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Mechanical Drafters

Louisiana

Summary of Job Duties

Mechanical Drafters [Video](#) - Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Detailed Job Description

Mechanical Drafters Drafters prepare technical drawings and plans.

Drafters use software to convert the designs of architects and engineers into technical drawings. Most workers specialize in architectural, civil, electrical, or mechanical drafting and use technical drawings to help design everything from microchips to skyscrapers.

Duties

Drafters typically do the following:

- Design plans using computer-aided design (CAD) software
- Work from rough sketches and specifications created by engineers and architects
- Design products with engineering and manufacturing techniques
- Add details to architectural plans from their knowledge of building techniques
- Specify dimensions, materials, and procedures for new products
- Work under the supervision of engineers or architects

Many drafters are referred to as CAD operators. Using CAD systems, drafters create and store technical drawings digitally. These drawings contain information on how to build a structure or machine, the dimensions of the project, and what materials are needed to complete the project.

Drafters work with CAD so they can create schematics that can be viewed, printed, or programmed directly into building information modeling (BIM) systems. These systems allow drafters, architects, construction managers, and engineers to create and collaborate on digital models of physical buildings and machines. Through three-dimensional rendering, BIM software allows designers and

engineers to see how different elements in their projects work together.

The following are examples of types of drafters:

Architectural drafters draw architectural and structural features of buildings for construction projects. These workers may specialize in a type of building, such as residential or commercial. They may also specialize by the materials used, such as steel, wood, or reinforced concrete.

Civil drafters prepare topographical maps used in construction and civil engineering projects, such as highways, bridges, and flood-control projects.

Electrical drafters prepare wiring diagrams that construction workers use to install and repair electrical equipment and wiring in power plants, electrical distribution systems, and residential and commercial buildings.

Electronics drafters produce wiring diagrams, assembly diagrams for circuit boards, and layout drawings used in manufacturing and in installing and repairing electronic devices and components.

Mechanical drafters prepare layouts that show the details for a wide variety of machinery and mechanical tools and devices, such as medical equipment. These layouts indicate dimensions, fastening methods, and other requirements needed for assembly. Mechanical drafters sometimes create production molds.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Job Zone

The section below shows the job zone information for Mechanical Drafters. Job Zone Three: Medium Preparation Needed.

Education	Experience	Training
Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree.	Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.	Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Jobs Available

This section shows the number of job openings advertised online in Louisiana for Mechanical Drafters and for the related occupational group of Architecture and Engineering Occupations on November 23, 2020 (Jobs De-duplication Level 2).

Occupation	Job Openings
Mechanical Drafters	<u>3</u>
Architecture and Engineering Occupations	<u>726</u>

Source: Online advertised jobs data

Monthly Job Count

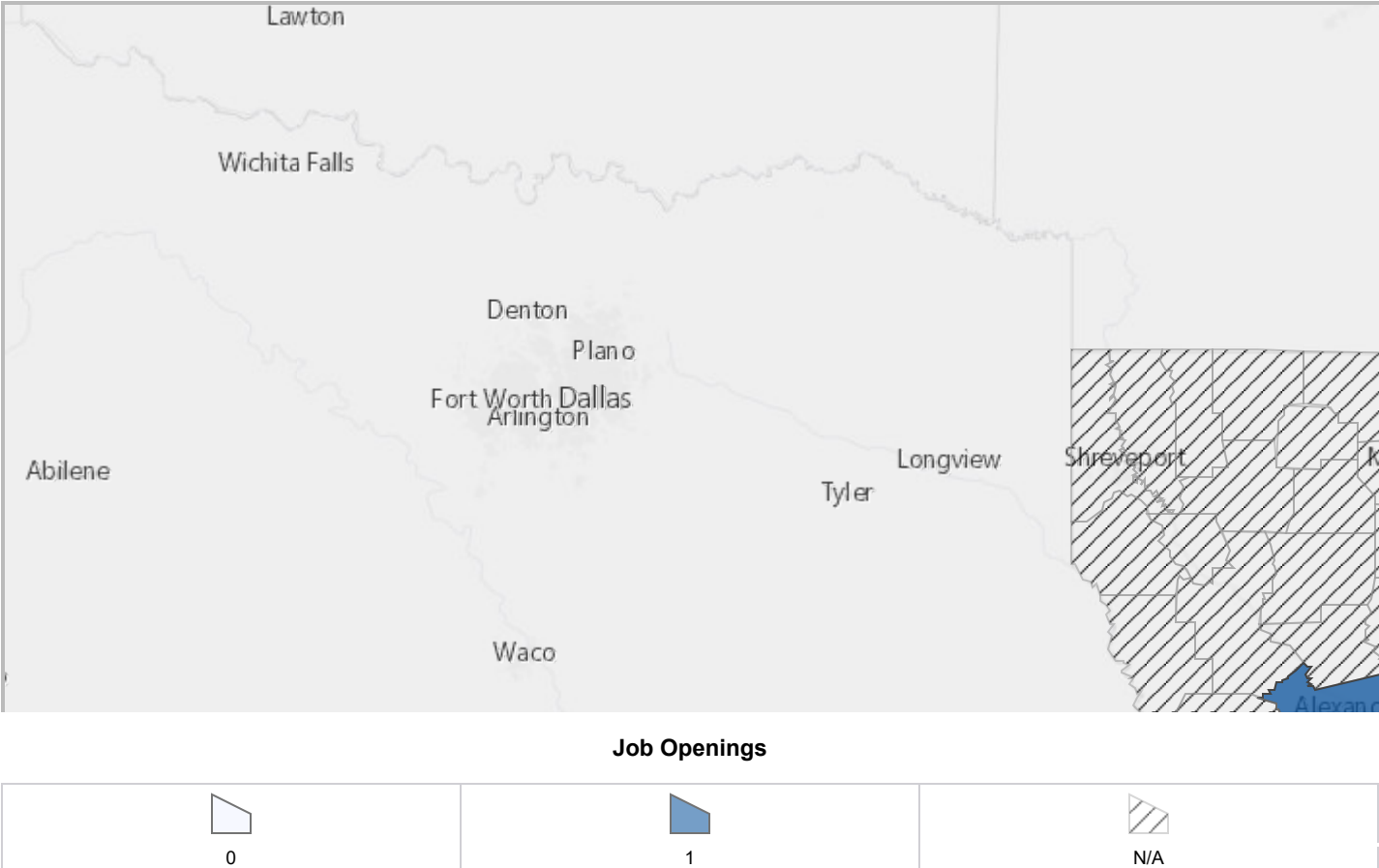
This section shows the number of job openings advertised online for Mechanical Drafters in Louisiana October, 2020 (Jobs De-duplication Level 2).

Occupation	Job Openings
Mechanical Drafters	6

Source: Online advertised jobs data

Jobs Area Distribution

This section shows the distribution of number of job openings advertised online for Mechanical Drafters in Louisiana by parishes on November 23, 2020 (Jobs De-duplication Level 2).



Job Source: Online advertised jobs data

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2019 survey.

Jobs in Related Occupations

This section shows the number of job openings advertised online in Louisiana for occupations related to Mechanical Drafters on November 23, 2020 (Jobs De-duplication Level 2).

Rank	Occupation	Median Wage	Job Openings	*Related By
1	Electronics Engineering Technicians 🌿	\$57,589	<u>19</u>	O*NET
2	Electrical Engineering Technicians 🌿	\$57,589	<u>17</u>	O*NET
3	Construction and Building Inspectors 🌞🌿	\$51,013	<u>16</u>	O*NET
4	Architectural Drafters 🌿	\$50,965	<u>13</u>	O*NET
5	Surveying Technicians	\$37,697	<u>12</u>	SOC4
6	Computer Network Architects	N/A	<u>10</u>	O*NET

Rank	Occupation	Median Wage	Job Openings	*Related By
7	Industrial Engineering Technicians	\$83,502	<u>10</u>	SOC4
8	Drafters, All Other	\$53,560	<u>8</u>	SOC4
9	Web Developers	N/A	<u>7</u>	O*NET
10	Mechanical Engineering Technicians	\$75,598	<u>5</u>	SOC4
11	Electro-Mechanical Technicians	\$65,257	<u>4</u>	SOC4
12	Avionics Technicians	\$62,195	<u>4</u>	O*NET
13	Electrical Drafters	\$64,801	<u>3</u>	O*NET
14	Mechanical Drafters	\$58,355	<u>3</u>	N/A
15	Environmental Engineering Technicians 	\$44,182	<u>3</u>	SOC4
16	Non-Destructive Testing Specialists	N/A	<u>3</u>	SOC4
17	Manufacturing Production Technicians	N/A	<u>3</u>	SOC4
18	Commercial and Industrial Designers	\$89,185	<u>3</u>	O*NET
19	Electronic Drafters	\$64,801	<u>2</u>	O*NET
20	Civil Engineering Technicians	\$53,863	<u>2</u>	O*NET
21	Engineering Technicians, Except Drafters, All Other	N/A	<u>2</u>	SOC4
22	Graphic Designers	\$43,621	<u>2</u>	O*NET
23	Civil Drafters	\$50,965	<u>1</u>	O*NET
24	Robotics Technicians	\$65,257	<u>1</u>	SOC4
25	Museum Technicians and Conservators	\$19,779	<u>1</u>	O*NET

BRIGHT OUTLOOK NATIONALLY | GREEN OCCUPATIONS

Job Source: Online advertised jobs data

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2019 survey.

*Related By: O*NET™ - The [Occupational Information Network](#). O*NET is a registered trademark of the [US Department of Labor/Employment and Training Administration](#).

SOC4 - Occupational grouping based on 1st 4 digits of the [Standard Occupational Classification](#) system.

Candidates Available

This section shows potential candidates in the workforce system in Louisiana for Mechanical Drafters and for the related occupational group of Architecture and Engineering Occupations on November 23, 2020.

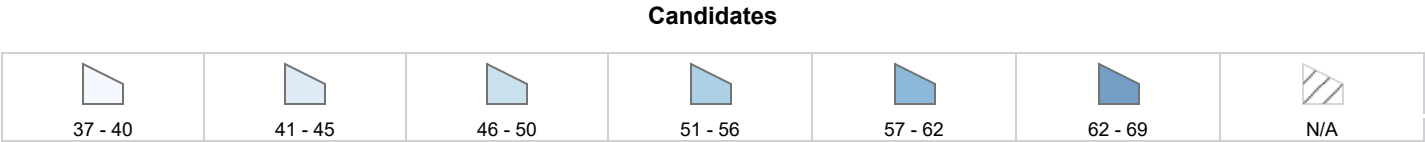
Occupation	Candidates
Mechanical Drafters	130
Architecture and Engineering Occupations	3,460

Source: Individuals with active résumés in the workforce system.

