

PRESS RELEASE

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Colorado Occupational Employment and Wages - 2023

The Occupational Employment and Wage Statistics (OEWS) program is a Federal-State cooperative program that provides estimates of employment and wages for over 800 non-military detailed occupations in 22 major occupational groups. Every year, the Colorado Department of Labor and Employment, in partnership with the Bureau of Labor Statistics (BLS), collects and publishes occupation and wage data for the State of Colorado and for ten substate regions: seven Metropolitan Statistical Areas (MSAs) and three Balance of State (BOS) Areas.

Statewide Highlights

Workers in the State of Colorado had a mean (average) hourly wage of \$34.60 in 2023, about 9.9 percent above the US average of \$31.48, according to the Colorado Department of Labor and Employment and the BLS. The statewide median hourly wage¹ for all covered employment² was \$25.98 compared to the US median of \$23.11.

Statewide Occupational Employment and Wages

The occupational groups with the most workers were office and administrative support (314,170 workers), sales and related (301,430), and food preparation and serving related occupations (265,770). These three groups accounted for about 31 percent of total covered employment. Management occupations had the highest average wage, while food preparation and serving related occupations had the lowest (see Table 1).

Table 1. Statewide Occupational Wages

Occupational Group	Employment	Average Hourly	Median Hourly	Average Annual	Median Annual
Management	156,700	\$74.99	\$65.95	\$155,972	\$137,172
Computer and mathematical	137,030	\$58.77	\$53.93	\$122,232	\$112,178
Legal	26,850	\$72.82	\$53.20	\$151,463	\$110,656
Architecture and engineering	70,260	\$50.73	\$47.46	\$105,515	\$98,724
Healthcare practitioners and	154,780	\$50.09	\$41.70	\$104,181	\$86,743
technical					
Life, physical, and social science	37,110	\$44.50	\$39.86	\$92,559	\$82,918
Business and financial operations	257,400	\$44.72	\$39.73	\$93,014	\$82,639
Arts, design, entertainment, sports, and media	40,950	\$41.55	\$29.69	\$86,420	\$61,755
Installation, maintenance, and repair	103,630	\$30.08	\$28.60	\$62,556	\$59,482
Construction and extraction	138,730	\$29.11	\$27.90	\$60,555	\$58,030
Community and social service	49,770	\$29.13	\$27.14	\$60,593	\$56,449
Protective service	60,600	\$30.58	\$26.08	\$63,616	\$54,246
Educational instruction and library	148,150	\$29.63	\$26.05	\$61,638	\$54,189
Office and administrative support	314,170	\$24.73	\$22.80	\$51,431	\$47,428
Production	97,920	\$24.72	\$22.55	\$51,424	\$46,899
Sales and related	301,430	\$31.07	\$21.90	\$64,636	\$45,551
Transportation and material moving	210,440	\$24.76	\$21.29	\$51,510	\$44,284
Healthcare support	99,190	\$20.78	\$19.10	\$43,227	\$39,735
Building and grounds cleaning and maintenance	87,350	\$20.12	\$18.54	\$41,842	\$38,573
Farming, fishing, and forestry	4,150	\$20.84	\$18.30	\$43,347	\$38,060
Personal care and service	69,630	\$21.06	\$18.04	\$43,800	\$37,520
Food preparation and serving related	265,770	\$19.02	\$17.15	\$39,552	\$35,668
Total all occupations	2,832,010	\$34.60	\$25.98	\$71,962	\$54,047

Regional Occupational Employment

The most common occupations statewide were fast food and counter workers (77,500), retail salespersons (75,200), and stockers and order fillers (55,430), and the first two were also among the top three occupations in most of the substate areas (see Table 2).

Table 2. Regional Occupational Employment

Area (total employment)	#1 Occupation (employment)	#2 Occupation (employment)	#3 Occupation (employment)
Boulder MSA (194,440)	Software developers (7,840)	Retail salespersons (5,040)	Fast food and counter workers (4,550)
Colorado Springs MSA (310,390)	Fast food and counter workers (11,190)	Retail salespersons (8,640)	Stockers and order fillers (8,140)
Denver-Aurora- Centennial MSA (1,590,330)	Fast food and counter workers (41,920)	Retail salespersons (38,370)	Stockers and order fillers (33,100)
Fort Collins MSA (173,230)	Retail salespersons (5,770)	Fast food and counter workers (5,260)	Registered nurses (4,250)
Grand Junction MSA (65,720)	Fast food and counter workers (2,300)	Retail salespersons (2,190)	Registered nurses (1,850)
Greeley MSA (111,210)	Fast food and counter workers (3,120)	Heavy and tractor-trailer truck drivers (2,830)	Cashiers (2,650)
Pueblo MSA (63,190)	Retail salespersons (2,090)	Home health and personal care aides (2,020)	Fast food and counter workers (1,870)
Eastern and Southern Colorado (68,530)	Cashiers (2,470)	Fast food and counter workers (1,850)	Retail salespersons (1,760)
Southwest Colorado (103,160)	Retail salespersons (3,550)	Cashiers (3,210)	Fast food and counter workers (2,630)
Northwest Colorado (126,120)	Retail salespersons (4,860)	Waiters and waitresses (4,040)	Maids and housekeeping cleaners (3,060)

Go to Colorado OEWS map for a map of Colorado's MSAs and BOS Areas.

