Metro Denver EDC

INDUSTRY
CLUSTER STUDIES

Special Report

RESILIENCE & RECOVERY

How Hardy Companies and a Diverse Economy Have Helped Metro Denver Endure a Global Pandemic

- special report -

2020

What are Industry Clusters and Why Did They Matter in 2020?

Starting in the 1980s, the Metro Denver EDC, with support from investors and regional stakeholders, crafted an economic development strategy that targets specific industry clusters for job growth and retention. An industry cluster is defined as, "groups of similar and related firms in a specific geographic area that share common markets, technologies, worker skill needs, and which are often linked by buyer-seller relationships." Our approach has helped to diversify the economic base, leverage Metro Denver's high concentration of talent, and create connections between companies and institutions across sectors. Further, it's created a high degree of specialization among companies in the form of primary jobs – which support higher employee wages, a stronger supply chain, and tax revenues at the state and local level.

Fast-forward to today, and the Metro Denver and Northern Colorado region is bolstered by a strong and highly diversified economy – one that for several years has been ranked the top economy in the country by U.S. News & World Report. The foundation is based on nine major industry clusters; Aerospace, Aviation, Bioscience, Broadband & Digital Communications, Energy & Natural Resources, Financial Services, Food & Beverage Production, Healthcare & Wellness, and IT-Software.

Our diversity of industries has not just been key to the EDC's business recruitment and retention efforts, but also helped Metro Denver weather economic recessions, including the one caused by COVID-19 in 2020. Because our community is not reliant on the success of a single company or industry, we are better positioned to navigate the ups and downs of markets and, as with the pandemic, forces beyond our control. In short, when one area of the economy struggles yet others can hold steady, we are better positioned to preserve the overall health of the economy.

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Metro Denver EDC

Often called a “center of influence,” the Metro Denver EDC was the nation’s first regional economic development organization. From Castle Rock to Fort Collins and Golden to Greeley, we represent the nine counties and 66 communities that contribute to our resilient economy and incredible culture. All told, the EDC’s service territory makes up two-thirds of the Colorado GDP and approximately three-quarters of the state’s population.

Thanks to the leadership and generosity of 250 of Colorado’s most influential companies, the EDC works to monitor and advance the Metro Denver economy through corporate attraction and retention; workforce development; domestic and global marketing; investments in infrastructure; and public policy that fosters a pro-business climate.

The data we produce is foundational to the work we do. Publications like our annual Cluster Studies offer the companies we court (as well as the regional partners we support) a deeper understanding of what’s happening across Metro Denver, and for certain industries, the state more broadly. We track this data closely – leveraging the intel and insights to not only drive corporate recruitment and investment, but foster competition, build a culture of impact and innovation, strengthen the business community and work to ensure that life and work in Metro Denver are thriving.

www.metrodenver.org

Development Research Partners

Development Research Partners specializes in economic research and analysis for local and state government and private sector businesses. Founded in 1994, the DRP team combines extensive experience in real estate economics and economic development to provide clients with reliable consulting services in four areas of expertise:

- **Economic & Demographic Research** - Research in support of business and community activities, ranging from community profiles to evaluating and forecasting economic and market conditions.
- **Industry Studies** - Specialized research projects including industry cluster research, industry trends analysis and strategic competitive analysis.
- **Fiscal & Economic Impact Analysis** - Comprehensive custom analysis and analytical tools to evaluate and forecast site-specific activities and model business and government costs and benefits.
- **Real Estate & Public Finance Economics** - Analysis and strategy for infill redevelopment, adaptive reuses and property development, including market and feasibility studies, public investment analysis and public-private partnering opportunities.

www.developmentresearch.net

VISIT DENVER

Celebrating 112 years of promoting The Mile High City, VISIT DENVER is a nonprofit trade association that contracts with the City of Denver to market Denver as a convention and leisure destination, increasing economic development in the city, creating jobs and generating taxes. A total of 17.7 million visitors stayed overnight in Denver in 2019, generating $6 billion in spending, while supporting more than 60,000 jobs, making Tourism one of the largest industries in Denver. Learn more about Denver on the VISITDENVER website and at TourismPaysDenver.

www.visitdenver.org

About This Report

Our COVID-19 anniversary report, Resilience & Recovery, offers a snapshot on how the COVID-19 recession has impacted the Metro Denver economy over the past twelve months. The intel and analysis are broken out by the nine industry clusters the Metro Denver EDC tracks, offering readers a deeper look at how the economy's diverse foundation of businesses fared during the pandemic.