Candidate Area Distribution

This section shows the distribution of potential candidates in the workforce system for Mechanical Drafters in Louisiana by parishes on November 23, 2020.

Rank	Area Name	Median Wage	Candidates
1	<u>Jefferson Parish</u>	\$58,355 state level wages	69
2	<u>Orleans Parish</u>	\$58,355 state level wages	69
3	<u>East Baton Rouge Parish</u>	\$58,355 state level wages	67
4	<u>St. Charles Parish</u>	\$58,355 state level wages	65
5	<u>St. Tammany Parish</u>	\$58,355 state level wages	62
6	<u>Ascension Parish</u>	\$58,355 state level wages	60
7	<u>St. Bernard Parish</u>	\$58,355 state level wages	59
8	<u>St. John the Baptist Parish</u>	\$58,355 state level wages	59
9	<u>Livingston Parish</u>	\$58,355 state level wages	56
10	<u>Plaquemines Parish</u>	\$58,355 state level wages	54



Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2019 survey.

Candidates in Related Occupations

This section shows how many potential candidates in the workforce system were looking for work in Louisiana in occupations related to Mechanical Drafters on November 23, 2020.

Rank	Occupation	Median Wage	Candidates	*Related By
1	Manufacturing Production Technicians 🌿	N/A	380	SOC4
2	Construction and Building Inspectors 🌻 🌿	\$51,013	359	O*NET
3	Graphic Designers	\$43,621	273	O*NET
4	Electronics Engineering Technicians 🌿	\$57,589	172	O*NET
5	Drafters, All Other	\$53,560	169	SOC4
6	Non-Destructive Testing Specialists	N/A	133	SOC4
7	Mechanical Drafters	\$58,355	130	N/A
8	Industrial Engineering Technicians 🌿	\$83,502	111	SOC4
9	Architectural Drafters 🌿	\$50,965	102	O*NET
10	Electrical Engineering Technicians 🌿	\$57,589	96	O*NET
11	Commercial and Industrial Designers 🌿	\$89,185	89	O*NET
12	Surveying Technicians	\$37,697	81	SOC4
13	Aerospace Engineering and Operations Technicians	N/A	76	SOC4
14	Civil Drafters	\$50,965	67	O*NET
15	Civil Engineering Technicians	\$53,863	62	O*NET

Rank	Occupation	Median Wage	Candidates	*Related By
16	<u>Engineering Technicians, Except Drafters, All Other</u>	N/A	56	SOC4
17	<u>Electrical Drafters</u>	\$64,801	55	O*NET
18	<u>Electro-Mechanical Technicians</u> 🟢	\$65,257	52	SOC4
19	<u>Mechanical Engineering Technicians</u>	\$75,598	51	SOC4
20	<u>Industrial Engineering Technologists</u> 🟢	N/A	47	SOC4
21	<u>Film and Video Editors</u> 🟡	N/A	46	O*NET
22	<u>Avionics Technicians</u>	\$62,195	46	O*NET
23	<u>Environmental Engineering Technicians</u> 🟡 🟢	\$44,182	44	SOC4
24	<u>Web Developers</u> 🟡	N/A	42	O*NET
25	<u>Computer Network Architects</u>	N/A	42	O*NET
26	<u>Automotive Engineering Technicians</u> 🟢	\$75,598	42	SOC4
27	<u>Multimedia Artists and Animators</u>	\$59,121	39	O*NET
28	<u>Electronic Drafters</u>	\$64,801	23	O*NET
29	<u>Robotics Technicians</u> 🟢	\$65,257	19	SOC4
30	<u>Electronics Engineering Technologists</u> 🟢	N/A	19	SOC4
31	<u>Electrical Engineering Technologists</u> 🟢	N/A	17	SOC4
32	<u>Cartographers and Photogrammetrists</u> 🟡	\$55,539	12	O*NET
33	<u>Fabric and Apparel Patternmakers</u>	N/A	12	O*NET
34	<u>Mechanical Engineering Technologists</u> 🟢	N/A	11	SOC4
35	<u>Electromechanical Engineering Technologists</u> 🟢	N/A	6	SOC4
36	<u>Fuel Cell Technicians</u> 🟢	N/A	5	SOC4
37	<u>Museum Technicians and Conservators</u> 🟡	\$19,779	5	O*NET
38	<u>Manufacturing Engineering Technologists</u> 🟢	N/A	4	SOC4
39	<u>Mapping Technicians</u>	\$37,697	4	O*NET
40	<u>Transportation Engineers</u> 🟢	\$93,891	3	O*NET
41	<u>Electrical and Electronic Engineering Technicians</u>	\$57,589	2	SOC4
42	<u>Photonics Technicians</u> 🟢	N/A	2	SOC4
43	<u>Electrical and Electronics Drafters</u>	\$64,801	1	SOC4
44	<u>Nanotechnology Engineering Technicians</u> 🟢	N/A	1	SOC4

🟡 BRIGHT OUTLOOK NATIONALLY | 🟢 GREEN OCCUPATIONS

Candidate Source: Individuals with active résumés in the workforce system.

*Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

SOC4 - Occupational grouping based on 1st 4 digits of the Standard Occupational Classification system.

Jobs and Candidates Available

This section shows the number of job openings advertised online, as well as potential candidates in the workforce system in Louisiana for Mechanical Drafters and for the related occupational group of Architecture and Engineering Occupations on November 23, 2020 (Jobs De-duplication Level 2).

Occupation	Job Openings	Candidates	Candidates per Job
Mechanical Drafters	<u>3</u>	130	43.33
Architecture and Engineering Occupations	<u>726</u>	3,460	4.77

Job Source: Online advertised jobs data
Candidate Source: Individuals with active résumés in the workforce system.

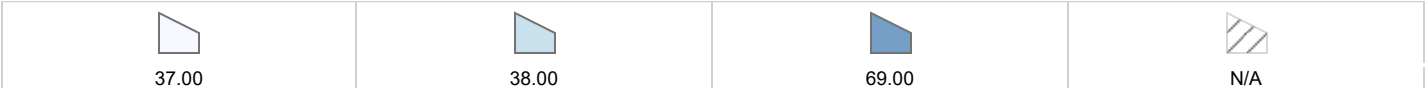
Jobs and Candidates Area Distribution

This section shows the distribution of number of job openings advertised online, as well as potential candidates in the workforce system for Mechanical Drafters in Louisiana by parishes on November 23, 2020 (Jobs De-duplication Level 2).

Rank	Area Name	Median Wage	Job Openings	Candidates	Candidates per Job
1	<u>Orleans Parish</u>	\$58,355 state level wages	<u>1</u>	69	69.00
2	<u>Calcasieu Parish</u>	\$58,355 state level wages	<u>1</u>	38	38.00
3	<u>Rapides Parish</u>	\$58,355 state level wages	<u>1</u>	37	37.00
4	<u>Acadia Parish</u>	\$58,355 state level wages	0	42	N/A
5	<u>Allen Parish</u>	\$58,355 state level wages	0	37	N/A
6	<u>Ascension Parish</u>	\$58,355 state level wages	0	60	N/A
7	<u>Assumption Parish</u>	\$58,355 state level wages	0	47	N/A
8	<u>Avoyelles Parish</u>	\$58,355 state level wages	0	37	N/A
9	<u>Beauregard Parish</u>	\$58,355 state level wages	0	37	N/A
10	<u>Bienville Parish</u>	\$58,355 state level wages	0	36	N/A



Candidates per Job



Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Wage Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Data is from a 2019 survey.

National Supply and Demand Summary

Mechanical Drafters Overall employment of drafters is projected to grow 7 percent from 2016 to 2026. Employment growth will vary by specialty. (See table below.)

Growth in the engineering services and construction industries is expected to account for most new jobs for drafters. However, computer-aided design (CAD) and building information modeling (BIM) technologies allow engineers and architects to perform many tasks that used to be done by drafters, which is expected to temper demand for all drafters.

Job Prospects

Overall competition for jobs is expected to be strong.

Specifically, architectural and civil drafters may experience more competition for jobs than mechanical or electrical drafters because of the relatively high number of students graduating in those drafting specialties. Typically, the number of graduates in architectural and civil programs greatly exceeds the number of available positions.

Demand for particular drafting specialties varies across the country because jobs depend on the needs of local industries. Job prospects for mechanical drafters should be best in large manufacturing hubs.

Because many drafting jobs are in construction and manufacturing, job opportunities for drafters will be sensitive to fluctuations in the overall economy.

Candidates proficient in CAD and BIM are likely to have better job opportunities.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Employers by Number of Job Openings

This section shows the employers with the highest number of job openings advertised online for Mechanical Drafters in Louisiana on November 23, 2020 (Jobs De-duplication Level 2).

Rank	Employer Name	Job Openings
1	Acuren	1
2	Barry-Wehmiller Companies	1
3	Technical Associates Inc.	1

Source: Online advertised jobs data

Advertised Job Skills

This section shows the top advertised detailed job skills found in job openings advertised online for Mechanical Drafters in Louisiana in October, 2020. (Jobs De-duplication Level 1)

Rank	Advertised Detailed Job Skill	Advertised Skill Group	Job Opening Match Count
1	Sketching	Art Skills	4
2	Translate information	Interpreters/Translator Skills	1
3	System design	Information Systems Manager Skills	1
4	Positive work ethic	Basic Skills	1
5	Attention to detail	Basic Skills	1
6	Work independently	Basic Skills	1
7	Welding	Welding Skills	1
8	Develop design concepts	Mechanical Engineer Skills	1

Source: Online advertised jobs data

Advertised Tools and Technology

This section shows the top advertised detailed tools and technologies found in job openings advertised online for Mechanical Drafters in Louisiana in October, 2020. (Jobs De-duplication Level 1)

Rank	Advertised Detailed Tool or Technology	Advertised Tool and Technology Group	Job Opening Match Count
1	Ladders	Ladders	4
2	Microsoft (MS) Office	Office Suite Software	4
3	Motor vehicles	Automobiles or Cars	1
4	Adobe Systems Adobe Flash	Graphics or Photo Imaging Software	1
5	Microsoft Excel	Spreadsheet Software	1
6	Adobe Systems Adobe Acrobat software	Document Management Software	1
7	Site Manager	Document Management Software	1

Source: Online advertised jobs data

Typical Job Skills

This section shows the job skills that are related to Mechanical Drafters.

Rank	Typical Job Skills	Typical Skill Category
1	Create graphical representations of mechanical equipment	Mental Processes
2	Create images or other visual displays	Mental Processes
3	Design electromechanical equipment or systems	Mental Processes
4	Analyze design or requirements information for mechanical equipment or systems	Mental Processes
5	Verify mathematical calculations	Mental Processes
6	Confer with technical personnel to prepare designs or operational plans	Interacting With Others
7	Discuss designs or plans with clients	Interacting With Others
8	Supervise engineering or other technical personnel	Interacting With Others

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Personal Skills

This section shows the personal skills that are most useful for Mechanical Drafters. Click on a link in the Personal Skills column to view more detailed information.

