Labor Supply & Demand, Regional Skill Gaps, and New Trends

November 2021

Unemployment & Underemployment

Local Unemployment is Up
Labor Force Up

The labor force in the combined Arapahoe/Douglas County area went up by 1,387 between July and August. The number of unemployed decreased to 30,235, down 3,335 (0.6%) from July.
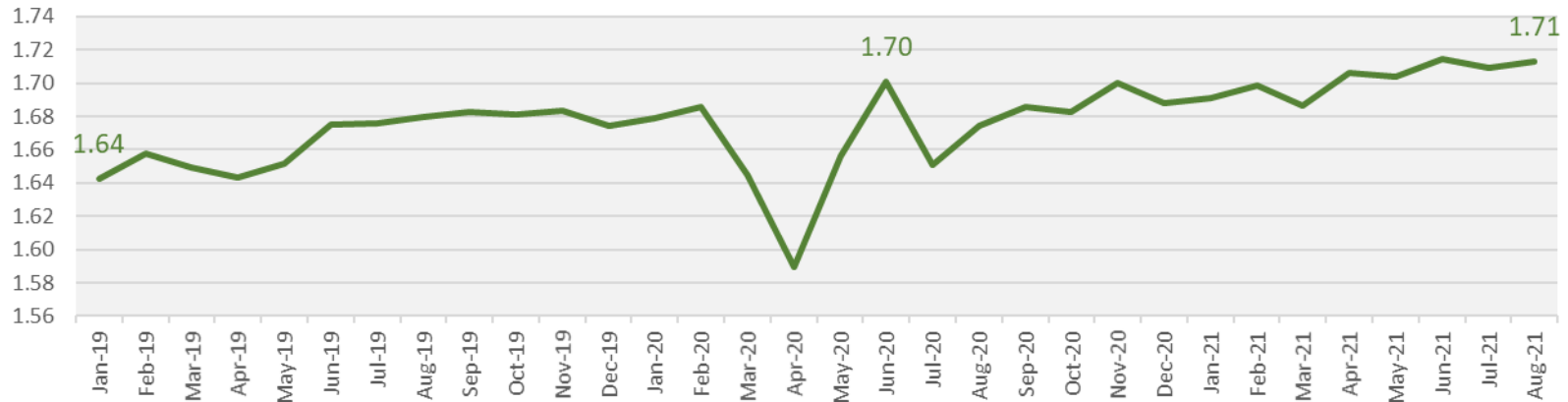
Complete Unemployment, Arapahoe/Douglas Workforce Region

— Official Unemployment Rate (U3)   — Complete Unemployment Rate (U6)
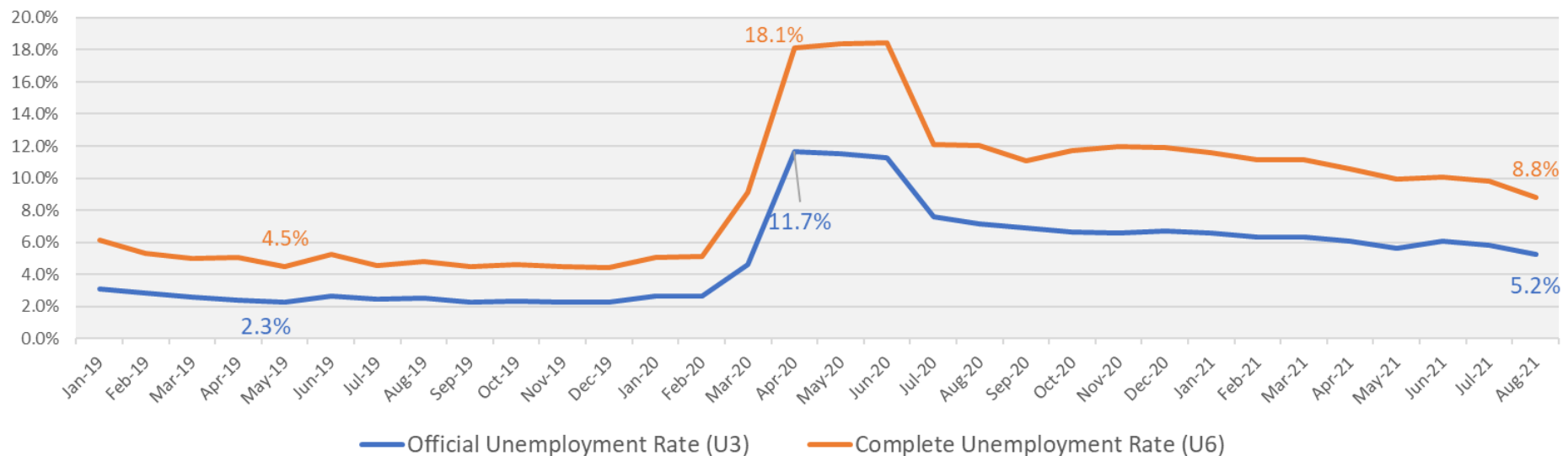
Metro Area Unemployment, Underemployment & Labor Force Trends

**Labor Force (Millions), Greater Metro Denver**
Source: US Bureau of Labor Statistics

The orange 'complete unemployment' line in the graph below shows unemployed, discouraged, marginally attached, and persons working part time for economic reasons. It is based on national Alternate Measures of Labor Underutilization published monthly by the Bureau of Labor Statistics.

Employment Situation, Greater Metro Denver
Source: US Bureau of Labor Statistics

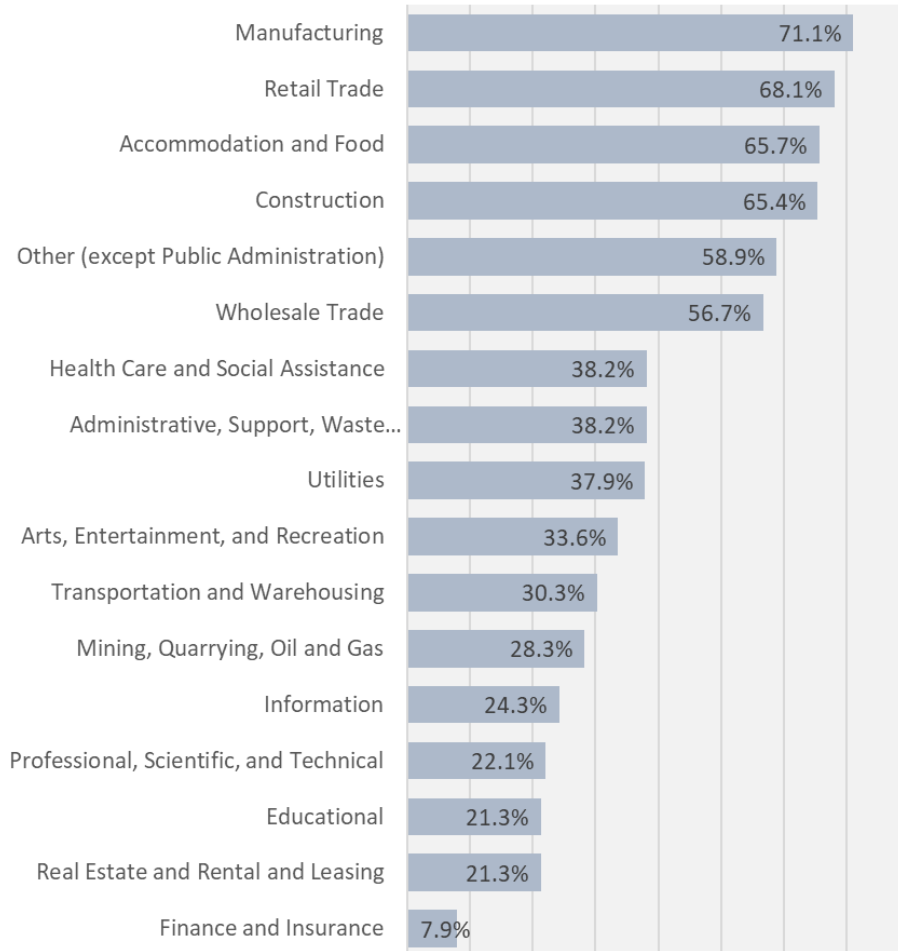— Unemployment Rate   — Complete Unemployment
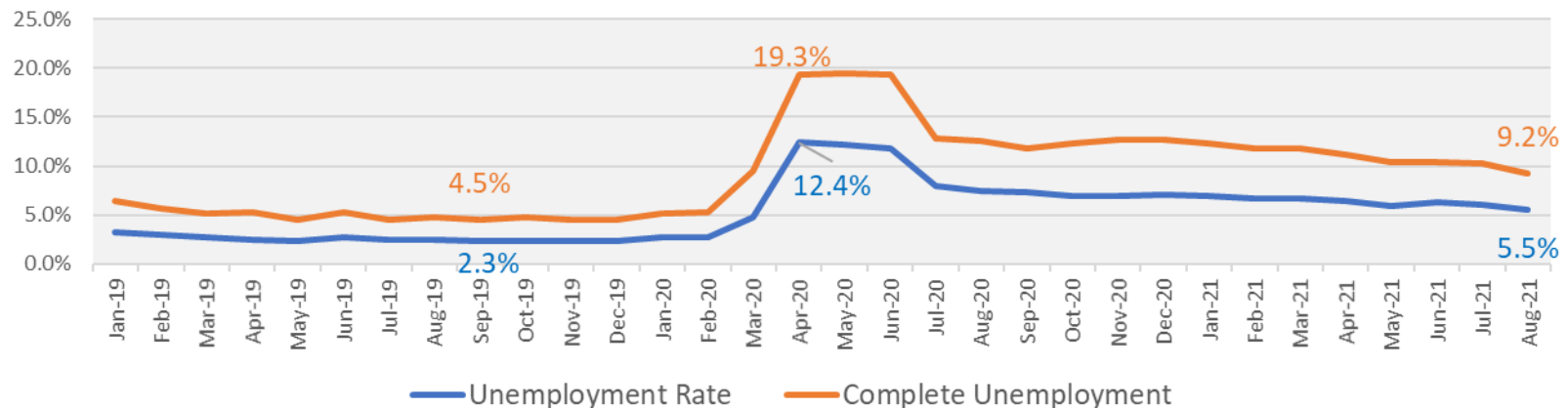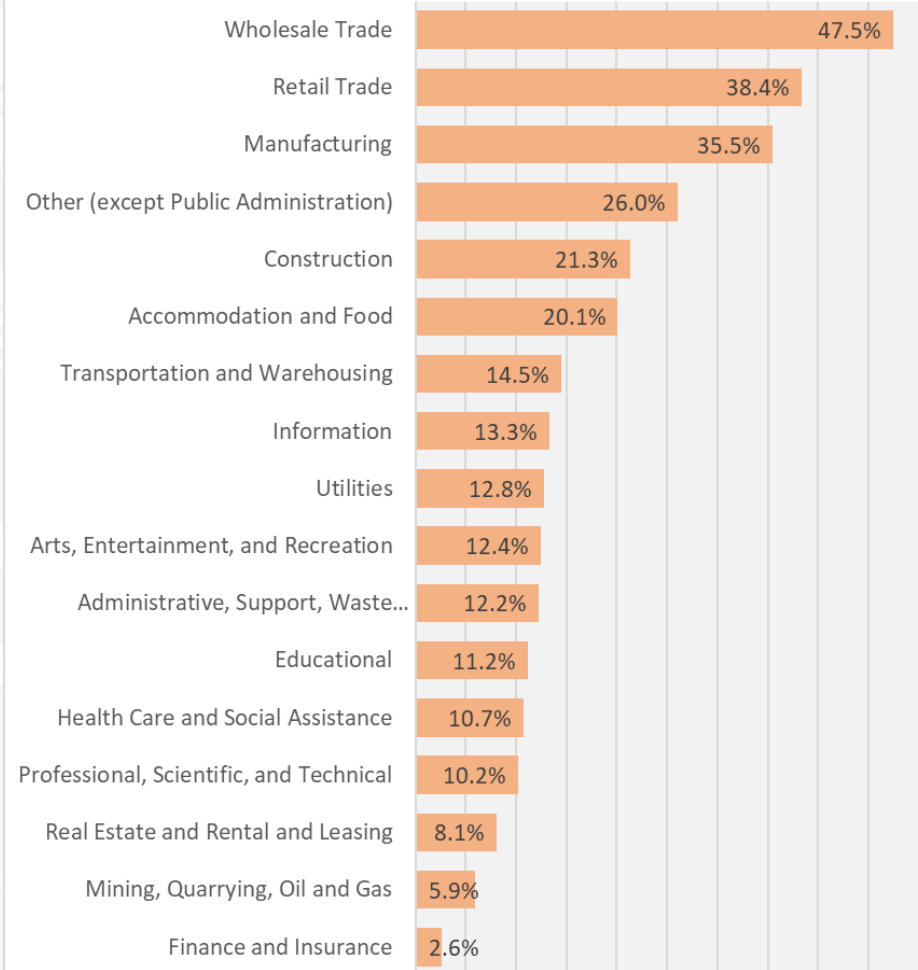
Other Trends Affecting Workforce

