Occupation Overview

Collin College

2200 West University Drive
McKinney, Texas 75070
972.377.1793

Parameters

Occupations

Code	Description
17-2000	Engineers

Regions

16 items selected. See Appendix A for details.

Timeframe

2015 - 2020

Datarun

2014.3 – QCEW Employees

Occupation Summary for Engineers

42,303	+6.2%	$45.05/hr
Jobs (2014)	% Change (2015-2020)	Median Earnings
12% above National average	Nation: +5.7%	Nation: $42.43/hr

Growth

42,708	45,351	2,643	6.2%
2015 Jobs	2020 Jobs	Change (2015-2020)	% Change (2015-2020)

Occupation	2015 Jobs	2020 Jobs	Change	% Change
Aerospace Engineers (17-2011)	3,995	4,228	233	6%
Agricultural Engineers (17-2021)	29	33	4	14%
Biomedical Engineers (17-2031)	589	668	79	13%
Chemical Engineers (17-2041)	462	504	42	9%
Civil Engineers (17-2051)	6,023	6,591	568	9%
Computer Hardware Engineers (17-2061)	3,454	3,579	125	4%
Electrical Engineers (17-2071)	5,123	5,334	211	4%
Electronics Engineers, Except Computer (17-2072)	5,080	5,206	126	2%
Environmental Engineers (17-2081)	981	1,087	106	11%
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)	569	609	40	7%
Industrial Engineers (17-2112)	5,280	5,575	295	6%
Marine Engineers and Naval Architects (17-2121)	55	63	8	15%
Materials Engineers (17-2131)	669	701	32	5%
Mechanical Engineers (17-2141)	6,332	6,617	285	5%

Mining and Geological Engineers, Including Mining Safety Engineers (17-2151)	85	102	17	20%
Nuclear Engineers (17-2161)	176	203	27	15%
Petroleum Engineers (17-2171)	1,906	2,201	295	15%
Engineers, All Other (17-2199)	1,900	2,049	149	8%

Percentile Earnings for Engineers (17-2000)

$35.71/hr	$45.05/hr	$57.00/hr
25th Percentile Earnings	Median Earnings	75th Percentile Earnings

Regional Trends

	Region	2015 Jobs	2020 Jobs	% Change
●	Region	42,708	45,351	6.2%
■	Collin/Rockwall	5,762	6,455	12.0%
▲	Collin County, TX	5,549	6,218	12.1%
◆	Rockwall County, TX	213	236	11.1%
+	Texas	155,154	169,503	9.2%
★	United States	1,610,127	1,701,834	5.7%

Regional Breakdown

County	2020 Jobs
Dallas County, TX	21,031
Tarrant County, TX	12,707
Collin County, TX	6,218
Denton County, TX	2,018
Hunt County, TX	975

Job Postings Summary

1,891	3 : 1
Unique Postings (Oct 2014)	Posting Intensity (Oct 2014)
5,149 Total Postings	Regional Average: 4 : 1

There were 5,149 total job postings for *Engineers* in October 2014, of which 1,891 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (4-to-1), indicating that companies may not be trying as hard to hire this position.

Occupation Gender Breakdown

Gender	2014 Jobs	2014 Percent
Males	28,751	68.0%
Females	13,552	32.0%

Occupation Age Breakdown

Age	2014 Jobs	2014 Percent
14-18	172	0.4%
19-24	2,271	5.4%
25-34	8,791	20.8%
35-44	10,263	24.3%
45-54	11,643	27.5%
55-64	7,438	17.6%
65+	1,725	4.1%

Occupation Race/Ethnicity Breakdown

Race/Ethnicity	2014 Jobs	2014 Percent
White (Not Hispanic or Latino)	29,194	69.0%
Asian (Not Hispanic or Latino)	5,998	14.2%
Hispanic or Latino (All Races)	3,993	9.4%
Black or African American (Not Hispanic or Latino)	2,707	6.4%
Two or More Races (Not Hispanic or Latino)	289	0.7%
American Indian or Alaska Native (Not Hispanic or Latino)	94	0.2%
Native Hawaiian or Other Pacific Islander (Not Hispanic or Latino)	29	0.1%

Occupational Programs

16	1,420	2,394
Programs (2013)	Completions (2013)	Openings (2013)

CIP Code	Program	Completions (2013)
14.1001	Electrical and Electronics Engineering	499
14.1901	Mechanical Engineering	265
14.0801	Civil Engineering, General	130
14.0901	Computer Engineering, General	122
14.3501	Industrial Engineering	81

Industries Employing Engineers

Industry	Occupation Jobs in Industry (2014)	% of Occupation in Industry (2014)	% of Total Jobs in Industry (2014)
Engineering Services	7,496	17.7%	32.7%
Aircraft Manufacturing	4,264	10.1%	18.2%
Semiconductor and Related Device Manufacturing	2,641	6.2%	17.7%
Crude Petroleum and Natural Gas Extraction	1,710	4.0%	11.7%
Federal Government, Civilian, Excluding Postal Service	1,477	3.5%	4.8%

Appendix A - Regions

Code	Description
48085	Collin County, TX
48113	Dallas County, TX
48121	Denton County, TX
48139	Ellis County, TX
48143	Erath County, TX
48221	Hood County, TX
48231	Hunt County, TX
48251	Johnson County, TX
48257	Kaufman County, TX
48349	Navarro County, TX
48363	Palo Pinto County, TX
48367	Parker County, TX
48397	Rockwall County, TX
48425	Somervell County, TX
48439	Tarrant County, TX
48497	Wise County, TX

Appendix B - Data Sources and Calculations

State Data Sources

This report uses state data from the following agencies: Texas Workforce Commission

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.