Personal Skill	Skill Description	Rank by Importance (Out of 100)
Reading Comprehension	Understanding written sentences and paragraphs in work related documents.	56
Active Listening	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.	56
Mathematics	Using mathematics to solve problems.	56
Critical Thinking	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.	56
Active Learning	Understanding the implications of new information for both current and future problem-solving and decision-making.	56
Complex Problem Solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.	53
Speaking	Talking to others to convey information effectively.	53
Judgment and Decision Making	Considering the relative costs and benefits of potential actions to choose the most appropriate one.	50
Operations Analysis	Analyzing needs and product requirements to create a design.	50

Personal Skill	Skill Description	Rank by Importance (Out of 100)
<u>Instructing</u>	Teaching others how to do something.	50
<u>Writing</u>	Communicating effectively in writing as appropriate for the needs of the audience.	50
<u>Monitoring</u>	Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.	50
<u>Social Perceptiveness</u>	Being aware of others' reactions and understanding why they react as they do.	50
<u>Coordination</u>	Adjusting actions in relation to others' actions.	50
<u>Learning Strategies</u>	Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.	47
<u>Systems Analysis</u>	Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.	47
<u>Systems Evaluation</u>	Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.	47
<u>Time Management</u>	Managing one's own time and the time of others.	47
<u>Quality Control Analysis</u>	Conducting tests and inspections of products, services, or processes to evaluate quality or performance.	44
<u>Service Orientation</u>	Actively looking for ways to help people.	35
<u>Technology Design</u>	Generating or adapting equipment and technology to serve user needs.	35
<u>Persuasion</u>	Persuading others to change their minds or behavior.	35
<u>Negotiation</u>	Bringing others together and trying to reconcile differences.	31
<u>Programming</u>	Writing computer programs for various purposes.	31
<u>Management of Personnel Resources</u>	Motivating, developing, and directing people as they work, identifying the best people for the job.	31
<u>Operation Monitoring</u>	Watching gauges, dials, or other indicators to make sure a machine is working properly.	28
<u>Troubleshooting</u>	Determining causes of operating errors and deciding what to do about it.	25
<u>Management of Financial Resources</u>	Determining how money will be spent to get the work done, and accounting for these expenditures.	25
<u>Management of Material Resources</u>	Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.	25
<u>Science</u>	Using scientific rules and methods to solve problems.	22

Personal Skill	Skill Description	Rank by Importance (Out of 100)
<u>Operation and Control</u>	Controlling operations of equipment or systems.	13
<u>Equipment Selection</u>	Determining the kind of tools and equipment needed to do a job.	6
<u>Installation</u>	Installing equipment, machines, wiring, or programs to meet specifications.	0
<u>Equipment Maintenance</u>	Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.	0
<u>Repairing</u>	Repairing machines or systems using the needed tools.	0

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Typical Education Requirements

Mechanical Drafters Mechanical Drafters usually require at least an Associate's degree. However, not all employers may make this a hiring requirement.

Source: This information is based on the BLS Occupational Outlook Handbook (OOH).

Required Level of Education

This section shows the results of a national survey listing the most common required level of education for Mechanical Drafters.

Rank	Required Level of Education	Percentage of Respondents
1	Associate's Degree (or other 2-year degree)	61.28%
2	Bachelor's Degree	20.25%
3	Post-Secondary Certificate - awarded for training completed after high school (for example, in agriculture or natural resources, computer services, personal or culinary services, engineering technologies, healthcare, construction trades, mechanic and repair technologies, or precision production)	7.98%
4	Some College Courses	7.45%
5	Master's Degree	2.80%
6	First Professional Degree - awarded for completion of a program that: requires at least 2 years of college work before entrance into the program, includes a total of at least 6 academic years of work to complete, and provides all remaining academic requirements to begin practice in a profession.	0.13%
7	Post-Doctoral Training	0.13%

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

On The Job Training

This section shows the results of a national survey listing the most common lengths of on the job training for Mechanical Drafters.

Rank	On The Job Training	Percentage of Respondents
1	Anything beyond short demonstration, up to and including 1 month	35.31%
2	Over 6 months, up to and including 1 year	22.60%
3	Over 1 month, up to and including 3 months	18.52%
4	Over 3 months, up to and including 6 months	8.41%
5	Over 2 years, up to and including 4 years	7.38%
6	Over 1 year, up to and including 2 years	4.99%
7	Over 4 years, up to and including 10 years	2.53%
8	Over 10 years	0.25%

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

On-Site or In-Plant Training

This section shows the results of a national survey listing the most common lengths of on-site or in-plant training for Mechanical Drafters.

Rank	On-Site or In-Plant Training	Percentage of Respondents
1	Up to and including 1 month	30.77%
2	Over 1 month, up to and including 3 months	24.24%
3	None	14.60%
4	Over 1 year, up to and including 2 years	12.00%
5	Over 3 months, up to and including 6 months	8.41%
6	Over 4 years, up to and including 10 years	6.74%
7	Over 2 years, up to and including 4 years	2.86%
8	Over 10 years	0.38%

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Education Level of Jobs and Candidates

This section shows the minimum level of education requested by employers on job openings advertised online, as well as the educational attainment of potential candidates in the workforce system that are looking for jobs as Mechanical Drafters in Louisiana on November 23, 2020. There were 2 job openings advertised online that did not specify a minimum education requirement (Jobs De-duplication Level 2).

Rank	Education Level	Job Openings	Percentage of Job Openings	Potential Candidates	Percentage of Potential Candidates
1	Less than High School	0	N/A	2	1.54%
2	High School Diploma or Equivalent	0	N/A	6	4.62%
3	1 Year of College or a Technical or Vocational School	0	N/A	4	3.08%




Rank	Education Level	Job Openings	Percentage of Job Openings	Potential Candidates	Percentage of Potential Candidates
4	2 Years of College or a Technical or Vocational School	0	N/A	9	6.92%
5	3 Years of College or a Technical or Vocational School	0	N/A	9	6.92%
6	Vocational School Certificate	0	N/A	30	23.08%
7	Associate's Degree	1	33.33%	48	36.92%
8	Bachelor's Degree	0	N/A	21	16.15%
9	Master's Degree	0	N/A	1	0.77%
10	Not Specified	2	66.67%	0	N/A





Job Source: Online advertised jobs data

Candidate Source: Individuals with active résumés in the workforce system.

Education Training Programs

This section shows the Education Training Programs for Mechanical Drafters in Louisiana.

Provider Name	Program Name	Location	Tuition	Length	WIOA Eligible
Baton Rouge Community College	Drafting & Design Technology An associate degree	Baton Rouge, LA	\$10,585	5 Semesters	
Bossier Parish Community College	Computer Drafting and Design - Technical Competency Area	Bossier City, LA	\$1,647	1 Semesters	
Central Louisiana Technical Community College	Drafting and Design Technology An associate degree	Alexandria, LA	\$10,248	5 Semesters	
Fletcher Technical Community College	Drafting and Design Technology Degree An associate degree	Schriever, LA	\$10,240	5 Semesters	
ITI Technical College	Drafting & Design Technology An associate degree	Baton Rouge, LA	\$29,500	24 Months	
Louisiana Delta Community College	Drafting and Design Technology An associate degree, Employment, A measurable skills gain leading to a credential, A measurable skills gain leading to employment	West Monroe, LA	\$8,948	104 Weeks	

Provider Name	Program Name	Location	Tuition	Length	WIOA Eligible
Northshore Technical Community College	Drafting & Design Technology (AAS) An associate degree	Lacombe, LA	\$10,258	5 Semesters	
Northshore Technical Community College	Drafting&Design Technology - CTS An industry-recognized certificate or certification	Lacombe, LA	\$4,503	2 Semesters	
River Parishes Community College - Gonzales Campus	Drafting & Design Technology An associate degree, A baccalaureate degree, A community college certificate of completion, Employment, A measurable skills gain leading to employment	Gonzales, LA	\$8,611	4 Semesters	
River Parishes Community College - Gonzales Campus	Drafting & Design Technology An associate degree, A baccalaureate degree, A community college certificate of completion, Employment, A measurable skills gain leading to employment	Reserve, LA	\$8,611	4 Semesters	

Source: U.S. Department of Commerce, Bureau of the Census, Midyear Estimates

Advertised Job Certifications

There is no data available for Mechanical Drafters in Louisiana.

Training Program Completers

There is no data available for Mechanical Drafters in Louisiana.

National Education, Training, Licensing and Qualifications

Mechanical Drafters Education

Drafters generally need to complete postsecondary education in drafting. This is typically done through a 2-year associate's degree from a technical institute or community college.

Technical institutes offer instruction in design fundamentals, sketching, and computer-aided design (CAD) software and award certificates or diplomas upon completion. Programs vary in length but are generally 2 years of full-time education. The types of courses offered will also vary by institution. Some institutions may specialize in only one type of drafting, such as mechanical or architectural drafting.

Community colleges offer programs similar to those in technical institutes that lead to an associate of applied science in drafting or related degree. After completing an associate's degree program, graduates may get jobs as drafters or continue their education in a related field at a 4-year college. Most 4-year colleges do not offer training in drafting, but they do offer classes in engineering, architecture, and mathematics.

To prepare for postsecondary education, high school students may find it useful to take courses in mathematics, science, computer technology, design, computer graphics, and where available, drafting.

Licenses, Certifications, and Registrations

The American Design Drafting Association (ADDA) offers certification for drafters. Although not mandatory, certification demonstrates competence and knowledge of nationally recognized practices. Certifications are offered for several specialties, including architectural, civil, and mechanical drafting.

Important Qualities

Creativity. Drafters must be able to turn plans and ideas into technical drawings that will guide the creation of real buildings, tools, and systems.

Detail oriented. Drafters must pay close attention to details so that the plans they convert are technically accurate according to the outlined specifications.

Interpersonal skills. Drafters work closely with architects, engineers, and other designers to make sure that final plans are accurate. This requires the ability to communicate effectively and work well with others.

Math skills. Drafters work on technical drawings. They may be required to solve mathematical calculations involving factors such as angles, weights, and costs.

Technical skills. Drafters in all specialties must be able to use computer software, such as CAD, and work with database tools, such as building information modeling (BIM).

Time-management skills. Drafters often work under strict deadlines. As a result, they must work efficiently to produce the required output according to set schedules.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Typical Work Experience Requirements

Mechanical Drafters Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Related Work Experience

This section shows the results of a national survey listing the most common related work experience for Mechanical Drafters.

