



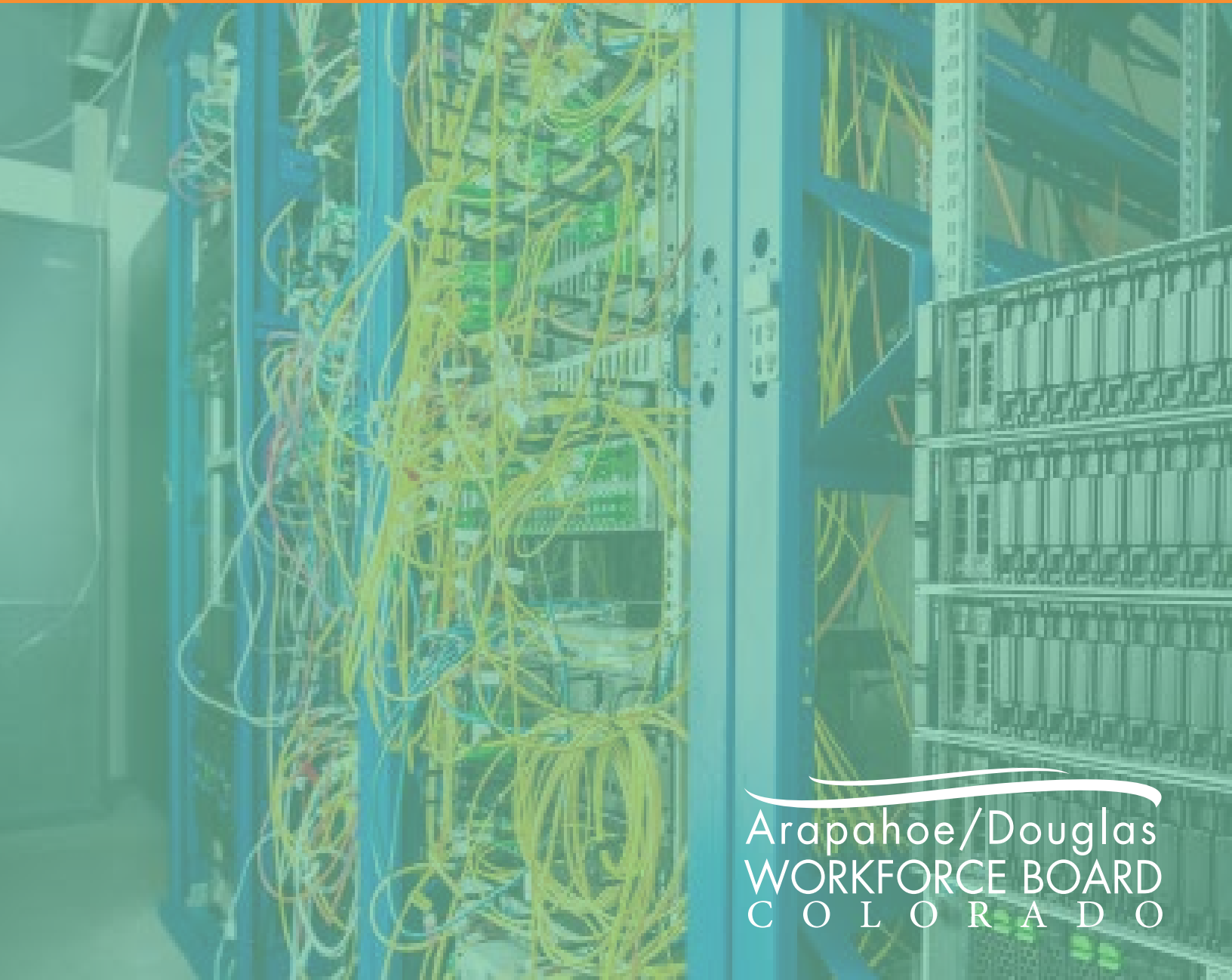
2025

# Broadband

## INDUSTRY PROFILE

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Colorado Urban Front Range



Arapahoe/Douglas  
WORKFORCE BOARD  
C O L O R A D O

To navigate directly to a specific section, click on the title in the list below. This will link directly to the corresponding page.

To return back to the Table of Contents, click on any section title. This will link back to the Table of Contents to allow easy navigation to other sections.

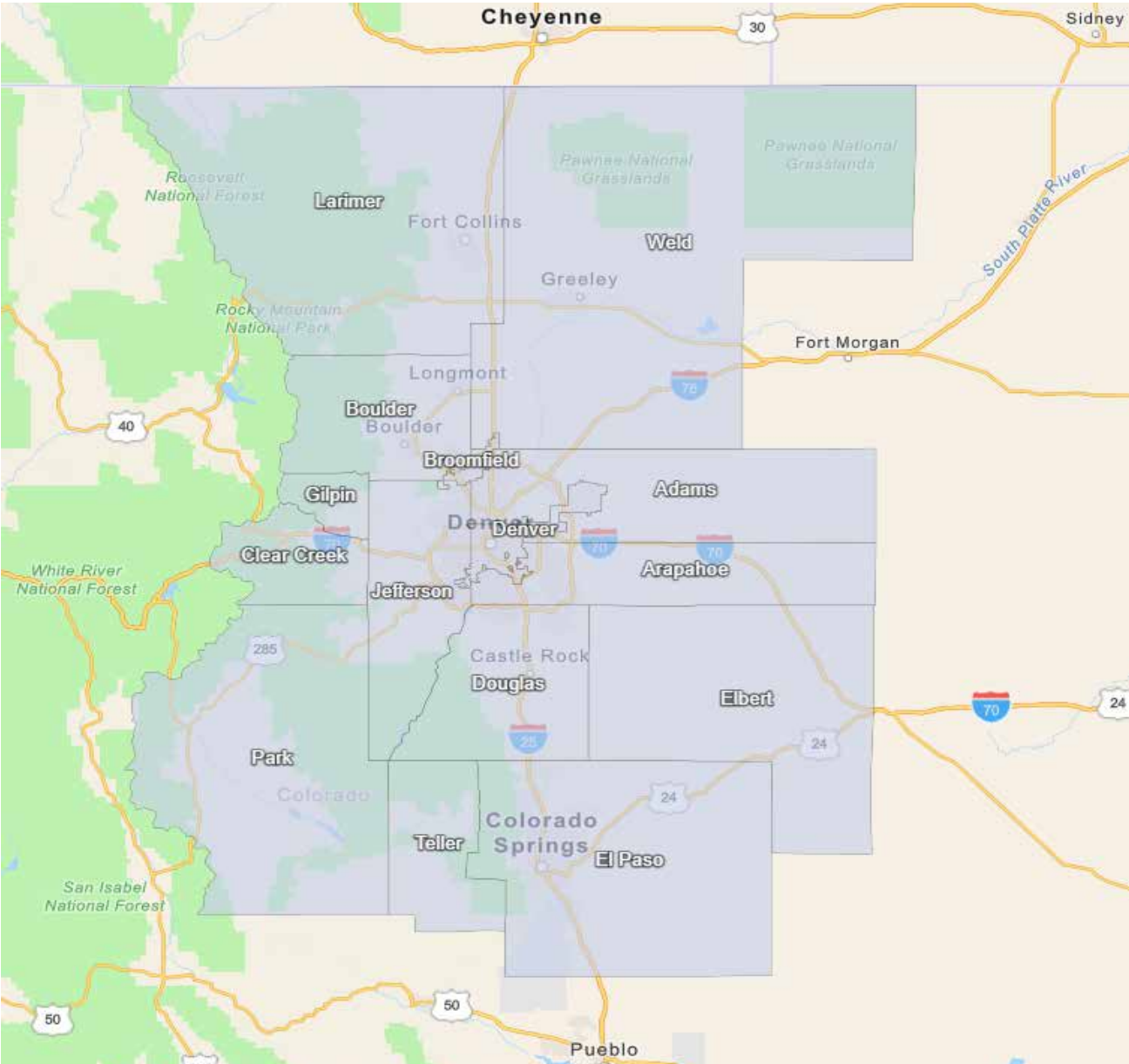
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# Geographical Area



The geographical area for this industry profile includes the 15 counties that make up Colorado’s Urban Front Range.