Further, we've partnered with Visit Denver to get their take on the pandemic's impact related to areas of the economy they work to support – tourism, retail, restaurants and the hospitality industry.

We hope that collectively this report offers a thorough overview of how Metro Denver has performed and where we can work together to further support our industries, employers and workforce as we look ahead to recovery.

One Year Later

We are at the one-year mark of the COVID-19 pandemic in Colorado, and not a single person, not a single business, has been left unchanged. This special supplement to our annual Cluster Studies looks at ways that each of our nine industry clusters has been impacted by the pandemic's economic disruption – and, in some cases, how our nation's response has been supported by companies here in our region.

- In 2020, about **45% of the jobs lost were in leisure and hospitality.**
- The COVID-19 Recession's impact varied by industry, with **80% of the total jobs lost classified in low wage supersectors**.
- That said, **Colorado is maintaining a higher level of labor force participation** compared to other states.

Colorado's industries responded to the pandemic's uncertainty in a variety of ways. Some were hit very hard; others were relatively unscathed. A number of our businesses stepped up to play a direct role in the fight against COVID-19, researching treatments, supporting vaccine development and facilitating equitable access to technology for workers and students at home.

We know that many individuals are still waiting to receive a vaccine and many businesses are still waiting to get their employees back to work. There are entire industry sectors that were ravaged over the last year. But we also know that confidence in the economy is increasing. Key industry clusters like Aerospace and IT-Software saw excellent growth in 2020. These areas of strength will help our entire region rebound from the losses we've seen. We are not done yet, but there is light at the end of the tunnel.

2020 Job Growth Across Industry Clusters

	Industry (● Most Negatively Impacted)	Direct Employment (2019)	Direct Employment (2020)	1-Year Employment Growth (U.S. Data)
9-County Region	Aerospace	23,990	26,680	11.2% (3.7%)
	Aviation ●	**23,100**	**21,340**	**-7.6% (-9.7%)**
	Bioscience	17,510	17,630	0.7% (2.2%)
	Broadband & Digital Communications ●	**43,560**	**43,080**	**-1.1% (-4.6%)**
	Financial Services	104,790	105,980	1.1% (0.5%)
	Healthcare & Wellness ●	**245,720**	**239,630**	**-2.5% (-3.8%)**
	IT-Software	72,900	79,420	8.9% (3.4%)
Colorado	Aerospace	30,400	33,460	10% (3.7%)
	Energy & Natural Resources ●	**91,940**	**87,740**	**-4.6% (-5.6%)**
	Food & Beverage Production & Agritech	46,520	47,790	2.7% (-1.9%)

2019 Direct Employment

23,990

2020 Direct Employment

26,680

1-Year Employment Growth (U.S. Data)

11.2% (3.7%)

Data Specific to 9-County Region

Aerospace

Aerospace companies in Colorado are well positioned to weather the adversity of COVID-19 in the short- to mid-term. Demand has been minimally impacted since budgets for aerospace projects were allocated prior to the pandemic and many space-related projects are critical to national defense. Private companies continue to develop new space technologies, and the U.S. military is increasingly focused on leveraging commercial space sector capabilities. Companies continue to advance critical national security and civil space missions across the U.S. and Colorado.

- Aerospace was the fastest growing cluster in the region in 2020, increasing by 11.2%. Since the pandemic began, several of the state's Aerospace contractors announced plans to add at least 1,000 new jobs across Colorado.

