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What is Lightcast Data?

Lightcast data is a hybrid dataset derived from official government sources such as the US Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics. Leveraging the unique strengths of each source, our data modeling team creates an authoritative dataset that captures more than 99% of all workers in the United States. This core offering is then enriched with data from online social profiles, resumés, and job postings to give you a complete view of the workforce.

Lightcast data is frequently cited in major publications such as *The Atlantic*, *Forbes*, *Harvard Business Review*, *The New York Times*, *The Wall Street Journal*, and *USA Today*.



Forbes

Harvard Business Review The New York Times

WSJ





Report Parameters

6 Occupations

17-2199	Engineers, All Other	17-2072	Electronics Engineers, Except Computer
17-2071	Electrical Engineers	11-9041	Architectural and Engineering Managers
17-2141	Mechanical Engineers	17-2011	Aerospace Engineers

1 MSA

41740 San Diego-Chula Vista-Carlsbad, CA

Class of Worker

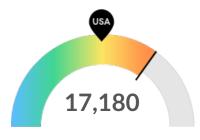
QCEW Employees

The information in this report pertains to the chosen occupations and geographical area.



Executive Summary

Aggressive Job Posting Demand Over a Deep Supply of Regional Jobs



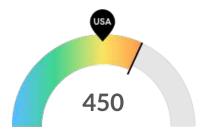
Jobs (2023)

San Diego-Chula Vista-Carlsbad, CA is a hotspot for this kind of job. The national average for an area this size is 9,930* employees, while there are 17,180 here.



Compensation

Earnings are high in San Diego-Chula Vista-Carlsbad, CA. The national median salary for your occupations is \$118,356, compared to \$135,745 here.



Job Posting Demand

Job posting activity is high in San Diego-Chula Vista-Carlsbad, CA. The national average for an area this size is 307* job postings/mo, while there are 450 here.

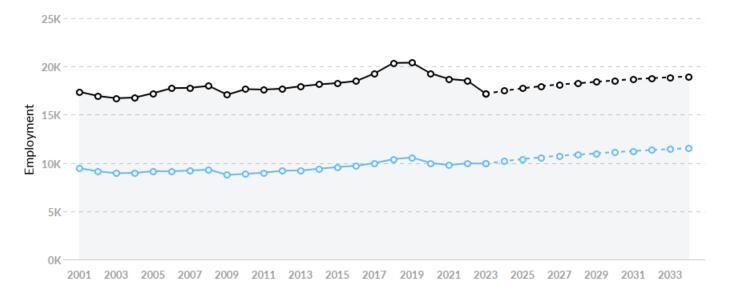
^{*}National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and San Diego-Chula Vista-Carlsbad, CA. In other words, the values represent the national average adjusted for region size.



Jobs

Regional Employment Is Higher Than the National Average

An average area of this size typically has 9,930* jobs, while there are 17,180 here. This higher than average supply of jobs may make it easier for workers in this field to find employment in your area.



Reg	gion	2023 Jobs	2024 Jobs	Change	% Change
	n Diego-Chula ta-Carlsbad, CA	17,180	17,484	304	1.8%
Nat	tional Average	9,930	10,187	257	2.6%

^{*}National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and San Diego-Chula Vista-Carlsbad, CA. In other words, the values represent the national average adjusted for region size.

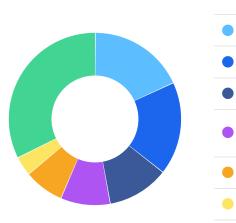


Regional Breakdown



County	2023 Jobs
San Diego County, CA	17,180

Most Jobs are Found in the Architectural, Engineering, and Related Services **Industry Sector**



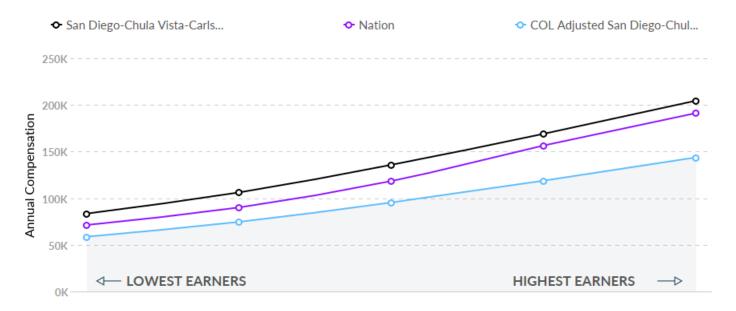
Industry	% of Occupation in Industry (2023)
Architectural, Engineering, and Related Services	18.1%
Scientific Research and Development Services	17.4%
Federal Government, Civilian	11.6%
Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	9.3%
Aerospace Product and Parts Manufacturing	7.5%
Communications Equipment Manufacturing	3.6%
• Other	32.5%



Compensation

Regional Compensation Is 15% Higher Than National Compensation

For your occupations, the 2023 median wage in San Diego-Chula Vista-Carlsbad, CA is \$135,745, while the national median wage is \$118,356.





