

2022

Annual Economic Report

An overview of the past year and the changes ahead



Centennial 2022 Annual Report

Employment growth accelerated throughout Centennial from 2021 to 2022 as businesses continued to recover from the closures and stay-at-home orders in 2020 that affected payrolls across most industries. Despite this growth, employment in 2022 remained below its 2019 peak. The unemployment rate in Centennial returned to its 2016-2019 pre-pandemic average, falling to 2.5 percent in 2022 after reporting a rate of 5.7 percent in 2020 and 4.2 percent in 2021.

Consumer confidence fell between 2021 and 2022, driven largely by inflation concerns, while net taxable sales increased 13.1 percent during the same period, significantly outperforming pre-pandemic annual averages for the second consecutive year. With rising interest rates cooling the residential real estate market, existing home sales in Centennial fell 20.1 percent from 2021 to 2022. Although home price appreciation slowed between 2021 and 2022, demand for housing continued to outpace supply, and home prices increased by about 10 percent in Centennial during the period. With increased multifamily building permit activity for the last three years, Centennial's apartment market reported increased vacancy rates as well as increased rental rates in 2022. Commercial real estate activity was mixed in 2022 as average lease rates increased across all property types, but vacancy rates rose in two of the three property types.

Economic Forecast

- Employment in Metro Denver increased 4.6 percent between 2021 and 2022, finally surpassing pre-pandemic employment of 2019 by 55,300 employees, or 3.3 percent. Employment increased in 11 of the 13 industry supersectors, with leisure and hospitality posting the largest increase of 13.4 percent. Despite being the supersector with the largest growth over the past two years, Leisure & Hospitality employment in 2022 still remained 3.3 percent below its 2019 peak. The only other supersectors to remain below pre-pandemic levels in 2022 were Retail Trade and Mining & Logging, which were 16.3 percent and 2.0 percent below 2019 levels, respectively. The unemployment rate in Metro Denver fell from 5.4 percent in 2021 to 2.9 percent in 2022 but remained above the historically low rate of 2.5 percent reported in 2019.
- Consumer confidence fell 8.2 percent in the Mountain region between 2021 and 2022 and retail sales in Metro Denver increased 11.4 percent during the period. The population in Metro Denver grew at an estimated rate of 0.9 percent in 2022, up from a historically low rate of 0.1 percent in 2021 when population growth slowed due to an increase in the number of deaths, a decrease in the number of births, and slower net migration activity. Home sales fell in Metro Denver in 2022, decreasing 20.8 percent from 2021 to 2022. Commercial vacancy rates fell slightly for the office and retail markets but increased for the industrial/flex market.
- Metro Denver employment exceeded pre-pandemic levels in 2022, growing by 4.6 percent over 2021 levels. Most sectors fully recovered except for Mining & Logging, Retail Trade, Leisure & Hospitality, and Government, which lag due to structural shifts in the energy sector and a broad-based shortage of workers. Labor shortages persist despite higher average wages and a labor force 4.2 percent larger than 2019 levels. Unemployment rates also continued to fall, ending 2022 at 2.5 percent with a 2.9 percent annual average. The tight labor market is expected to persist throughout 2023.
- Economic growth for 2023 was forecast to slow or decline at the beginning of the year as increasing interest rates put downward pressure on economic activity. Inflation levels are expected to continue their descent but remain above the Federal Reserve's long-term goal of about 2.0 percent both nationally and in Metro Denver. While Metro Denver is expected to outpace national economic conditions, including consumer activity, average wages, and labor force participation, regional inflation is also forecast to remain stickier than national levels. Commodity prices, rising consumer debt levels, and the cost of capital are risks to the outlook for the year.

Employment Activity

Total Employment

This report examines the employment data for the first three quarters of 2020, 2021, and 2022. For simplicity, these data periods may be referred to as 2020, 2021, and 2022, respectively.

- Centennial had an average employment base of 64,381 workers in 2022, representing nearly 4 percent of total Metro Denver employment.
- Employment in Centennial rose 2.9 percent between 2021 and 2022 which totals an additional 1,806 workers over the period. Employment rose 1.7 percent between 2020 and 2021.
- Metro Denver employment averaged

more than 1.7 million in 2022, an increase of 5.1 percent from 2021 employment. Employment in Metro Denver increased 3.1 percent between 2020 and 2021.

Centennial Employment by Supersector Professional & Business Services **Financial Activities** Construction ■ 1Q-3Q 2022 **Education & Health Services** ■ 1Q-3Q 2021 Retail Trade Leisure & Hospitality ■ 1Q-3Q 2020 Wholesale Trade Information Government Manufacturing Other Services Transp., Warehousing, and Utilities Mining & Logging 5,000 10,000 15,000

Sources: Colorado Department of Labor and Employment, Labor Market Information, Quarterly Census of Employment and Wages (QCEW); U.S. Bureau of Labor Statistics.

- In Centennial, eight of the 13 supersectors posted increases from 2021 to 2022. From 2020 to 2021, eight supersectors also reported increases.
- The three largest supersectors in Centennial in 2022 were Professional and Business Services, Financial Activities, and Construction. These supersectors represented 47.3 percent of total employment in Centennial. Professional and Business Services represented 25.2 percent of Centennial's total employment in 2022, compared with 20.2 percent in Metro Denver over the same period. The Professional and Business Services supersector was also the largest supersector in Metro Denver.
- Employment in the Professional and Business Services supersector increased 3.0 percent, or by 468 employees between 2021 and 2022. Employment in the second largest supersector, Financial Activities, rose 2.8 percent or by 196 employees in 2022. By contrast, employment in both supersectors remained nearly constant between 2020 and 2021. Construction employment increased 9.5 percent in 2021 and increased another 5.9 percent in 2022.
- Construction added the most jobs between 2020 and 2021, adding 570 jobs, while Manufacturing added the
 most jobs between 2021 and 2022, increasing by 611 positions. Wholesale Trade reported the largest loss of
 jobs in 2021, falling by 413 jobs, while Education and Health Services reported the largest loss in 2022, falling by
 314 jobs.
- Eleven of the 13 supersectors in Metro Denver reported increases in employment between 2020 and 2021 as well as between 2021 and 2022. Leisure and Hospitality recorded the largest percentage increase of 15.8 percent in 2022, followed by Professional and Business Services at +8.2 percent.