- Growth in the sector was fueled by an increase in the employee bases of both prime contractors and smaller companies, and multiple manufacturing facility expansions.

- The Metro Denver region also continued to attract international companies that view Colorado as the ideal launch pad for their U.S. operations: Luxembourg-based **Kleos Space** announced the opening of its principal U.S.

engineering office in Denver, and Japanese aerospace company **ispace U.S. Technologies** chose Denver for its headquarters to grow and develop a lunar lander designed to help establish industries on the moon.

- Colorado aerospace companies large and small stepped up with contributions to the state's COVID-19 response efforts, from financial contributions to donating medical gowns and utilizing 3D printing capabilities to produce PPE equipment for medical facilities.

6TH

According to LinkedIn, in 2020 Denver was ranked sixth for **cities with the most opportunity** for job seekers.

2019 Direct Employment

23,100

2020 Direct Employment

21,340

1-Year Employment Growth (U.S. Data)

-7.6%
(-9.7%)

Aviation

The COVID-19 pandemic has ravaged the global aviation industry as travel restrictions have slowed demand, decreased passenger travel, and grounded aircraft. Employers in the Aviation Cluster are continuing to deploy a mix of furloughs and permanent cuts to cope with the economic shock. However, multiple rounds of stimulus have given airlines additional support to bring back workers. The region's market strength and its competitive advantage as a central point for connecting passengers has helped the Aviation Cluster weather the pandemic. Despite an anticipated three-year recovery for many of the region's aviation companies, airports and organizations, there are nevertheless signs of strength.

- Throughout the summer of 2020, **Denver International Airport (DEN)** often was ranked the No. 1 airport in the U.S. for Transportation Security Administration (TSA) throughput, supporting strong domestic passenger demand since international travel was minimal through most of 2020.

- DEN was the top airport for year-over-year seat capacity retention. For each of the last five months of 2020, DEN had the most seat capacity, compared with 2019 levels among the 20 busiest U.S. airports.

- Lower passenger traffic has allowed construction to proceed at DEN with fewer impediments and more crews to expedite project timelines. DEN plans to add $560 million in construction contracts to accelerate airport renovations and a 39-gate expansion project.

USA Today recently named DEN the **Best Large Airport** in the U.S.

- Air cargo operations at DEN remained strong through 2020, with the amount of cargo totaling 661.1 million pounds, only down 1.6% over the same period in 2019. Cargo activity continues to support COVID-19 pandemic relief efforts to provide critical shipments and personal protective equipment deliveries.

- Several of the region's airports implemented new safety measures and contactless technology for a safer passenger experience, such as artificial intelligence and infrared sensing technologies. DEN is one of two airports in the nation where **United Airlines** launched "United CleanPlus" that includes increased measures to sanitize and disinfect surfaces before passengers board an airplane. Over 100 hand sanitizer stations and wipe dispensers were installed at DEN at each gate, in addition to mask vending machines.

- In the first quarter of 2021, DEN is offering a robust air service network with nonstop service to more than 170 destinations worldwide. Twenty-two airlines are committed to providing service to Denver passengers, although some international carriers have temporarily suspended service due to low demand.

- International air service has been and will continue to be more severely impacted than domestic air service due to international border closures, quarantine requirements and travel bans. However, DEN's nonstop international network continues to slowly rebuild, with nonstop flights to 13 countries. This includes the launch of United's new nonstop flights to San José, Costa Rica in December 2020.

Bioscience

More than 40 Colorado companies, along with academic and research institutions, pivoted in 2020 to contribute to the global fight against COVID-19, including Boulder-based **Biodesix** and Lakewood-based **Terumo Blood & Cell Technologies**, among others. Additionally, strong growth in the pharmaceuticals and biotechnology subcluster (+4.6% between 2019 and 2020) due to advancements and developments related to COVID-19 contributed to overall growth in the cluster.