Job Posting Activity



8,106 Unique Job Postings

The number of unique postings for this job from Jan 2023 to Jun 2024.



1,568 Employers Competing

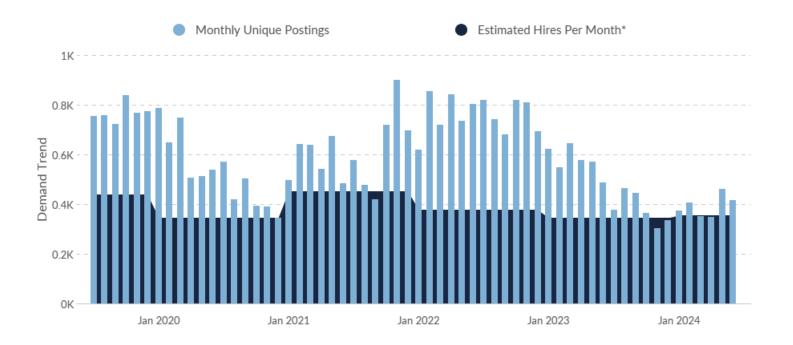
All employers in the region who posted for this job from Jan 2023 to Jun 2024.



28 Day Median Duration

Posting duration is the same as what's typical in the region.





Occupation	Avg Monthly Postings (Jan 2023 - Jun 2024)	Avg Monthly Hires (Jan 2023 - Jun 2024)
Mechanical Engineers	144	74
Electrical Engineers	103	50
Architectural and Engineering Managers	100	79
Electronics Engineers, Except Computer	61	47
Aerospace Engineers	21	19
Engineers, All Other	21	79

^{*}A hire is reported by the Quarterly Workforce Indicators when an individual's Social Security Number appears on a company's payroll and was not there the quarter before. Lightcast hires are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hires data from the Census Bureau.



Top Companies	Unique Postings	Top Job Titles	Unique Postings
General Atomics	543	Electrical Engineers	576
Apple	385	Mechanical Engineers	417
Northrop Grumman	337	Field Service Engineers	142
Leidos	241	Project Engineers	113
Actalent	204	Engineering Managers	102
Qualcomm	174	Directors of Engineering	99
L3Harris Technologies	171	Chief Engineers	93
ASML	109	Maintenance Engineers	93
Shield Ai	77	Signal Processing Engineers	86
GPAC	75	Principal Electrical Engineers	82

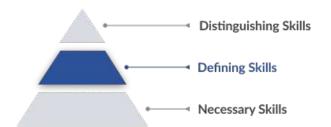
Top Distinguishing Skills by Demand

Not enough data to display Distinguishing Skills for this occupation.

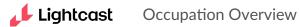


Top Defining Skills by Demand

An occupation's Defining Skills represent the day-to-day tasks and responsibilities of the job. An employee needs these skills to qualify for and perform successfully in this occupation.

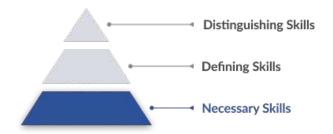


Skill	Salary Boosting	Job Postings Requesting	Projected Growth	Growth Relative to Market
Electrical Engineering	•	2,398	+21.2%	Rapidly Growing
Project Management	8	1,925	+19.8%	Rapidly Growing
Mechanical Engineering	8	1,657	+21.2%	Rapidly Growing
Systems Engineering	×	881	+20.9%	Rapidly Growing
Engineering Design Process	8	776	+17.6%	Growing
Computer-Aided Design	8	745	+17.2%	Growing
Radio Frequency	8	703	+14.6%	Growing
SolidWorks (CAD)	8	671	+24.1%	Rapidly Growing
AutoCAD	8	665	+16.9%	Growing
Electronics	8	649	+16.9%	Growing



Top Necessary Skills by Demand

An occupation's Necessary Skills are the specialized skills required for that job and relevant across other similar jobs. An employee needs these skills as building blocks to perform the more complex Defining Skills.