Supply Chain Disruptions

Percent Small Businesses with Domestic Supplier Delays
By Sector, October 4-10, 2021, United States
Source: US Census

Sector	Percent
Manufacturing	71.1%
Retail Trade	68.1%
Accommodation and Food	65.7%
Construction	65.4%
Other (except Public Administration)	58.9%
Wholesale Trade	56.7%
Health Care and Social Assistance	38.2%
Administrative, Support, Waste…	38.2%
Utilities	37.9%
Arts, Entertainment, and Recreation	33.6%
Transportation and Warehousing	30.3%
Mining, Quarrying, Oil and Gas	28.3%
Information	24.3%
Professional, Scientific, and Technical	22.1%
Educational	21.3%
Real Estate and Rental and Leasing	21.3%
Finance and Insurance	7.9%

Percent Small Businesses with Foreign Supplier Delays
By Sector, October 4-10, 2021, United States

Sector	Percent
Wholesale Trade	47.5%
Retail Trade	38.4%
Manufacturing	35.5%
Other (except Public Administration)	26.0%
Construction	21.3%
Accommodation and Food	20.1%
Transportation and Warehousing	14.5%
Information	13.3%
Utilities	12.8%
Arts, Entertainment, and Recreation	12.4%
Administrative, Support, Waste…	12.2%
Educational	11.2%
Health Care and Social Assistance	10.7%
Professional, Scientific, and Technical	10.2%
Real Estate and Rental and Leasing	8.1%
Mining, Quarrying, Oil and Gas	5.9%
Finance and Insurance	2.6%

Inflation

Inflation Rate, Percent Change from Same Month, Prior Year, United States
Source: US Bureau of Labor Statistics
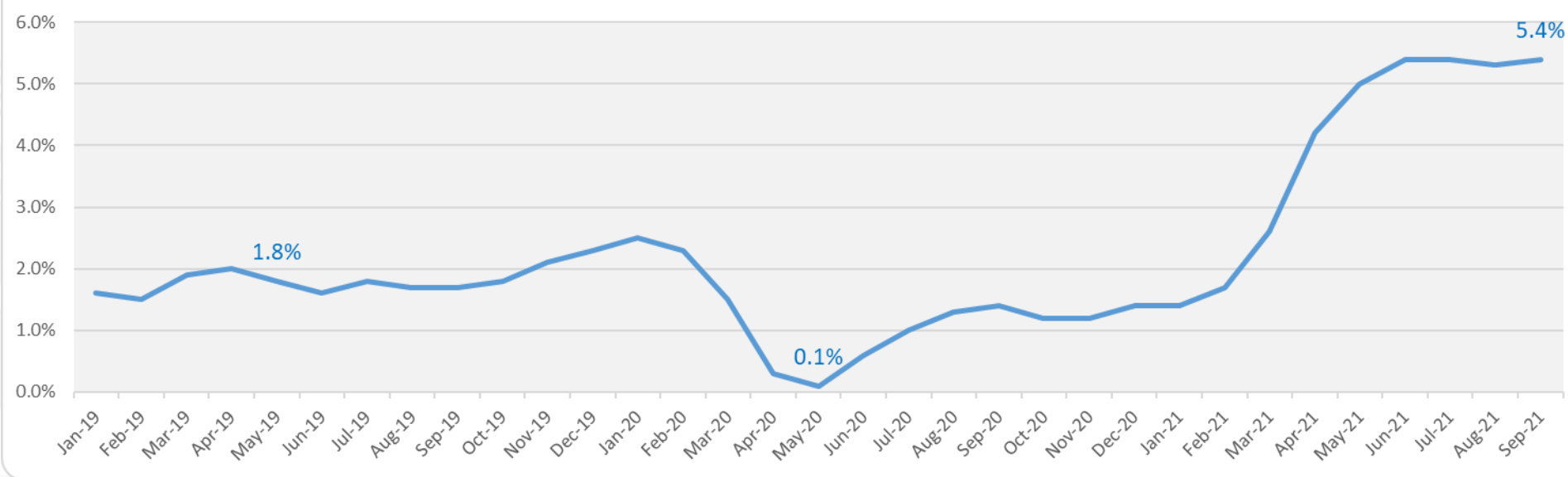
Nationally, inflation stayed level at 5.4% in September. Consumers continue to experience spot shortages due to international supply chain issues being experienced across all sectors (see previous slide).
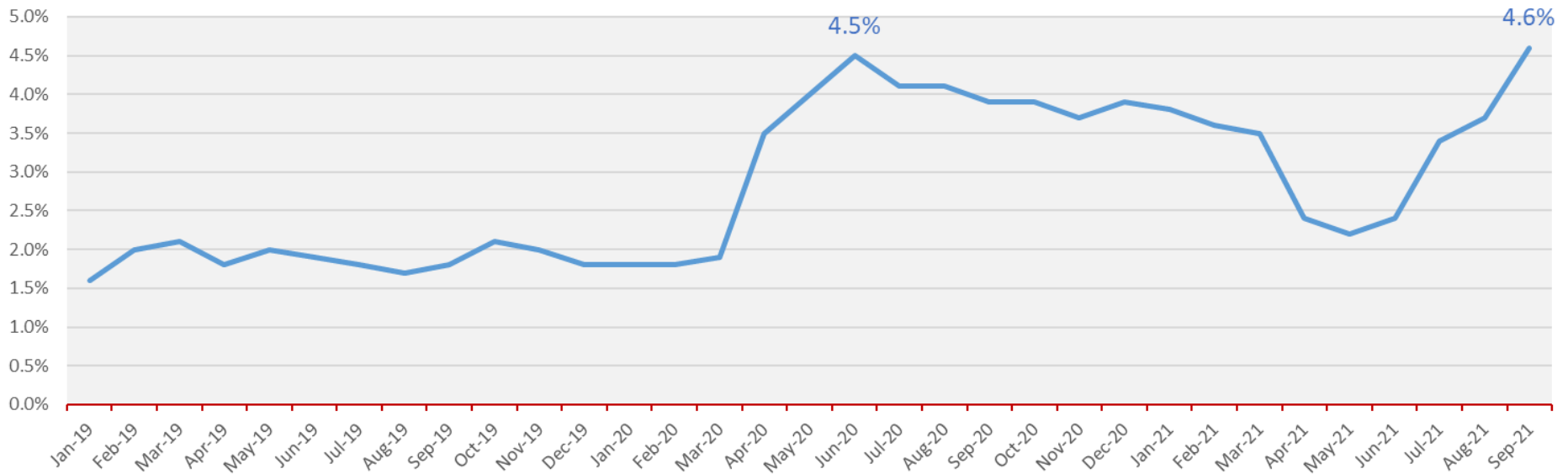
Selected Inflation Rates

Inflation, Energy & Gasoline, Percent Change From Same Month, Prior Year, United States
Source: US Bureau of Labor Statistics

56.2%
42.1%
28.5%
24.8%

Energy — Gasoline (all types)
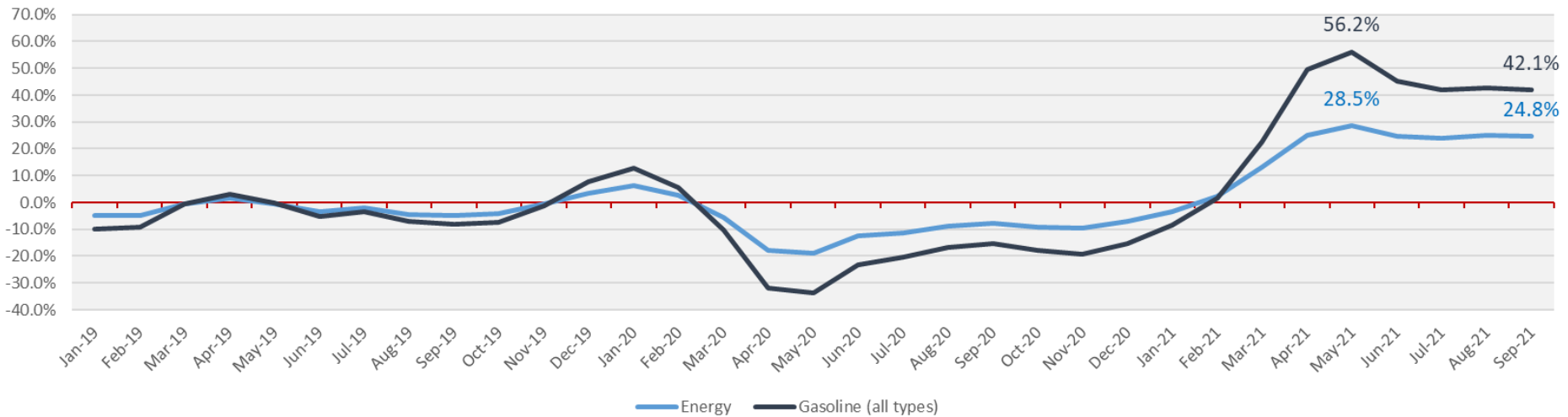
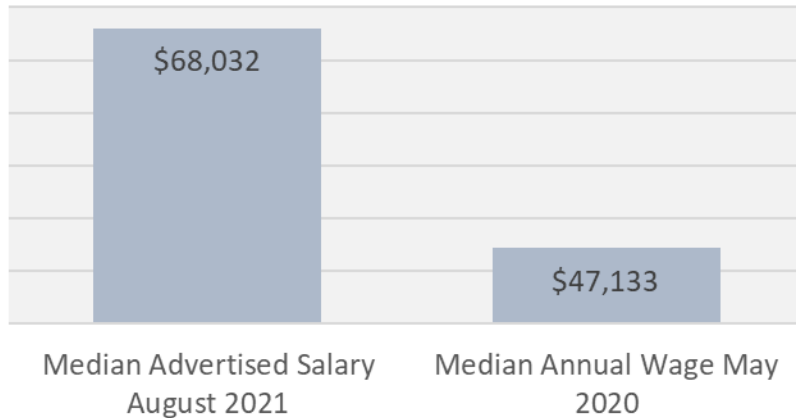Inflation Rate, Food, Percent Change from Same Month, Prior Year, United States

4.5%
4.6%

Shortages & High Recruitment Costs

Increased Recruitment Costs, Truck Drivers
United States
Source: EMSI-Burning Glass

|	
$68,032	$47,133
Median Advertised Salary August 2021	Median Annual Wage May 2020

The need for workers is weighing on the trucking industry, where freight operators are struggling to raise wages fast enough to find drivers.