The geographic region includes the following metropolitan areas:

- Boulder
- Colorado Springs
- Denver-Aurora-Lakewood
- Fort Collins
- Greeley

In 2024, this 15 county region employed nearly 2.74 million people across all industries, and made up 83.3% of Colorado’s total employment.

In 2024, the Gross Regional Product (GRP) for the Urban Front Range was \$471.6 billion, which made up 1.7% of the national GRP.

Lightcast defines GRP as the final market value of all goods and services in the region.





# Industries Making up the Sector

## Broadband

▼ **2.2%** From prior year

# 0.9%

**Total Jobs in CO  
Urban Front Range**

The broadband sector employs 23,533 people in 1,080 establishments. An 'establishment' is one facility in which people work. For example, a business in the sector may have several locations, and each one of those locations counts as an 'establishment.'

In 2024, the sector had \$26.9 billion in sales, and contributed \$14.3 billion to the region's GRP. The broadband sector in the region declined 2.2% from 2023 to 2024 due to market saturation, reduced infrastructure expansion, and shifts in consumer demand toward wireless and fiber alternatives.



## 23,533

Total Jobs



## 1,080

Establishments



## 26.9 B

Total Sales

### Top Specialized Skills

- Project Management
- Marketing
- Computer Science

### Top Software Skills

- Microsoft Office
- Python (Programming Language)
- SQL (Programming Language)

### Top Credentials

- Valid Driver's License
- Master Of Business Administration (MBA)
- Cisco Certified Network Professional

Source: Lightcast

# Broadband Sector

Employment concentration is also known as location quotient. Location quotient measures industry employment concentration in a given geography relative to the national average. For example, employment in satellite telecommunications is 2.78 times more concentrated than the national average for this industry. The North American Industry Classification System (NAICS) is used to categorize businesses and organizations based on their primary economic activities. It is used throughout the United States, Mexico, and Canada.

Television Broadcasting Stations

NAICS 516120

Numbers to Know

- 1,143 jobs
- 31 establishments
- 1.06 employment concentration
- \$486.5 million in sales
- 18.7% change to 2029
- \$84,605 average wage
- \$16,405 average employer paid benefits

Media Streaming Distribution Services, Social Networks, & Other Media Networks & Content Providers

NAICS 516210

Numbers to Know

- 4,208 jobs
- 432 establishments
- 1.18 employment concentration
- \$4.2 billion in sales
- (9.8%) change to 2029
- \$160,417 average wage
- \$31,104 average employer paid benefits

Wired Telecommunications Carriers

NAICS 517111

Numbers to Know

- 15,676 jobs
- 366 establishments
- 2.15 employment concentration
- \$15.8 billion in sales
- (4.7%) change to 2029
- \$152,035 average wage
- \$29,977 average employer paid benefits

Wireless Telecommunications Carriers (except Satellite)

NAICS 517112

Numbers to Know

- 1,128 jobs
- 75 establishments
- 0.86 employment concentration
- \$3.9 billion in sales
- (4.4%) change to 2029
- \$148,077 average wage
- \$29,196 average employer paid benefits

Telecommunications Resellers

NAICS 517121

Numbers to Know

- 456 jobs
- 66 establishments
- 0.73 employment concentration
- \$445 million in sales
- 2.2% change to 2029
- \$185,494 average wage
- \$36,574 average employer paid benefits

Satellite Telecommunications

NAICS 517410

Numbers to Know

- 414 jobs
- 17 establishments
- 2.78 employment concentration
- \$266.8 million in sales
- 1.5% change to 2029
- \$132,341 average wage
- \$26,094 average employer paid benefits

All Other Telecommunications

NAICS 517810

Numbers to Know

- 508 jobs
- 94 establishments
- 0.65 employment concentration
- \$1.9 billion in sales
- 1.4% change to 2029
- \$163,608 average wage
- \$32,258 average employer paid benefits