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¹ A detailed list of the types of companies found within each North ArGetycaf IGentencias in 2022 Asystem Francisco Report be found at https://www.census.gov/naics/.

Employment Indicators by Supersector

	Centennial					Metro Denve	er
	Employment						
				% Change	% Change	% Change	% Change
	1Q-3Q 2020	1Q-3Q 2021	1Q-3Q 2022	2020-21	2021-22	2020-21	2021-22
Total All Industries	61,553	62,575	64,381	1.7%	2.9%	3.1%	5.1%
Private Sector							
Mining & Logging	151	131	124	-13.5%	-5.4%	-1.7%	-4.1%
Construction	6,027	6,596	6,983	9.5%	5.9%	0.2%	3.4%
Manufacturing	1,522	1,586	2,197	4.3%	38.5%	1.9%	3.4%
Wholesale Trade	5,731	5,318	5,171	-7.2%	-2.8%	0.9%	5.6%
Retail Trade	5,124	5,597	5,456	9.2%	-2.5%	5.0%	-0.5%
Transp., Warehousing & Utilities	1,462	1,298	1,320	-11.2%	1.7%	3.8%	6.8%
Information	3,449	3,458	3,448	0.3%	-0.3%	2.5%	3.9%
Financial Activities	7,135	7,083	7,279	-0.7%	2.8%	3.1%	3.0%
Prof. & Business Services	15,734	15,749	16,217	0.1%	3.0%	4.9%	8.2%
Education & Health Services	6,633	7,083	6,768	6.8%	-4.4%	3.7%	1.7%
Leisure & Hospitality	4,948	5,005	5,435	1.2%	8.6%	6.8%	15.8%
Other Services	1,535	1,532	1,676	-0.2%	9.4%	4.3%	6.9%
Government	2,093	2,137	2,297	2.1%	7.5%	-1.0%	2.1%

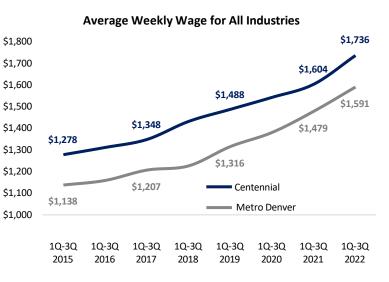
Note: Industry data may not add to all-industry total due to rounding, suppressed data, and employment that cannot be assigned to an industry. Source: Colorado Department of Labor and Employment, Labor Market Information. Quarterly Census of Employment and Wages (QCEW).

Average Wage

- Centennial's average weekly wage for all industries was \$1,736 in 2022, an increase of 8.3 percent compared
 with the 2021 average wage of \$1,604. The 2022 average weekly wage was 9.2 percent higher than the average
 weekly wage of Metro Denver, representing an additional \$146 per week.
- The Wholesale Trade supersector reported a weekly wage of \$2,717 in Centennial in 2022, the highest weekly wage among supersectors. Leisure and Hospitality reported the lowest weekly wage of \$553.
- All 13 supersectors in Centennial recorded increases in the average weekly wage between 2021 and 2022. Leisure and Hospitality recorded the largest increase, rising 14.2 percent during the period, followed by Wholesale Trade (+13.2 percent) and Transportation, Warehousing, and Utilities

(+9.9 percent). The Mining and Logging supersector reported the smallest year-

over-year increase of 2.4 percent, followed by Education and Health Services at 3.0 percent.



Source: Colorado Department of Labor and Employment, Labor Market Information. Quarterly Census of Employment and Wages (QCEW). **Centennial Business Counts and Average Wage by Supersector**

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	Business C	Count				Average A	nnual Wag	e		
	1Q-3Q	1Q-3Q	1Q-3Q	% Change	% Change	1Q-3Q	1Q-3Q	1Q-3Q	% Change	% Change
	2020	2021	2022	2020-21	2021-22	2020	2021	2022	2020-21	2021-22
Total All Industries	5,224	5,400	5,709	3.4%	5.7%	\$1,543	\$1,604	\$1,736	3.9%	8.3%
Private Sector										
Mining & Logging	24	20	18	-15.3%	-9.8%	\$1,982	\$2,193	\$2,245	10.7%	2.4%
Construction	440	447	459	1.7%	2.7%	\$1,493	\$1,532	\$1,608	2.6%	5.0%
Manufacturing	92	89	96	-3.2%	7.8%	\$1,606	\$1,613	\$1,692	0.4%	4.9%
Wholesale Trade	448	442	456	-1.4%	3.2%	\$2,072	\$2,401	\$2,717	15.9%	13.2%
Retail Trade	262	277	273	5.7%	-1.3%	\$923	\$995	\$1,075	7.8%	8.1%
Transp., Warehousing &	71	80	79	12.7%	-0.8%	\$759	\$824	\$905	8.5%	9.9%
Utilities										
Information	145	154	158	6.2%	2.8%	\$2,277	\$2,438	\$2,669	7.0%	9.5%
Financial Activities	815	828	870	1.6%	5.2%	\$1,927	\$1,951	\$2,123	1.2%	8.8%
Professional & Business	1,677	1,751	1,919	4.5%	9.6%	\$1,863	\$1,949	\$2,120	4.6%	8.8%
Services										
Education & Health	592	619	649	4.7%	4.8%	\$1,123	\$1,079	\$1,112	-3.9%	3.0%
Services										
Leisure & Hospitality	282	295	303	4.4%	2.8%	\$463	\$484	\$553	4.6%	14.2%
Other Services	362	381	403	5.3%	5.8%	\$975	\$1,009	\$1,083	3.5%	7.3%
Government	15	15	15	0.0%	2.2%	\$1,610	\$1,607	\$1,764	-0.1%	9.8%

Note: Industry data may not add to all-industry total due to rounding, suppressed data, and employment that cannot be assigned to an industry.

Source: Colorado Department of Labor and Employment, Labor Market Information.

Quarterly Census of Employment and Wages (QCEW).