Regional Occupational Wages

The Boulder MSA had the highest overall average and median wages and the Eastern & Southern Colorado BOS Area had the lowest (see Table 3). Both Boulder and Denver had average and median wages that are higher than the statewide average and median (see Table 1).

Table 3. Regional Occupational Wages

Area	Employment	Average Hourly	Median Hourly	Average Annual	Median Annual
Boulder MSA	194,440	\$41.93	\$31.13	\$87,221	\$64,753
Denver-Aurora-Centennial MSA	1,590,330	\$36.50	\$28.12	\$75,912	\$58,489
Fort Collins MSA	173,230	\$32.18	\$24.43	\$66,925	\$50,819
Greeley MSA	111,210	\$29.99	\$24.11	\$62,376	\$50,144
Colorado Springs MSA	310,390	\$31.59	\$23.70	\$65,710	\$49,306
Northwest Colorado	126,120	\$29.72	\$23.61	\$61,822	\$49,113
Southwest Colorado	103,160	\$28.02	\$22.72	\$58,273	\$47,257
Pueblo MSA	63,190	\$28.05	\$22.38	\$58,335	\$46,540
Grand Junction MSA	65,720	\$28.16	\$22.06	\$58,577	\$45,895
Eastern and Southern Colorado	68,530	\$26.06	\$21.74	\$54,205	\$45,220

Statewide Location Quotients (LQs)

A location quotient allows us to explore the occupational make-up of a state, MSA, or BOS Area by comparing the composition of jobs in an area relative to the national average. For example, an LQ of 2.0 indicates that an occupation accounts for twice the share of employment in an area than it does nationally.

Compared to the US, Colorado demonstrated a higher share of employment in architecture and engineering (LQ of 1.48), life, physical, and social science (1.43), computer and mathematical (1.42), business and financial operations (1.37), personal care and service (1.23), sales and related (1.21), construction and extraction (1.19), legal (1.16), and community and social service occupations (1.10) and a lower share of employment in farming, fishing, and forestry (0.52), production (0.60), healthcare support (0.75), management (0.80), transportation and material moving (0.82), and healthcare practitioners and technical occupations (0.89). See Table 4 for detailed occupations with the highest LQs.

Table 4. Statewide Occupational Location Quotients

Note: N/A means not available. * indicates hourly wages are not calculated for this occupation.

Occupation	Employment	Average Hourly	Median Hourly	Average Annual	Median Annual	LQ
Astronomers	380	N/A	N/A	N/A	N/A	9.78
Atmospheric and space scientists	1,010	\$52.23	\$49.98	\$108,639	\$103,957	5.84
Information and record clerks, all other	13,910	\$25.90	\$23.69	\$53,868	\$49,279	4.91
Real estate brokers	4,520	N/A	N/A	N/A	N/A	4.72
Cartographers and photogrammetrists	1,050	\$42.66	\$41.06	\$88,740	\$85,411	4.57
Forestry and conservation science teachers, postsecondary	100	*	*	\$98,607	\$90,461	4.12
Mining and geological engineers	530	\$63.42	\$57.92	\$131,916	\$120,476	4.06
Geoscientists	1,670	\$58.61	\$52.84	\$121,911	\$109,897	3.64
Geographers	100	\$45.36	\$45.58	\$94,357	\$94,806	3.61
Conservation scientists	1,490	\$37.86	\$35.96	\$78,758	\$74,797	3.51
Electronics engineers	6,200	\$61.67	\$60.84	\$128,272	\$126,539	3.45
Computer network architects	11,160	\$66.05	\$63.92	\$137,391	\$132,956	3.44
Insurance appraisers, auto damage	510	\$34.96	\$31.00	\$72,722	\$64,476	3.14
Airline pilots, copilots, and flight engineers	5,490	*	*	\$179,459	\$166,174	3.14
Hydrologists	360	\$56.10	\$49.60	\$116,679	\$103,168	3.10
Aerospace engineers	3,760	\$69.05	\$65.04	\$143,630	\$135,279	3.02
Physicists	1,030	\$68.59	\$65.94	\$142,673	\$137,150	3.01
Audiologists	750	N/A	N/A	N/A	N/A	2.89