Rank	Related Work Experience	Percentage of Respondents
1	Over 2 years, up to and including 4 years	23.59%
2	Over 10 years	18.10%

Rank	Related Work Experience	Percentage of Respondents
3	Over 1 year, up to and including 2 years	16.43%
4	Over 6 months, up to and including 1 year	12.26%
5	None	9.44%
6	Over 8 years, up to and including 10 years	6.08%
7	Up to and including 1 month	5.41%
8	Over 6 years, up to and including 8 years	4.70%
9	Over 4 years, up to and including 6 years	3.98%

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Work Experience of Jobs and Candidates

This section shows the minimum required work experience requested by employers on job openings advertised online, as well as the experience level of potential candidates in the workforce system that are looking for jobs as Architecture and Engineering Occupations (no data available for Mechanical Drafters) in Louisiana on November 23, 2020. There were 528 job openings advertised online that did not specify a minimum experience requirement (Jobs De-duplication Level 2).

Rank	Experience	Job Openings	Percentage of Job Openings	Potential Candidates	Percentage of Potential Candidates
1	Not Specified	528	72.73%	0	N/A
2	Entry Level	39	5.37%	0	N/A
3	Less than 1 year	4	0.55%	138	3.99%
4	1 Year to 2 Years	53	7.30%	98	2.83%
5	2 Years to 5 Years	64	8.82%	262	7.57%
6	5 Years to 10 Years	29	3.99%	389	11.24%
7	More than 10 Years	9	1.24%	2,573	74.36%

Job Source: Online advertised jobs data
Candidate Source: Individuals with active résumés in the workforce system.

Current Job Order Wage Information

The employer has NOT indicated a salary range for this job. The information below shows statistics on typical salaries in the local labor market for Mechanical Drafters. This data is NOT an indication of what this employer is willing to pay for this job.

Employment Wage Statistics

This section shows the estimated employment wage statistics for individuals in Louisiana employed for Mechanical Drafters in 2019.

Rate Type / Statistical Type	Entry level	Median	Experienced
Annual wage or salary	\$41,286	\$58,355	\$99,235
Hourly wage	\$19.85	\$28.06	\$47.71

Source: Labor Market Statistics, Occupational Employment Statistics Program
The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less

than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

Wage Rates on Advertised Jobs

This section shows a statistical breakdown of available wage data on the 3 job openings advertised online for Mechanical Drafters in Louisiana that posted a salary on November 23, 2020.

Rate Type / Statistical Type	Entry Level	Median	Experienced
Annual wage or salary	N/A	N/A	N/A
Hourly Wage	N/A	N/A	N/A

Source: Online advertised jobs data

Note: This information is based on actual job orders and is not based on a statistically valid labor market survey. Hourly wage rate calculations in this section assume a 40 hour work week.

Desired Salary of Available Candidates

This section shows the desired salary of potential candidates in the workforce system that are looking for jobs as Mechanical Drafters in Louisiana on November 23, 2020.

Rank	Desired Salary	Potential Candidates	Percentage of Potential Candidates
1	Not Specified	29	22.66%
2	\$20,000 - \$34,999	6	4.69%
3	\$35,000 - \$49,999	16	12.50%
4	\$50,000 - \$64,999	17	13.28%
5	\$65,000 - \$79,999	21	16.41%
6	\$80,000 - \$94,999	18	14.06%
7	\$95,000 or more	21	16.41%

Source: Individuals with active résumés in the workforce system.

Wage Rates Area Distribution

There is no data available for Mechanical Drafters in Louisiana.

Wage Rates in Related Occupations

This section shows a comparison of 2019 median annual rates for occupations that are in the same occupational family as Mechanical Drafters for Louisiana.

Rank	Occupation	Median	*Related By
1	Transportation Engineers	\$93,891	O*NET
2	Commercial and Industrial Designers	\$89,185	O*NET
3	Industrial Engineering Technicians	\$83,502	SOC4
4	Mechanical Engineering Technicians	\$75,598	SOC4
5	Automotive Engineering Technicians	\$75,598	SOC4
6	Electro-Mechanical Technicians	\$65,257	SOC4
7	Robotics Technicians	\$65,257	SOC4

Rank	Occupation	Median	*Related By
8	<u>Electrical and Electronics Drafters</u>	\$64,801	SOC4
9	<u>Electronic Drafters</u>	\$64,801	O*NET
10	<u>Electrical Drafters</u>	\$64,801	O*NET
11	<u>Avionics Technicians</u>	\$62,195	O*NET
12	<u>Multimedia Artists and Animators</u>	\$59,121	O*NET
13	Mechanical Drafters	\$58,355	N/A
14	<u>Electrical and Electronic Engineering Technicians</u>	\$57,589	SOC4
15	<u>Electronics Engineering Technicians</u> 🌱	\$57,589	O*NET
16	<u>Electrical Engineering Technicians</u> 🌱	\$57,589	O*NET
17	<u>Cartographers and Photogrammetrists</u> 🌟	\$55,539	O*NET
18	<u>Civil Engineering Technicians</u>	\$53,863	O*NET
19	<u>Drafters, All Other</u>	\$53,560	SOC4
20	<u>Construction and Building Inspectors</u> 🌟 🌱	\$51,013	O*NET
21	<u>Architectural and Civil Drafters</u>	\$50,965	SOC4
22	<u>Architectural Drafters</u> 🌱	\$50,965	O*NET
23	<u>Civil Drafters</u>	\$50,965	O*NET
24	<u>Environmental Engineering Technicians</u> 🌟 🌱	\$44,182	SOC4
25	<u>Graphic Designers</u>	\$43,621	O*NET
26	<u>Surveying and Mapping Technicians</u>	\$37,697	SOC4
27	<u>Surveying Technicians</u>	\$37,697	SOC4
28	<u>Mapping Technicians</u>	\$37,697	O*NET
29	<u>Museum Technicians and Conservators</u> 🌟	\$19,779	O*NET

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Source: Labor Market Statistics, Occupational Employment Statistics Program

The median wage is the estimated 50th percentile; 50 percent of workers in an occupation earn less than the median wage, and 50 percent earn more than the median wage. Entry level and Experienced wage rates represent the means of the lower 1/3 and upper 2/3 of the wage distribution, respectively. Data is from an annual survey.

*Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.

SOC4 - Occupational grouping based on 1st 4 digits of the Standard Occupational Classification system.

Wage Rates by Industry

There is no data available for Mechanical Drafters in Louisiana.

National Earnings Data Summary

Mechanical Drafters The median annual wage for drafters was \$53,480 in May 2016. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$33,910, and the highest 10 percent earned more than \$83,300.

Median annual wages for drafters in May 2016 were as follows:

Electrical and electronics drafters \$59,970
Mechanical drafters 54,480

Architectural and civil drafters 51,640
Drafters, all other 50,470

In May 2016, the median annual wages for drafters in the top industries in which they worked were as follows:

Administrative and support and waste management and remediation services \$57,080
Construction 53,730
Manufacturing 53,010
Wholesale trade 52,890
Architectural, engineering, and related services 52,850

Most drafters worked full time in 2016.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Occupational Employment & Future Employment Outlook

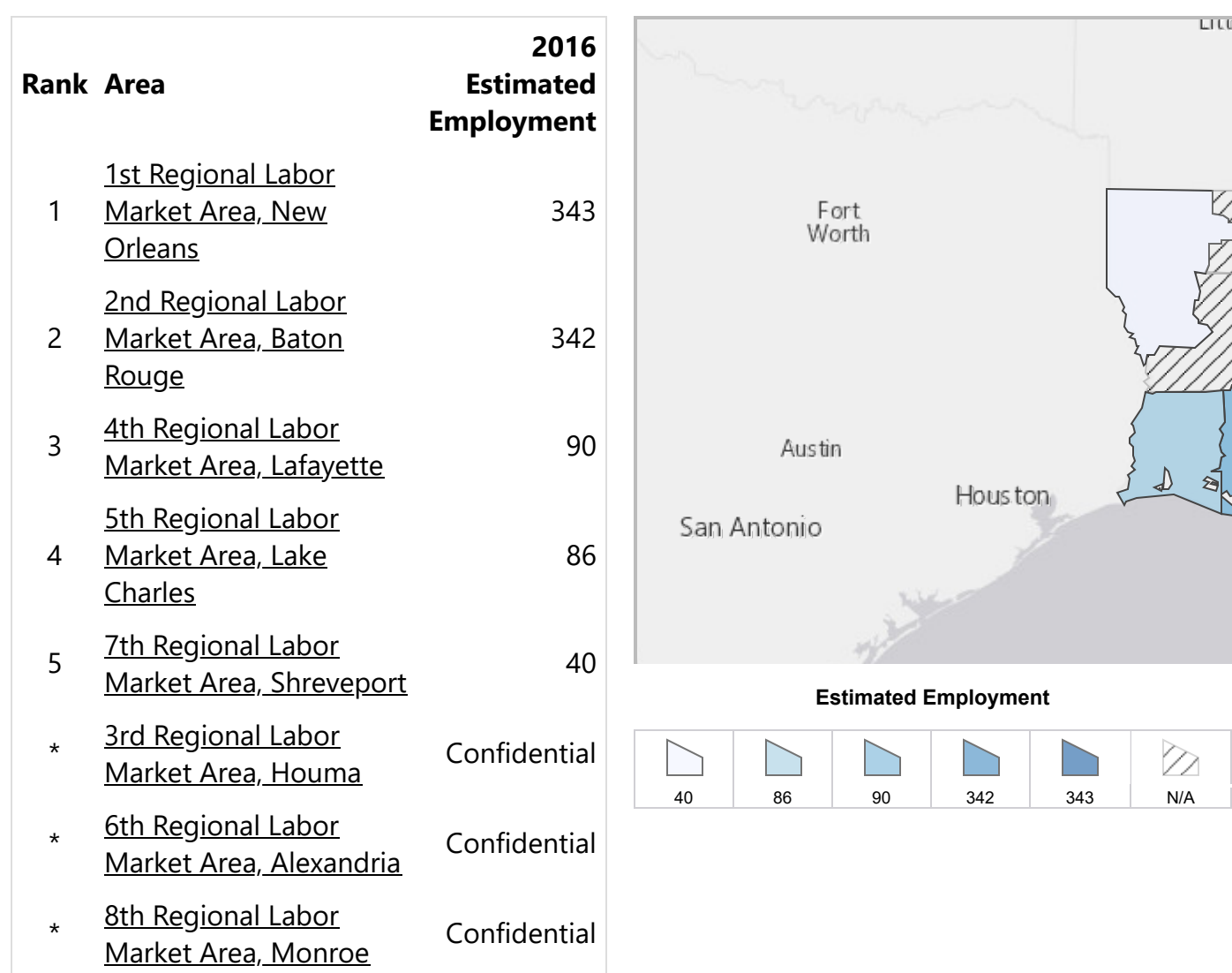
This section shows the long term employment projections for Mechanical Drafters in Louisiana from 2016-2026.

