

# Oklahoma Department of Career and Technology Education

*career*tech

Information Commons

September 2016

## Oklahoma

### Production Occupations



# Parameters

## Occupations

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Code	Description
51-0000	Production Occupations

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## Regions

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Code	Description
40	Oklahoma

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## Timeframe

2006 - 2016

## Datarun

2016.3 – QCEW Employees, Non-QCEW Employees, and Self-Employed

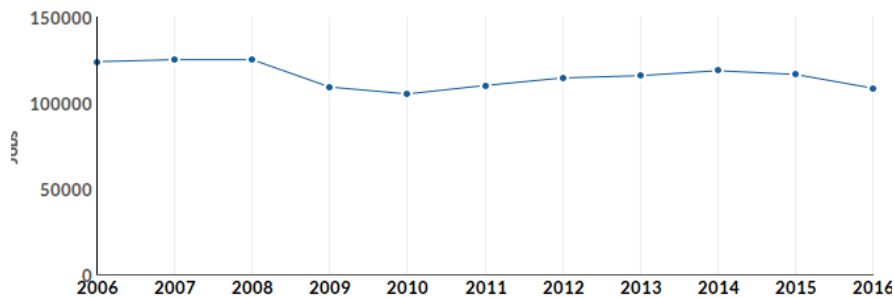
Production Occupations in Oklahoma

## Occupation Summary for Production Occupations

<b>108,692</b> Jobs (2016) 2% above National average	<b>-12.4%</b> % Change (2006-2016) Nation: -9.5%	<b>\$16.76/hr</b> Median Hourly Earnings Nation: \$16.65/hr
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## Growth

<b>124,115</b> 2006 Jobs	<b>108,692</b> 2016 Jobs	<b>-15,423</b> Change (2006-2016)	<b>-12.4%</b> % Change (2006-2016)
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Occupation	2006 Jobs	2016 Jobs	Change	% Change
First-Line Supervisors of Production and Operating Workers (51-1011)	8,765	8,054	-711	-8%
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)	1,055	1,413	358	34%
Coil Winders, Tapers, and Finishers (51-2021)	269	283	14	5%
Electrical and Electronic Equipment Assemblers (51-2022)	2,513	2,273	-240	-10%
Electromechanical Equipment Assemblers (51-2023)	877	832	-45	-5%
Engine and Other Machine Assemblers (51-2031)	756	671	-85	-11%
Structural Metal Fabricators and Fitters (51-2041)	1,132	1,042	-90	-8%
Fiberglass Laminators and	159	107	-52	-33%

Occupation	2006 Jobs	2016 Jobs	Change	% Change
Fabricators (51-2091)				
Team Assemblers (51-2092)	13,061	9,667	-3,394	-26%
Timing Device Assemblers and Adjusters (51-2093)	15	14	-1	-7%
Assemblers and Fabricators, All Other (51-2099)	1,346	910	-436	-32%
Bakers (51-3011)	2,023	1,851	-172	-9%
Butchers and Meat Cutters (51-3021)	1,576	1,600	24	2%
Meat, Poultry, and Fish Cutters and Trimmers (51-3022)	1,860	965	-895	-48%
Slaughterers and Meat Packers (51-3023)	2,380	1,614	-766	-32%
Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders (51-3091)	178	141	-37	-21%
Food Batchmakers (51-3092)	1,034	808	-226	-22%
Food Cooking Machine Operators and Tenders (51-3093)	699	654	-45	-6%
Food Processing Workers, All Other (51-3099)	543	418	-125	-23%
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011)	1,950	2,076	126	6%
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)	178	175	-3	-2%
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4021)	902	661	-241	-27%
Forging Machine Setters, Operators, and Tenders, Metal and Plastic (51-4022)	166	103	-63	-38%
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (51-4023)	741	595	-146	-20%