Regional Location Quotients (LQs)

The occupations with the highest concentrations of employment in each substate area were astronomers in the Boulder MSA (LQ of 69.85), insurance appraisers, auto damage in the Colorado Springs MSA (10.87), airline pilots, copilots, and flight engineers in the Denver-Aurora-Lakewood MSA (5.39), forestry and conservation science teachers, postsecondary in the Fort Collins MSA (51.77), service unit operators, oil and gas in the Grand Junction MSA (15.68) and in the Greeley MSA (26.86), court, municipal, and license clerks in the Pueblo MSA (5.52), wind turbine service technicians in the Eastern & Southern Colorado BOS Area (41.34), loading and moving machine operators, underground mining in the Southwest Colorado BOS Area (13.61), and grounds maintenance workers, all other in the Northwest Colorado BOS Area (21.72). More location quotients are available through our Excel Downloads at LMI Products and Publications.

Spotlight on: Computer & Mathematical Occupations

Growth in employment of this major group since 2010 led to the addition of several new occupational classifications with the 2018 revision to the Standard Occupational Classification system. New members of this category include database architects, data scientists, web and digital interface designers, and software quality assurance analysts and testers. There were 137,030 workers employed in computer & mathematical occupations in Colorado in 2023, with an average hourly wage of \$58.77 and a median hourly wage of \$53.93.

Figure 1. Computer & Mathematical Occupations – Top Occupations

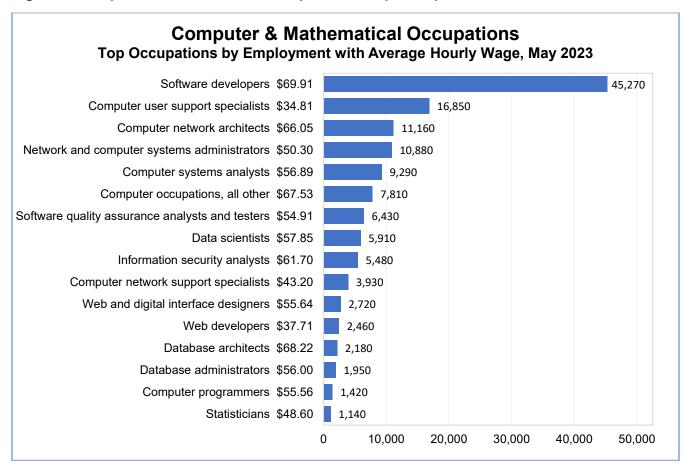


Figure 1 Data Table. Computer & Mathematical Occupations – Top Occupations

Occupation	Employment	Average Hourly
Software developers	45,270	\$69.91
Computer user support specialists	16,850	\$34.81
Computer network architects	11,160	\$66.05
Network and computer systems administrators	10,880	\$50.30
Computer systems analysts	9,290	\$56.89
Computer occupations, all other	7,810	\$67.53
Software quality assurance analysts and testers	6,430	\$54.91
Data scientists	5,910	\$57.85
Information security analysts	5,480	\$61.70
Computer network support specialists	3,930	\$43.20
Web and digital interface designers	2,720	\$55.64
Web developers	2,460	\$37.71
Database architects	2,180	\$68.22
Database administrators	1,950	\$56.00
Computer programmers	1,420	\$55.56
Statisticians	1,140	\$48.60

Figure 2. Computer & Mathematical Occupations – Regional Employment

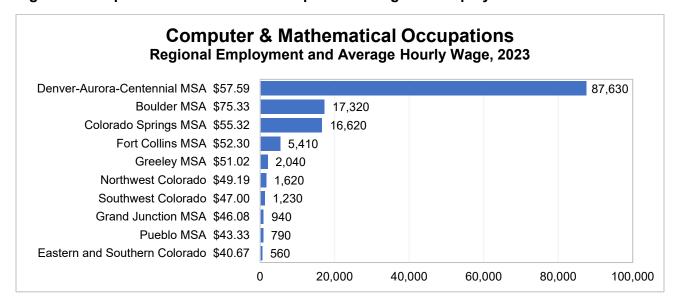


Figure 2 Data Table. Computer & Mathematical Occupations – Regional Employment

Area Name	Employment	Average Hourly
Denver-Aurora-Centennial MSA	87,630	\$57.59
Boulder MSA	17,320	\$75.33
Colorado Springs MSA	16,620	\$55.32
Fort Collins MSA	5,410	\$52.30
Greeley MSA	2,040	\$51.02
Northwest Colorado	1,620	\$49.19
Southwest Colorado	1,230	\$47.00
Grand Junction MSA	940	\$46.08
Pueblo MSA	790	\$43.33
Eastern and Southern Colorado	560	\$40.67