Business Counts

- Centennial added 309 businesses between 2021 and 2022, increasing to 5,709 businesses, a 5.7 percent increase. The number of businesses increased 3.4 percent from 2020 to 2021 as the city added 175 businesses.
- Ten of the 13 supersectors recorded an increase in the number of businesses between 2021 and 2022, with the Professional and Business Services supersector recording the largest increase of 9.6 percent, or 168 businesses. Ten of the 13 supersectors reported an increase in the number of businesses in 2021, led by a 75-business increase in Professional and Business Services.
- Mining and Logging; Retail Trade; and Transportation, Warehousing, and Utilities were the only 3 of the
 13 supersectors to report a decline in businesses in 2022, losing a combined total of 7 businesses. In 2021,
 13 businesses were lost across Mining and Logging, Manufacturing, and Wholesale Trade.

Largest Employers in Centennial

The largest employers in Centennial represent a diverse mix of industries. Isolating the largest employers to just the city's primary employers (that is, excluding retail operations), these industries range from financial services to construction and engineering to high technology industries such as telecommunications, bioscience, and computer systems.

Centennial Largest Employers List - Private Non-Retail

Rank	Company	Product/Service	Employment
1	Comcast	Telecommunications	4,180
2	UnitedHealthcare	Insurance	3,970
3	Arrow Electronics	Electronic component wholesaler	1,530
4	United Launch Alliance (ULA)	Space launch systems	1,460
5	Centura Health	Healthcare	1,400
6	Sierra Nevada Corporation	Aerospace systems	940
7	The Travelers Indemnity Company	Insurance	940
8	RingCentral	Telecommunications	690
9	Standard & Poor's (McGraw-Hill Companies)	Business support services	610
10	MasTec Advanced Technologies	Technology infrastructure	540
11	Select A Service	Retail merchandising technology	500
12	Nordstrom	Credit card & corporate services	500
13	R & A Home Care	Healthcare	500
14	SEAKR Engineering, a Raytheon Company	Engineering services	480
15	AlloSource	Tissue allograft provider	450
16	US Foods	Foodservice distribution	420
17	Stolle Machinery	Fabricated metal machinery	400
18	Zillow Group	Real estate database services	390
19	Amerita	Specialty infusion services	380
20	Haselden Construction	Construction services	360

Source: Metro Denver Economic Development Corporation, July 2023

Centennial High Location Quotient Employment Activity

The location quotient (LQ) is a ratio that compares the region's employment share of a particular industry with the employment share nationwide. An LQ equal to 1.0 indicates that the region's employment concentration is equal to that of the nation. Where an industry's local employment concentration is greater than the national economy (an LQ greater than 1.0), it is presumed that the production of goods and services is more than sufficient to meet local demand. Therefore, the industry's production is exported, either physically or financially, a key component of a "primary job." These industries drive wealth creation within a region.

LQs were computed for each of the 96 three-digit North American Industry Classification System (NAICS) subsector level code. Centennial focuses on tracking economic activity in those subsectors that have an LQ of 1.5 or more, which are highlighted below.

The NAICS standards were revised in 2022, creating 11 new NAICS industries by splitting, merging, or modifying 6-digit codes. Because of this change, some of the three-digit 2022 NAICS codes used in this analysis are not comparable with the 2017 NAICS codes used in previous years. Year-over-year comparisons are only analyzed for subsectors with comparable three-digit NAICS definitions.

Total Employment - High LQs

Employment for High Location Quotient Subsectors

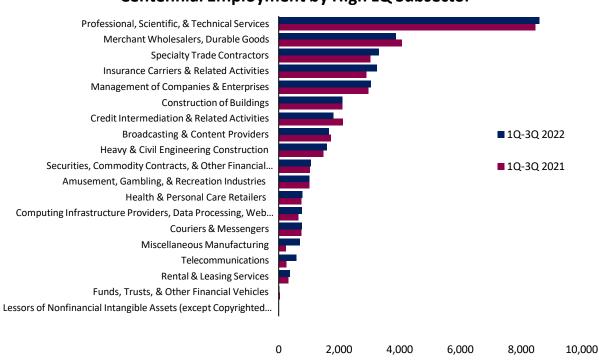
	LQ		Employmer	nt
				% Change
	3Q 2022	1Q-3Q 2021	1Q-3Q 2022	2021-22
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Broadcasting & Content Providers	10.5	1,728	1,658	-4.0%
Computing Infrastructure Providers, Data Processing, Web Hosting, & Related Services	3.7	654	770	17.7%
Heavy & Civil Engineering Construction	3.3	1,483	1,581	6.6%
Insurance Carriers & Related Activities	3.1	2,893	3,243	12.1%
Management of Companies & Enterprises	2.9	2,951	3,040	3.0%
Construction of Buildings	2.9	2,098	2,094	-0.2%
Funds, Trusts, & Other Financial Vehicles	2.7	39	34	-13.6%
Merchant Wholesalers, Durable Goods	2.7	4,060	3,859	-4.9%
Miscellaneous Manufacturing	2.6	245	699	185.6%
Telecommunications	2.5	253	593	134.4%
Securities, Commodity Contracts, & Other Financial Investments & Related Activities	2.3	1,028	1,059	3.0%
Professional, Scientific, & Technical Services	1.9	8,462	8,584	1.4%
Health & Personal Care Retailers	1.7	752	785	4.4%
Specialty Trade Contractors	1.6	3,015	3,308	9.7%
Couriers & Messengers	1.5	747	761	1.8%
Credit Intermediation & Related Activities	1.5	2,110	1,800	-14.7%
Rental & Leasing Services	1.5	327	371	13.7%
Amusement, Gambling, & Recreation Industries	1.4	1,007	1,019	1.3%
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	1.3	14	13	-3.2%

*Due to a revision in NAICS industries, these subsectors are not comparable between 2021 and 2022. Source: Colorado Department of Labor and Employment, Labor Market Information. Quarterly Census of Employment and Wages.

- A total of 19 subsectors are tracked in this analysis. There are 16 subsectors in Centennial that had an LQ of 1.5 or higher in 2022. Two additional subsectors are included due to historically having LQs of 1.5 or higher.
- Employment data from 2022 revealed that nearly 55 percent of Centennial's total employment was found in these 19 high LQ subsectors.
- Total employment in the high LQ subsectors reached 35,274 in 2022. Among the 17 high LQ subsectors that can be compared to prior years, employment increased 4.6 percent between 2021 and 2022.