Occupation	2016 Estimated Employment	2026 Projected Employment	Total 2016- 2026 Employment Change	2016-2026 Annual Avg. Percent Change
Mechanical Drafters	978	1,115	137	1.32%
Total All	2,034,986	2,203,144	168,158	0.80%

Source: Occupational Employment Projections

Employment Data Area Distribution

This section shows the distribution of the 2016 estimated employment for Mechanical Drafters in Louisiana by regional labor market area.



Source: Labor Market Statistics, Occupational Employment Projections Program

Employment Data in Related Occupations

This section shows the 2016 Estimated Employment in Louisiana for occupations related to Mechanical Drafters.

Rank	Occupation	2016 Estimated Employment	*Related By
1	Transportation Engineers	3,535	O*NET
2	Graphic Designers	2,068	O*NET
3	Electrical Engineering Technologists	1,566	SOC4
4	Electromechanical Engineering Technologists	1,566	SOC4
5	Electronics Engineering Technologists	1,566	SOC4
6	Engineering Technicians, Except Drafters, All Other	1,566	SOC4
7	Fuel Cell Technicians	1,566	SOC4
8	Industrial Engineering Technologists	1,566	SOC4
9	Manufacturing Engineering Technologists	1,566	SOC4
10	Manufacturing Production Technicians	1,566	SOC4
11	Mechanical Engineering Technologists	1,566	SOC4
12	Nanotechnology Engineering Technicians	1,566	SOC4
13	Nanotechnology Engineering Technologists	1,566	SOC4
14	Non-Destructive Testing Specialists	1,566	SOC4

Rank	Occupation	2016 Estimated Employment	*Related By
15	<u>Photonics Technicians</u> 🌱	1,566	SOC4
16	<u>Civil Engineering Technicians</u>	1,551	O*NET
17	<u>Electrical and Electronic Engineering Technicians</u>	1,471	SOC4
18	<u>Electrical Engineering Technicians</u> 🌱	1,471	O*NET
19	<u>Electronics Engineering Technicians</u> 🌱	1,471	O*NET
20	<u>Mapping Technicians</u>	1,272	O*NET
21	<u>Surveying and Mapping Technicians</u>	1,272	SOC4
22	<u>Surveying Technicians</u>	1,272	SOC4
23	<u>Drafters, All Other</u>	1,154	SOC4
24	<u>Architectural and Civil Drafters</u>	1,134	SOC4
25	<u>Architectural Drafters</u> 🌱	1,134	O*NET
26	<u>Civil Drafters</u>	1,134	O*NET
27	Mechanical Drafters	978	SOC4
28	<u>Construction and Building Inspectors</u> 🌟 🌱	922	O*NET
29	<u>Web Developers</u> 🌟	560	O*NET
30	<u>Multimedia Artists and Animators</u>	531	O*NET
31	<u>Automotive Engineering Technicians</u> 🌱	444	SOC4
32	<u>Mechanical Engineering Technicians</u>	444	SOC4
33	<u>Commercial and Industrial Designers</u> 🌱	423	O*NET
34	<u>Industrial Engineering Technicians</u> 🌱	404	SOC4
35	<u>Environmental Engineering Technicians</u> 🌟 🌱	374	SOC4
36	<u>Computer Network Architects</u>	246	O*NET
37	<u>Electrical and Electronics Drafters</u>	229	SOC4
38	<u>Electrical Drafters</u>	229	O*NET
39	<u>Electronic Drafters</u>	229	O*NET
40	<u>Film and Video Editors</u> 🌟	224	O*NET
41	<u>Avionics Technicians</u>	183	O*NET
42	<u>Museum Technicians and Conservators</u> 🌟	89	O*NET
*	<u>Aerospace Engineering and Operations Technicians</u>	Confidential	SOC4
*	<u>Cartographers and Photogrammetrists</u> 🌟	Confidential	O*NET
*	<u>Electro-Mechanical Technicians</u> 🌱	Confidential	SOC4
*	<u>Robotics Technicians</u> 🌱	Confidential	SOC4

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* Rank is suppressed for confidential data.

Source: Occupational Employment Projections

*Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.
SOC4 - Occupational grouping based on 1st 4 digits of the Standard Occupational Classification system.

Projected Annual Openings

This section shows the long term projected annual openings for Mechanical Drafters in Louisiana from 2016 to 2026.

Occupation	Total Annual Average Openings	Annual Average Openings Due to Growth	Annual Average Openings Due to Replacement
Mechanical Drafters	N/A	N/A	N/A
Architecture and Engineering	N/A	N/A	N/A

Source: Labor Market Statistics, Occupational Employment Projections Program

Projected Annual Openings Area Distribution

This section shows the distribution of the total annual average openings for Mechanical Drafters in Louisiana by regional labor market area from 2016 to 2026.

Rank	Area	Total Annual Average Openings	There is no total annual average openings data available for Mechanical Drafters in Louisiana.
1	<u>1st Regional Labor Market Area, New Orleans</u>	N/A	
2	<u>2nd Regional Labor Market Area, Baton Rouge</u>	N/A	
3	<u>4th Regional Labor Market Area, Lafayette</u>	N/A	
4	<u>5th Regional Labor Market Area, Lake Charles</u>	N/A	
5	<u>7th Regional Labor Market Area, Shreveport</u>	N/A	
*	<u>3rd Regional Labor Market Area, Houma</u>	Confidential	
*	<u>6th Regional Labor Market Area, Alexandria</u>	Confidential	
*	<u>8th Regional Labor Market Area, Monroe</u>	Confidential	

* Rank is suppressed for confidential data.






Source: Labor Market Statistics, Occupational Employment Projections Program

Projected Annual Openings in Related Occupations

This section shows the projected total annual average openings in Louisiana for occupations related to Mechanical Drafters from 2016 to 2026.

Rank	Occupation	Total Annual Average Openings	*Related By
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Rank	Occupation	Total Annual Average Openings	*Related By
1	<u>Architectural and Civil Drafters</u>	N/A	SOC4
2	<u>Architectural Drafters</u> 🌿	N/A	O*NET
3	<u>Automotive Engineering Technicians</u> 🌿	N/A	SOC4
4	<u>Avionics Technicians</u>	N/A	O*NET
5	<u>Civil Drafters</u>	N/A	O*NET
6	<u>Civil Engineering Technicians</u>	N/A	O*NET
7	<u>Commercial and Industrial Designers</u> 🌿	N/A	O*NET
8	<u>Computer Network Architects</u>	N/A	O*NET
9	<u>Construction and Building Inspectors</u> 🌟 🌿	N/A	O*NET
10	<u>Drafters, All Other</u>	N/A	SOC4
11	<u>Electrical and Electronic Engineering Technicians</u>	N/A	SOC4
12	<u>Electrical and Electronics Drafters</u>	N/A	SOC4
13	<u>Electrical Drafters</u>	N/A	O*NET
14	<u>Electrical Engineering Technicians</u> 🌿	N/A	O*NET
15	<u>Electrical Engineering Technologists</u> 🌿	N/A	SOC4
16	<u>Electromechanical Engineering Technologists</u> 🌿	N/A	SOC4
17	<u>Electronic Drafters</u>	N/A	O*NET
18	<u>Electronics Engineering Technicians</u> 🌿	N/A	O*NET
19	<u>Electronics Engineering Technologists</u> 🌿	N/A	SOC4
20	<u>Engineering Technicians, Except Drafters, All Other</u>	N/A	SOC4
21	<u>Environmental Engineering Technicians</u> 🌟 🌿	N/A	SOC4
22	<u>Film and Video Editors</u> 🌟	N/A	O*NET
23	<u>Fuel Cell Technicians</u> 🌿	N/A	SOC4
24	<u>Graphic Designers</u>	N/A	O*NET
25	<u>Industrial Engineering Technicians</u> 🌿	N/A	SOC4
26	<u>Industrial Engineering Technologists</u> 🌿	N/A	SOC4
27	<u>Manufacturing Engineering Technologists</u> 🌿	N/A	SOC4
28	<u>Manufacturing Production Technicians</u> 🌿	N/A	SOC4
29	<u>Mapping Technicians</u>	N/A	O*NET
30	<u>Mechanical Drafters</u>	N/A	SOC4
31	<u>Mechanical Engineering Technicians</u>	N/A	SOC4
32	<u>Mechanical Engineering Technologists</u> 🌿	N/A	SOC4
33	<u>Multimedia Artists and Animators</u>	N/A	O*NET
34	<u>Museum Technicians and Conservators</u> 🌟	N/A	O*NET
35	<u>Nanotechnology Engineering Technicians</u> 🌿	N/A	SOC4
36	<u>Nanotechnology Engineering Technologists</u> 🌿	N/A	SOC4
37	<u>Non-Destructive Testing Specialists</u>	N/A	SOC4
38	<u>Photonics Technicians</u> 🌿	N/A	SOC4
39	<u>Surveying and Mapping Technicians</u>	N/A	SOC4

Rank	Occupation	Total Annual Average Openings	*Related By
40	Surveying Technicians	N/A	SOC4
41	Transportation Engineers 	N/A	O*NET
42	Web Developers 	N/A	O*NET
*	Aerospace Engineering and Operations Technicians	Confidential	SOC4
*	Cartographers and Photogrammetrists 	Confidential	O*NET
*	Electro-Mechanical Technicians 	Confidential	SOC4
*	Robotics Technicians 	Confidential	SOC4

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* Rank is suppressed for confidential data.

Source: Occupational Employment Projections

Industries by Employment

This section shows the industries that employed the highest number of Mechanical Drafters in Louisiana in 2016.

Rank	Industry Title	Estimated Employment	Percent of Total Employment
1	Professional, Scientific, and Technical Services	638	65.24%
2	Machinery Manufacturing	97	9.92%
3	Fabricated Metal Product Manufacturing	59	6.03%
4	Transportation Equipment Manufacturing	30	3.07%
*	Self-Employed and Unpaid Family Workers, Primary Job	Confidential	Confidential
*	Oil and Gas Extraction	Confidential	Confidential
*	Support Activities for Mining	Confidential	Confidential
*	Utilities	Confidential	Confidential
*	Specialty Trade Contractors	Confidential	Confidential
*	Paper Manufacturing	Confidential	Confidential

* Rank is suppressed for confidential data.

Source: Louisiana Workforce Commission, Occupational Projections Program

Work Activities

This section shows the most common work activities required by Mechanical Drafters in order of importance. Click on a link in the Work Activity column to view more detailed information.