Eric Fuller, the CEO of U.S. Xpress (USX), said that his company has doled out 30% to 35% in total pay increases over the last 12 months, but suggested more may be needed.

– Brian Cheung, Yahoo Finance

Unique Job Postings vs Average Hires, United States
Heavy Tractor-Trailer Truck Drivers
Source: EMSI-Burning Glass
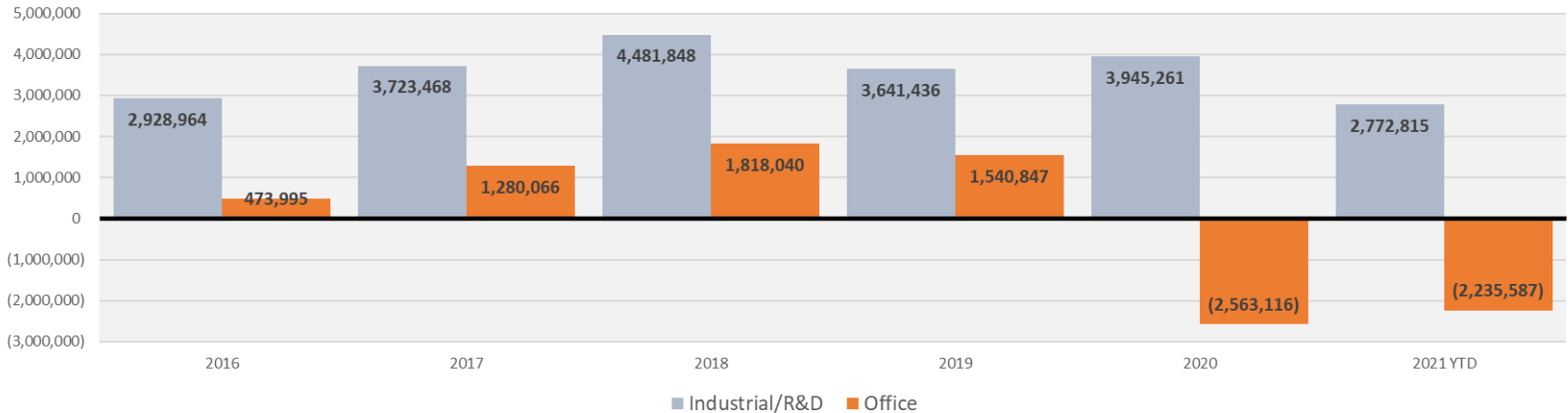

■ Average Hires ■ Unique Postings
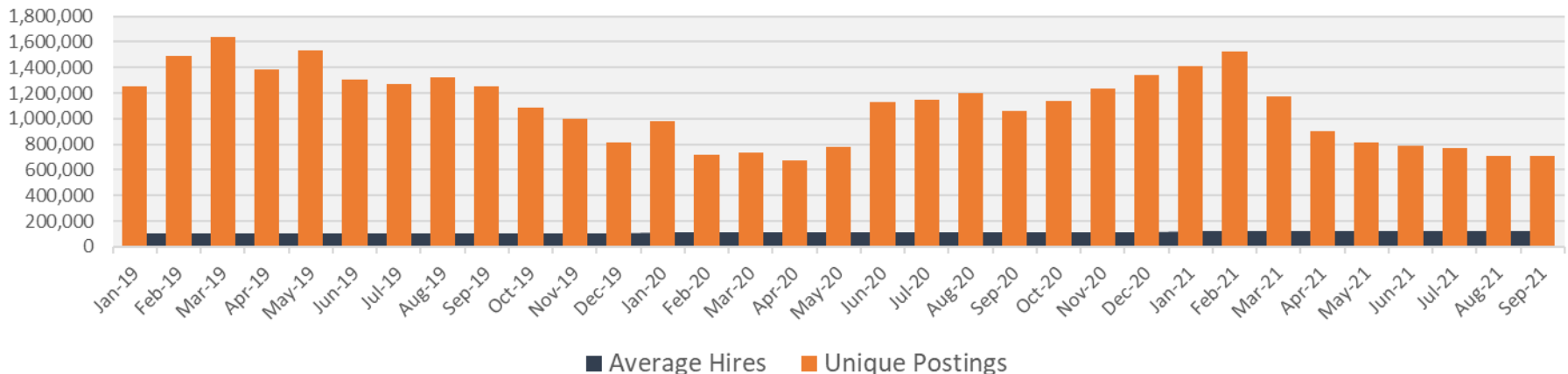
Commercial Real Estate Absorption

- According to Met Life 2021 EBTS Deep Dive survey, 9 in 10 workers in the global workforce want flexibility in where and when they work.

Net Absorption (Sq. Ft.), Commercial Real Estate, by Type
Denver-Aurora-Lakewood Metropolitan Area
Source: Newmark, Denver Office

Year	Industrial/R&D	Office
2016	2,928,964	473,995
2017	3,723,468	1,280,066
2018	4,481,848	1,818,040
2019	3,641,436	1,540,847
2020	3,945,261	(2,563,116)
2021 YTD	2,772,815	(2,235,587)

■ Industrial/R&D ■ Office

Net Absorption, Office and Industrial/R&D Real Estate (Square Feet)
Denver-Aurora-Lakewood Metropolitan Area
Source: Newmark, Denver Office

Year	Total
2016	3,402,959
2017	5,003,534
2018	6,299,888
2019	5,182,283
2020	1,382,145
2021 YTD	537,228
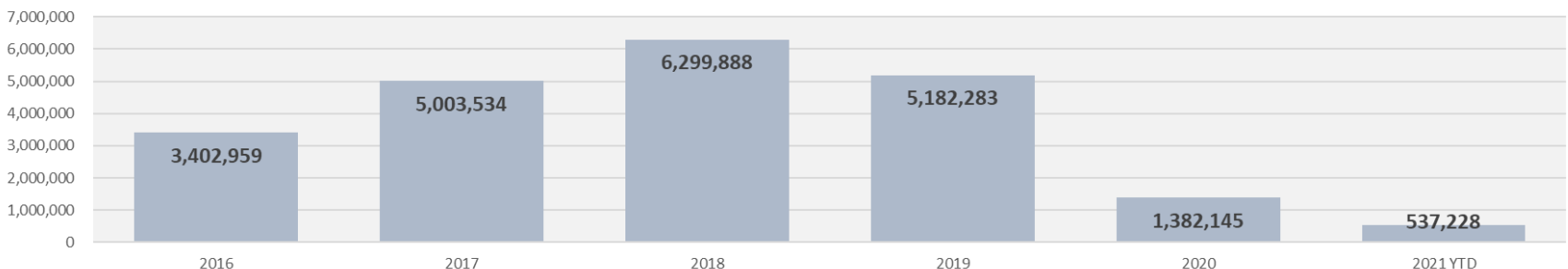
From Forbes Business Council

For offices, it's the lease renewals. The economy is coming back but unemployment is up, work from home is up and people are relocating. I predict that most stable companies will renew their leases but flock to smaller space requirements which will create vacancies in many areas. - Ken McElroy, MC Companies
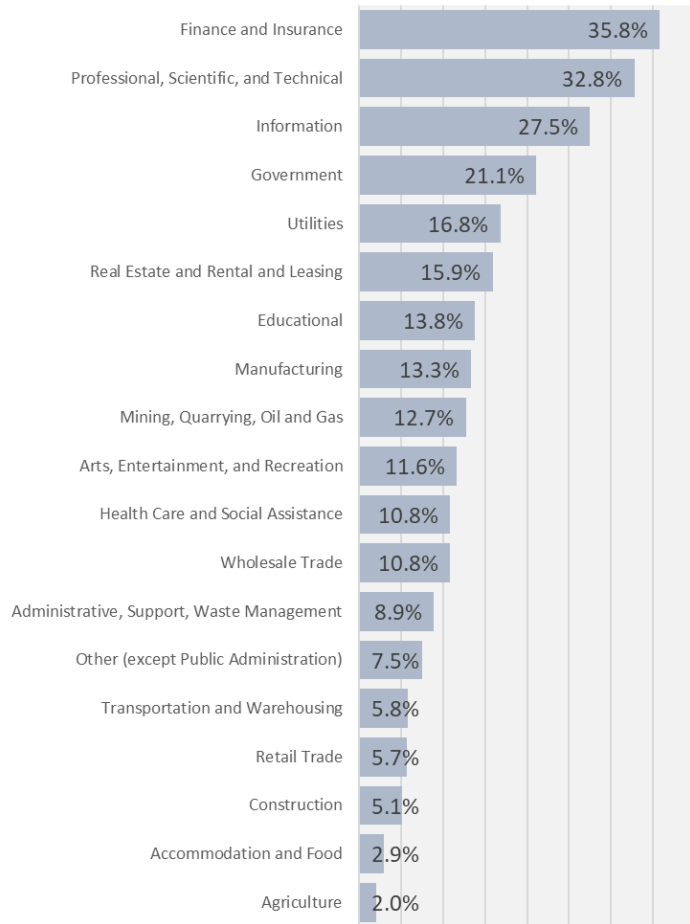
Be aware that post-COVID office building space may increase as companies adopt a flex work program. The need for large spaces to house employees will decrease, causing building vacancies to increase. Retail in certain areas will suffer as fewer office workers bring fewer people to restaurants and shops in business areas. - Steven Minchen, Minchen Team

Telework and Remote Job Posting Trends

Teleworking

The bar chart shows the percent of the labor force working from home due to the pandemic last month. The table uses extrapolation to estimate these numbers in greater metro Denver. The graph shows the percent teleworking by industry in the United States.