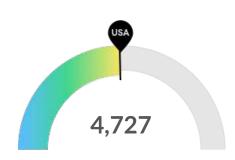


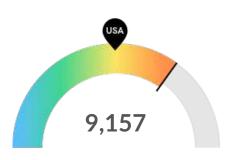
Skill	Salary Boosting	Job Postings Requesting	Projected Growth	Growth Relative to Market
Electrical Engineering	•	2,398	+21.2%	Rapidly Growing
Project Management	8	1,925	+19.8%	Rapidly Growing
Mechanical Engineering	8	1,657	+21.2%	Rapidly Growing
MATLAB	×	971	+16.0%	Growing
New Product Development	8	957	+24.1%	Rapidly Growing
Python (Programming Language)	8	928	+24.5%	Rapidly Growing
Systems Engineering	8	881	+20.9%	Rapidly Growing
Simulations	8	881	+10.5%	Growing
Security Clearance	×	821	+1.5%	Lagging
Engineering Design Process	8	776	+17.6%	Growing

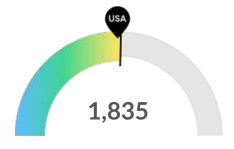


Demographics

Retirement Risk Is About Average, While Overall Diversity Is High







Retiring Soon

Retirement risk is about average in San Diego-Chula Vista-Carlsbad, CA. The national average for an area this size is 4,804* employees 55 or older, while there are 4,727 here.

Racial Diversity

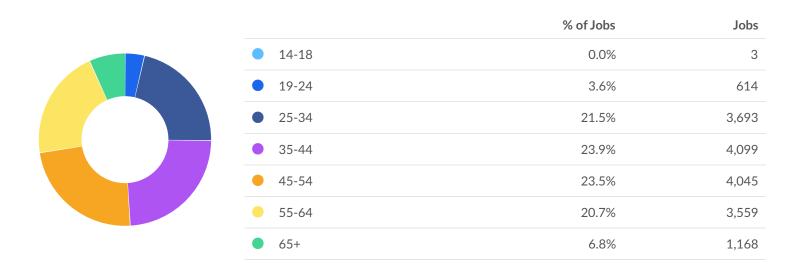
Racial diversity is high in San Diego-Chula Vista-Carlsbad, CA. The national average for an area this size is 5,286* racially diverse employees, while there are 9,157 here.

Gender Diversity

Gender diversity is about average in San Diego-Chula Vista-Carlsbad, CA. The national average for an area this size is 1,797* female employees, while there are 1,835 here.

*National average values are derived by taking the national value for your occupations and scaling it down to account for the difference in overall workforce size between the nation and San Diego-Chula Vista-Carlsbad, CA. In other words, the values represent the national average adjusted for region size.

Occupation Age Breakdown





Occupation Race/Ethnicity Breakdown



Occupation Gender Breakdown





Occupational Programs



39 Programs

Of the programs that can train for this job, 39 have produced completions in the last 5years.



4,013 Completions (2023)

The completions from all regional institutions for all degree types.



1,266 Openings (2023)

The average number of openings for an occupation in the region is 257.

CIP Code	Top Programs	Completions (2023)
14.1901	Mechanical Engineering	621
14.1001	Electrical and Electronics Engineering	521
14.0901	Computer Engineering, General	385
40.0501	Chemistry, General	343
14.0501	Bioengineering and Biomedical Engineering	306
14.0201	Aerospace, Aeronautical, and Astronautical/Space Engineer	220
26.0202	Biochemistry	198
14.0803	Structural Engineering	166
14.0801	Civil Engineering, General	160
52.0203	Logistics, Materials, and Supply Chain Management	143

Top Schools	Completions (2023)
University of California-San Diego	2,257
San Diego State University	967
University of San Diego	233
Ashford University	152
California State University-San Marcos	132
Newschool of Architecture and Design	68
San Diego Miramar College	52
National University	49
Point Loma Nazarene University	27
Southwestern College	17



Appendix A - Data Sources and Calculations

Location Quotient

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

Occupation Data

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

Staffing Patterns Data

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

Cost of Living Data

Lightcast's cost of living data is based on the Cost of Living Index published by the Council for Community and Economic Research (C2ER).

Lightcast Job Postings

Job postings are collected from various sources and processed/enriched to provide information such as standardized company name, occupation, skills, and geography.

Institution Data

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