- The Professional, Scientific, & Technical Services subsector reported the highest employment in Centennial, reaching 8,584 in 2022.
- Twelve of the 17 comparable high LQ subsectors in Centennial posted employment increases in 2022. The
 Miscellaneous Manufacturing subsector reported the fastest growth year-over-year, rising 185.6 percent, or by
 445 employees², followed by Telecommunications, rising 134.4 percent, or by 340 employees. Notable growth
 was also reported in the Insurance Carriers & Related Activities subsector, which grew 12.1 percent, or by
 350 employees.
- Employment decreases from 2021 to 2022 were led by a decrease in the Credit Intermediation & Related
 Activities subsector of 14.7 percent or 310 employees and the Merchant Wholesalers, Durable Goods subsector,
 which reported an employment decrease of 4.9 percent, or 200 employees.

Centennial Employment by High LQ Subsector



Source: Colorado Department of Labor and Employment, Labor Market Information. Quarterly Census of Employment and Wages (QCEW).

Average Wage - High LQs

 The highest average weekly wage was reported in the Computing Infrastructure Providers, Data Processing, Web Hosting, & Related Services subsector, with an average weekly wage of \$4,900, while the lowest weekly wage of \$573 was reported in the Amusement, Gambling, & Recreation Industries subsector.

 Thirteen of the 17 comparable subsectors in Centennial recorded growth in the average weekly wage between 2021 and 2022. The Miscellaneous Manufacturing subsector recorded the largest percentage increase over-theyear of 33.6 percent, followed by Telecommunications (+26.4 percent) and Amusement, Gambling, & Recreation (+22.1 percent).

² Employment growth in the Miscellaneous Manufacturing subsector was largely due a change in NAICS industry

classification of one company.

• The Funds, Trusts, and Other Financial Vehicles subsector reported the largest year-over-year decrease in the average weekly wage, falling 31.5 percent to \$1,683 per week, followed by Lessors of Nonfinancial Intangible Assets (except Copyrighted Works) (-11.8 percent).

Business Counts - High LQs

- The Professional, Scientific, and Technical Services subsector reported the highest business count in Centennial at 1,430, followed by Specialty Trade Contractors (285) and Merchant Wholesalers & Durable Goods (281).
- The Professional, Scientific, & Technical Services subsector gained the most businesses between 2021 and 2022, increasing by 155 businesses, or 12.2 percent. Four of the 17 comparable High LQ subsectors reported contractions between 2021 and 2022, with each of the four reporting a decrease of fewer than five businesses.

Business Count and Average Wage for High Location Quotient Subsectors

Dusiness Count and Average Wage to			Business Count Average Weekly Wage							
	LQ	business (.ount		Average v	vеекіу wa				
				%			%			
				Change			Change			
	3Q	1Q-3Q	1Q-3Q	2021-	1Q-3Q	1Q-3Q	2021-			
	2022	2021	2022	22	2021	2022	22			
Broadcasting & Content Providers	10.5	9	12	29.6%	\$1,665	\$1,806	8.5%			
Computing Infrastructure Providers, Data Processing, Web Hosting, &	3.7	52	56	9.0%	\$4,984	\$4,900	-1.7%			
Heavy & Civil Engineering Construction	3.3	28	30	9.6%	\$1,570	\$1,495	-4.8%			
Insurance Carriers & Related Activities	3.1	197	203	3.0%	\$2,048	\$2,184	6.6%			
Management of Companies & Enterprises	2.9	127	126	-0.8%	\$2,598	\$2,766	6.5%			
Construction of Buildings	2.9	147	144	-2.5%	\$1,795	\$1,973	9.9%			
Funds, Trusts, & Other Financial Vehicles	2.7	5	4	-13.3%	\$2,458	\$1,683	-31.5%			
Merchant Wholesalers, Durable Goods	2.7	271	281	3.7%	\$2,556	\$2,963	15.9%			
Miscellaneous Manufacturing	2.6	20	21	6.7%	\$1,076	\$1,437	33.6%			
Telecommunications	2.5	14	18	28.6%	\$1,762	\$2,226	26.4%			
Securities, Commodity Contracts, & Other Financial Investments &	2.3	124	128	3.5%	\$2,620	\$3,022	15.3%			
Professional, Scientific, & Technical Services	1.9	1,275	1,430	12.2%	\$2,146	\$2,309	7.6%			
Health & Personal Care Retailers	1.7	26	33	26.9%	\$1,180	\$1,225	3.8%			
Specialty Trade Contractors	1.6	278	285	2.6%	\$1,321	\$1,435	8.6%			
Couriers & Messengers	1.5	20	20	1.7%	\$605	\$694	14.8%			
Credit Intermediation & Related Activities	1.5	129	130	0.8%	\$1,752	\$1,839	4.9%			
Rental & Leasing Services	1.5	27	25	-7.3%	\$1,491	\$1,583	6.2%			
Amusement, Gambling, & Recreation Industries	1.4	38	41	7.8%	\$469	\$573	22.1%			
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	1.3	4	5	16.7%	\$1,745	\$1,539	-11.8%			

Due to a revision in NAICS industries, these subsectors are not comparable between 2021 and 2022.

Source: Colorado Department of Labor and Employment, Labor Market Information. Quarterly Census of Employment and Wages.

Analysis – High LQs

Bubble charts are popular tools used to illustrate industry clusters. These charts allow multiple variables to be plotted within the same graph, making it easy to assess relative economic performance. Bubble charts are often used for pinpointing priority industries since they allow visual comparisons of economic measures.

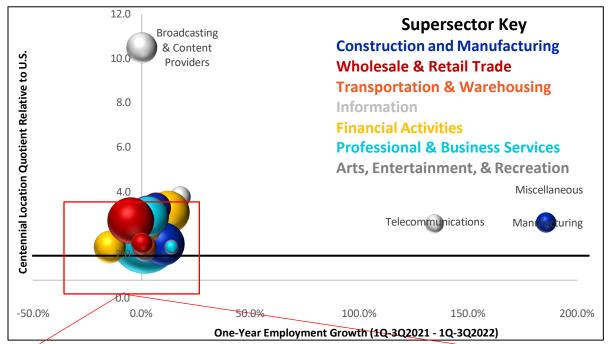
These charts³ illustrate industry cluster relationships for the 19 high LQ subsectors for which employment could be compared from 2021 to 2022. The first chart shows all 19 subsectors plotted on the same chart. The second chart

³ Caution should be taken when considering one-year employment growth for the two subsectors that were affected by the 2022 NAICS industry revision--Health & Personal Care subsector and Broadcasting & Content Providers.