- Colorado's life sciences ecosystem raised more than $1 billion in funding in 2020 for the fourth consecutive year, as leadership during the pandemic accelerated interest and investment.

- **Boettcher Foundation** also awarded nearly $1 million in COVID-19 research grants to Colorado researchers.

- Westminster-based **ARCA biopharma Inc.** received U.S. Food and Drug Administration (FDA) Fast-Track Designation for its drug candidate AB201 as a potential treatment for COVID-19. AB201 is a potent, selective inhibitor of tissue factor, which has been identified as playing a central role in inflammatory response to viral infections.

2019 Direct Employment

17,510

2020 Direct Employment

17,630

1-Year Employment Growth (U.S. Data)

0.7%
(2.2%)

- **Terumo** and **Marker Therapeutics Inc.** received the first device FDA Emergency Use Authorization (EUA) to treat acute respiratory failure in COVID-19 patients.

- **Terumo**'s engaged in the health crisis in three different ways. First, the company's equipment systems are being used to collect convalescent plasma. Second, the company received an EUA for its Spectra Optia to help immunocompromised patients fight inflammation as well as respiratory and organ failure related to COVID-19. Third, its pathogen reduction technology is being used in Europe and elsewhere to kill virus strains in blood.

- **CordenPharma Boulder Inc.** extended an agreement with Moderna Inc. to produce lipid excipients to be used in the development of a COVID-19 vaccine.

- Four COVID-19 vaccine candidates were developed at **Colorado State University (CSU)**, with trials currently underway.

- Seven tenants at the **Fitzsimons Innovation Community (FIC)** were involved in COVID-19 projects – including genetic engineering firm **Greffex**, which is moving into testing a vaccine, and **Biobank**, which has a COVID-19 clinical test.

- Denver-based **Intertech Medical** began manufacturing the plastic components for three COVID-19 tests. The company's testing system can generate results in 45 minutes.

- **Biodesix** developed two COVID-19 tests, with the capacity to run about 1,000 tests a day and yield results in 48 hours.

3RD

Denver ranked third for **STEM job growth**, according to the 2020 STEMdex. – *RCLCO, 2020; CapRidge Partners, 2020*

2ND

Colorado ranked second **"Best State for Technology and Science"** in 2020 thanks to a strong entrepreneurial infrastructure and STEM workforce. – *Miliken Institute, 2020*

2019 Direct Employment

43,560

2020 Direct Employment

43,080

1-Year Employment Growth (U.S. Data)

-1.1% (-4.6%)

Broadband & Digital Communications

Remote work has been one of the most significant changes we've faced during the pandemic. And the success of this new work reality is due in large part to our broadband and digital communications companies who have added connectivity and networking infrastructure to support increased demand for remote work and remote learning, streaming services and other entertainment options. This increase in demand for network and infrastructure boosted hiring plans during the year, though companies were hesitant in hiring to meet the demand too quickly.

According to the U.S. Census Bureau, Colorado had the highest percentage of remote workers in the U.S. entering into COVID-19, which was 62% more than the national average. Since March 2020, Colorado's upstream cable internet traffic was up 51.2% and the state's downstream cable traffic was up 22.6%.

- Several companies in the region including **Comcast**, **Lumen Technologies**, and **Sling TV** have offered free, expanded service and raised their internet speeds to accommodate increased customer demand.

- **Comcast** has removed late fees while adding free Xfinity WiFi hotspots and unlimited data. The company's teams in Denver and Philadelphia developed **Octave**, an artificial intelligence (AI) platform that helped the company meet record network demand and remotely addressed network performance issues as users sheltered in place.

- Several of the region's major Broadband & Digital Communications companies were listed among Forbes "Top Employers' Responses to (the) Pandemic," including **Verizon Communications** (first), **AT&T** (third), and **Charter Spectrum** (12th).

- Video conferencing platforms have seen their usage soar. The leading platform, **Zoom**, which has an office in Denver, reported a 458% increase in customers in the second quarter of 2020 over the second quarter of 2019 and over 300 million meeting participants each day, up from just 10 million in December.