Occupation	2006 Jobs	2016 Jobs	Change	% Change
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031)	3,289	2,565	-724	-22%
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032)	453	394	-59	-13%
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033)	1,058	868	-190	-18%
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034)	651	503	-148	-23%
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4035)	251	198	-53	-21%
Machinists (51-4041)	5,470	5,383	-87	-2%
Metal-Refining Furnace Operators and Tenders (51-4051)	290	227	-63	-22%
Pourers and Casters, Metal (51-4052)	82	56	-26	-32%
Model Makers, Metal and Plastic (51-4061)	151	137	-14	-9%
Patternmakers, Metal and Plastic (51-4062)	92	79	-13	-14%
Foundry Mold and Coremakers (51-4071)	237	208	-29	-12%
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic (51-4072)	1,371	952	-419	-31%
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081)	2,663	2,452	-211	-8%
Tool and Die Makers (51-4111)	620	446	-174	-28%
Welders, Cutters, Solderers,	9,258	9,532	274	3%

Occupation	2006 Jobs	2016 Jobs	Change	% Change
and Brazers (51-4121)				
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)	960	830	-130	-14%
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191)	282	228	-54	-19%
Layout Workers, Metal and Plastic (51-4192)	58	38	-20	-34%
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (51-4193)	638	512	-126	-20%
Tool Grinders, Filers, and Sharpeners (51-4194)	300	275	-25	-8%
Metal Workers and Plastic Workers, All Other (51-4199)	296	222	-74	-25%
Prepress Technicians and Workers (51-5111)	330	189	-141	-43%
Printing Press Operators (51-5112)	1,617	985	-632	-39%
Print Binding and Finishing Workers (51-5113)	447	247	-200	-45%
Laundry and Dry-Cleaning Workers (51-6011)	2,996	2,515	-481	-16%
Pressers, Textile, Garment, and Related Materials (51-6021)	663	487	-176	-27%
Sewing Machine Operators (51-6031)	1,284	1,121	-163	-13%
Shoe and Leather Workers and Repairers (51-6041)	139	90	-49	-35%
Shoe Machine Operators and Tenders (51-6042)	26	14	-12	-46%
Sewers, Hand (51-6051)	98	103	5	5%
Tailors, Dressmakers, and Custom Sewers (51-6052)	475	398	-77	-16%
Textile Bleaching and Dyeing Machine Operators	51	54	3	6%

Occupation	2006 Jobs	2016 Jobs	Change	% Change
and Tenders (51-6061)				
Textile Cutting Machine Setters, Operators, and Tenders (51-6062)	127	117	-10	-8%
Textile Knitting and Weaving Machine Setters, Operators, and Tenders (51-6063)	47	25	-22	-47%
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders (51-6064)	82	63	-19	-23%
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers (51-6091)	233	202	-31	-13%
Fabric and Apparel Patternmakers (51-6092)	37	24	-13	-35%
Upholsterers (51-6093)	496	471	-25	-5%
Textile, Apparel, and Furnishings Workers, All Other (51-6099)	341	338	-3	-1%
Cabinetmakers and Bench Carpenters (51-7011)	1,249	1,176	-73	-6%
Furniture Finishers (51-7021)	222	161	-61	-27%
Model Makers, Wood (51-7031)	20	18	-2	-10%
Patternmakers, Wood (51-7032)	36	32	-4	-11%
Sawing Machine Setters, Operators, and Tenders, Wood (51-7041)	578	384	-194	-34%
Woodworking Machine Setters, Operators, and Tenders, Except Sawing (51-7042)	759	463	-296	-39%
Woodworkers, All Other (51-7099)	140	96	-44	-31%
Nuclear Power Reactor Operators (51-8011)	29	35	6	21%
Power Distributors and Dispatchers (51-8012)	172	188	16	9%