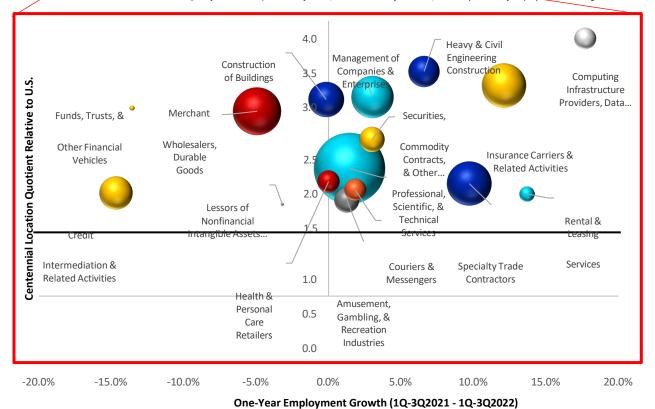
shows only the cluster of subsectors within the red box in the first chart. A solid black line represents the location quotient equal to 1.0 to easily identify the bubbles that are above this demarcation.

The following four variables are plotted:

- One-year direct employment growth, from 1Q-3Q 2021 to 1Q-3Q 2022; on the x-axis (horizontal);
- The industry's location quotient, 3Q 2022; on the *y-axis (vertical)*;
- Employment size of the industry, average for the first three quarters of 2022; indicated by the size of the bubble; and
- Subsectors that are included in the same supersector are the same color.



Source: MDEDC analysis of Colorado Department of Labor, Labor Market Information, Quarterly Census of Employment and Wages.

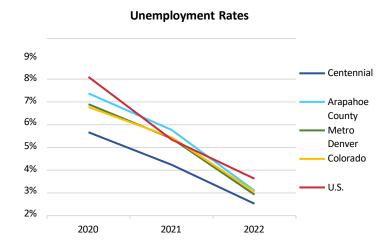


Source: MDEDC analysis of Colorado Department of Labor, Labor Market Information, Quarterly Census of Employment and Wages.

Labor Force and Unemployment Rate

• The labor force in Centennial rose 2.5 percent from 2021 to 2022,

representing 1,589 additional people either working or looking for a job during the period compared with a 3.0 percent increase in the labor force from 2020 to 2021. The labor force increased 1.4 percent in Arapahoe County and rose 1.7 percent in Metro Denver from 2021 to 2022. Colorado reported an increase in the labor force of 1.3 percent in 2022, and an increase of 1.9 percent occurred across the U.S. over-the-year.



Sources: Colorado Department of Labor and Employment, Labor Market Information; U.S. Bureau of Labor Statistics.

 All five market areas reported overthe-year decreases in the

unemployment rate from 2021 to 2022 after similar decreases were reported between 2020 to 2021. Centennial's unemployment rate fell 1.7 percentage points from 4.2 percent in 2021 to 2.5 percent in 2022, the lowest unemployment rate of the five market areas.

• The Centennial labor force represented 17.3 percent of the total labor force in Arapahoe County in 2022.

Labor Force and Unemployment

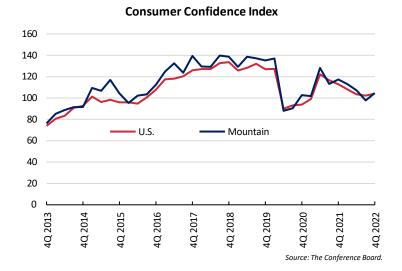
				<u> </u>				
		Unemp	Unemployment Rate					
	2020	2021	2022	% Change 2020-21	% Change 2021-22	2020	2021	2022
Centennial	61,471	63,316	64,905	3.0%	2.5%	5.7%	4.2%	2.5%
Arapahoe County	360,185	370,311	375,539	2.8%	1.4%	7.4%	5.8%	3.1%
Metro Denver (000s)	1,806	1,859	1,890	2.9%	1.7%	6.9%	5.4%	2.9%
Colorado (000s)	3,089	3,158	3,201	2.2%	1.3%	6.8%	5.5%	3.1%
U.S. (000s)	160,742	161,204	164,287	0.3%	1.9%	8.1%	5.4%	3.6%

 $Sources: Colorado\ Department\ of\ Labor\ and\ Employment,\ Labor\ Market\ Information;\ U.S.\ Bureau\ of\ Labor\ Statistics.$

Consumer Activity

Consumer Confidence Index

- The Consumer Confidence Index for the U.S. fell 7.3 percent from 2021 to 2022, compared to an 11.5 percent increase between 2020 and 2021. Analysts noted that the steady decline in confidence in the first half of the year was driven by increasing concerns about inflation, including rising gas and food prices, but stabilized at the end of the year as inflation concerns dissipated, prompted largely declining gasoline prices.
- Colorado is included in the Mountain Region Index and the area reported



an average index of 105.7 in 2022, a decrease of 8.2 percent from 2021. In the Mountain Region, consumer confidence remained above national confidence through the first half of 2022 but fell below the national average in the third quarter.

Local Net Taxable Sales

• Net taxable sales totaled about \$2.18 billion in Centennial in 2022, up 14.1 percent, or about \$271 million, from 2021. Between 2020 and 2021, sales increased 23.0 percent, or by about \$358 million. From 2015 to 2022, net taxable sales increased every year, except for 2020 when sales fell 7.4 percent.

Net Taxable Sales \$2.3 \$2.2 \$2.1 \$2.0 \$1.9 \$1.8 \$1.7 \$1.6 \$1.5 \$1.4 \$1.3 \$1.2 \$1.1 \$1.0 2015 2016 2017 2018 2019 2020 2021 2022 Source: The City of Centennial, Finance Department.