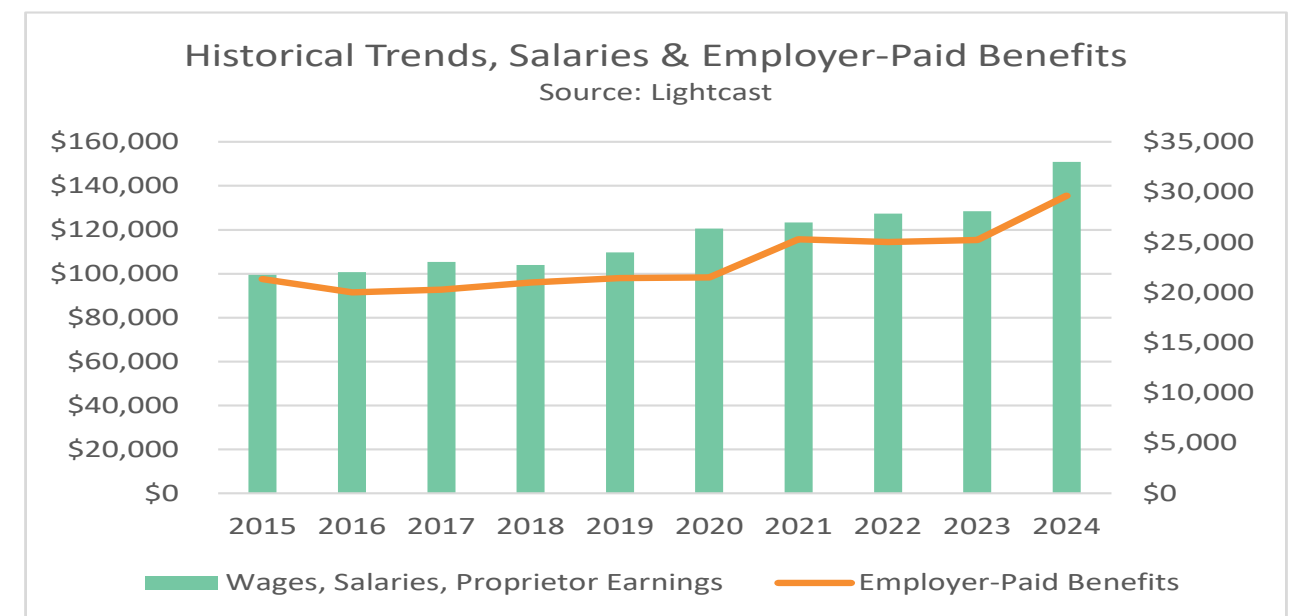
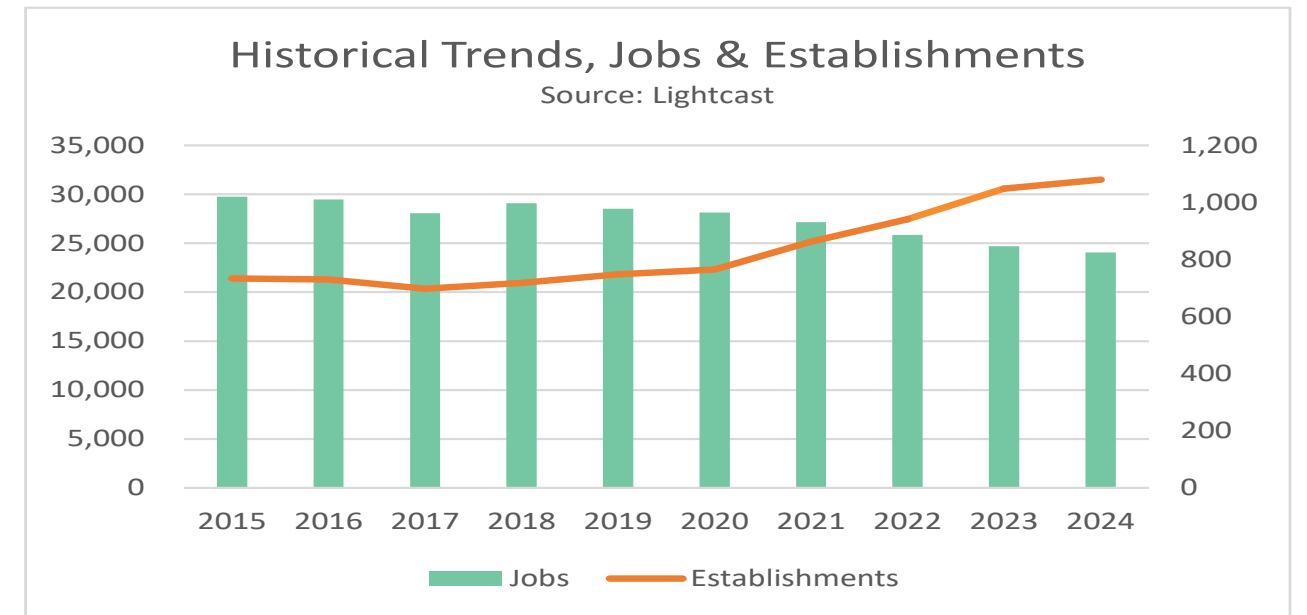




# Historical Trends

## Colorado Urban Front Range

The first graph shows the growth in jobs (green bars), and the growth in the number of establishments (orange line) in the sector between 2015 and 2024. The second graph shows the growth in wages, salaries and proprietor earnings (green bars) and in employer-paid benefits, including the employer portions of both Social Security and Medicare payroll deductions (orange line) for the same period.



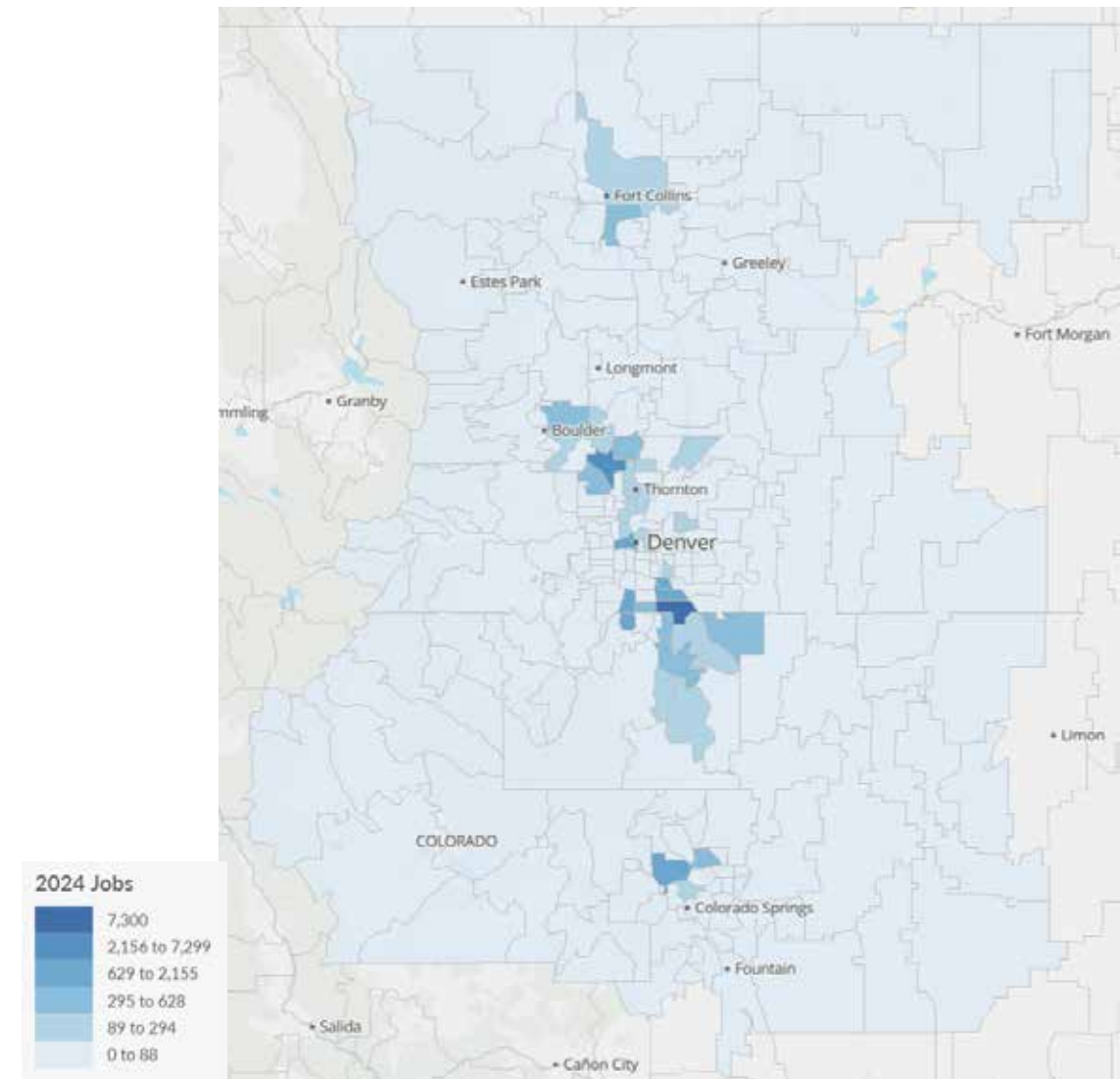
Source: Lightcast





# Employment Concentration

## Employment Concentration Map



### Colorado Urban Front Range

The overall employment concentration in this sector is 3.56 times the national average, which suggests the region has a steady supply of skilled labor. Concentration also varies by county, with the heaviest sector employment concentration in Broomfield, Arapahoe, and Douglas counties.

