

# PRESS RELEASE

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## Colorado Occupational Employment and Wages — 2018

*The Occupational Employment Statistics (OES) 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, 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 an average (mean) hourly wage of \$26.84 in 2018, more than 7 percent above the US average of \$24.98, according to the Colorado Department of Labor and Employment and the US Bureau of Labor Statistics. The statewide median hourly wage<sup>1</sup> for all covered employment<sup>2</sup> was \$20.34 compared to the US median of \$18.58.

### Statewide Occupational Employment and Wages

The occupational groups with the most workers were **Office and administrative support** (361,390 workers), **Sales and related** (291,900), and **Food preparation and serving-related** occupations (255,250). These three groups accounted for 35 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	MEAN HOURLY	MEDIAN HOURLY	MEAN ANNUAL	MEDIAN ANNUAL
Management	116,770	\$63.34	\$56.15	\$131,750	\$116,792
Legal	22,540	\$54.54	\$41.59	\$113,442	\$86,508
Computer and mathematical	116,930	\$46.58	\$45.06	\$96,884	\$93,726
Architecture and engineering	61,970	\$43.79	\$39.62	\$91,093	\$82,405
Healthcare practitioners and technical	146,200	\$40.35	\$34.38	\$83,928	\$71,510
Business and financial operations	190,330	\$37.87	\$34.13	\$78,775	\$70,999
Life, physical, and social science	30,330	\$36.62	\$32.42	\$76,168	\$67,434
Arts, design, entertainment, sports, and media	40,640	\$26.55	\$22.26	\$55,233	\$46,311
Education, training, and library	143,090	\$26.40	\$22.69	\$54,913	\$47,205
Installation, maintenance, and repair	101,450	\$24.75	\$23.22	\$51,483	\$48,291
Protective service	59,080	\$24.04	\$20.37	\$50,011	\$42,364
Construction and extraction	140,690	\$24.03	\$22.54	\$49,985	\$46,884
Community and social services	39,470	\$23.98	\$22.60	\$49,872	\$47,016
Sales and related	291,900	\$23.01	\$15.60	\$47,853	\$32,447
Transportation and material moving	150,880	\$20.34	\$16.84	\$42,305	\$35,023
Production	102,540	\$19.71	\$17.32	\$40,988	\$36,024
Office and administrative support	361,390	\$19.68	\$18.06	\$40,926	\$37,560
Healthcare support	65,740	\$17.07	\$16.10	\$35,512	\$33,484
Farming, fishing, and forestry	7,050	\$15.60	\$13.74	\$32,451	\$28,585
Personal care and service	93,270	\$15.01	\$12.29	\$31,221	\$25,560
Building and grounds cleaning and maintenance	83,120	\$15.01	\$13.72	\$31,224	\$28,546
Food preparation and serving-related	255,250	\$13.12	\$11.39	\$27,297	\$23,689
Total all occupations	2,620,640	\$26.84	\$20.34	\$55,818	\$42,307

## Regional Occupational Employment

The most common detailed occupations statewide were **Retail salespersons** (86,610 workers), **Combined food preparation and serving workers** (65,670), and **Cashiers** (56,710), and these were also among the top three occupations in many of the substate areas (see Table 2).