Percent Teleworking Due to Pandemic
By Sector, United States
Source: US Bureau Labor Statistics

Sector	Percent
Finance and Insurance	35.8%
Professional, Scientific, and Technical	32.8%
Information	27.5%
Government	21.1%
Utilities	16.8%
Real Estate and Rental and Leasing	15.9%
Educational	13.8%
Manufacturing	13.3%
Mining, Quarrying, Oil and Gas	12.7%
Arts, Entertainment, and Recreation	11.6%
Health Care and Social Assistance	10.8%
Wholesale Trade	10.8%
Administrative, Support, Waste Management	8.9%
Other (except Public Administration)	7.5%
Transportation and Warehousing	5.8%
Retail Trade	5.7%
Construction	5.1%
Accommodation and Food	2.9%
Agriculture	2.0%

Estimated Number Teleworking, by Occupational Family September 2021, Denver-Aurora-Lakewood Metro Area				
SOC	Occupational Family	2021 Jobs	Estimate	Percent*
15	Computer and Mathematical	88,192	38,364	43.5%
13	Business and Financial Operations	152,858	56,405	36.9%
23	Legal	20,023	6,848	34.2%
19	Life, Physical, and Social Science	18,186	5,365	29.5%
17	Architecture and Engineering	42,022	11,010	26.2%
11	Management	89,632	20,795	23.2%
27	Arts, Design, Entertainment, Sports, and Media	35,289	7,940	22.5%
21	Community and Social Service	26,823	6,008	22.4%
43	Office and Administrative Support	190,626	27,259	14.3%
25	Education, Training, and Library	84,817	9,839	11.6%
41	Sales and Related	169,006	16,394	9.7%
29	Healthcare Practitioners and Technical	85,098	8,169	9.6%
33	Protective Service	30,781	1,570	5.1%
39	Personal Care and Service	54,491	1,689	3.1%
49	Installation, Maintenance, and Repair	59,792	1,614	2.7%
31	Healthcare Support	58,879	1,472	2.5%
47	Construction and Extraction	87,629	1,928	2.2%
51	Production	52,780	1,108	2.1%
37	Building and Grounds Cleaning and Maintenance	52,505	945	1.8%
53	Transportation and Material Moving	135,463	2,167	1.6%
45	Farming, Fishing, Forestry	5,168	78	1.5%
35	Food Preparation and Serving Related	119,451	1,672	1.4%

Sources: EMSI Developer, and (Percent*) US Bureau of Labor Statistics National Data

Remote Job Posting Trends

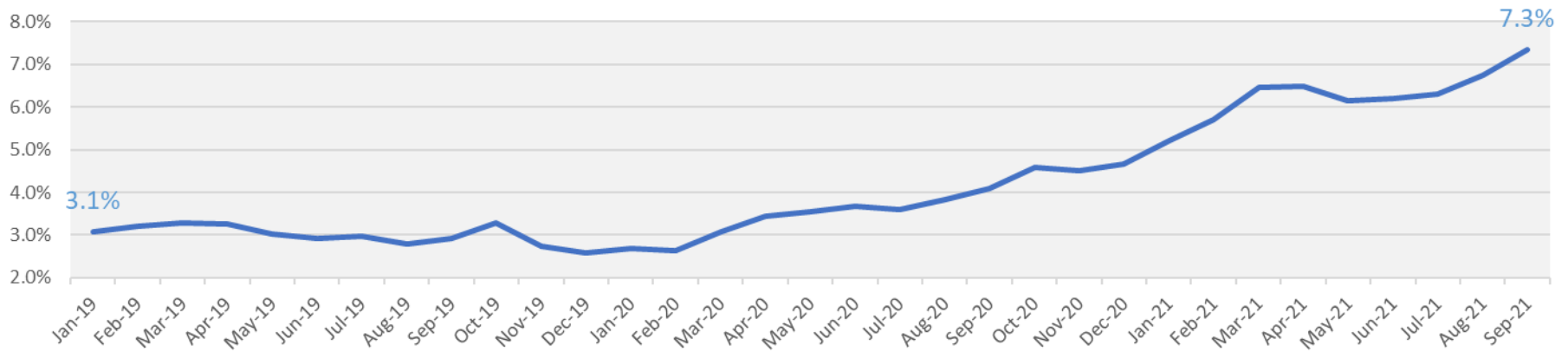Remote Job Posting Trend, Denver-Aurora-Lakewood Metro Area
Source: EMSI-Burning Glass
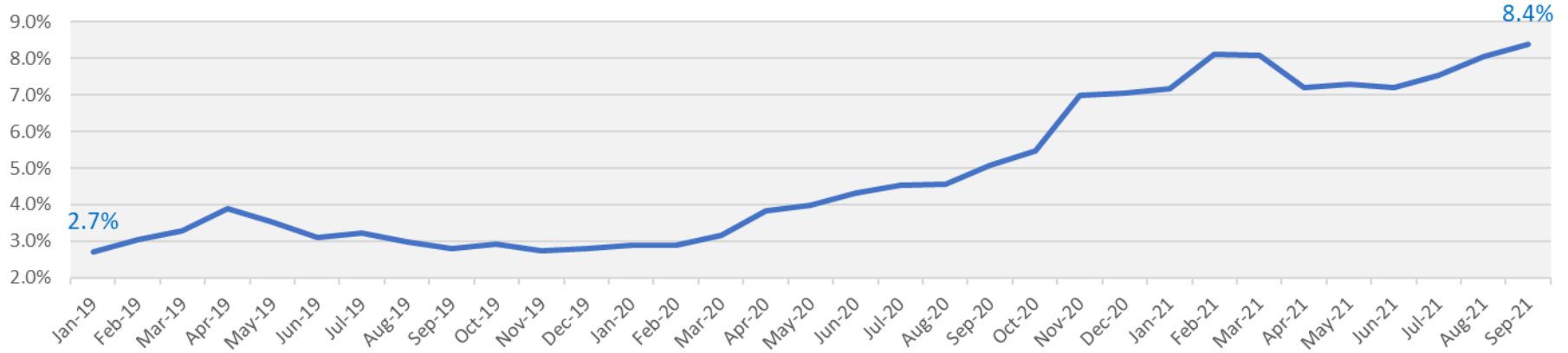
In September 2021, for the first time there were over 1 million unique remote job postings in the United States.

Remote Job Posting Trend, United States
Source: EMSI-Burning Glass

Women in the Labor Force

Labor Force by Sex

Labor Force, Men 20 and Older, United States (Thousands)
Source: U.S. Bureau of Labor Statistics

83,804

939,000 men have left the labor force since February 2020

82,865
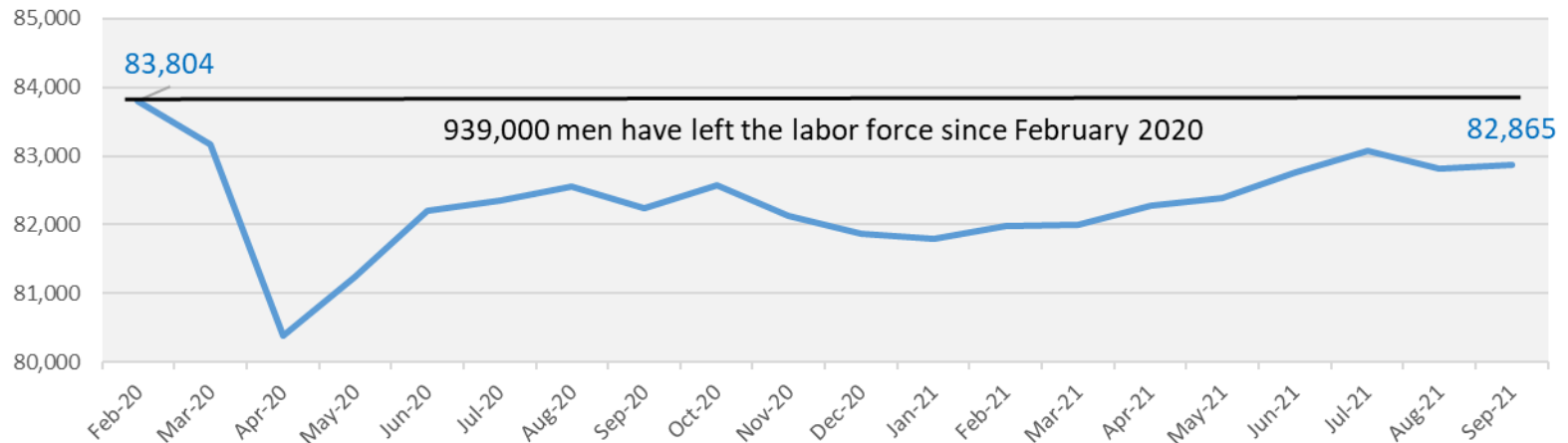
Labor Force, Women 20 and Older, United States (Thousands)
Source: U.S. Bureau of Labor Statistics

74,768

1,984,000 women have left the labor force since February 2020

72,784
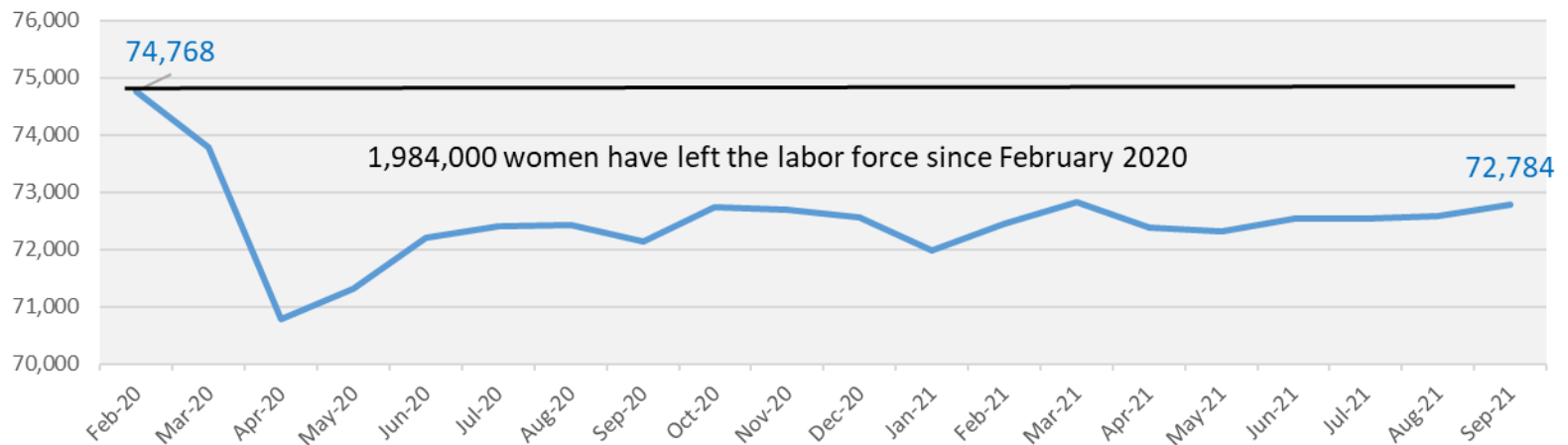
Regional Skill Gaps and Wage Trends

Sector Unemployment

This table is generated through EMSI and uses the Bureau of Labor Statistics estimates on unemployment by industry sector in greater metro Denver. The table shows the latest unemployment numbers available through EMSI-Burning Glass.