Source: Lightcast

# Sector Employment Concentration



Employment concentration in the sector is shown here within each of the 15 counties making up the region. Note that the current wages, salaries, and proprietor earnings, as well as the current employer-paid benefits are different within each county. This is because each county has a different mix of businesses operating within various industries in the sector. For example, the highest average wage per worker is in telecommunications resellers, while the lowest is in television broadcasting stations. Thus, a county that has a higher concentration of television broadcasting will have a lower average wage per worker.

## ADAMS

- Jobs - 1,069
- Employment Concentration - 0.72
- Current Wages, Salaries, & Proprietor Earnings - \$117,088
- Benefits - \$23,077
- Top Businesses - Centurylink, My Mobile Agent 1 Inc, Xfinity

## ARAPAHOE

- Jobs - 9,426
- Employment Concentration - 4.62
- Current Wages, Salaries, & Proprietor Earnings - \$153,783
- Benefits - \$30,234
- Top Businesses - Wideopenwest Inc, Starz Entertainment Llc, Liberty Expedia Holdings Inc

## BOULDER

- Jobs - 852
- Employment Concentration - 0.72
- Current Wages, Salaries, & Proprietor Earnings - \$126,877
- Benefits - \$24,879
- Top Businesses - Active Interest Media Holdco Inc, Interface Communications Co, Centurylink

## DOUGLAS

- Jobs - 2,764
- Employment Concentration - 3.16
- Current Wages, Salaries, & Proprietor Earnings - \$164,754
- Benefits - \$32,481
- Top Businesses - Inspiration Networks, Centurylink, Broadnet

## EL PASO

- Jobs - 1,605
- Employment Concentration - 0.75
- Current Wages, Salaries, & Proprietor Earnings - \$83,705
- Benefits - \$16,442
- Top Businesses - Kbr Wyle, Koaa News 5, Fox 21 & Cw57

## ELBERT

- Jobs - 48
- Employment Concentration - 1.64
- Current Wages, Salaries, & Proprietor Earnings - \$105,396
- Benefits - \$20,773
- Top Businesses - Wildblue, Big Sandy School

## GILPIN

- Jobs - Insf. Data
- Employment Concentration - Insf. Data
- Current Wages, Salaries, & Proprietor Earnings - Insf. Data
- Benefits - Insf. Data
- Top Businesses - Insf. Data

## JEFFERSON

- Jobs - 563
- Employment Concentration - 0.38
- Current Wages, Salaries, & Proprietor Earnings - \$95,183
- Benefits - \$18,732
- Top Businesses - Gogo Business Aviation Llc, Tribalco, Subex Inc

## LARIMER

- Jobs - 635
- Employment Concentration - 0.60
- Current Wages, Salaries, & Proprietor Earnings - \$84,246
- Benefits - \$16,556
- Top Businesses - Xfinity, CSU-Online Program, Torrid Inc

## BROOMFIELD

- Jobs - 2,491
- Employment Concentration - 9.84
- Current Wages, Salaries, & Proprietor Earnings - \$53,033
- Benefits - \$30,171
- Top Businesses - Worldwide Resources International, Centurylink, Phone Suite

## CLEAR CREEK

- Jobs - <10
- Employment Concentration - 0.04
- Current Wages, Salaries, & Proprietor Earnings - Insf. Data
- Benefits - Insf. Data
- Top Businesses - Insf. Data

## DENVER

- Jobs - 4,387
- Employment Concentration - 1.29
- Current Wages, Salaries, & Proprietor Earnings - \$193,533
- Benefits - \$37,822
- Top Businesses - The Outdoor Channel, Covad Communications, Liberty Global Inc.

## PARK

- Jobs - <10
- Employment Concentration - 0.08
- Current Wages, Salaries, & Proprietor Earnings - Insf. Data
- Benefits - Insf. Data
- Top Businesses - 12 Volt Spec LLC, Consolidated Coverage System Inc, Highline.

## TELLER

- Jobs - 48
- Employment Concentration - 0.94
- Current Wages, Salaries, & Proprietor Earnings - \$83,167
- Benefits - \$16,392
- Top Businesses - Satellite Service Rays, Techvets Inc, Centurylink

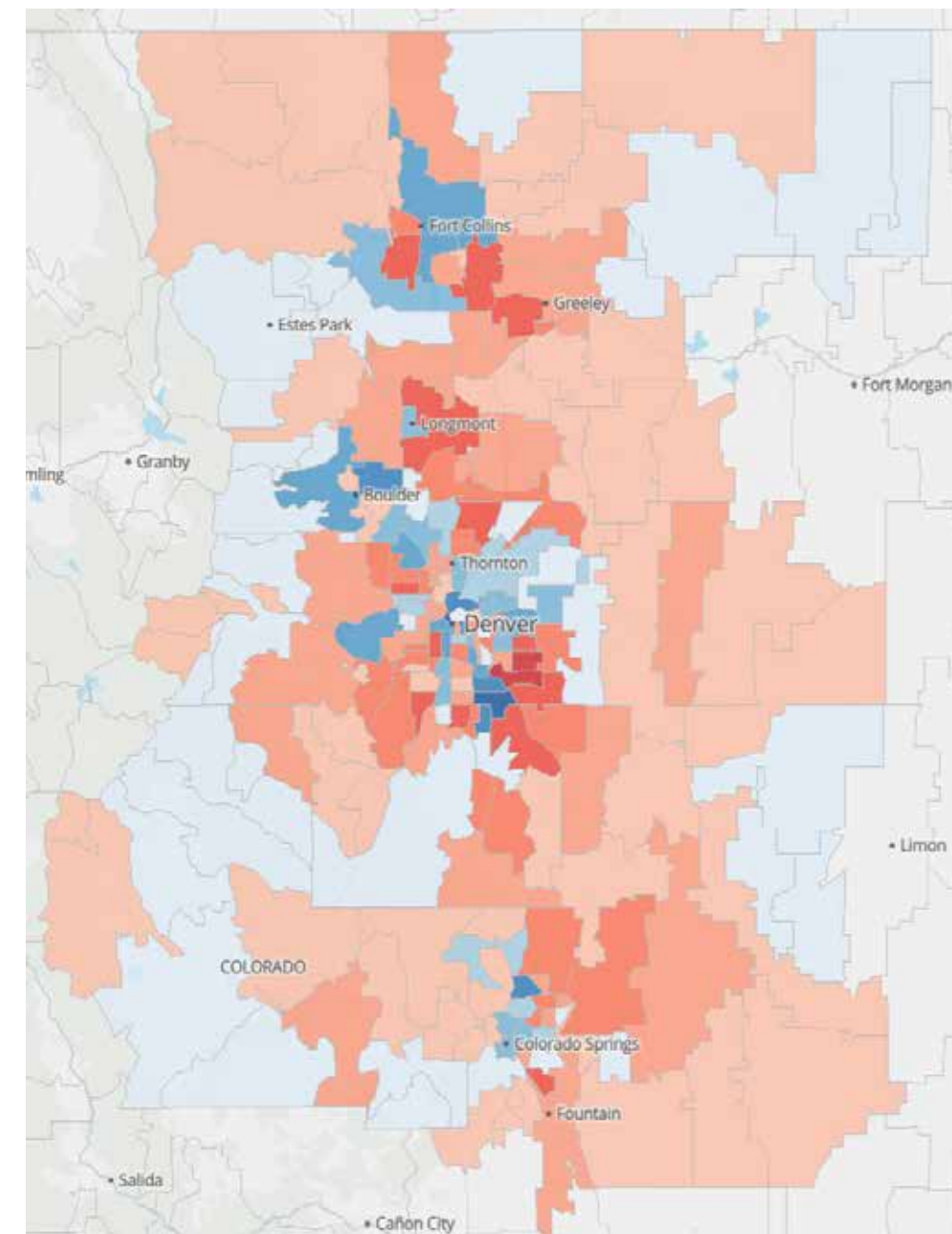
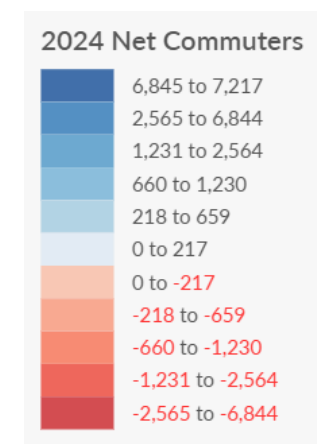
## WELD