**Table 2. Regional Occupational Employment**

AREA (total employment)	#1 OCCUPATION (employment)	#2 OCCUPATION (employment)	#3 OCCUPATION (employment)
<b>Boulder MSA (182,160)</b>	Software developers, applications (5,360)	Retail salespersons (5,050)	Combined food preparation and serving workers (4,560)
<b>Colorado Springs MSA (280,940)</b>	Retail salespersons (10,560)	Customer service representatives (8,290)	Combined food preparation and serving workers (7,490)
<b>Denver-Aurora-Lakewood MSA (1,478,110)</b>	Retail salespersons (45,660)	Combined food preparation and serving workers (33,840)	Business operations specialists, all other (29,500)
<b>Fort Collins MSA (160,420)</b>	Retail salespersons (6,650)	Combined food preparation and serving workers (4,540)	Cashiers (3,820)
<b>Grand Junction MSA (61,670)</b>	Retail salespersons (3,190)	Combined food preparation and serving workers (1,980)	Registered nurses (1,830)
<b>Greeley MSA (103,410)</b>	Combined food preparation and serving workers (3,810)	Heavy and tractor-trailer truck drivers (3,100)	Retail salespersons (2,780)
<b>Pueblo MSA (59,980)</b>	Combined food preparation and serving workers (2,370)	Cashiers (2,330)	Registered nurses (2,050)
<b>Eastern &amp; Southern CO BOS Area (67,750)</b>	Cashiers (3,030)	Combined food preparation and serving workers (1,900)	Retail salespersons (1,550)
<b>Southwest CO BOS Area (98,990)</b>	Retail salespersons (4,460)	Cashiers (3,070)	Combined food preparation and serving workers (2,120)
<b>Northwest CO BOS Area (120,110)</b>	Retail salespersons (4,710)	Waiters and waitresses (4,470)	Maids and housekeeping cleaners (3,340)

Go to <https://www.colmigateway.com/admin/gsipub/htmlarea/uploads/OESregions-statewide.pdf> 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.

**Table 3. Regional Occupational Wages**

AREA	EMPLOYMENT	MEAN HOURLY	MEDIAN HOURLY	MEAN ANNUAL	MEDIAN ANNUAL
<b>Boulder MSA</b>	182,160	\$31.10	\$23.60	\$64,690	\$49,094
<b>Denver-Aurora-Lakewood MSA</b>	1,478,110	\$28.57	\$21.84	\$59,435	\$45,425
<b>Colorado Springs MSA</b>	280,940	\$24.73	\$18.61	\$51,433	\$38,716
<b>Fort Collins MSA</b>	160,420	\$24.54	\$18.87	\$51,047	\$39,243
<b>Northwest Colorado BOS Area</b>	120,110	\$23.56	\$19.17	\$49,015	\$39,864
<b>Greeley MSA</b>	103,410	\$23.05	\$18.93	\$47,947	\$39,376
<b>Grand Junction MSA</b>	61,670	\$22.15	\$17.39	\$46,072	\$36,162
<b>Pueblo MSA</b>	59,980	\$21.73	\$17.31	\$45,200	\$35,999
<b>Southwest Colorado BOS Area</b>	98,990	\$21.32	\$17.38	\$44,350	\$36,152
<b>Eastern &amp; Southern Colorado BOS Area</b>	67,750	\$19.63	\$15.66	\$40,839	\$32,568

## Statewide Location Quotients

Location quotients (LQs) allow 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, a location quotient 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 **Computer and Mathematical** (LQ of 1.47), **Life, Physical, and Social Science** (1.43), and **Business and financial** occupations (1.36) and a lower share of employment in **Production** (0.62), **Transportation and Material Moving** (0.81), and **Farming, Fishing, and Forestry** occupations (0.81). See table 4 for detailed occupations with the highest LQs.