NAICS	Description	2021 Jobs	July 2021 Unemployed	Estimated Percent Jobless
	Estimated Number and Percent Jobless by Industry Sector, Metro Denver			
56	Administrative Support, Waste Management-Remediation	99,198	12,079	12.2%
62	Health Care and Social Assistance	174,101	11,767	6.8%
44	Retail Trade	139,341	11,701	8.4%
72	Accommodation and Food Services	112,761	10,493	9.3%
23	Construction	120,267	8,721	7.3%
54	Professional, Scientific, and Technical Services	173,285	7,340	4.2%
42	Wholesale Trade	74,734	5,876	7.9%
48	Transportation and Warehousing	75,943	5,821	7.7%
31	Manufacturing	72,199	4,826	6.7%
61	Educational Services	38,820	4,313	11.1%
52	Finance and Insurance	86,973	3,628	4.2%
51	Information	53,365	3,480	6.5%
81	Other Services (except Public Administration)	78,686	3,250	4.1%
53	Real Estate and Rental and Leasing	37,619	3,249	8.6%
71	Arts, Entertainment, and Recreation	26,589	1,897	7.1%
90	Government	222,196	1,395	0.6%
55	Management of Companies and Enterprises	34,803	1,300	3.7%
21	Mining, Quarrying, and Oil and Gas Extraction	9,286	818	8.8%
11	Agriculture, Forestry, Fishing and Hunting	6,677	339	5.1%
22	Utilities	4,025	87	2.2%
	Totals	1,640,868	102,380	6.2%

Source: EMSI-Burning Glass
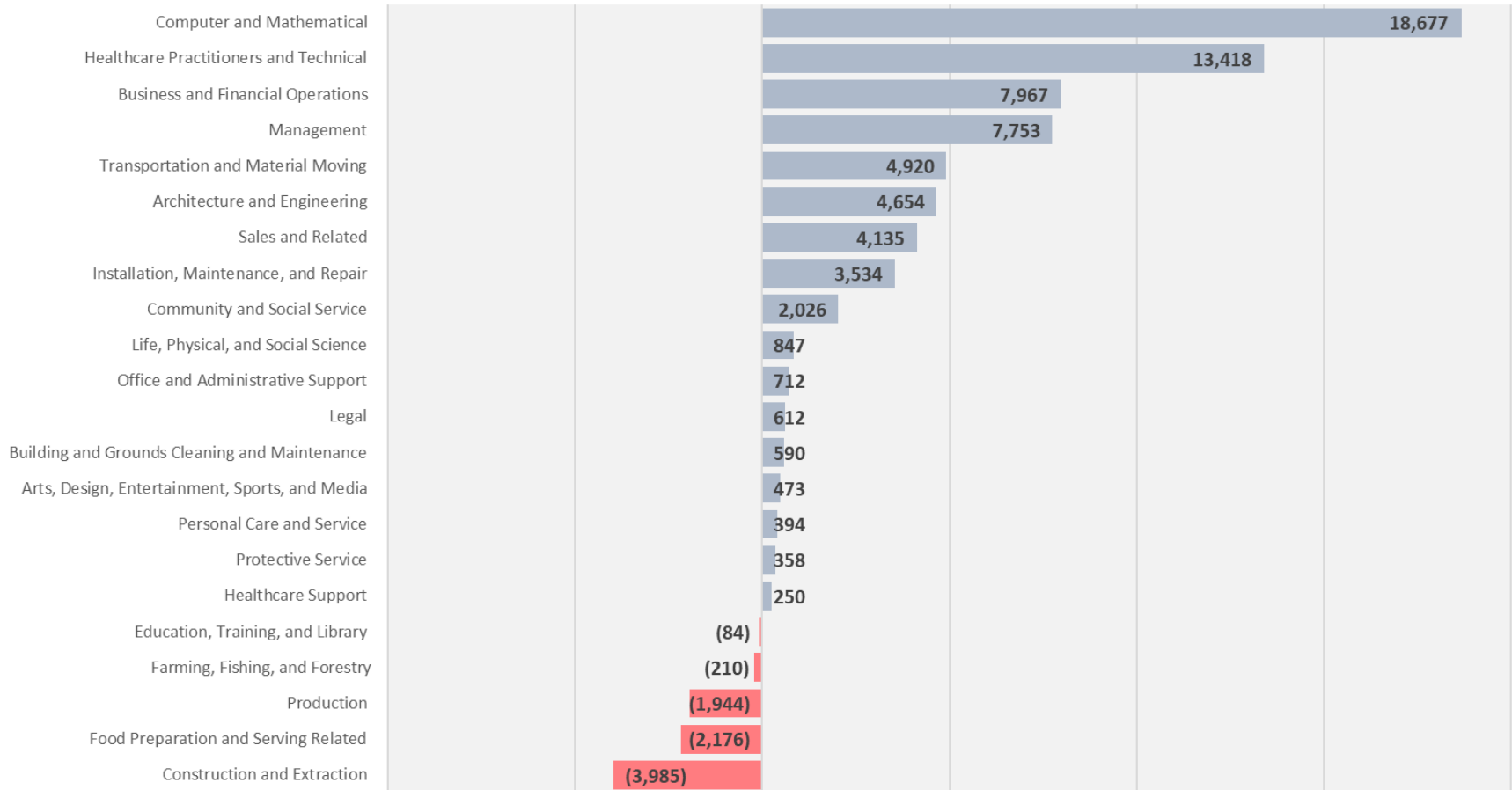
Occupational Unemployment

Unemployment continues to be high in food preparation and serving, sales and related, and office/administrative support occupation groups. The table shows the latest unemployment numbers available through EMSI-Burning Glass

SOC	Description	2021 Jobs	July 2021 Unemployed	Estimated Percent Jobless
11	Management	88,739	13,330	15.0%
43	Office and Administrative Support	188,491	12,809	6.8%
41	Sales and Related	166,900	11,937	7.2%
35	Food Preparation and Serving Related	112,203	9,887	8.8%
53	Transportation and Material Moving	134,676	8,058	6.0%
47	Construction and Extraction	86,673	6,665	7.7%
51	Production	52,018	4,782	9.2%
13	Business and Financial Operations	152,195	4,562	3.0%
31	Healthcare Support	58,448	3,721	6.4%
25	Education, Training, and Library	82,870	3,720	4.5%
15	Computer and Mathematical	88,185	3,670	4.2%
39	Personal Care and Service	52,238	3,235	6.2%
49	Installation, Maintenance, and Repair	59,031	3,178	5.4%
29	Healthcare Practitioners and Technical	84,781	2,634	3.1%
27	Arts, Design, Entertainment, Sports, and Media	34,675	2,261	6.5%
37	Building and Grounds Cleaning and Maintenance	51,392	2,225	4.3%
17	Architecture and Engineering	41,863	1,554	3.7%
33	Protective Service	30,202	1,159	3.8%
21	Community and Social Service	26,753	1,121	4.2%
23	Legal	19,997	782	3.9%
19	Life, Physical, and Social Science	18,113	758	4.2%
45	Farming, Fishing, Forestry	5,262	306	5.8%
	Totals	1,635,705	102,354	6.3%

Estimated Number and Percent Jobless by Occupational Group, Metro Denver

Source: EMSI-Burning Glass

Skill Gap, Greater Metro Denver

Blue Bars show Unfilled Jobs; Red Bars Labor Surplus (July 2021)

Category	Value
Computer and Mathematical	18,677
Healthcare Practitioners and Technical	13,418
Business and Financial Operations	7,967
Management	7,753
Transportation and Material Moving	4,920
Architecture and Engineering	4,654
Sales and Related	4,135
Installation, Maintenance, and Repair	3,534
Community and Social Service	2,026
Life, Physical, and Social Science	847
Office and Administrative Support	712
Legal	612
Building and Grounds Cleaning and Maintenance	590
Arts, Design, Entertainment, Sports, and Media	473
Personal Care and Service	394
Protective Service	358
Healthcare Support	250
Education, Training, and Library	(84)
Farming, Fishing, and Forestry	(210)
Production	(1,944)
Food Preparation and Serving Related	(2,176)
Construction and Extraction	(3,985)

There continues to be an acute shortage in computer and healthcare workers throughout greater metro Denver. The top jobs posted remain software developers, registered nurses, and truck drivers.

Wage Trends in Job Postings

Advertised vs Median Salary by Occupation Group
Denver-Aurora-Lakewood Metro Area
Source: EMSI Developer

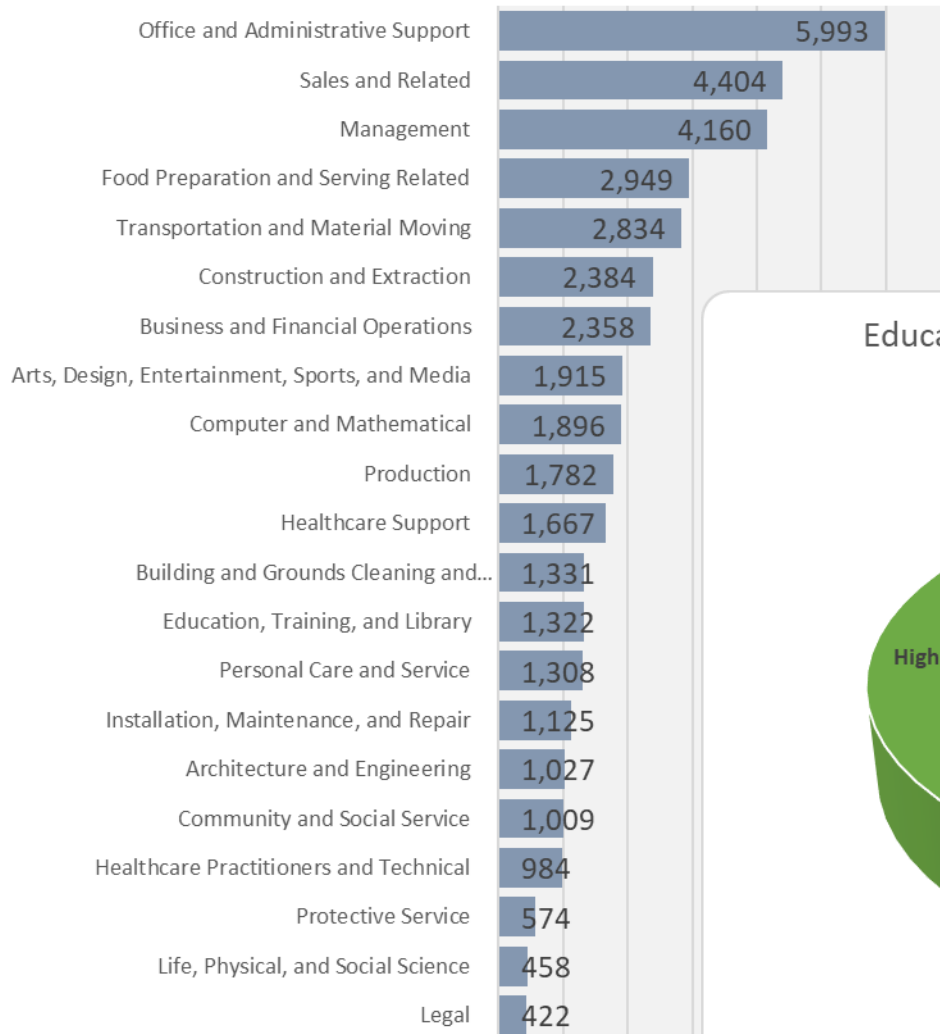| Occupation Group	Value
Farming, Fishing, and Forestry	$8,609
Transportation and Material Moving	$7,982
Personal Care and Service	$7,877
Computer and Mathematical	$7,433
Food Preparation and Serving Related	$6,141
Building and Grounds Cleaning and Maintenance	$5,265
Arts, Design, Entertainment, Sports, and Media	$4,561
Construction and Extraction	$3,739
Healthcare Support	$3,671
Healthcare Practitioners and Technical	$2,596
Architecture and Engineering	$2,112
Production	$1,353
Sales and Related	$384
Installation, Maintenance, and Repair	($1,853)
Office and Administrative Support	($2,233)
Community and Social Service	($5,645)
Educational Instruction and Library	($6,972)
Life, Physical, and Social Science	($7,786)
Business and Financial Operations	($8,125)
Protective Service	($11,204)
Legal	($15,847)
Management	($22,136)