- Jobs - 179
- Employment Concentration - 0.25
- Current Wages, Salaries, & Proprietor Earnings - \$76,475
- Benefits - \$15,040
- Top Businesses - Pivital Inc, Stoneham Cooperative Phone Co, Centurylink





# Commute Map



## Where Core Workforce Lives

Every sector has a group of occupations it needs to fulfil its mission. This is called a staffing pattern, and generally includes managers, business and finance people, sales and administrative support, computer and mathematical occupations. There is also a core set of occupations that are primarily responsible for producing the goods or services that industry provides. In broadband, this core set of occupations is made up of electrical and electronic equipment repair, installation and maintenance workers, user and network support specialists, customer service representatives and tier 2 sales/support. This map shows where persons employed in these occupations live (orange areas) and where they work (blue areas).



# Where Core Workforce Lives

## Commute Patterns

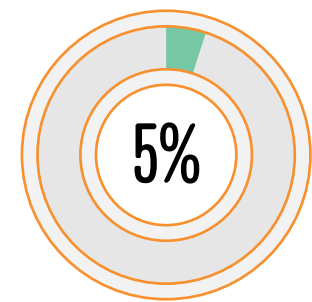
This table shows the number of ‘net commuters’ in each of the 15 counties making up the region. For example, 35,969 workers in these core occupations live in Denver County. There are 57,374 jobs in the county. This means an additional 21,406 core workers commute into Denver County to work in these core broadband occupations. Note: the latest commuter data available is from 2024.

County	Net Commuters	Resident Workers	Jobs
Denver	21,406	35,969	57,374
Boulder	4,973	14,776	19,749
Arapahoe	2,663	36,780	39,442
Broomfield	1,269	4,450	5,719
Larimer	1,141	18,104	19,245
Gilpin	75	344	419
Clear Creek	(4)	341	337
Teller	(431)	1,311	880
Park	(482)	861	380
Elbert	(779)	1,299	520
El Paso	(1,014)	31,533	30,519
Adams	(2,058)	26,764	24,705
Douglas	(3,796)	22,789	18,993
Jefferson	(6,864)	33,980	27,116
Weld	(10,466)	20,870	10,404

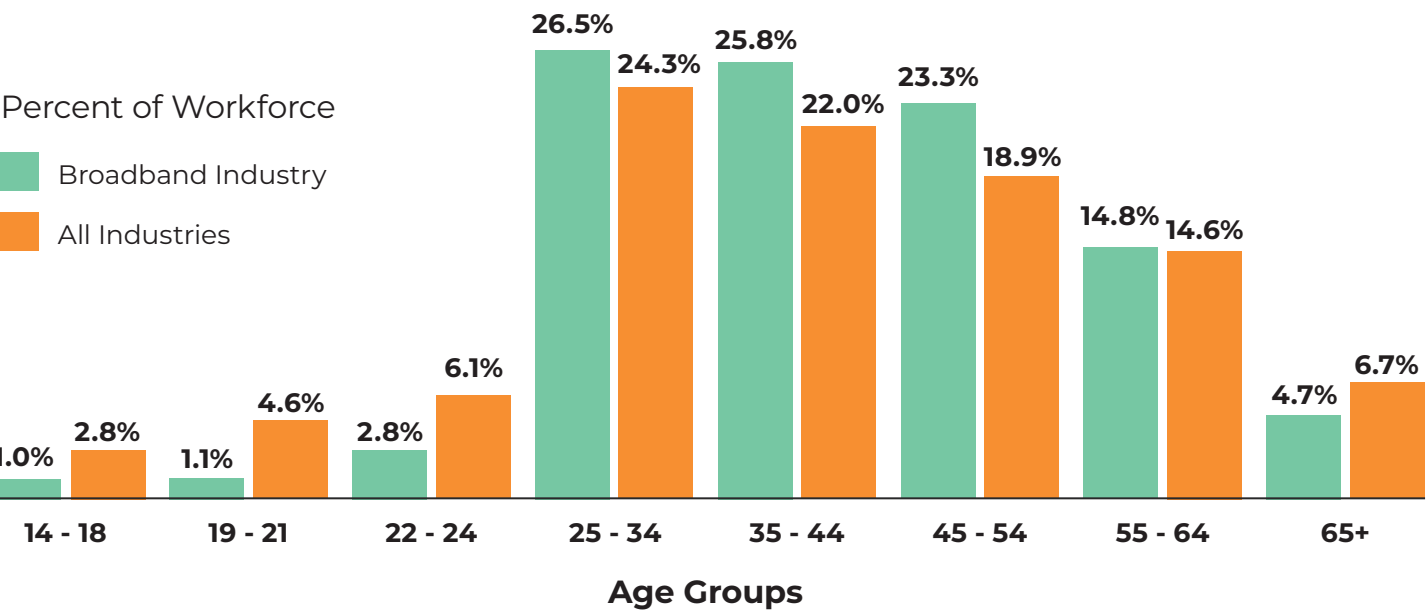
Source: Lightcast



Comparative Retirement Risk



The comparative retirement risk for the broadband industry in the 15 county region is lower than across all industries, with 4.7% of the workforce in the industry aged 65 or older, while 6.7% of the workforce across all industries are 65 years or older. Over the next few years retirement risk will grow based on the 55-64 age band. Also note the low number of young people entering the industry.