**Table 4. Statewide Occupational Location Quotients**

OCCUPATION	EMPLOYMENT	MEAN HOURLY	MEDIAN HOURLY	MEAN ANNUAL	MEDIAN ANNUAL	LQ
Atmospheric and space scientists	1,160	\$46.58	\$44.42	\$96,896	\$92,397	6.85
Hydrologists	500	\$45.07	\$43.42	\$93,753	\$90,305	4.41
Cartographers and photogrammetrists	880	\$35.17	\$33.80	\$73,146	\$70,312	4.38
Information and record clerks, all other	11,950	\$20.83	\$20.07	\$43,329	\$41,737	4.25
Mining and geological engineers, including mining safety engineers	440	\$51.99	\$47.56	\$108,134	\$98,922	4.16
Real estate brokers	2,900	\$29.17	\$27.45	\$60,682	\$57,103	3.97
Geoscientists, except hydrologists and geographers	2,010	\$53.43	\$43.96	\$111,129	\$91,435	3.80
Plant and system operators, all other	840	\$24.48	\$22.85	\$50,912	\$47,527	3.77
Financial clerks, all other	2,100	\$22.60	\$21.74	\$47,008	\$45,216	3.74
Wellhead pumpers	900	\$33.24	\$33.93	\$69,130	\$70,580	3.73
Paperhangers	180	\$20.54	\$18.36	\$42,732	\$38,197	3.64
Computer hardware engineers	3,880	\$56.31	\$55.77	\$117,124	\$116,009	3.53
Forestry and conservation science teachers, postsecondary	130	*	*	\$91,263	\$91,942	3.35
Conservation scientists	1,320	\$34.21	\$31.24	\$71,166	\$64,979	3.29
Motor vehicle operators, all other	3,050	\$14.10	\$12.61	\$29,337	\$26,237	2.96
Semiconductor processors	1,370	\$16.15	\$15.79	\$33,585	\$32,846	2.94
Physicists	930	\$51.20	\$48.49	\$106,493	\$100,855	2.92
Religious workers, all other	450	\$19.50	\$14.97	\$40,561	\$31,130	2.92

\*Hourly wages are not calculated for these occupations

### Regional Location Quotients

The occupations with the highest concentrations of employment in each substate area were **Physicists** in the Boulder MSA (LQ 35.47), **Religious workers, all other** in the Colorado Springs MSA (17.13), **Cartographers and photogrammetrists** in the Denver-Aurora-Lakewood MSA (5.51), **Conservation Scientists** in the Fort Collins MSA (28.53), **Pump operators, except wellhead** in the Grand Junction MSA (40.37), **Service unit operators** in the Greeley MSA (41.73), **Metal-refining furnace operators and tenders** in the Pueblo MSA (12.66), **Graders and sorters, agricultural products** in the Eastern & Southern Colorado BOS Area (28.56), **Rock splitters, quarry** in the Southwest Colorado BOS Area (17.74), and **Stonemasons** in the Northwest Colorado BOS Area (23.10).

### Spotlight on: Life, Physical, and Social Science Occupations

The Life, Physical, and Social Science group includes occupations such as Food Scientists, Microbiologists, Astronomers, Chemists, Hydrologists, Economists, Historians, Environmental Science and Protection Technicians, and Social Science Research Assistants. There were 30,330 workers employed in this group in Colorado in 2018, with an average hourly wage of \$36.62 and a median hourly wage of \$32.42.