These differences may reflect a variety of factors: recruitment in states with lower labor costs, reluctance of some workers to return to their old jobs, and increased capital expenditures on virtual technologies and artificial intelligence to offset labor shortages. The median wage is the 'official' wage determined for greater metro Denver by the Bureau of Labor Statistics.

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Current Registrants at Arapahoe/Douglas Works! Job Seeker Customer Base
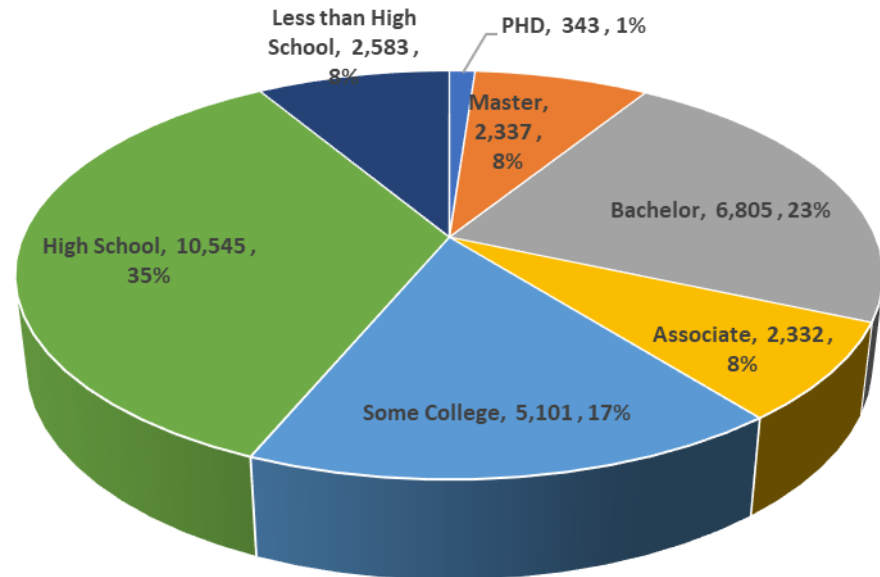

Labor Supply, Connecting Colorado Registrants
Metro Denver, 10/18/2021
Sources: Connecting Colorado, Applicant Search

Occupational Family	Count
Office and Administrative Support	5,993
Sales and Related	4,404
Management	4,160
Food Preparation and Serving Related	2,949
Transportation and Material Moving	2,834
Construction and Extraction	2,384
Business and Financial Operations	2,358
Arts, Design, Entertainment, Sports, and Media	1,915
Computer and Mathematical	1,896
Production	1,782
Healthcare Support	1,667
Building and Grounds Cleaning and…	1,331
Education, Training, and Library	1,322
Personal Care and Service	1,308
Installation, Maintenance, and Repair	1,125
Architecture and Engineering	1,027
Community and Social Service	1,009
Healthcare Practitioners and Technical	984
Protective Service	574
Life, Physical, and Social Science	458
Legal	422

The graph and pie chart show workers immediately available through the workforce centers in greater metro Denver by occupational family and by educational attainment level.

Educational Attainment, Connecting Colorado Registrants, Metro Denver, 10/18/2021

- Less than High School, 2,583, 8%
- PHD, 343, 1%
- Master, 2,337, 8%
- Bachelor, 6,805, 23%
- Associate, 2,332, 8%
- Some College, 5,101, 17%
- High School, 10,545, 35%

Unfilled Jobs
and Job Posting Trends

Job Quits, Western United States

Monthly Quits (in Thousands), West Region, United States

Source: US Bureau of Labor Statistics
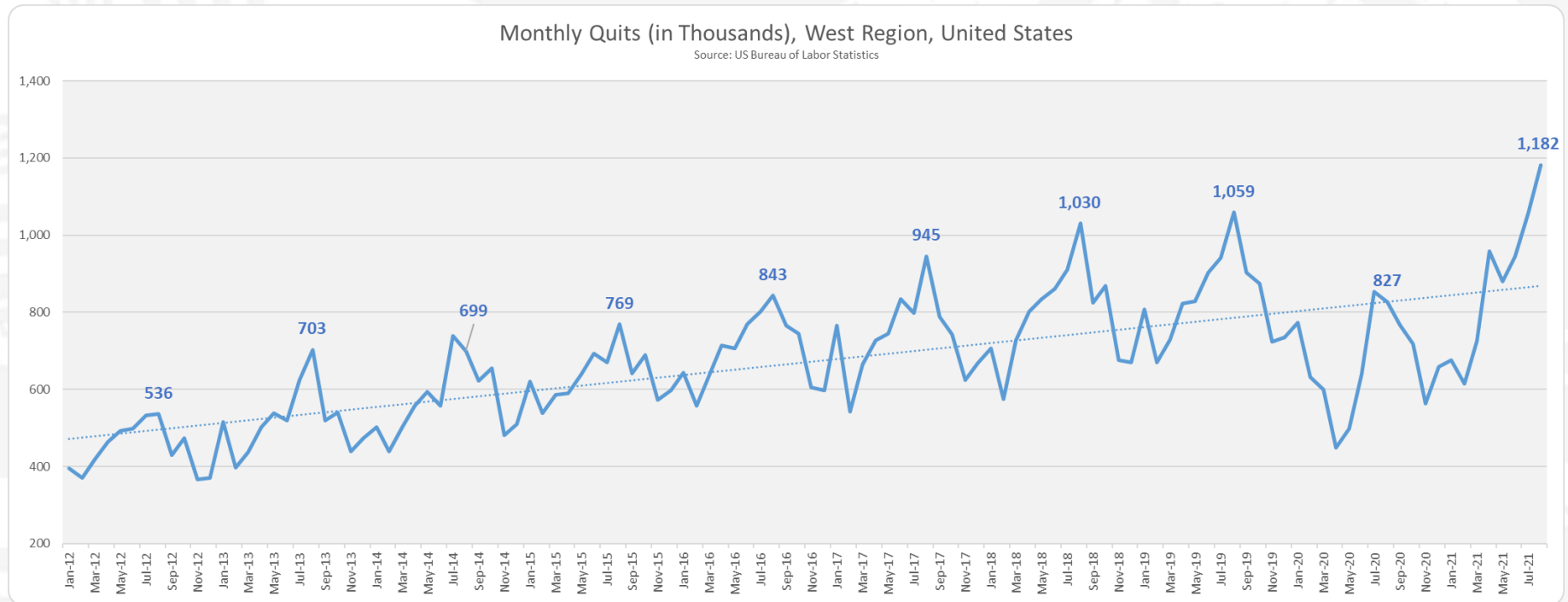
This data comes from the US Bureau of Labor Statistics Job Openings & Labor Turnover Survey (JOLTS). It shows the seasonal pattern of 'job quits,' as well as the steady upward trend.
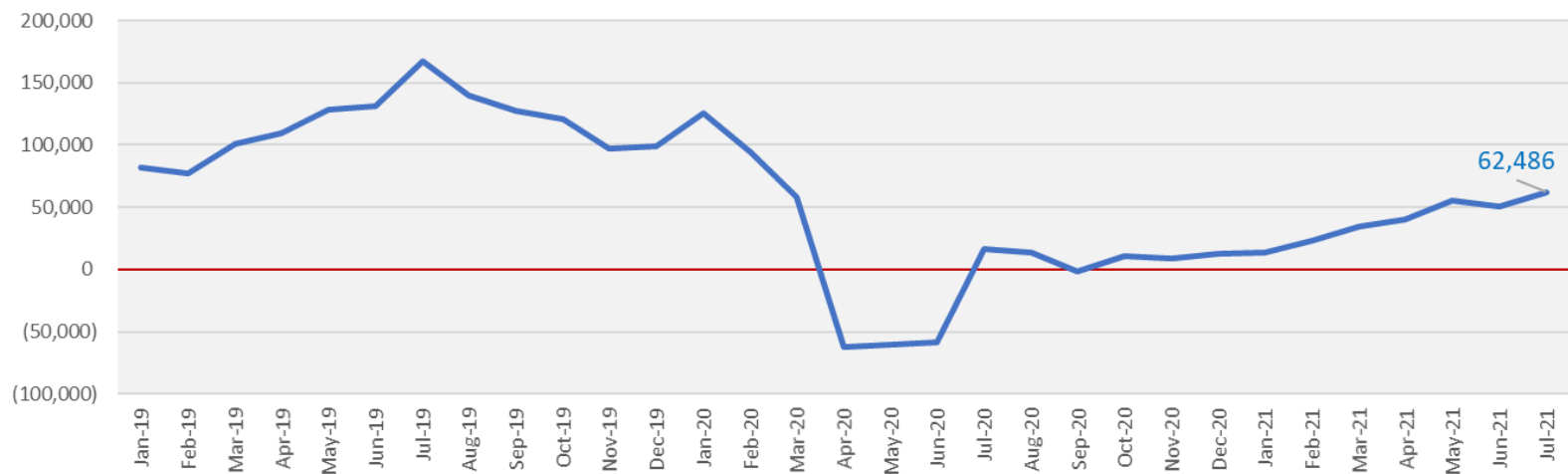
Unemployment and Unfilled Jobs