Comparative Gender

Percent of Workforce  
Broadband Industry  
All Industries



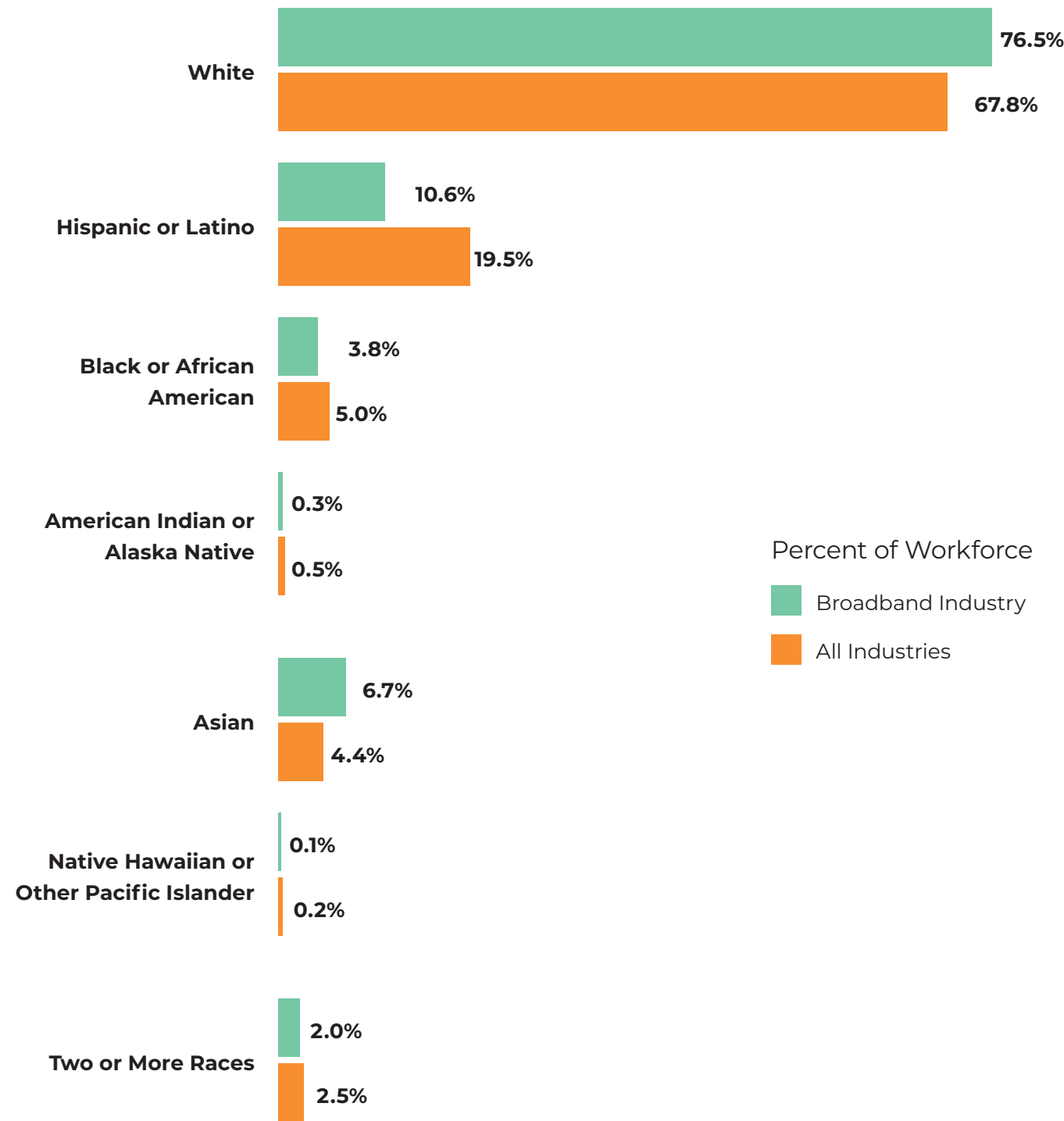
Men  
62.0%  
51.9%



Women  
38.0%  
48.1%

Demographics

These bar charts illustrate the racial and ethnic composition of the workforce in the broadband industry.



Percent of Workforce  
Broadband Industry  
All Industries

Source: Lightcast



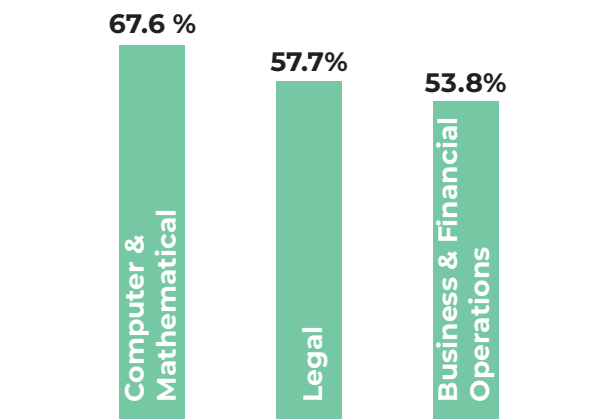


# Telework and Automation Strategies

## Remote Work Potential

**35.6%** Remote Work Capability for Sector

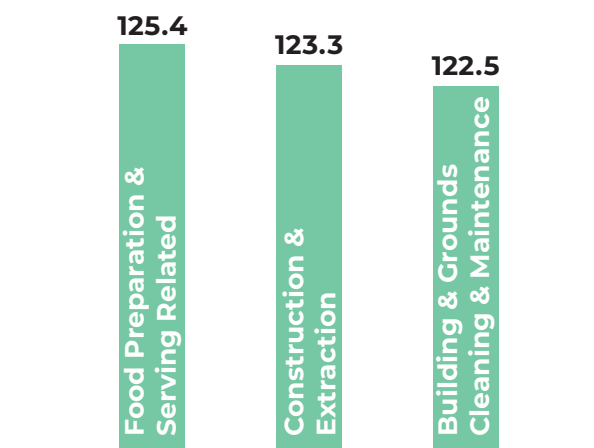
In a scarce labor market, a valid strategy for employers may be to review their staffing mix and determine which positions, if any, can be employed remotely or using a hybrid schedule. Approximately 35.6% of the workforce in broadband has at least partial teleworking capacity, mostly in back-office functions.



## Automation Index

**92.4**

Another valid strategy employers can use in today's scarce labor market is automation. Automation seldom replaces workers 1:1. Rather, automation leverages the productive capacity of fewer workers to allow for higher output. Examples of automation in broadband include artificial intelligence in customer care and machine learning.