Occupation	2006 Jobs	2016 Jobs	Change	% Change
Power Plant Operators (51-8013)	614	405	-209	-34%
Stationary Engineers and Boiler Operators (51-8021)	316	316	0	0%
Water and Wastewater Treatment Plant and System Operators (51-8031)	1,662	2,064	402	24%
Chemical Plant and System Operators (51-8091)	98	82	-16	-16%
Gas Plant Operators (51-8092)	609	939	330	54%
Petroleum Pump System Operators, Refinery Operators, and Gaugers (51-8093)	1,557	1,974	417	27%
Plant and System Operators, All Other (51-8099)	109	116	7	6%
Chemical Equipment Operators and Tenders (51-9011)	726	841	115	16%
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders (51-9012)	238	225	-13	-5%
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders (51-9021)	644	593	-51	-8%
Grinding and Polishing Workers, Hand (51-9022)	420	368	-52	-12%
Mixing and Blending Machine Setters, Operators, and Tenders (51-9023)	921	757	-164	-18%
Cutters and Trimmers, Hand (51-9031)	288	260	-28	-10%
Cutting and Slicing Machine Setters, Operators, and Tenders (51-9032)	896	685	-211	-24%
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders (51-9041)	3,280	3,156	-124	-4%

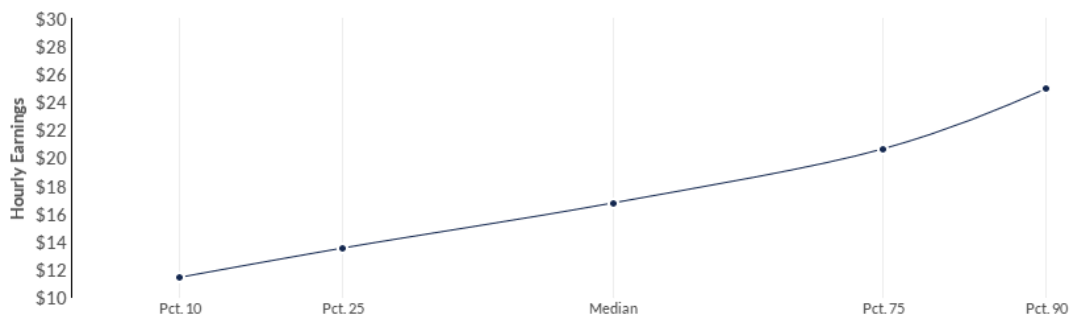


Occupation	2006 Jobs	2016 Jobs	Change	% Change
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders (51-9051)	470	390	-80	-17%
Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061)	6,388	5,981	-407	-6%
Jewelers and Precious Stone and Metal Workers (51-9071)	310	212	-98	-32%
Dental Laboratory Technicians (51-9081)	351	356	5	1%
Medical Appliance Technicians (51-9082)	89	84	-5	-6%
Ophthalmic Laboratory Technicians (51-9083)	198	188	-10	-5%
Packaging and Filling Machine Operators and Tenders (51-9111)	3,235	2,770	-465	-14%
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (51-9121)	1,487	1,354	-133	-9%
Painters, Transportation Equipment (51-9122)	737	713	-24	-3%
Painting, Coating, and Decorating Workers (51-9123)	180	138	-42	-23%
Semiconductor Processors (51-9141)	100	66	-34	-34%
Photographic Process Workers and Processing Machine Operators (51-9151)	420	328	-92	-22%
Adhesive Bonding Machine Operators and Tenders (51-9191)	113	69	-44	-39%
Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders (51-9192)	391	354	-37	-9%
Cooling and Freezing Equipment Operators and Tenders (51-9193)	108	98	-10	-9%

