,381	5,657	44.5%	\$97,938
Paralegals and Legal Assistants <sup>A</sup>	19,429	24,806	5,377	27.7%	\$53,069
Computer User Support Specialists <sup>S A</sup>	18,138	23,410	5,272	29.1%	\$54,502 <sup>†</sup>
Office Clerks, General <sup>A</sup>	33,591	37,999	4,408	13.1%	\$39,041
Market Research Analysts and Marketing Specialists <sup>S</sup>	7,993	12,278	4,285	53.6%	\$68,025
Business Operations Specialists, All Other <sup>A</sup>	13,170	17,450	4,280	32.5%	\$95,300 <sup>†‡</sup>
Financial Managers <sup>S A</sup>	7,316	10,759	3,443	47.1%	\$164,870
Software Developers, Systems Software <sup>S A</sup>	12,200	15,377	3,177	26.0%	\$105,358 <sup>†‡</sup>
Computer Occupations, All Other <sup>S A</sup>	9,410	12,339	2,929	31.1%	\$82,519 <sup>†</sup>
Computer and Information Systems Managers <sup>S A</sup>	8,548	11,346	2,798	32.7%	\$164,917
Bookkeeping, Accounting, and Auditing Clerks <sup>S A</sup>	20,545	23,294	2,749	13.4%	\$44,999
Network and Computer Systems Administrators <sup>S A</sup>	9,931	12,476	2,545	25.6%	\$90,693 <sup>†</sup>
Financial Analysts <sup>S</sup>	5,384	7,366	1,982	36.8%	\$89,406 <sup>†‡</sup>
Human Resources Specialists <sup>A</sup>	6,113	8,032	1,919	31.4%	\$68,851

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**† - OES** occupation used for 2019 wages has a different occupation code.

**‡ - OES** occupation used for 2019 wages has a different occupation title.

Of the occupations listed above, Software Developers and Software Quality Assurance Analysts and Testers, Accountants and Auditors, Computer Systems Analysts, Civil Engineers, Market Research Analysts and Marketing Specialists, Computer and Information Systems Managers, and Financial Managers are also STEM professions and earn considerably more than the 2019 Texas average wage. Management Analysts have an above average growth projected at 44.5 percent and earn nearly double the Texas average wage. The typical education required for these STEM professions is a bachelor’s degree.

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

<b>Specialized Skills</b>	<b>Certifications</b>
Project Management	Security Clearance
Customer Service	Certified Public Accountant
SQL	Driver's License
Java	IT Infrastructure Library (ITIL) Certification
Software Development	Project Management Certification
Business Process	CompTIA Security+
Sales	Project Management Professional (PMP)
Budgeting	Licensed Attorney
Oracle	Certified Information Systems Professional (CISS)
Scheduling	Paralegal Certification

## 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 2020, the number of workers at Accommodation and Food Services industry employers in Texas was 1.2 million, up 14.8 percent from the same quarter in 2015.

Annually, employment in the large Accommodation and Food Services industry has expanded continuously from late 2010 through February 2020. An increasing population is partly responsible for the growth of this industry. 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 2018 to 2028 are listed below:

Occupational Title	Annual Average Employment 2018	Annual Average Employment 2028	Number Change 2018-2028	Percent Growth 2018-2028	Average Annual Wage 2019
Food Service Managers <sup>A</sup>	8,963	10,648	1,685	18.8%	\$57,652
Chefs and Head Cooks <sup>A</sup>	4,592	5,534	942	20.5%	\$57,710
Sales Representatives, Services, All Other	2,724	3,207	483	17.7%	\$54,379 <sup>†‡</sup>
First-Line Supervisors of Office and Administrative Support Workers	2,488	2,854	366	14.7%	\$46,150
Meeting, Convention, and Event Planners	1,157	1,366	209	18.1%	\$48,652
Accountants and Auditors <sup>S</sup>	1,080	1,289	209	19.4%	\$70,391
Public Relations Specialists <sup>A</sup>	798	948	150	18.8%	\$49,600
Human Resources Specialists <sup>A</sup>	753	871	118	15.7%	\$62,391
Training and Development Specialists <sup>A</sup>	569	680	111	19.5%	\$53,937
First-Line Supervisors of Mechanics, Installers, and Repairers	483	578	95	19.7%	\$59,432

**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.

**† - OES** occupation used for 2019 wages has a different occupation code.

**‡ - OES** occupation used for 2019 wages has a different occupation title.



The typical educational requirement for five out of 10 occupations listed is a bachelor’s degree. Food Service Managers earned an annual average wage of \$57,652. There is one STEM occupation, Accounts and Auditors, in the high growth category for this industry.

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

<b>Specialized Skills</b>	<b>Certifications</b>
Restaurant Management	Driver's License
Scheduling	ServSafe
Cost Control	Food Handler Certification
Guest Services	Food Service Certification
Food Safety	Food Safety Manager Certification
Retail Industry Knowledge	Certified Dietary Manager
Cooking	Alcohol Server Certification
Budgeting	First Aid CPR AED
Staff Management	Registered Dietitian
Inventory Management	Certified Public Accountant (CPA)

## 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 2018-2028 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 2020 for the period of 2018 to 2028. 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 specialized skills, as well as industry certifications, TWC used data from Burning Glass's Labor Insight for fiscal year 2020. The job listings data captured by Labor Insight 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 2018-2028 long term occupational projections. For

middle-skilled occupations, typical education that includes associate's degrees, postsecondary nondegree awards, some college no degree, and high school diploma or equivalent with long term typical on the job training or apprenticeship 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 August 07, 2020.

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 \$38,013 a year, according to the 2019 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 average pay was estimated to be more than the statewide median, \$38,013 a year with expected employment change greater than or equal 400 with up to 20 occupations per industry. Industries with few occupations meeting the employment change threshold of 400 were displayed with at least ten occupations.