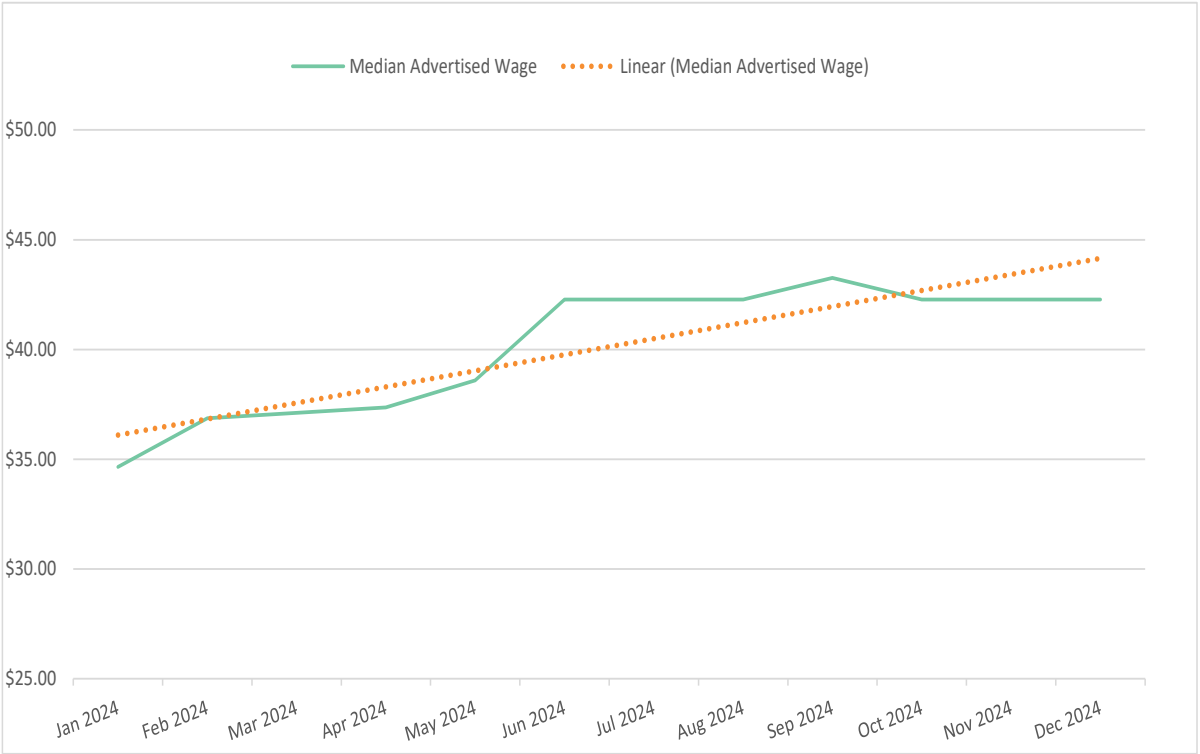
Source: Lightcast



# Wages

## Advertised Wage Trends

This line graph shows movement in advertised wages in jobs posted in the sector over the last year.



## Competitive Wage Analysis

The following table shows the top 20 occupations by percentage of total employment in the sector, as well as total employment across industries. For example, the broadband sector employs 1,427 computer network architects, but there are 10,149 employed across all industry sectors. This is important because the broadband sector must compete with other sectors for critical talent, such as software developers, electronics engineers, and sales representatives. Average annual openings for each occupation are estimated according to known attrition (people leaving the occupation or retiring) as well as expected national and local growth in that occupation.

Median posted wage levels can be compared to estimated entry and experienced level wages, and the typical entry level education, as well as the typical on-the-job training (OJT) are shown to illustrate the potential for apprenticeships and OJT to supplement shortfalls in the traditional training pipeline.

The Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.



Competitive Wage Analysis

SOC	Description	Jobs in Sector	% of Total Employment in Sector	Jobs Across all Industries	Average Annual Openings		Median Posted Wage	Entry Level Wage	Median Wage	Highly Experienced Level Wage	Typical On-the-Job Training	Typical Entry Level Education
11-1021	General & Operations Managers	306	1.3%	41,260	4,200		\$64.37	\$44.42	\$62.52	\$92.12	None	Bachelor's degree
11-3021	Computer & Information Systems Managers	343	1.5%	12,096	1,156		\$98.46	\$67.79	\$83.72	\$103.86	None	Bachelor's degree
13-1082	Project Management Specialists	341	1.5%	28,647	2,485		\$45.17	\$37.90	\$48.77	\$63.40	None	Bachelor's degree
13-1161	Market Research Analysts & Marketing Specialists	520	2.2%	25,285	2,887		\$44.92	\$28.25	\$37.40	\$50.67	None	Bachelor's degree
13-1199	Business Operations Specialists, All Other	778	3.3%	43,849	4,283		\$55.14	\$30.72	\$40.54	\$56.46	None	Bachelor's degree
13-2011	Accountants & Auditors	239	1.0%	31,998	2,972		\$36.80	\$32.52	\$41.52	\$54.85	None	Bachelor's degree
15-1231	Computer Network Support Specialists	365	1.6%	3,705	327		\$41.97	\$32.22	\$39.43	\$50.22	None	Associate's degree
15-1232	Computer User Support Specialists	353	1.5%	16,183	1,420		\$31.02	\$26.56	\$32.59	\$40.81	None	Some college, no degree
15-1241	Computer Network Architects	1,427	6.2%	10,149	603		\$58.71	\$50.04	\$64.19	\$79.97	None	Bachelor's degree
15-1244	Network & Computer Systems Administrators	380	1.6%	10,288	706		\$56.25	\$40.02	\$49.46	\$59.11	None	Bachelor's degree
15-1252	Software Developers	999	4.2%	45,468	4,124		\$61.17	\$51.20	\$65.21	\$81.29	None	Bachelor's degree
17-2072	Electronics Engineers, Except Computer	1,472	6.2%	5,826	364		\$61.23	\$46.63	\$60.16	\$78.71	None	Bachelor's degree
27-2012	Producers & Directors	528	2.2%	1,912	198		\$28.06	\$28.44	\$35.77	\$47.43	None	Bachelor's degree
27-3023	News Analysts, Reporters, & Journalists	407	1.7%	713	80		\$28.80	\$20.85	\$26.93	\$36.66	None	Bachelor's degree
41-1012	First-Line Supervisors of Non-Retail Sales Workers	495	2.1%	6,833	613		\$48.62	\$35.83	\$47.32	\$66.14	None	High school diploma or GED
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, & Travel	3,337	14.3%	37,747	3,988		\$22.58	\$28.11	\$39.24	\$69.32	Moderate-term OJT	High school diploma or GED
43-4051	Customer Service Representatives	1,138	4.9%	42,324	5,958		\$22.58	\$17.91	\$21.02	\$24.88	Short-term OJT	High school diploma or GED
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	299	1.3%	10,317	1,006		\$30.89	\$30.35	\$38.05	\$47.89	None	High school diploma or GED
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2,091	8.7%	3,118	351		\$28.74	\$27.19	\$31.17	\$37.45	Moderate-term OJT	Postsecondary nondegree award
49-9052	Telecommunications Line Installers & Repairers	895	3.7%	1,413	145		\$22.89	\$23.45	\$29.53	\$36.98	Long-term OJT	High school diploma or GED



# Top Occupations

Top 20 Occupations Currently Listed  
in the Colorado Urban Front Range

## Top Occupations

These figures use information from unique job postings across the sector to show the number of jobs posted in the 15 county region during the last year and median posted salary. It is also important when planning staffing strategy to look at hires, separations and turnover rate for each of the occupations, what the percent of employment in the sector is, and the top skills demanded over the prior 12-month period.

Discover more about each occupation by simply clicking on the respective icon.