**Figure 1. Life, Physical, and Social Science Occupations – Top Occupations**

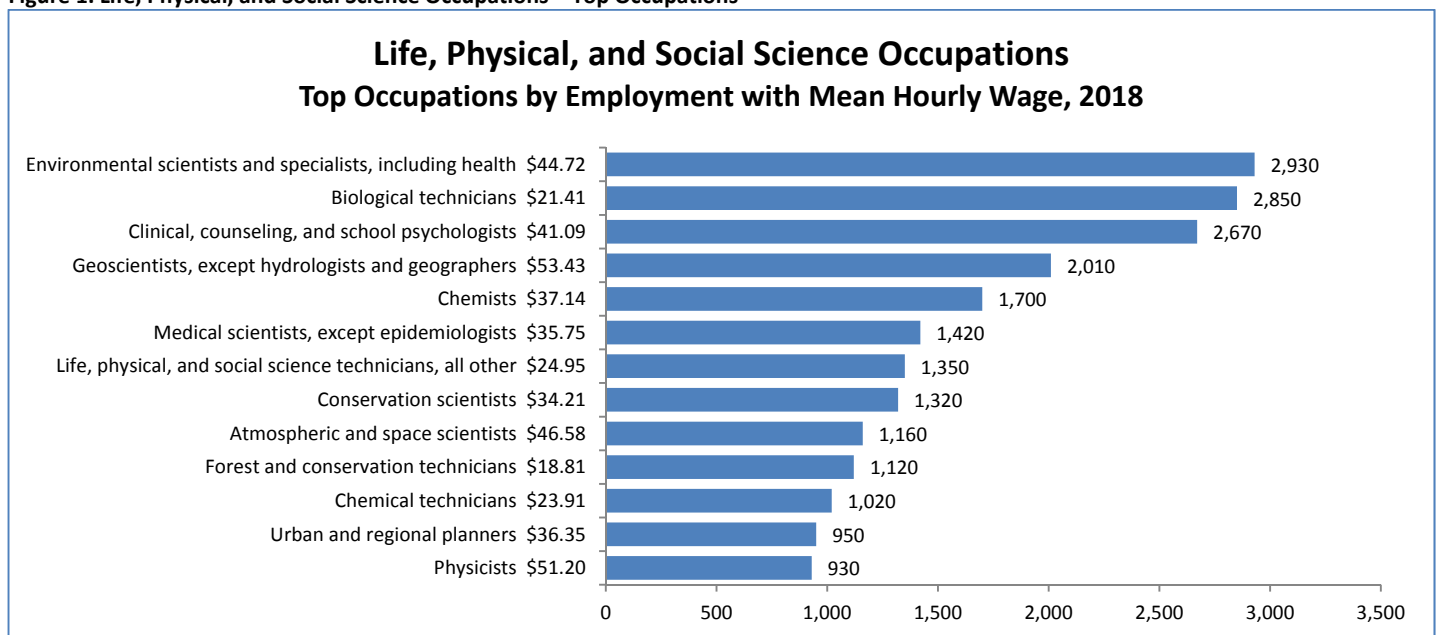


Figure 2. Life, Physical, and Social Science Occupations – Regional Employment and Wage

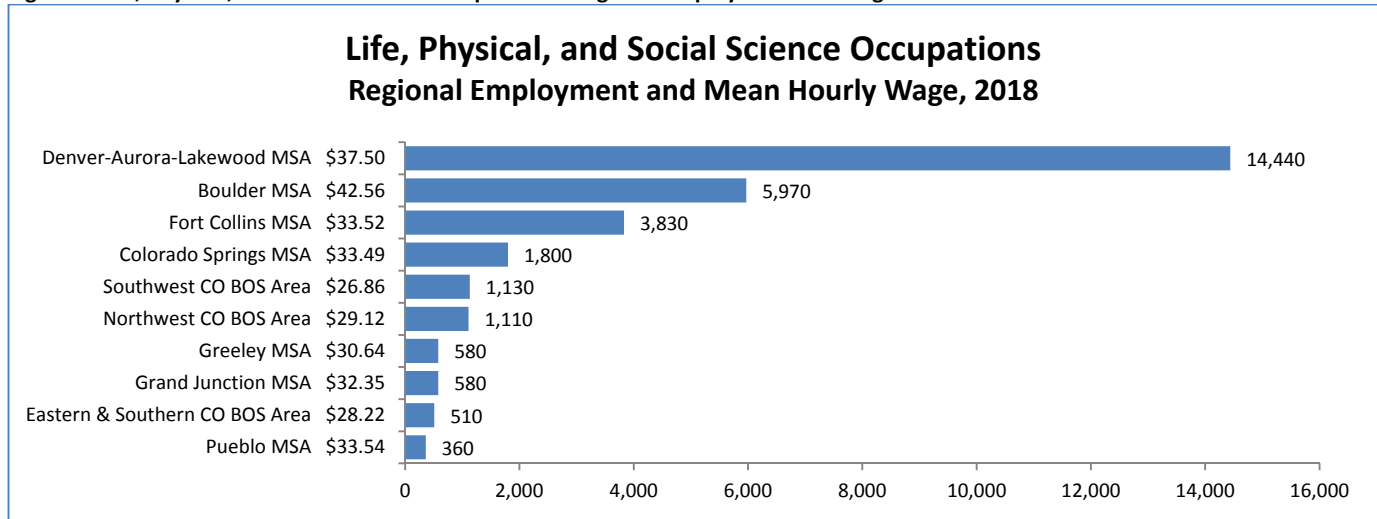


Table 5. Life, Physical, and Social Science Occupations – Regional Top Occupation