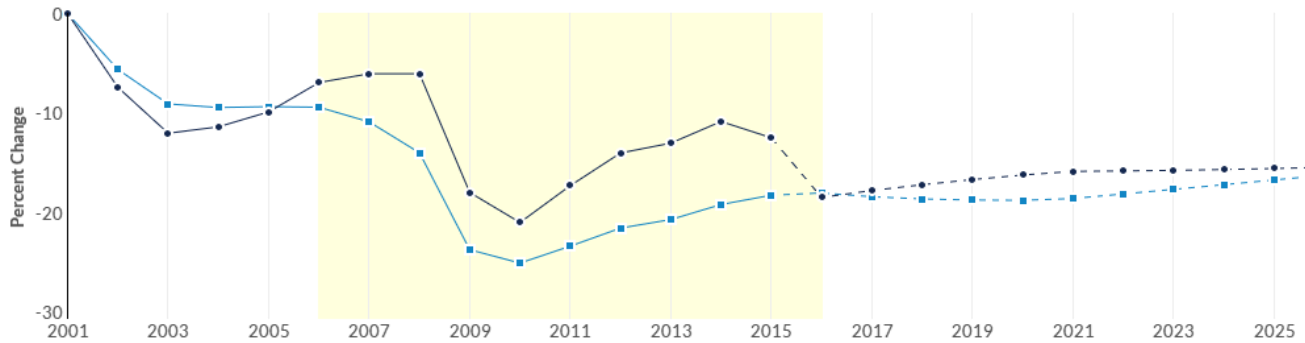
Occupation	2006 Jobs	2016 Jobs	Change	% Change
Etchers and Engravers (51-9194)	75	44	-31	-41%
Molders, Shapers, and Casters, Except Metal and Plastic (51-9195)	945	883	-62	-7%
Paper Goods Machine Setters, Operators, and Tenders (51-9196)	1,155	1,261	106	9%
Tire Builders (51-9197)	313	73	-240	-77%
Helpers--Production Workers (51-9198)	7,178	5,885	-1,293	-18%
Production Workers, All Other (51-9199)	2,153	1,637	-516	-24%

## Percentile Earnings for Production Occupations (51-0000)

<b>\$13.52/hr</b> 25th Percentile Earnings	<b>\$16.76/hr</b> Median Earnings	<b>\$20.65/hr</b> 75th Percentile Earnings
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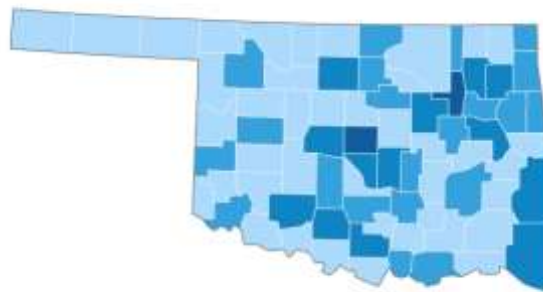


## Regional Trends



	Region	2006 Jobs	2016 Jobs	Change	% Change
●	Region	124,115	108,692	-15,423	-12.4%
●	Nation	10,357,725	9,370,550	-987,175	-9.5%

## Regional Breakdown



County	2016 Jobs
Tulsa County, OK	28,274
Oklahoma County, OK	21,823
Rogers County, OK	3,631
Cleveland County, OK	3,339
Comanche County, OK	2,979