Median Household Income

- Median household income in Centennial was \$108,531 in 2021, down 1.2 percent, or \$2,726, from a peak of \$111,257 in 2019⁴. The median household income in Centennial in 2021 was 28.6 percent higher than Arapahoe County (\$84,386) and 31.9 percent higher than Colorado (\$82,254).
- Median household income in Centennial rose 12.3 percent from 2015 to 2021, while the consumer price index for the Denver-Aurora-Lakewood MSA increased 17.4 percent during the same period. This suggests that the inflation-adjusted median household income fell 5.1 percent between 2015 and 2021.

⁴ Due to limited data availability of American Community Survey one-year estimates in 2020 because of the

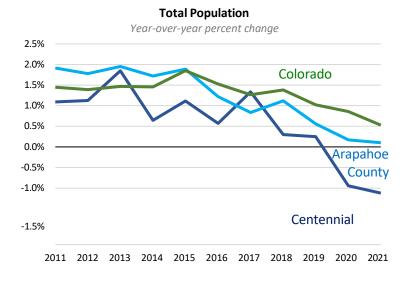
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Population

- The population of Centennial was 106,937 as of July 1, 2021, a 1.1 percent decrease from 2020 and the second over-the-year decline in population since 2006, according to the Colorado State Demography Office. In 2020, the population declined 0.9 percent. Prior to the decline in 2020, the population in Centennial had been growing at an average of 0.9 percent per year from 2010 to 2019.
- state, population growth has steadily slowed since 2011, but has remained positive. Between 2020

In Arapahoe County and across the

and 2021, population growth in



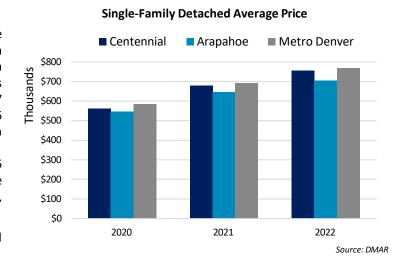
Source: Colorado State Demography Office.

Arapahoe County was nearly flat at 0.1 percent, while the population in Colorado grew 0.5 percent over the same period.

 Assuming Centennial's share of the total population in Arapahoe County holds steady at about 16.3 percent, Centennial's population is likely to reach 111,145 in 2026, based on the Colorado State Demography Office forecasted population increase in Arapahoe County of between 0.5 percent and 1.1 percent per year.

Residential Real Estate Existing Home Sales

- Between 2021 and 2022, all three market areas reported decreases in detached home sales and increases in home prices. Detached home sales fell 20.3 percent in Centennial, 19.7 percent in Arapahoe County, and 20.6 percent in Metro Denver. Between 2020 and 2021 detached sales rose 3.2 percent in Centennial but fell 0.6 percent and 1.3 percent in Arapahoe County and Metro Denver, respectively.
- All three market areas recorded increases in the single-family



detached average sale price during the same periods. Prices rose at a faster rate from 2020 to 2021, increasing 21.0 percent in Centennial, 18.4 percent in Arapahoe County, and 18.3 percent in Metro Denver. From 2021 to 2022, prices rose 9.8 percent in Centennial, 11.1 percent in Arapahoe County, and 11.2 percent in Metro Denver.

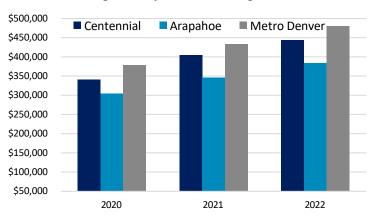
Residential Real Estate Market

	Single	Single-Family Attached			% Change	Single-Family Detached			% Changa	%
Home Sales	2020	2021	2022	Change 2020- 21	Change 2021- 22	2020	2021	2022	Change 2020- 21	70 Change 2021-22
Centennial		419	338	-1.2%	-19.3%				3.2%	-20.3%
	424					1,553	1,603	1,277		
Arapahoe County	4,241	4,667	3,645	10.0%	-21.9%	8,631	8,575	6,888	-0.6%	-19.7%
Metro Denver	18,324	19,520	15,355	6.5%	-21.3%	45,192	44,585	35,388	-1.3%	-20.6%
Average Sold Price										
Centennial	\$340,965	\$404,499	\$444,008	18.6%	9.8%	\$561,312	\$679,156	\$755,952	21.0%	11.3%
Arapahoe County	\$304,682	\$345,637	\$384,000	13.4%	11.1%	\$545,105	\$645,302	\$705,301	18.4%	9.3%
Metro Denver	\$379,245	\$433,586	\$480,184	14.3%	10.7%	\$583,780	\$690,666	\$767,944	18.3%	11.2%

Source: Denver Metro Association of Realtors

- All three housing market areas recorded decreases in attached home sales from 2021 to 2022, falling 19.3 percent in Centennial, 21.9 percent in Arapahoe County, and 21.3 percent in Metro Denver. Between 2020 and 2021, attached home sales fell 1.2 percent in Centennial, but rose 10.0 percent and 6.5 percent in Arapahoe County and Metro Denver, respectively.
- All three market areas recorded an increase in the single-family attached average sold price over each of the last two years. Centennial reported an 18.6 percent increase from 2020 to

Single-Family Attached Average Price

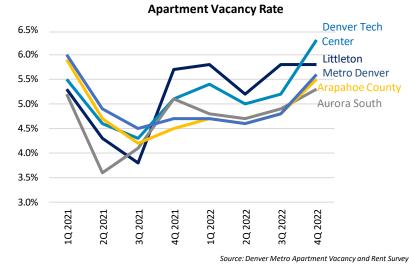


Source: DMAR

2021 and a 9.8 percent increase from 2021 to 2022. Arapahoe County reported a 13.4 percent increase from 2020 to 2021 and an 11.1 percent increase from 2021 to 2022. Metro Denver reported a 14.3 percent increase from 2020 to 2021 before increasing 10.7 percent from 2021 to 2022.

Apartment Market

- Apartment vacancy rates increased in all three submarket areas⁵ from the fourth quarter of 2021 to the fourth quarter of 2022. The largest increase of 1.2 percentage points was reported in the Denver Tech Center submarket. The Denver Tech Center submarket also reported the highest vacancy rate of 6.3 percent, followed by Littleton (5.8 percent) and Aurora South (5.3 percent).
- The vacancy rate also increased in Arapahoe County and Metro



⁵ The City of Centennial is located within three submarkets of Arapahoe County: Littleton, Denver Tech Center, and

Aurora South.