### Sales Representatives of Services, Except Advertising, Insurance, Financial Services, & Travel

• % Employment	14.3%
• Unique Postings	135
• Posted Salary	\$22.58
• Hires	25,068
• Separations	25,609
• Turnover Rate	69.1%
Top Skills: Marketing, Selling Techniques, Sales Prospecting	



### Telecommunications Equipment Installers & Repairers, Except Line Installers

• % Employment	8.7%
• Unique Postings	99
• Posted Salary	\$28.74
• Hires	967
• Separations	997
• Turnover Rate	32.1%
Top Skills: Telecommunications, Broadband, Test Equipment	



### Computer Network Architects

• % Employment	6.2%
• Unique Postings	253
• Posted Salary	\$58.71
• Hires	4,069
• Separations	4,351
• Turnover Rate	43.5%
Top Skills: Network Engineering, Computer Science, 5G Technology	



### Electronics Engineers, Except Computer

• % Employment	6.2%
• Unique Postings	76
• Posted Salary	\$61.23
• Hires	2,062
• Separations	2,091
• Turnover Rate	36.3%
Top Skills: 5G Technology, Radio Frequency, Python (Programming Language)	





### Customer Service Representatives

• % Employment	4.9%
• Unique Postings	145
• Posted Salary	\$22.58
• Hires	34,574
• Separations	37,361
• Turnover Rate	89.1%
Top Skills: Data Entry, Billing, Internet Service	



### Software Developers

• % Employment	4.2%
• Unique Postings	477
• Posted Salary	\$61.17
• Hires	20,717
• Separations	21,541
• Turnover Rate	49.7%
Top Skills: Agile Methodology, Computer Science, Amazon Web Services	



### First-Line Supervisors of Non-Retail Sales Workers

• % Employment	2.1%
• Unique Postings	7
• Posted Salary	\$48.62
• Hires	2,279
• Separations	2,404
• Turnover Rate	35.6%
Top Skills: Project Management, Inside Sales, Telecommunications	



### News Analysts, Reporters, & Journalists

• % Employment	1.7%
• Unique Postings	68
• Posted Salary	\$28.80
• Hires	264
• Separations	312
• Turnover Rate	42.5%
Top Skills: Journalism, News Stories, Content Creation	



### Telecommunications Line Installers & Repairers

• % Employment	3.7%
• Unique Postings	117
• Posted Salary	\$22.89
• Hires	546
• Separations	552
• Turnover Rate	39.5%
Top Skills: Hand Tools, Telecommunications, Electrical Equipment	



### Business Operations Specialists, All Other

• % Employment	3.3%
• Unique Postings	9
• Posted Salary	\$55.14
• Hires	27,812
• Separations	27,338
• Turnover Rate	63.5%
Top Skills: Marketing, Adobe Analytics, E-Commerce	



### Network & Computer Systems Administrators

• % Employment	1.6%
• Unique Postings	37
• Posted Salary	\$56.25
• Hires	4,540
• Separations	4,642
• Turnover Rate	46.1%
Top Skills: Automation, Computer Science, CI/CD	



### Computer Network Support Specialists

• % Employment	1.6%
• Unique Postings	27
• Posted Salary	\$41.97
• Hires	1,769
• Separations	1,784
• Turnover Rate	49.6%
Top Skills: Network Routing, TCP/IP, Telecommunications	



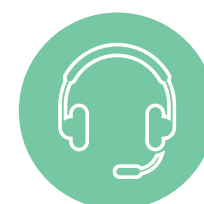
### Market Research Analysts & Marketing Specialists

• % Employment	2.2%
• Unique Postings	158
• Posted Salary	\$44.92
• Hires	17,877
• Separations	17,971
• Turnover Rate	73.4%
Top Skills: Marketing, Project Management, Analytics	



### Producers & Directors

• % Employment	2.2%
• Unique Postings	75
• Posted Salary	\$28.06
• Hires	1,379
• Separations	1,335
• Turnover Rate	71.4%
Top Skills: Journalism, Content Creation, News Stories	



### Computer User Support Specialists

• % Employment	1.5%
• Unique Postings	68
• Posted Salary	\$31.02
• Hires	8,187
• Separations	8,294
• Turnover Rate	52.8%
Top Skills: Computer Science, Technical Support, Help Desk Support	



### Project Management Specialists

• % Employment	1.5%
• Unique Postings	167
• Posted Salary	\$45.17
• Hires	15,130
• Separations	15,059
• Turnover Rate	54.0%
Top Skills: Project Management, Telecommunications, Marketing	



**Computer & Information Systems Managers**

- % Employment 1.5%
- Unique Postings 7
- Posted Salary \$98.46
- Hires 4,358
- Separations 4,427
- Turnover Rate 38.1%

Top Skills: Operational Efficiency, Computer Science, Business Process



**General & Operations Managers**

- % Employment 1.3%
- Unique Postings 98
- Posted Salary \$64.37
- Hires 19,915
- Separations 19,555
- Turnover Rate 48.8%

Top Skills: Key Performance Indicators (KPIs), Marketing, Telecommunications



**First-Line Supervisors of Mechanics, Installers, & Repairers**

- % Employment 1.3%
- Unique Postings 21
- Posted Salary \$30.89
- Hires 4,018
- Separations 3,866
- Turnover Rate 38.3%

Top Skills: Construction, Power Tool Operation, Project Scoping



**Accountants & Auditors**

- % Employment 1.0%
- Unique Postings 107
- Posted Salary \$36.80
- Hires 16,753
- Separations 16,721
- Turnover Rate 53.5%

Top Skills: Accounting, Finance, Auditing

Source: Lightcast

**Let's Talk!**

There are a number of strategies you can employ to enhance employee recruitment and retention. The Arapahoe/Douglas Works! Business Services Team can help you strategize and implement these tactics. Get started by calling (303) 636-1359 or visiting <https://bit.ly/ADWBusinessServices>.

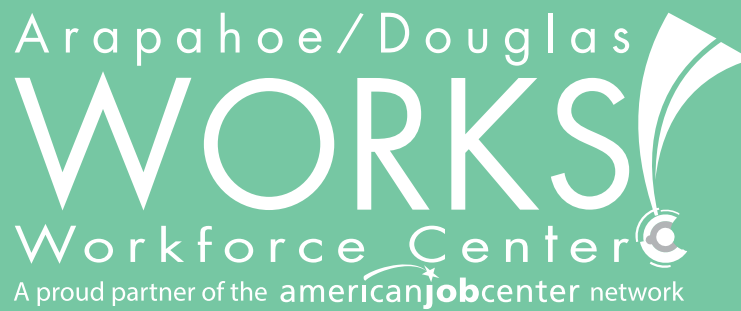


The Colorado Apprenticeship Hub serves as a resource for companies seeking to engage in registered apprenticeship programs in Colorado. The Hub provides apprenticeship-related services at no cost to employers.

If you want to connect to a consultant, please email the team at [apprenticeship@arapahoegov.com](mailto:apprenticeship@arapahoegov.com)





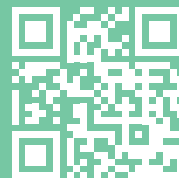


**ARAPAHOE COUNTY**



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(~78 percent) through the U.S. Department of Labor. Additionally, ~22 percent  
(\$5,326,786.07) is financed by non-federal sources.