Job Openings vs Unemployment, Greater Metro Denver

Sources: EMSI Developer, US Bureau of Labor Statistics

164,866

102,380

Unique Postings — Unemployed
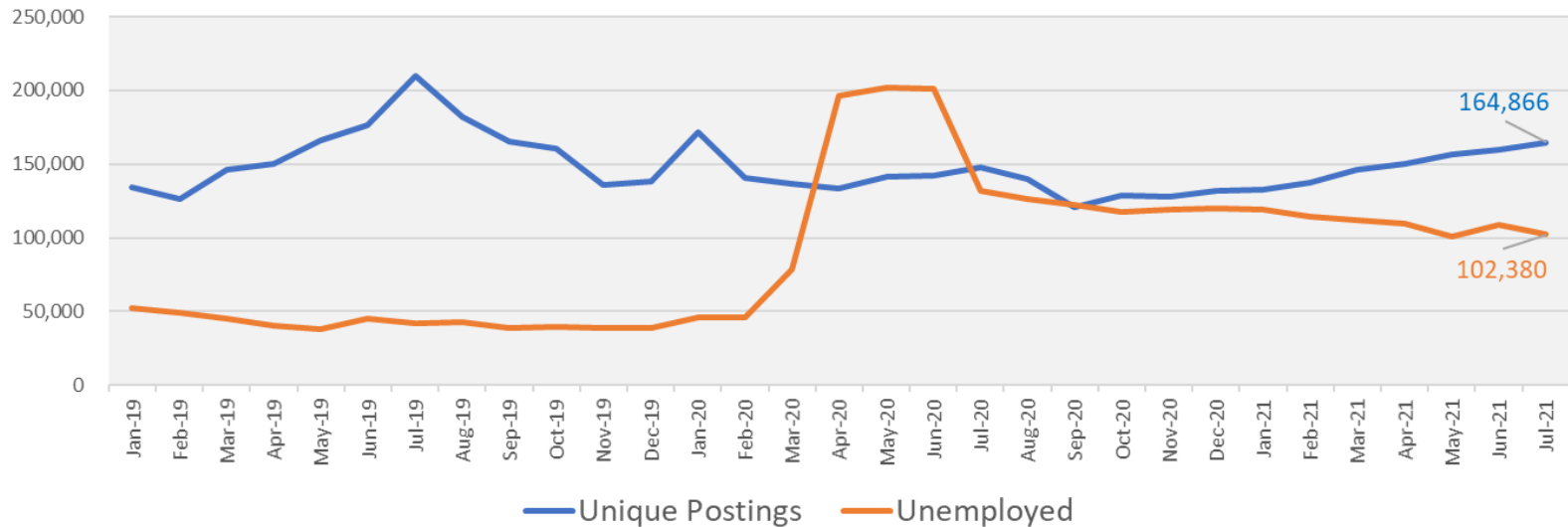
Unfilled Jobs by Month, Greater Metro Denver

62,486

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Job Postings, Last 30 Days

SOC	Occupation	Unique Postings	Percent Change Over Last 30 Days
	Top 20 Occupations Posted, Greater Metro Denver, Last Rolling 30 Day Period		
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	8,462	0.5%
29-1141	Registered Nurses	7,831	(3.8%)
53-3032	Heavy and Tractor-Trailer Truck Drivers	5,612	1.8%
15-1299	Computer Occupations, All Other	4,799	2.9%
41-2031	Retail Salespersons	4,180	4.6%
41-1011	First-Line Supervisors of Retail Sales Workers	3,926	2.6%
43-4051	Customer Service Representatives	3,760	3.8%
11-2021	Marketing Managers	3,733	0.6%
13-2011	Accountants and Auditors	3,011	7.4%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	2,964	0.1%
53-7065	Stockers and Order Fillers	2,788	14.4%
15-1232	Computer User Support Specialists	2,477	(0.8%)
15-1244	Network and Computer Systems Administrators	2,424	1.1%
11-2022	Sales Managers	2,358	(2.6%)
49-9071	Maintenance and Repair Workers, General	2,332	2.2%
11-1021	General and Operations Managers	2,122	4.3%
13-1111	Management Analysts	2,063	2.3%
39-9011	Childcare Workers	2,006	(22.9%)
15-1211	Computer Systems Analysts	1,934	3.8%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1,926	7.8%

Source: EMSI Job Posting Analytics

Top Skills & Credentials in Demand

Top Hard Skills Sought Greater Metro Denver, Last 30 Days	
Qualification	Unique Postings
Accounting	5,174
Auditing	4,656
Finance	4,284
Agile Methodology	4,219
Nursing	3,845
Customer Experience	3,427
Restaurant Operation	3,368
Merchandising	3,309
Selling Techniques	3,285
Automation	3,157
Warehousing	2,974
Python (Programming Language)	2,809
Data Analysis	2,691
Strategic Planning	2,641
SQL (Programming Language)	2,616
Basic Life Support	2,548
Customer Relationship Management	2,520
Process Improvement	2,512
Project Management	2,462
Cardiopulmonary Resuscitation (CPR)	2,436

Source: EMSI Job Posting Analytics

Top Certificates Sought Greater Metro Denver, Last 30 Days	
Certificate/Credential	Unique Postings
Commercial Driver's License (CDL)	2,660
Top Secret-Sensitive Compartmented Information (TS/SCI Clearance)	1,116
Security Clearance	1,032
Master Of Business Administration (MBA)	984
Bachelor Of Science in Business	834
Certified Nursing Assistant	827
Licensed Practical Nurse	624
Bachelor Of Science in Nursing (BSN)	593
Project Management Professional Certification	483
Certified Public Accountant	429
Secret Clearance	421
Certified Information Systems Security Professional	401
Nurse Practitioner	394
Associate Degree In Nursing	289
Bachelor Of Science in Business Administration	285
CDL Class B License	279
CompTIA Security+	267
Licensed Clinical Social Worker (LCSW)	261
ServSafe Certification	256
Automotive Service Excellence (ASE) Certification	254

Source: EMSI Job Posting Analytics

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Postings by Company and Industry

Top 20 Companies Posting Jobs, Last 30 Days
Greater Metro Denver

Company	Unique Active Postings	Percent Change Over Last 30 Days
Robert Half International Inc.	742	(6.7%)
Raytheon Technologies	699	(28.2%)
Centura Health	600	(3.9%)
Uc Health	600	(13.5%)
University of Colorado	510	6.0%
Dish Network L.L.C.	464	35.1%
Care.com, Inc.	441	(18.4%)
HCA Holdings, Inc.	440	(53.3%)
Soliant Health, Inc	396	9.4%
State of Colorado	376	(46.4%)
Jawa	355	(90.1%)
Lockheed Martin Corporation	342	(11.3%)
Kforce Inc.	323	10.6%
Jobot	316	(14.8%)
Kpmg LLP	300	25.0%
Randstad N.V.	280	82.4%
Amazon.com, Inc.	274	(54.5%)
City & County of Denver	272	(7.3%)
The Kroger Co	269	123.5%
CyberCoders, Inc.	263	7.7%

Source: EMSI Job Posting Analytics

Unique Job Postings by Industry Sector, Last 30 Days
Greater Metro Denver

| Industry Sector (2-Digit)	Unique Postings	Percent Change Over Last 30 Days
Unclassified Industry	31,383	(0.5%)
Administrative and Support and Waste Management and Remediation Services	26,968	2.3%
Professional, Scientific, and Technical Services	23,112	11.7%
Retail Trade	17,998	1.5%
Health Care and Social Assistance	15,685	1.4%
Manufacturing	10,377	3.5%
Accommodation and Food Services	9,425	3.4%
Information	8,554	(0.6%)
Finance and Insurance	7,429	2.1%
Educational Services	5,942	0.1%
Transportation and Warehousing	5,197	4.1%
Construction	3,950	0.3%
Other Services (except Public Administration)	3,825	(5.3%)
Real Estate and Rental and Leasing	3,547	0.4%
Wholesale Trade	3,266	2.2%
Public Administration	3,118	1.4%
Arts, Entertainment, and Recreation	1,069	(15.5%)
Utilities	566	6.4%
Mining, Quarrying, and Oil and Gas Extraction	412	(1.7%)
Agriculture, Forestry, Fishing and Hunting	253	(15.9%)
Management of Companies and Enterprises	201	6.9%

Source: EMSI Developer

Revenue Trends, Selected Industries, Statewide
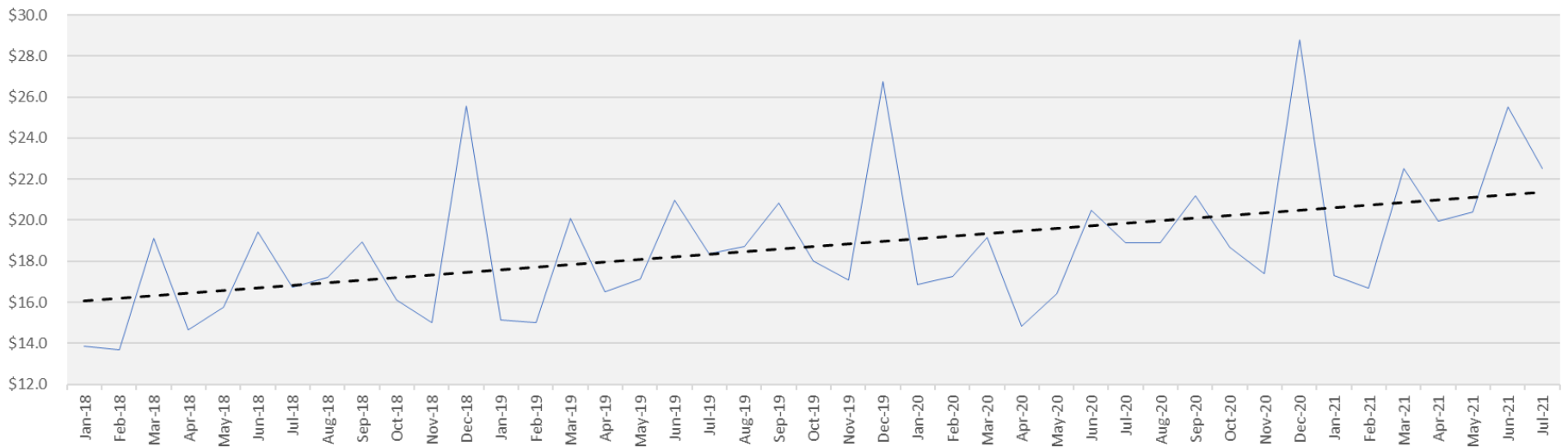
Gross Sales, All Industries