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
Interacting With Computers	Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.	93

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
<u>Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment</u>	Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be fabricated, constructed, assembled, modified, maintained, or used.	93
<u>Getting Information</u>	Observing, receiving, and otherwise obtaining information from all relevant sources.	81
<u>Thinking Creatively</u>	Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.	76
<u>Communicating with Supervisors, Peers, or Subordinates</u>	Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.	73
<u>Making Decisions and Solving Problems</u>	Analyzing information and evaluating results to choose the best solution and solve problems.	70
<u>Monitor Processes, Materials, or Surroundings</u>	Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.	68
<u>Updating and Using Relevant Knowledge</u>	Keeping up-to-date technically and applying new knowledge to your job.	68
<u>Documenting/Recording Information</u>	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.	67
<u>Identifying Objects, Actions, and Events</u>	Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.	63
<u>Evaluating Information to Determine Compliance with Standards</u>	Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.	61
<u>Organizing, Planning, and Prioritizing Work</u>	Developing specific goals and plans to prioritize, organize, and accomplish your work.	61
<u>Processing Information</u>	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.	60
<u>Inspecting Equipment, Structures, or Material</u>	Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.	57
<u>Analyzing Data or Information</u>	Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.	57

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
<u>Interpreting the Meaning of Information for Others</u>	Translating or explaining what information means and how it can be used.	54
<u>Estimating the Quantifiable Characteristics of Products, Events, or Information</u>	Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.	54
<u>Communicating with Persons Outside Organization</u>	Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.	52
<u>Establishing and Maintaining Interpersonal Relationships</u>	Developing constructive and cooperative working relationships with others, and maintaining them over time.	52
<u>Judging the Qualities of Things, Services, or People</u>	Assessing the value, importance, or quality of things or people.	49
<u>Performing Administrative Activities</u>	Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.	48
<u>Scheduling Work and Activities</u>	Scheduling events, programs, and activities, as well as the work of others.	46
<u>Developing Objectives and Strategies</u>	Establishing long-range objectives and specifying the strategies and actions to achieve them.	46
<u>Provide Consultation and Advice to Others</u>	Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics.	41
<u>Coordinating the Work and Activities of Others</u>	Getting members of a group to work together to accomplish tasks.	41
<u>Training and Teaching Others</u>	Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others.	35
<u>Guiding, Directing, and Motivating Subordinates</u>	Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.	35
<u>Controlling Machines and Processes</u>	Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).	35
<u>Coaching and Developing Others</u>	Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills.	34

Work Activity	Work Activity Description	Rank by Importance (Out of 100)
Repairing and Maintaining Mechanical Equipment	Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.	28
Resolving Conflicts and Negotiating with Others	Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others.	27
Assisting and Caring for Others	Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients.	27
Developing and Building Teams	Encouraging and building mutual trust, respect, and cooperation among team members.	26
Performing General Physical Activities	Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.	26
Handling and Moving Objects	Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.	24
Operating Vehicles, Mechanized Devices, or Equipment	Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.	24
Monitoring and Controlling Resources	Monitoring and controlling resources and overseeing the spending of money.	21
Selling or Influencing Others	Convincing others to buy merchandise/goods or to otherwise change their minds or actions.	20
Repairing and Maintaining Electronic Equipment	Servicing, repairing, calibrating, regulating, fine-tuning, or testing machines, devices, and equipment that operate primarily on the basis of electrical or electronic (not mechanical) principles.	19

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Tasks

This section shows the most common tasks required by Mechanical Drafters in order of importance. Click on a link in the Task column to view more detailed information.

Tasks	Task Description	Rank by Importance (Out of 100)
Develop detailed design drawings and specifications for mechanical equipment, dies, tools, and controls, using computer-assisted drafting (CAD) equipment.	Core	91

Tasks	Task Description	Rank by Importance (Out of 100)
<u>Produce three-dimensional models, using computer-aided design (CAD) software.</u>	Core	86
<u>Lay out and draw schematic, orthographic, or angle views to depict functional relationships of components, assemblies, systems, and machines.</u>	Core	83
<u>Modify and revise designs to correct operating deficiencies or to reduce production problems.</u>	Core	81
<u>Review and analyze specifications, sketches, drawings, ideas, and related data to assess factors affecting component designs and the procedures and instructions to be followed.</u>	Core	80
<u>Check dimensions of materials to be used and assign numbers to the materials.</u>	Core	80
<u>Design scale or full-size blueprints of specialty items, such as furniture and automobile body or chassis components.</u>	Core	75
<u>Compute mathematical formulas to develop and design detailed specifications for components or machinery, using computer-assisted equipment.</u>	Core	73
<u>Coordinate with and consult other workers to design, lay out, or detail components and systems and to resolve design or other problems.</u>	Core	73
<u>Position instructions and comments onto drawings.</u>	Core	68
<u>Confer with customer representatives to review schematics and answer questions pertaining to installation of systems.</u>	Core	68
<u>Supervise and train other drafters, technologists, and technicians.</u>	Core	63
<u>Lay out, draw, and reproduce illustrations for reference manuals and technical publications to describe operation and maintenance of mechanical systems.</u>	Core	62
<u>Draw freehand sketches of designs, trace finished drawings onto designated paper for the reproduction of blueprints, and reproduce working drawings on copy machines.</u>	Core	57
<u>Shade or color drawings to clarify and emphasize details and dimensions or eliminate background, using ink, crayon, airbrush, and overlays.</u>	Supplemental	49

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

National Working Conditions

Mechanical Drafters Drafters spend much of their time working on computers using specialized software in an office.

Drafters held about 207,700 jobs in 2016. Employment in the detailed occupations that make up drafters was distributed as follows:

Architectural and civil drafters 99,600
Mechanical drafters 64,800
Electrical and electronics drafters 27,400
Drafters, all other 15,900

The largest employers of drafters were as follows:

Architectural, engineering, and related services 49%
Manufacturing 25
Construction 9
Administrative and support and waste management and remediation services 4
Wholesale trade 2

Although drafters spend much of their time working on computers in an office, some may visit jobsites to collaborate with architects and engineers.

Work Schedules

Most drafters worked full time in 2016.

Source: [U.S. Department of Labor Bureau of Labor Statistics](#)

Typical Work Conditions

This section shows the most common work conditions required by Mechanical Drafters in order of importance.

Work Condition	Work Condition Description	Rank by Importance (Out of 100)
Indoors, Environmentally Controlled	How often does this job require working indoors in environmentally controlled conditions?	100
Electronic Mail	How often do you use electronic mail in this job?	98
Importance of Being Exact or Accurate	How important is being very exact or highly accurate in performing this job?	93
Face-to-Face Discussions	How often do you have to have face-to-face discussions with individuals or teams in this job?	91
Freedom to Make Decisions	How much decision making freedom, without supervision, does the job offer?	86
Spend Time Sitting	How much does this job require sitting?	85
Structured versus Unstructured Work	To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?	83
Telephone	How often do you have telephone conversations in this job?	78
Work With Work Group or Team	How important is it to work with others in a group or team in this job?	72
Time Pressure	How often does this job require the worker to meet strict deadlines?	69

Work Condition	Work Condition Description	Rank by Importance (Out of 100)
Contact With Others	How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?	68
Spend Time Making Repetitive Motions	How much does this job require making repetitive motions?	64
Importance of Repeating Same Tasks	How important is repeating the same physical activities (e.g., key entry) or mental activities (e.g., checking entries in a ledger) over and over, without stopping, to performing this job?	64
Impact of Decisions on Co-workers or Company Results	What results do your decisions usually have on other people or the image or reputation or financial resources of your employer?	62
Wear Common Protective or Safety Equipment such as Safety Shoes, Glasses, Gloves, Hearing Protection, Hard Hats, or Life Jackets	How much does this job require wearing common protective or safety equipment such as safety shoes, glasses, gloves, hard hats or life jackets?	60
Coordinate or Lead Others	How important is it to coordinate or lead others in accomplishing work activities in this job?	60
Frequency of Decision Making	How frequently is the worker required to make decisions that affect other people, the financial resources, and/or the image and reputation of the organization?	54
Spend Time Using Your Hands to Handle, Control, or Feel Objects, Tools, or Controls	How much does this job require using your hands to handle, control, or feel objects, tools or controls?	52
Physical Proximity	To what extent does this job require the worker to perform job tasks in close physical proximity to other people?	50
Letters and Memos	How often does the job require written letters and memos?	49
Level of Competition	To what extent does this job require the worker to compete or to be aware of competitive pressures?	48
Sounds, Noise Levels Are Distracting or Uncomfortable	How often does this job require working exposed to sounds and noise levels that are distracting or uncomfortable?	44
Deal With External Customers	How important is it to work with external customers or the public in this job?	42
Responsibility for Outcomes and Results	How responsible is the worker for work outcomes and results of other workers?	42

Work Condition	Work Condition Description	Rank by Importance (Out of 100)
Consequence of Error	How serious would the result usually be if the worker made a mistake that was not readily correctable?	42
Frequency of Conflict Situations	How often are there conflict situations the employee has to face in this job?	35
Responsible for Others' Health and Safety	How much responsibility is there for the health and safety of others in this job?	30
Deal With Unpleasant or Angry People	How frequently does the worker have to deal with unpleasant, angry, or discourteous individuals as part of the job requirements?	30
Exposed to Hazardous Equipment	How often does this job require exposure to hazardous equipment?	25
Spend Time Standing	How much does this job require standing?	24
Spend Time Bending or Twisting the Body	How much does this job require bending or twisting your body?	24
Public Speaking	How often do you have to perform public speaking in this job?	24
Exposed to Contaminants	How often does this job require working exposed to contaminants (such as pollutants, gases, dust or odors)?	23
Degree of Automation	How automated is the job?	22
Spend Time Walking and Running	How much does this job require walking and running?	20

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Work Values and Needs

This section shows the information on the current work values for your selected occupation.

Work Value	Work Value Description	Rank By Extent (Out of 100)
Support	Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.	72
Working Conditions	Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.	58

Work Value	Work Value Description	Rank By Extent (Out of 100)
Achievement	Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.	56
Relationships	Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service.	56
Independence	Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.	56
Recognition	Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.	45

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Typical Tools

This section shows common tools used by Mechanical Drafters.

Detailed Tool	Tool Group
Compasses	Compasses
Three-dimensional motion controllers	Computer mouse or trackballs
Flexible curves	Curves
French curves	Curves
Desktop computers	Desktop computers
Computer aided design CAD multi-unit display graphics cards	Graphics or video accelerator cards
Notebook computers	Notebook computers
Cutting plotters	Plotter printers
Plotters	Plotter printers
Handheld calculators	Pocket calculator
Print servers	Print servers
Protractors	Protractors
Architects' scales	Scales
Electronic scales	Scales
Backlit digitizers	Scanners
Large-format digitizers	Scanners
Sonic digitizers	Scanners
Three-dimensional laser digitizers	Scanners
Wide-format document scanners	Scanners

Detailed Tool	Tool Group
T-squares	T squares
Graphics tablets	Tablet computers
Estimating keypads	Touch pads
Triangles	Triangles

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Typical Technology

This section shows common technology used by Mechanical Drafters.