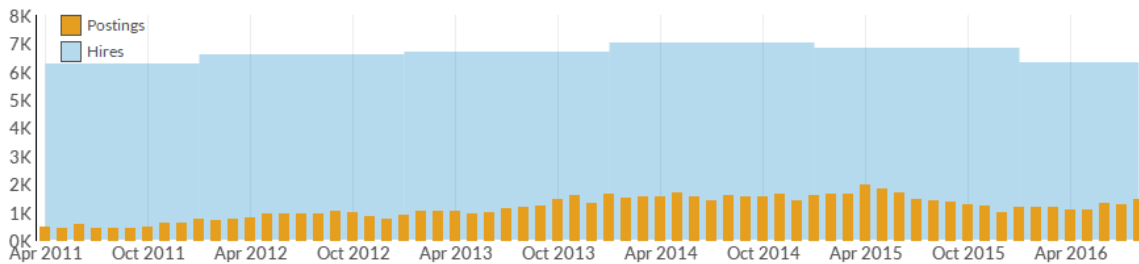
## Job Postings Summary

<p><b>74,959</b></p> <p>Unique Postings (Apr 2011 - Aug 2016)</p> <p>359,278 Total Postings</p>	<p><b>5 : 1</b></p> <p>Posting Intensity (Apr 2011 - Aug 2016)</p> <p>Regional Average: 6 : 1</p>
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There were **359,278** total job postings for Production Occupations from April 2011 to August 2016, of which **74,959** were unique. These numbers give us a Posting Intensity of **5-to-1**, meaning that for every 5 postings there is 1 unique job posting. This is lower than the Posting Intensity for all other occupations and companies in the region (6-to-1), indicating that companies may not be trying as hard to hire this position.

## Job Postings vs. Hires

<p><b>1,153</b></p> <p>Avg. Monthly Postings (Apr 2011 - Aug 2016)</p>	<p><b>6,652</b></p> <p>Avg. Monthly Hires (Apr 2011 - Aug 2016)</p>
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Occupation	Avg Monthly Postings (Apr 2011 - Aug 2016)	Avg Monthly Hires (Apr 2011 - Aug 2016)
Production Occupations	1,153	6,652

## Occupation Gender Breakdown



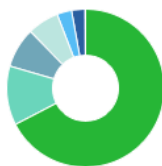
	Gender	2016 Jobs	2016 Percent
•	Males	84,094	77.4%
•	Females	24,597	22.6%

## Occupation Age Breakdown



	Age	2016 Jobs	2016 Percent
•	14-18	746	0.7%
•	19-24	9,868	9.1%
•	25-34	23,746	21.8%
•	35-44	24,152	22.2%
•	45-54	26,554	24.4%
•	55-64	19,183	17.6%
•	65+	4,442	4.1%

## Occupation Race/Ethnicity Breakdown



	Race/Ethnicity	2016 Jobs	2016 Percent
●	White	73,257	67.4%
●	Hispanic or Latino	13,151	12.1%
●	Black or African American	8,904	8.2%
●	American Indian or Alaska Native	7,006	6.4%
●	Asian	3,267	3.0%
●	Two or More Races	2,973	2.7%
●	Native Hawaiian or Other Pacific Islander	134	0.1%

## Occupational Programs

	45 Programs (2015)	3,356 Completions (2015)	2,765 Openings (2015)
CIP Code	Program	Completions (2015)	
48.0508	Welding Technology/Welder	1,474	
14.1901	Mechanical Engineering	418	
47.0603	Autobody/Collision and Repair Technology/Technician	255	
15.0702	Quality Control Technology/Technician	212	
47.0607	Airframe Mechanics and Aircraft Maintenance Technology/Technician	132	

## Industries Employing Production Occupations

Industry	Occupation Jobs in Industry (2016)	% of Occupation in Industry (2016)	% of Total Jobs in Industry (2016)
Temporary Help Services	4,836	4.4%	24.5%
Oil and Gas Field Machinery and Equipment Manufacturing	4,070	3.7%	53.6%
Tire Manufacturing (except Retreading)	3,366	3.1%	72.4%
Machine Shops	3,177	2.9%	72.4%
Local Government, Excluding Education and Hospitals	2,703	2.5%	2.8%

# Appendix A - Data Sources and Calculations

## Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

## 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.

## CareerBuilder/Emsi Job Postings

Job postings are collected from various sources and processed/enriched by Careerbuilder to provide information such as standardized company name, occupation, skills, and geography. Emsi performs additional filtering and processing to improve compatibility with Emsi data.

## 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.

## 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.

## State Data Sources

This report uses state data from the following agencies: Arkansas Department of Workforce Services; Kansas Department of Labor, Labor Market Information Services, Kansas Wage Survey; Missouri Department of Economic Development; Oklahoma Employment Security Commission; Texas Workforce Commission