Gross Sales, All Industries, Colorado
Source: Colorado Department of Revenue
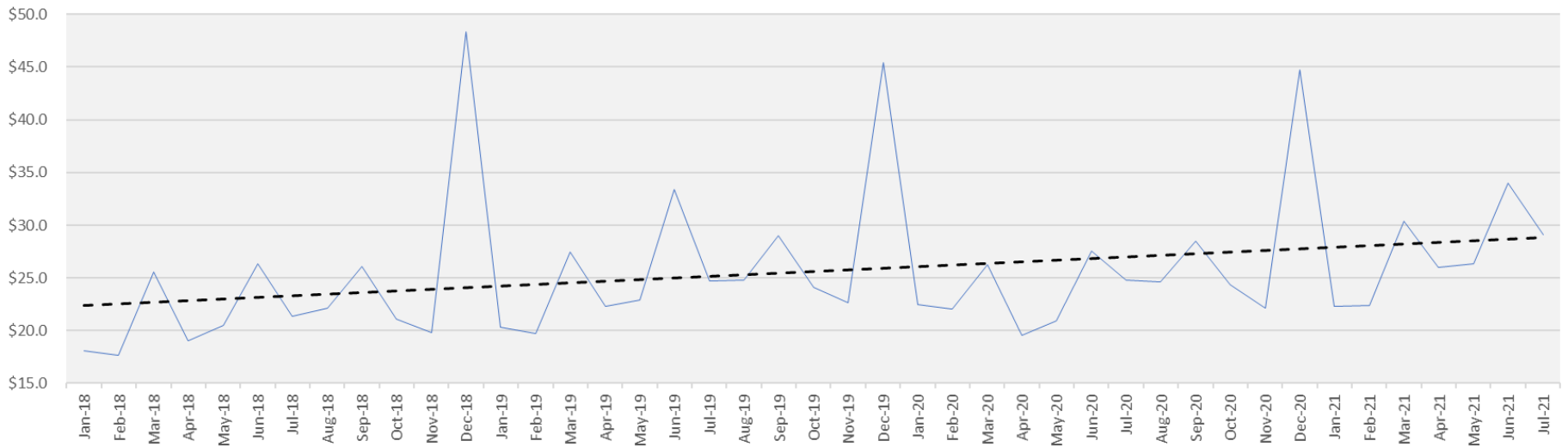
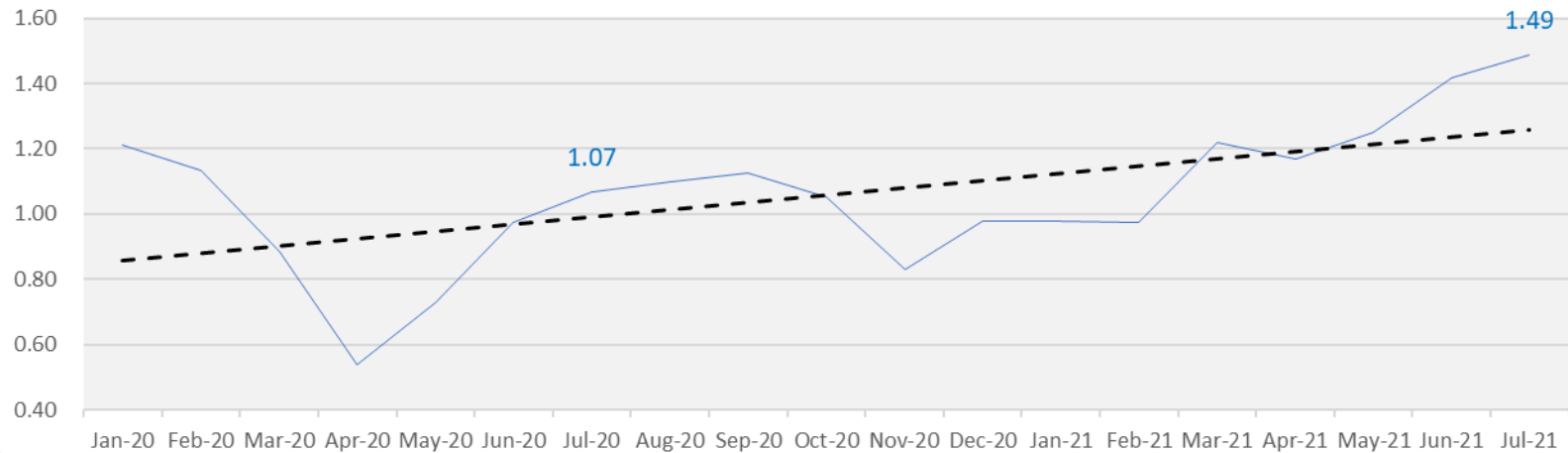Retail Sales, All Industries, Colorado
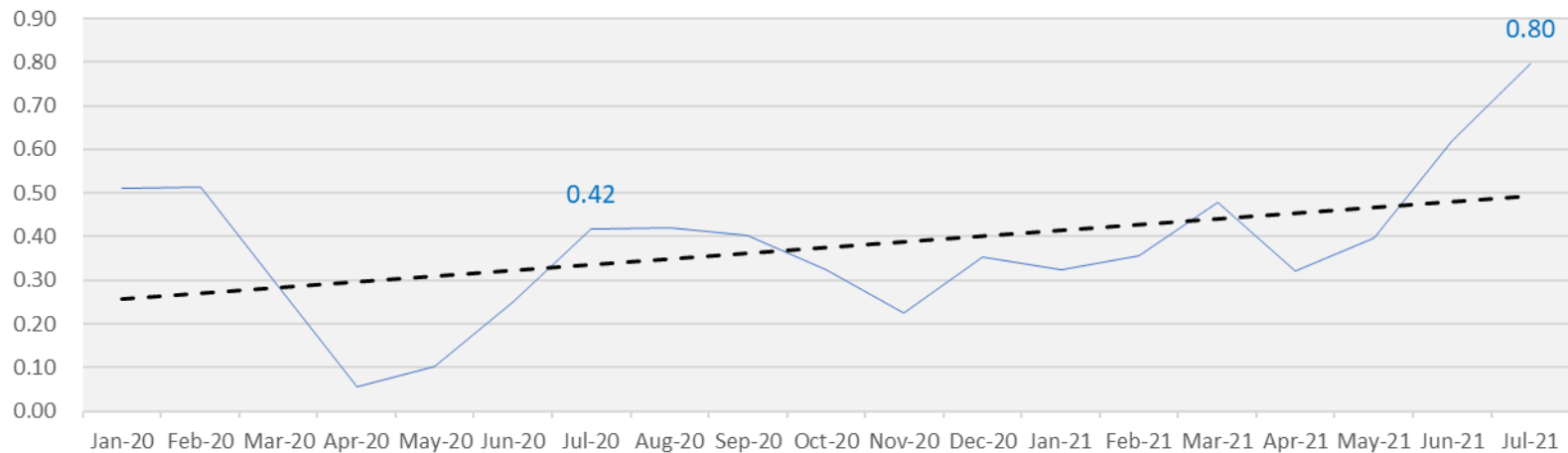Source: Colorado Department of Revenue

Selected Sectors

Sales, Eating & Drinking Places, Colorado ($billions)
Source: Colorado Department of Revenue

Sales, Accommodation, Colorado ($billions)
Source: Colorado Department of Revenue

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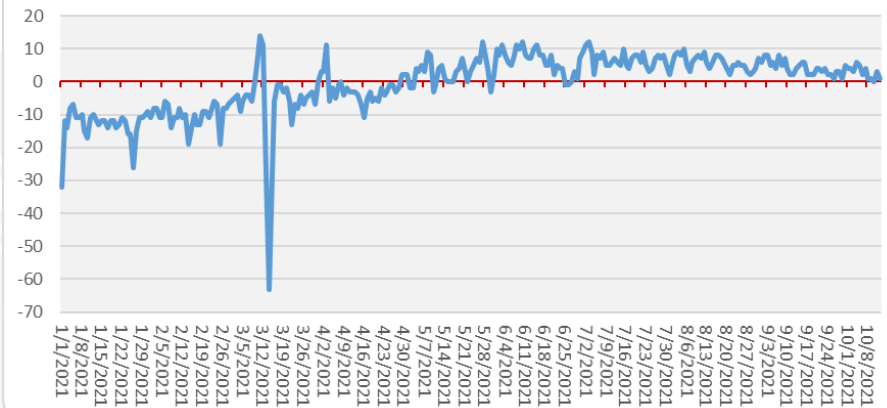
Google Mobility Graphs

Change in Visits Over Baseline

Each Community Mobility Report is broken down by location and displays the change in visits to places like grocery stores and parks in relation to the pre-pandemic baseline.
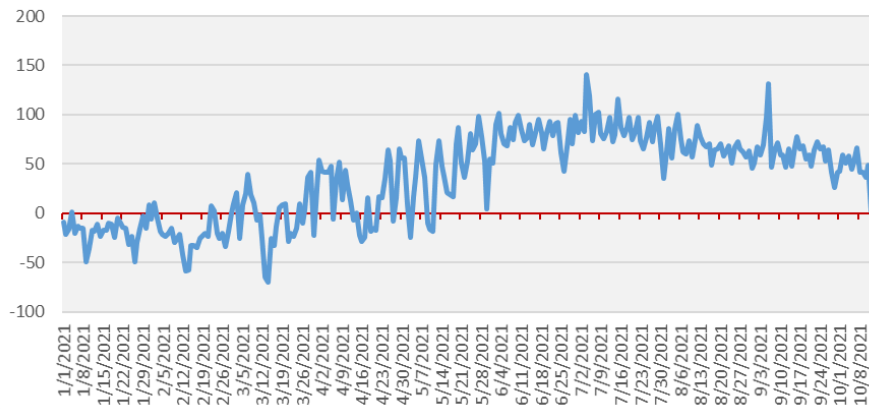

Workplaces, Colorado
Percent Change from Baseline
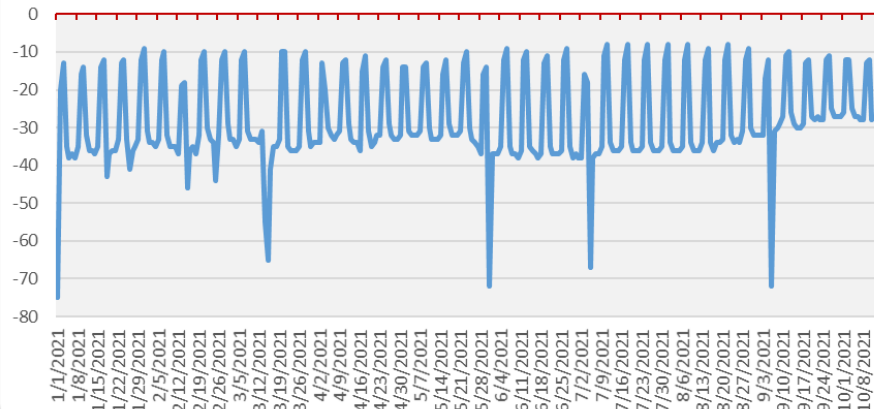
Grocery & Pharmacy, Colorado
Percent Chage from Baseline

Parks, Colorado
Percent Change from Baseline

Transit Stations, Colorado
Percent Change from Baseline