Denver between Q4 2021 and Q4 2022. The vacancy rate increased 1.0 percentage points to 5.5 percent in Arapahoe County and increased 0.9 percentage points to 5.6 percent in Metro Denver.

Average Apartment Rents and Vacancy

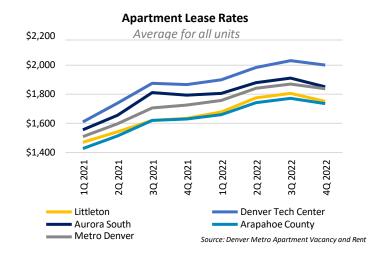
	Vacancy Rat	:e	Avg Rental Ra	ite - All Types
	4Q 2021	4Q 2022	4Q 2021	4Q 2022
Littleton	5.7%	5.8%	\$1,635	\$1,751
Denver Tech Center	5.1%	6.3%	\$1,867	\$2,001
Aurora South	5.1%	5.3%	\$1,794	\$1,851
Arapahoe County	4.5%	5.5%	\$1,630	\$1,736
Metro Denver	4.7%	5.6%	\$1,726	\$1,838

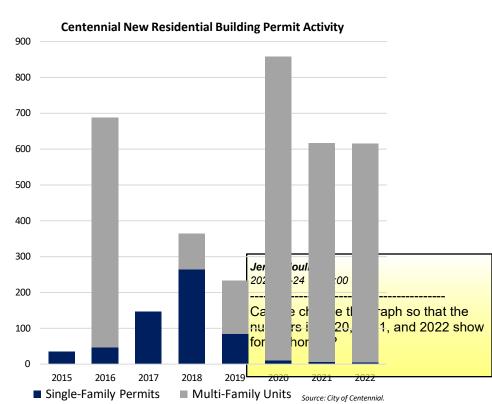
- The average rental rate for all property types in all three submarkets increased in 2022. The Denver Tech Center reported the highest average rental rate of \$2,001 at the end of 2022, up 7.2 percent from the same time in 2021. The average rental rate was \$1,851 in Aurora South (+3.2 percent) and \$1,751 in Littleton (+7.1 percent).
- Metro Denver and Arapahoe County both reported an increase in the average rental rate of 6.5 percent between the fourth quarters of 2021 and 2022. The average rental rate at

the end of 2022 was \$1,736 in Arapahoe County and \$1,838 in Metro Denver.

New Residential Building Permits

- The number of single-family building permits in Centennial increased yearover-year from 2015 to 2018, peaking at 264 units permitted, but then fell every year from 2018 to 2022. Between 2020 and 2022, nearly all new units permitted in Centennial were multifamily.
- There were only 5 single-family buildings permitted in 2022, down from 7 in 2021 and 10 in 2020.
- Between 2021 and 2022 the average valuation of single-family homes permitted fell 52.1 percent from \$1.2 million in 2021 to \$586,000 in 2022. The average valuation rose significantly in the preceding years,





rising 70.7 percent from 2020 to 2021 and 106.3 percent from 2019 to 2020.

Permits 10

• Centennial issued 5 multi-family building permits for 886 units in 2022, up from 610 units permitted in 2021 and 846 units permitted in 2020. The valuation per multi-family unit averaged \$124,604 in 2022, up from \$78,389 in 2021, but down slightly from \$136,467 in 2020.

Commercial Real Estate Commercial Building Permits

Centennial issued 359 commercial permits during 2022, of which 348 commercial alteration permits and 11 were new commercial permits. This represented a 24.7 percent increase compared with 2021, which had 7 new commercial permits and 288 commercial alteration permits. From 2020 to 2021, commercial permits fell

| \$70 | \$60 | \$50 | \$50 | \$30 | \$20 | \$10 |

2020

Source: City of Centennial.

2021

New Commercial Valuation

\$0

0.7 percent from 290 to 288 permits.

• While new commercial permits increased each year, total new commercial valuation fell 61.8 percent from 2020 to 2021, before rising 239.9 percent from 2021 to 2022.

2019

New Commercial Permits

- Centennial permitted 375,059 square feet of new commercial space in 2022, up 11.3 percent from 337,101 square feet in 2021. In 2020, the square footage was not reported.
- Commercial alterations permitted in Centennial fell 2.4 percent between 2020 and 2021, while total valuation of commercial alterations fell 42.8 percent over the same period. Between 2021 and 2022 commercial alterations permitted rose 23.8 percent, while total valuation of commercial alterations rose 115.0 percent.

Centennial Commercial Building Permits

New Commercial	2020	2021	2022	% Change 2020-21	% Change 2021-22
No. of Permits	2	7	11	250.0%	57.1%
Total Valuation	\$45,840,773	\$17,531,294	\$59,586,878	-61.8%	239.9%
Square Footage	-	337,101	375,059	NA	11.3%
Commercial Alteration					
No. of Permits	288	281	348	-2.4%	23.8%
Total Valuation	\$75,075,656	\$42,918,700	\$92,285,287	-42.8%	115.0%
Total Commercial					
No. of Permits	290	288	359	-0.7%	24.7%
Valuation	\$120,916,429	\$60,449,994	\$151,872,165	-50.0%	151.2%

Source: City of Centennial.

Office Market

- Centennial had 161 office buildings offering more than 6.1 million square feet of space in the fourth quarter of 2022. This represented 13.2 percent of office space in Arapahoe County and 3.0 percent of space in Metro Denver.
- Centennial had the highest office vacancy rate of the three market areas. The office vacancy rate fell 3.5 percentage points to 12.9 percent between the fourth quarters of 2021 and 2022 in Centennial. The vacancy rate fell 0.9 percentage points to 12.3 percent in Arapahoe County and fell 0.1 percentage points in Metro Denver to 12.1 percent.
- The office lease rate in Centennial increased 5.4 percent year-over-year between the fourth quarters of 2021 and 2022 to \$25.95 per square foot. In Arapahoe County, the lease rate increased 0.2 percent to \$26.40 per square foot, while the lease rate in Metro Denver rose 5.0 percent to \$31.00 per square foot between 4Q 2021 and 4Q 2022.
- Net absorption of office space in Centennial totaled about 220,500 square feet from the fourth quarter of 2021
 to the fourth quarter of 2022 and across Arapahoe County, net absorption was 421,000 square feet. Among
 Metro Denver counties, net office absorption was mixed, with five of the seven counties reporting positive net
 absorption, but negative net absorption reported in Boulder and Douglas counties, leading to total net
 absorption in Metro Denver of 800,000 square feet.