Table 5. Computer & Mathematical Occupations – Regional Top Occupation by Location Quotient

Area	Title	Employment	Average Hourly	Median Hourly	LQ
Boulder MSA	Computer network architects	1,140	\$71.34	\$67.12	5.12
Colorado Springs MSA	Computer network architects	1,480	\$64.09	\$63.03	4.16
Denver-Aurora- Lakewood MSA	Computer network architects	7,360	\$66.42	\$64.42	4.04
Fort Collins MSA	Web developers	380	\$36.25	\$37.91	3.87
Grand Junction MSA	Network and computer systems administrators	110	\$41.69	\$39.82	0.79
Greeley MSA	Computer network architects	160	\$63.06	\$58.62	1.29
Pueblo MSA	Network and computer systems administrators	130	\$40.81	\$38.90	0.95
Eastern and Southern Colorado	Network and computer systems administrators	110	\$39.41	\$37.90	0.75
Southwest Colorado	Network and computer systems administrators	190	\$42.37	\$40.18	0.86
Northwest Colorado	Web developers	70	\$31.72	\$30.88	0.94

The Colorado Occupational Employment and Wage Statistics Survey

In Colorado, 3,878 businesses were initially surveyed beginning in November of 2022 and 3,910 were initially surveyed beginning in May of 2023. After excluding establishments that were out of business or out of scope, a total of 81.7 percent of 7,318 businesses provided information on the job titles and wages of their employees. These data were combined with responses from the previous two years (four semiannual surveys) to produce the May 2023 occupational estimates highlighted in this document.

OEWS data are available from BLS at <u>BLS OEWS data</u>, on the <u>CDLE LMI website</u>, and at <u>Colorado LMI Gateway</u>. Industry-specific data (NAICS Sector and 3- and 4-digit, Excel files) are available at BLS OEWS research estimates.

¹ The median wage (50th percentile wage) is the point at which one-half of workers make less than the amount and one-half make more.

² Employment covered by state unemployment insurance laws or, for federal workers, covered by the Unemployment Compensation for Federal Employees program.

Technical Note

The OEWS survey is a semiannual survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OEWS data available from BLS include:

- cross-industry occupational employment and wage estimates for the nation and for over 580 areas, including states and the District of Columbia, MSAs, nonmetropolitan areas, and territories;
- national industry-specific estimates at the North American Industrial Classification
 System (NAICS) sector, 3-digit, most 4-digit, and selected 5- and 6-digit industry levels;
 and
- national estimates by ownership across all industries and for schools and hospitals.

OEWS data are available at <u>BLS OEWS data</u>.

OEWS estimates are constructed from a sample of about 1.1 million establishments. Each year, two semiannual panels of approximately 181,000 to 189,000 sampled establishments are contacted, one panel in May and the other in November. Responses are obtained by Internet or other electronic means, mail, email, telephone, or personal visit. The May 2023 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2023, November 2022, May 2022, November 2021, May 2021, and November 2020. The unweighted sampled employment of 81.4 million across all six semiannual panels represents approximately 55 percent of total national employment. The overall national response rate for the six panels, based on the 50 states and the District of Columbia, is 65.8 percent based on establishments and 64.3 percent based on weighted sampled employment.

For more information about OEWS concepts and methodology, go to <u>BLS OEWS technical</u> <u>notes</u>.

May 2023 OEWS data are available for most 2018 Standard Occupational Classification (SOC) detailed occupations. To improve data quality, the OEWS program has replaced some 2018 SOC detailed occupations with SOC broad occupations or OEWS-specific aggregations. Information about the SOC system is available on the BLS website at BLS SOC information and information about the NAICS system is available at BLS NAICS information.

New estimation methodology

Starting with the May 2021 estimates, the OEWS program implemented a new estimation method. This new model-based method, called MB3, has advantages over the previous

estimation method, as described in the Monthly Labor Review article "<u>Model-Based Estimates</u> for the Occupational Employment Statistics program." Technical information is available in the Survey Methods and Reliability Statement for May 2023.

Substate area definitions

The May 2023 OEWS estimates use the metropolitan area definitions delineated in Office of Management and Budget (OMB) Bulletin 17-01. Nonmetropolitan area definitions are specific to the OEWS program and are set in consultation with the state workforce agencies. For more information, please see <u>BLS OEWS area definitions</u>.

Additional information

Answers to frequently asked questions about OEWS, including uses of OEWS data, are available at BLS OEWS FAQs.