Detailed Technology	Technology Group
Autodesk AutoCAD	Computer aided design CAD software
Autodesk AutoCAD Civil 3D	Computer aided design CAD software
Autodesk Inventor	Computer aided design CAD software
Autodesk Mechanical	Computer aided design CAD software
Autodesk Revit	Computer aided design CAD software
Bentley Microstation	Computer aided design CAD software
Bentley Navigator	Computer aided design CAD software
Computer aided design and drafting CADD software	Computer aided design CAD software
Computer aided design and drafting software CADD	Computer aided design CAD software
Dassault Systemes CATIA	Computer aided design CAD software
Dassault Systemes SOLIDWORKS	Computer aided design CAD software
Piping and instrumentation design PID software	Computer aided design CAD software
PTC Creo Parametric	Computer aided design CAD software
PTC Pro/Cable	Computer aided design CAD software
Reverse engineering software	Computer aided design CAD software
Siemens Solid Edge	Computer aided design CAD software
SofTech CADRA	Computer aided design CAD software
1CadCam Unigraphics	Computer aided manufacturing CAM software
Rapid prototyping software	Computer aided manufacturing CAM software
Microsoft Access	Data base user interface and query software
Document management system software	Document management software
Extensible markup language XML	Enterprise application integration software
ERP software	Enterprise resource planning ERP software
SAP	Enterprise resource planning ERP software
Adobe Systems Adobe After Effects	Graphics or photo imaging software
Adobe Systems Adobe LiveMotion	Graphics or photo imaging software
Graphic presentation software	Graphics or photo imaging software
McNeel Rhino software	Graphics or photo imaging software

Detailed Technology	Technology Group
Motion graphics software	Graphics or photo imaging software
Non uniform rational b-splines NURBS software	Graphics or photo imaging software
Trimble SketchUp Pro	Graphics or photo imaging software
ESRI ArcGIS software	Map creation software
Bill of materials software	Materials requirements planning logistics and supply chain software
Microsoft Office	Office suite software
Scanning software	Optical character reader OCR or scanning software
Three-dimensional scanning software	Optical character reader OCR or scanning software
Microsoft PowerPoint	Presentation software
Microsoft Project	Project management software
Microsoft Excel	Spreadsheet software
Microsoft Word	Word processing software

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Licensing Information

There is no data available for Mechanical Drafters in Louisiana.

Typical Knowledge Categories

This section shows the most common knowledge categories required by Mechanical Drafters in order of importance. Click on a link in the Knowledge Category column to view more detailed information.

Knowledge Category	Knowledge Category Description	Rank by Importance (Out of 100)
Design	Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.	96
Engineering and Technology	Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.	93
Mechanical	Knowledge of machines and tools, including their designs, uses, repair, and maintenance.	87
Mathematics	Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.	84
English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.	73

Knowledge Category	Knowledge Category Description	Rank by Importance (Out of 100)
<u>Physics</u>	Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub- atomic structures and processes.	73
<u>Computers and Electronics</u>	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.	71
<u>Production and Processing</u>	Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.	58
<u>Customer and Personal Service</u>	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.	52
<u>Clerical</u>	Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.	49
<u>Public Safety and Security</u>	Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.	46
<u>Administration and Management</u>	Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.	45
<u>Building and Construction</u>	Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.	36
<u>Communications and Media</u>	Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.	30
<u>Sales and Marketing</u>	Knowledge of principles and methods for showing, promoting, and selling products or services. This includes marketing strategy and tactics, product demonstration, sales techniques, and sales control systems.	29
<u>Chemistry</u>	Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.	28

Knowledge Category	Knowledge Category Description	Rank by Importance (Out of 100)
Personnel and Human Resources	Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.	25
Economics and Accounting	Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data.	21
Law and Government	Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.	20

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Typical Work Abilities Required

This section shows the results of a national survey listing the most common work abilities required by Mechanical Drafters in order of importance. Click on a link in the Work Ability column to view more detailed information.

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
Near Vision	The ability to see details at close range (within a few feet of the observer).	69
Mathematical Reasoning	The ability to choose the right mathematical methods or formulas to solve a problem.	63
Visualization	The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.	63
Fluency of Ideas	The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).	56
Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.	56
Oral Expression	The ability to communicate information and ideas in speaking so others will understand.	56
Originality	The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.	56
Selective Attention	The ability to concentrate on a task over a period of time without being distracted.	56
Speech Clarity	The ability to speak clearly so others can understand you.	56
Speech Recognition	The ability to identify and understand the speech of another person.	56
Written Expression	The ability to communicate information and ideas in writing so others will understand.	56

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
<u>Deductive Reasoning</u>	The ability to apply general rules to specific problems to produce answers that make sense.	53
<u>Inductive Reasoning</u>	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).	53
<u>Problem Sensitivity</u>	The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.	53
<u>Written Comprehension</u>	The ability to read and understand information and ideas presented in writing.	53
<u>Category Flexibility</u>	The ability to generate or use different sets of rules for combining or grouping things in different ways.	50
<u>Finger Dexterity</u>	The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.	50
<u>Flexibility of Closure</u>	The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.	50
<u>Information Ordering</u>	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).	50
<u>Number Facility</u>	The ability to add, subtract, multiply, or divide quickly and correctly.	50
<u>Visual Color Discrimination</u>	The ability to match or detect differences between colors, including shades of color and brightness.	50
<u>Far Vision</u>	The ability to see details at a distance.	47
<u>Perceptual Speed</u>	The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.	47
<u>Arm-Hand Steadiness</u>	The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.	38
<u>Speed of Closure</u>	The ability to quickly make sense of, combine, and organize information into meaningful patterns.	38
<u>Control Precision</u>	The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.	35
<u>Memorization</u>	The ability to remember information such as words, numbers, pictures, and procedures.	31
<u>Auditory Attention</u>	The ability to focus on a single source of sound in the presence of other distracting sounds.	28
<u>Depth Perception</u>	The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.	28

Work Ability	Work Ability Description	Rank by Importance (Out of 100)
<u>Time Sharing</u>	The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).	28
<u>Hearing Sensitivity</u>	The ability to detect or tell the differences between sounds that vary in pitch and loudness.	25
<u>Manual Dexterity</u>	The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.	25
<u>Trunk Strength</u>	The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.	13
<u>Wrist-Finger Speed</u>	The ability to make fast, simple, repeated movements of the fingers, hands, and wrists.	13
<u>Dynamic Strength</u>	The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.	6
<u>Multilimb Coordination</u>	The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.	3
<u>Spatial Orientation</u>	The ability to know your location in relation to the environment or to know where other objects are in relation to you.	3

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Typical Work Interests

This section shows the results of a national survey listing the most common work interests for Mechanical Drafters in order of importance.

Work Interest	Work Interest Description	Rank by Importance (Out of 100)
Realistic	Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.	95
Investigative	Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.	50
Conventional	Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.	50

Work Interest	Work Interest Description	Rank by Importance (Out of 100)
Artistic	Artistic occupations frequently involve working with forms, designs and patterns. They often require self-expression and the work can be done without following a clear set of rules.	39

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Typical Work Styles

This section shows the most common work styles required by Mechanical Drafters in order of importance. Click on a link in the Work Style column to view more detailed information.




Work Style	Work Style Description	Rank by Importance (Out of 100)
Attention to Detail	Job requires being careful about detail and thorough in completing work tasks.	96
Analytical Thinking	Job requires analyzing information and using logic to address work-related issues and problems.	84
Dependability	Job requires being reliable, responsible, and dependable, and fulfilling obligations.	81
Integrity	Job requires being honest and ethical.	80
Initiative	Job requires a willingness to take on responsibilities and challenges.	79
Cooperation	Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.	76
Innovation	Job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems.	76
Stress Tolerance	Job requires accepting criticism and dealing calmly and effectively with high stress situations.	73
Self Control	Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.	72
Adaptability/Flexibility	Job requires being open to change (positive or negative) and to considerable variety in the workplace.	71
Achievement/Effort	Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.	69
Leadership	Job requires a willingness to lead, take charge, and offer opinions and direction.	65
Persistence	Job requires persistence in the face of obstacles.	65











Work Style	Work Style Description	Rank by Importance (Out of 100)
Independence	Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.	65
Concern for Others	Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.	59
Social Orientation	Job requires preferring to work with others rather than alone, and being personally connected with others on the job.	57

Source: This information is based on O*NET™ data. O*NET is a trademark registered to the U.S. Department of Labor, Employment and Training Administration.

Related Occupations

This section shows a list of occupations related to Mechanical Drafters. Click an occupation title to see more information about that occupation.

Rank	Related Occupations	Duties	*Related By
1	Aerospace Engineering and Operations Technicians	Operate, install, calibrate, and maintain integrated computer/communications systems, consoles, simulators, and other data acquisition, test, and measurement instruments and equipment, which are used to launch, track, position, and evaluate air and space vehicles. May record and interpret test data.	SOC4
2	Automotive Engineering Technicians 	Assist engineers in determining the practicality of proposed product design changes and plan and carry out tests on experimental test devices or equipment for performance, durability, or efficiency.	SOC4
3	Drafters, All Other	All drafters not listed separately.	SOC4
4	Electrical and Electronic Engineering Technicians	Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, calibrate, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions.	SOC4
5	Electrical and Electronics Drafters	Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.	SOC4
6	Electrical Engineering Technologists 	Assist electrical engineers in such activities as process control, electrical power distribution, or instrumentation design. May prepare layouts of electrical transmission or distribution systems, supervise the flow of work, estimate project costs, or participate in research studies.	SOC4
7	Electromechanical Engineering Technologists 	Assist electromechanical engineers in such activities as computer-based process control, instrumentation, or machine design. May prepare layouts of machinery or equipment, plan the flow of work, conduct statistical studies, or analyze production costs.	SOC4