Office Market Commercial Vacancy and Lease Rates

	Total Existing Square Footage			Vacancy	Rate		Avg Lease Rate (per sq. ft.)		
	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022
Centennial	6,105,501	6,105,501	6,109,456	14.1%	16.4%	12.9%	\$24.68	\$24.63	\$25.95
Arapahoe County	46,105,766	46,214,326	46,218,281	12.3%	13.2%	12.3%	\$26.11	\$26.34	\$26.40
Metro Denver	200,261,284	202,245,883	202,994,408	10.7%	12.2%	12.1%	\$28.95	\$29.51	\$31.00

Note: Vacancy rate and average lease rate are for direct space only (excludes sublet space). Office rates are full-service.

Source: CoStar Realty Information, Inc.

Industrial/Flex Market

- Centennial had 159 industrial and flex buildings offering nearly 5.7 million square feet of space. This represented 16.4 percent of the industrial/flex space in the southeast market and 1.9 percent of space in Metro Denver.
- The vacancy rate increased 2.7 percentage points to 11.1 percent in Centennial from the fourth quarter of 2021 to the fourth quarter of 2022. The vacancy rate increased 0.6 percentage points to 6.3 percent in Arapahoe County and increased 0.4 percentage points to 5.6 percent throughout Metro Denver.
- The industrial/flex space average lease rate rose 14.0 percent over-the-year to \$11.66 per square foot in Centennial. Arapahoe County reported an increase in the lease rate of 6.8 percent to \$11.54 per square foot. The lease rate rose 5.7 percent over-the-year to \$11.27 per square foot in Metro Denver.
- There was 50,000 square feet of industrial/flex space absorbed in Centennial between the fourth quarter of 2021 and the fourth quarter of 2022. Net occupied space in Metro Denver increased by more than 7.3 million square feet.

Industrial/Flex Market Commercial Vacancy and Lease Rates

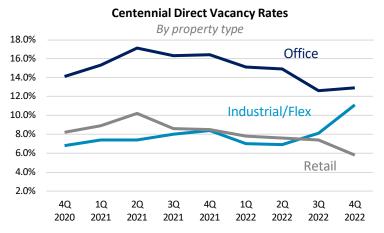
	Total Existing Square Footage			Vacancy	Rate		Avg Lease Rate (per sq. ft.)			
	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022	
Centennial	5,282,436	5,470,736	5,689,712	6.8%	8.4%	11.1%	\$9.83	\$10.23	\$11.66	
Arapahoe County	31,745,419	34,094,670	34,682,981	5.4%	5.7%	6.3%	\$10.33	\$10.81	\$11.54	
Metro Denver	283,056,340	291,788,962	300,493,588	5.5%	5.2%	5.6%	\$10.08	\$10.66	\$11.27	

Note: Vacancy rate and average lease rate are for direct space only (excludes sublet space). Industrial/flex rates are NNN.

Source: CoStar Realty Information, Inc.

Retail Market

- Centennial had 214 retail buildings offering more than 4.8 million square feet of space. This represented 12.2 percent of the retail space in the Arapahoe County and 2.7 percent of space in Metro Denver.
- Centennial had the highest retail vacancy rate of the three market areas. The retail vacancy rate fell 2.7 percentage points to 5.8 percent in Centennial from the fourth quarter of 2021 to the fourth quarter of 2022. The vacancy rate fell 0.7 percentage points to 4.3 percent vacancy in Arapahoe County and 0.4 percentage points to 4.0 percent vacancy throughout Metro Denver during the period.



Source: CoStar Realty Information, Inc.

- Centennial had the highest average lease for retail space of the three market areas. The average lease rate for retail space in Centennial was \$21.52 per square foot, up 18.9 percent from the same time last year. The lease rate in Arapahoe County increased 5.4 percent over-the-year to \$18.64 per square foot. Throughout Metro Denver, the retail lease rate rose 4.7 percent to \$20.21 per square foot.
- Net absorption of retail space in Centennial totaled nearly 136,000 square feet from the fourth quarter of 2021 to the fourth quarter of 2022. In Arapahoe County net absorption totaled 309,000 square feet and in Metro Denver net occupied space increased by nearly 1.4 million square feet.

Retail Market Commercial Vacancy and Lease Rates

	Total Existing Square Footage			Vacancy Rate			Avg Lease Rate (per sq. ft.)		
	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022	4Q 2020	4Q 2021	4Q 2022
Centennial	4,797,654	4,803,161	4,808,660	8.2%	8.5%	5.8%	\$22.12	\$18.10	\$21.52
Arapahoe County	39,124,153	39,214,544	39,254,870	6.0%	5.0%	4.3%	\$17.46	\$17.68	\$18.64
Metro Denver	174,416,034	175,083,029	175,857,999	4.9%	4.4%	4.0%	\$18.83	\$19.30	\$20.21

Note: Vacancy rate and average lease rate are for direct space only (excludes sublet space).

Retail rates are NNN.

Source: CoStar Realty Information, Inc.

Commercial Construction

- There were three industrial buildings completed in the Centennial Business Center in 2022, which added a total of 218,976 square feet of space to the city. A 3,289-square-foot retail building and a 3,955-square-foot office building for Rippe Dental Associates were also completed in 2022.
- Six commercial buildings were under construction in Centennial at the end of 2022, including three office buildings and three industrial/flex buildings. All three office buildings are slated to deliver in 2025, while the industrial/flex buildings will be finished in 2023 and 2024. Once completed, these six buildings will add an additional 735,848 square feet of commercial real estate in Centennial.
- The largest buildings under construction at the end of 2022 were office buildings, including the Westray Tower 1 with 332,781 square feet of space, and The District Buildings 3 and 4, adding 164,312 square feet and 159,672 square feet, respectively.

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