AREA	OCCUPATION	EMPLOYMENT	MEAN HOURLY	MEDIAN HOURLY
Boulder MSA	Environmental scientists and specialists, including health	990	\$46.48	\$44.15
Colorado Springs MSA	Clinical, counseling, and school psychologists	290	\$38.81	\$38.19
Denver-Aurora-Lakewood MSA	Biological technicians	2,220	\$21.09	\$19.85
Fort Collins MSA	Conservation scientists	700	\$34.09	\$30.39
Grand Junction MSA	Environmental scientists and specialists, including health	120	\$34.57	\$31.39
Greeley MSA	Agricultural and food science technicians	100	\$21.26	\$21.14
Pueblo MSA	Chemists	30	\$34.97	\$36.08
Eastern & Southern CO BOS Area	Forest and conservation technicians	80	\$19.49	\$17.90
Southwest CO BOS Area	Forest and conservation technicians	290	\$17.65	\$16.06
Northwest CO BOS Area	Forest and conservation technicians	320	\$17.77	\$16.06

## The Colorado Occupational Employment Statistics Survey

In Colorado, 3,638 businesses were initially surveyed beginning in November of 2017 and 3,650 were initially surveyed beginning in May of 2018. After excluding establishments that were out of business or out of scope, a total of 81.6 percent of 6,925 businesses provided information on the job titles and wages of their employees. These data were combined with responses from the previous two years (four biannual surveys) to produce the 2018 occupational estimates highlighted in this document.

OES data are available from BLS at <https://www.bls.gov/oes/tables.htm> and on the CDLE LMI website at <https://www.colmigateway.com> (Products & Resources: Reports, Brochures & Posters OR Data Trends > Employment and Wage Data > Occupation Data: LMI Gateway Related Items). Industry-specific data (NAICS Sector and 3- and 4-digit, Excel files) are available upon request; please contact [Barbara.Wills@state.co.us](mailto:Barbara.Wills@state.co.us).

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

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

## Technical Note

The Occupational Employment Statistics (OES) survey is a semiannual mail survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES data available from BLS include

- cross-industry occupational employment and wage estimates for the nation and approximately 530 areas, including states and the District of Columbia, MSAs, nonmetropolitan areas, and territories;
- national industry-specific estimates at the NAICS sector, 3-, 4-, and selected 5- and 6-digit industry levels; and
- national estimates by ownership across all industries and for schools and hospitals.

OES data are available at <https://www.bls.gov/oes/#data>.

OES estimates are constructed from a sample of about 1.2 million establishments. Each year, two semiannual panels of approximately 180,000 to 200,000 sampled establishments are contacted, one panel in May and the other in November. Responses are obtained by mail, Internet or other electronic means, email, telephone, or personal visit. The May 2018 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2018, November 2017, May 2017, November 2016, May 2016, and November 2015. The unweighted sampled employment of 83 million across all six semiannual panels represents approximately 58 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 71 percent based on establishments and 68 percent based on weighted sampled employment.

For more information about OES concepts and methodology, go to [www.bls.gov/oes/current/oes\\_tec.htm](http://www.bls.gov/oes/current/oes_tec.htm).

The 2018 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system and the 2017 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at [www.bls.gov/soc](http://www.bls.gov/soc) and information about the 2017 NAICS is available at [www.bls.gov/bls/naics.htm](http://www.bls.gov/bls/naics.htm).

### **Substate area definitions**

The substate area data published in this release reflect the standards and definitions established by the US Office of Management and Budget.

### **Additional information**

Answers to frequently asked questions about OES, including uses of OES data, are available at [www.bls.gov/oes/oes\\_ques.htm](http://www.bls.gov/oes/oes_ques.htm). Detailed technical information about the OES survey is available in the Survey Methods and Reliability Statement on the BLS website at [www.bls.gov/oes/current/methods\\_statement.pdf](http://www.bls.gov/oes/current/methods_statement.pdf).