Rank	Related Occupations	Duties	*Related By
8	<u>Electro-Mechanical Technicians</u> 	Operate, test, maintain, or calibrate unmanned, automated, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment at worksites, such as oil rigs, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.	SOC4
9	<u>Electronics Engineering Technologists</u> 	Assist electronics engineers in such activities as electronics systems and instrumentation design or digital signal processing.	SOC4
10	<u>Engineering Technicians, Except Drafters, All Other</u>	All engineering technicians, except drafters, not listed separately.	SOC4
11	<u>Fuel Cell Technicians</u> 	Install, operate, or maintain integrated fuel cell systems in transportation, stationary, or portable applications.	SOC4
12	<u>Industrial Engineering Technicians</u> 	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.	SOC4
13	<u>Industrial Engineering Technologists</u> 	Assist industrial engineers in such activities as quality control, inventory control, or material flow methods. May conduct statistical studies or analyze production costs.	SOC4
14	<u>Manufacturing Engineering Technologists</u> 	Develop tools, implement designs, or integrate machinery, equipment, or computer technologies to ensure effective manufacturing processes.	SOC4
15	<u>Manufacturing Production Technicians</u> 	Set up, test, and adjust manufacturing machinery or equipment, using any combination of electrical, electronic, mechanical, hydraulic, pneumatic, or computer technologies.	SOC4
16	<u>Mechanical Engineering Technicians</u>	Apply theory and principles of mechanical engineering to modify, develop, test, or calibrate machinery and equipment under direction of engineering staff or physical scientists.	SOC4
17	<u>Mechanical Engineering Technologists</u> 	Assist mechanical engineers in such activities as generation, transmission, or use of mechanical or fluid energy. Prepare layouts of machinery or equipment or plan the flow of work. May conduct statistical studies or analyze production costs.	SOC4
18	<u>Nanotechnology Engineering Technicians</u> 	Operate commercial-scale production equipment to produce, test, or modify materials, devices, or systems of molecular or macromolecular composition. Work under the supervision of engineering staff.	SOC4
19	<u>Nanotechnology Engineering Technologists</u> 	Implement production processes for nanoscale designs to produce or modify materials, devices, or systems of unique molecular or macromolecular composition. Operate advanced microscopy equipment to manipulate nanoscale objects. Work under the supervision of nanoengineering staff.	SOC4

Rank	Related Occupations	Duties	*Related By
20	<u>Non-Destructive Testing Specialists</u>	Test the safety of structures, vehicles, or vessels using x-ray, ultrasound, fiber optic or related equipment.	SOC4
21	<u>Photonics Technicians</u> 🌱	Build, install, test, or maintain optical or fiber optic equipment, such as lasers, lenses, or mirrors, using spectrometers, interferometers, or related equipment.	SOC4
22	<u>Robotics Technicians</u> 🌱	Build, install, test, or maintain robotic equipment or related automated production systems.	SOC4
23	<u>Architectural and Civil Drafters</u>	Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.	SOC4
24	<u>Environmental Engineering Technicians</u> 🌻 🌱	Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientist. May assist in the development of environmental remediation devices.	SOC4
25	<u>Surveying and Mapping Technicians</u>	Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps.	SOC4
26	<u>Surveying Technicians</u>	Adjust and operate surveying instruments, such as the theodolite and electronic distance-measuring equipment, and compile notes, make sketches and enter data into computers.	SOC4
27	<u>Electrical Drafters</u>	Develop specifications and instructions for installation of voltage transformers, overhead or underground cables, and related electrical equipment used to conduct electrical energy from transmission lines or high-voltage distribution lines to consumers.	O*NET
28	<u>Electrical Engineering Technicians</u> 🌱	Test or modify developmental or operational electrical machinery or electrical control equipment and circuitry in industrial or commercial plants or laboratories. Usually work under direction of engineers or technologists.	O*NET
29	<u>Electronic Drafters</u>	Draw wiring diagrams, circuit board assembly diagrams, schematics, and layout drawings used for manufacture, installation, and repair of electronic equipment.	O*NET

Rank	Related Occupations	Duties	*Related By
30	<u>Electronics Engineering Technicians</u> 🌿	Lay out, build, test, troubleshoot, repair, and modify developmental and production electronic components, parts, equipment, and systems, such as computer equipment, missile control instrumentation, electron tubes, test equipment, and machine tool numerical controls, applying principles and theories of electronics, electrical circuitry, engineering mathematics, electronic and electrical testing, and physics. Usually work under direction of engineering staff.	O*NET
31	<u>Fabric and Apparel Patternmakers</u>	Draw and construct sets of precision master fabric patterns or layouts. May also mark and cut fabrics and apparel.	O*NET
32	<u>Architectural Drafters</u> 🌿	Prepare detailed drawings of architectural designs and plans for buildings and structures according to specifications provided by architect.	O*NET
33	<u>Avionics Technicians</u>	Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.	O*NET
34	<u>Cartographers and Photogrammetrists</u> 🌟	Collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data. Research, study, and prepare maps and other spatial data in digital or graphic form for legal, social, political, educational, and design purposes. May work with Geographic Information Systems (GIS). May design and evaluate algorithms, data structures, and user interfaces for GIS and mapping systems.	O*NET
35	<u>Civil Drafters</u>	Prepare drawings and topographical and relief maps used in civil engineering projects, such as highways, bridges, pipelines, flood control projects, and water and sewerage control systems.	O*NET
36	<u>Civil Engineering Technicians</u>	Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.	O*NET
37	<u>Commercial and Industrial Designers</u> 🌿	Develop and design manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.	O*NET
38	<u>Computer Network Architects</u>	Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning. May also design network and computer security measures. May research and recommend network and data communications hardware and software.	O*NET
39	<u>Construction and Building Inspectors</u> 🌟 🌿	Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.	O*NET

Rank	Related Occupations	Duties	*Related By
40	<u>Film and Video Editors</u> 🌟	Edit moving images on film, video, or other media. May edit or synchronize soundtracks with images.	O*NET
41	<u>Graphic Designers</u>	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	O*NET
42	<u>Mapping Technicians</u>	Calculate mapmaking information from field notes, and draw and verify accuracy of topographical maps.	O*NET
43	<u>Multimedia Artists and Animators</u>	Create special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.	O*NET
44	<u>Museum Technicians and Conservators</u> 🌟	Restore, maintain, or prepare objects in museum collections for storage, research, or exhibit. May work with specimens such as fossils, skeletal parts, or botanicals; or artifacts, textiles, or art. May identify and record objects or install and arrange them in exhibits. Includes book or document conservators.	O*NET
45	<u>Transportation Engineers</u> 🌱	Develop plans for surface transportation projects, according to established engineering standards and state or federal construction policy. Prepare designs, specifications, or estimates for transportation facilities. Plan modifications of existing streets, highways, or freeways to improve traffic flow.	O*NET
46	<u>Web Developers</u> 🌟	Design, create, and modify Web sites. Analyze user needs to implement Web site content, graphics, performance, and capacity. May integrate Web sites with other computer applications. May convert written, graphic, audio, and video components to compatible Web formats by using software designed to facilitate the creation of Web and multimedia content.	O*NET

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 |
 🌱 GREEN OCCUPATIONS

Source: **Related By: O*NET™ - The Occupational Information Network. O*NET is a registered trademark of the US Department of Labor/Employment and Training Administration.
 SOC4 - Occupational grouping based on 1st 4 digits of the Standard Occupational Classification system.

Career Ladder

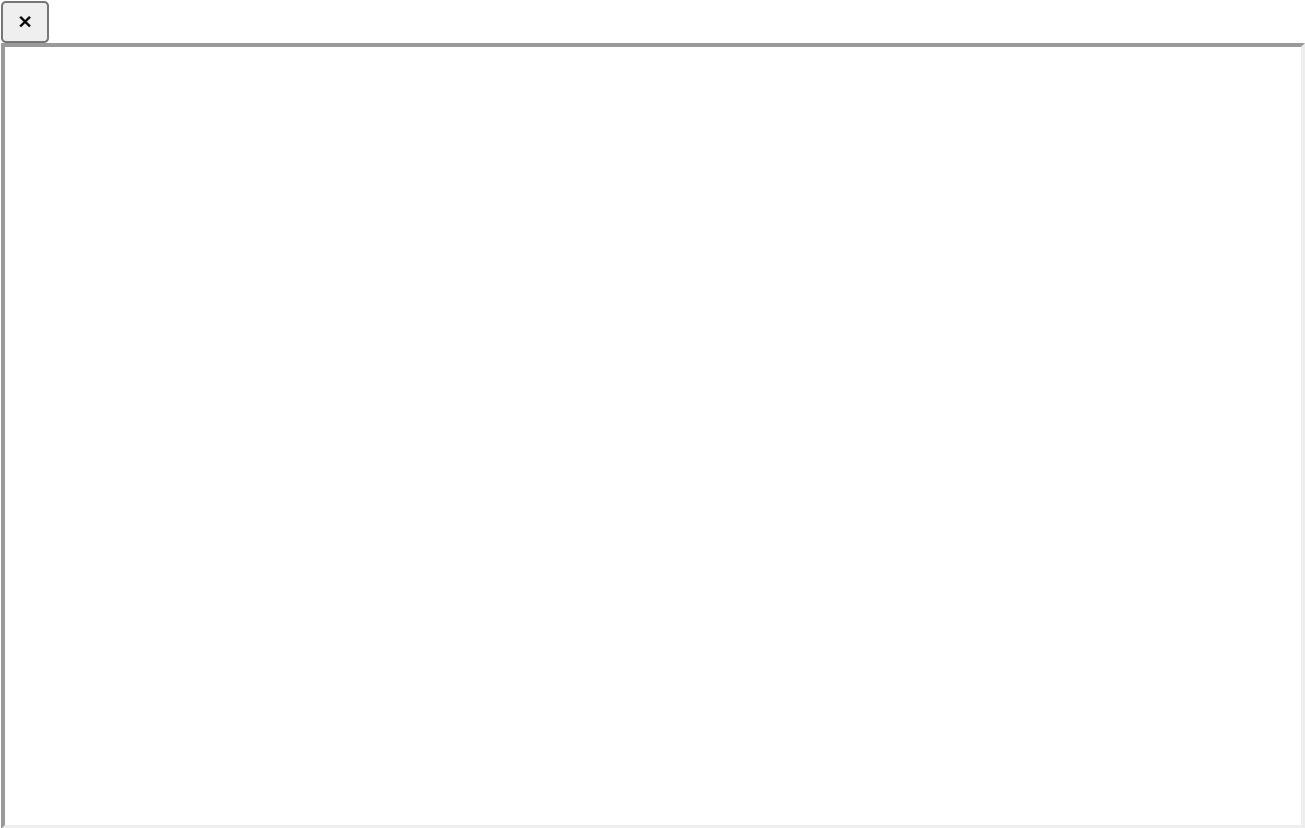
This section shows the top 10 occupations and the corresponding individuals in the workforce system who were previously Mechanical Drafters and have changed their occupation over the last 5 years.

Occupation Title	Number of Individuals that Moved	Percentage of Individuals that Moved
<u>Drafters, All Other</u>	34	28.81%
<u>Designers, All Other</u>	18	15.25%
<u>Commercial and Industrial Designers</u> 🌱	11	9.32%
<u>Maintenance and Repair Workers, General</u> 🌟🌱	9	7.63%
<u>Driver/Sales Workers</u>	9	7.63%

Occupation Title	Number of Individuals that Moved	Percentage of Individuals that Moved
<u>Electrical Drafters</u>	8	6.78%
<u>Construction Laborers</u> ☀️ 🌿	8	6.78%
<u>Architectural Drafters</u> 🌿	7	5.93%
<u>Retail Salespersons</u> ☀️	7	5.93%
<u>Boilermakers</u> 🌿	7	5.93%

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Source: Individuals with active résumés in the workforce system.



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