5TH

Liviability.com recently ranked Fort Collins as the fifth best **"Remote-Ready City"** in the U.S. in 2020, as well as the top Place to Live in America.

6TH

Denver ranked sixth among the **"Best U.S. Cities for Remote Workers"** in 2020, according to BusinessInsider.

2019 Direct Employment

91,940

2020 Direct Employment

87,740

1-Year Employment Growth (U.S. Data)

-4.6% (-5.6%)

Energy & Natural Resources

Colorado's Energy & Natural Resources Cluster experienced multiple challenges in 2020. Early in the year, a global supply and price dispute between Russia and Saudi Arabia resulted in historically low oil prices around the world. The onset of the pandemic was also followed by profound demand shock, especially in transport fuels. Yet, while the Cluster struggled for much of the year, there were some gains in the industry – with prices for crude oil ending 2020 on a positive note.

- Many of our Energy & Natural Resources companies trimmed payrolls and consolidated operations. In fact, Colorado oil and gas producers operated only six drilling rigs – the fewest in 28 years.

- Utility companies continually focused on safe, reliable service to their customers. They saw shifts in time-of-use and location, but they continued to deliver electricity and natural gas while also maintaining critical and essential infrastructure.

Renewable Resources

The solar industry was harmed in the past year in the distributed generation sector – which includes residential and commercial projects. In the beginning of the pandemic, installers had difficulty getting permits, inspections and interconnections completed. Many homeowners and businesses delayed or canceled solar projects to keep more cash on hand. Financing for solar projects also became a major issue as the economic downturn caused tax equity markets, an important finance tool for larger projects, to construct, according to the Solar Energy Industries Association (SEIA).

In 2020, **Colorado School of Mines** was ranked among the **top ten elite energy universities in the U.S.** by the American Energy Society, who recognized Mines for "excellence in all fields, from fossil to sustainable materials and renewable energy."

That said, solar installations bounced back in Q4 as many homeowners and businesses had adapted to the COVID-19 disruption and wanted to take advantage of the then-expiring federal tax credits.

While solar struggled, wind farm installation hit a national record in 2020 as the amount of new capacity increased by 85% over 2019. **Xcel Energy**'s own 500-megawatt installation, Cheyenne Ridge, was completed in August.

However, while wind farms saw gains in their capacity, **Vestas** who manufactures much of their equipment, announced a round of layoffs and the consolidation of operations late in 2020 – citing slowing demand. The company intends to manufacture its parts on a smaller scale, recently announcing new plans to develop a servicing and operations function out of Brighton.

Financial Services

2019 Direct Employment
104,790

2020 Direct Employment
105,980

1-Year Employment Growth (U.S. Data)
1.1%
(0.5%)

In 2020, Metro Denver's Financial Services Cluster made an impressive and immediate pivot – with many employees working to service clients from their own homes. Companies entered the pandemic in a position of unprecedented strength and weathered the impacts better than originally anticipated. A highly regulated industry, companies across Colorado quickly responded to necessary changes – from testing protocols to additional cybersecurity measures – in order to maintain service to customers.

There were minimal employment losses throughout the Cluster in 2020 as businesses and consumers continued to rely on debt and financial services to conduct operations, maintain inventory, provide insurance and manage investments. In fact, many Colorado firms are still hiring to meet increased call volumes from investors.

- Significant opportunities as a result of the pandemic have led to increased efficiencies, enhanced digital capabilities and technological enhancements. Financial services companies across the region forced rapid adoption of online, mobile and call-center channels as well as accelerated development of digital and contactless payment systems.

- Banks and credit unions have both helped facilitate the Paycheck

Protection Program (PPP) loans offered through the CARES Act. Seventeen credit unions across the state were able to offer these loans to their clients. According to the Colorado Bankers Association, $10.4 billion in PPP loans were extended to 110,000 borrowers in Colorado.

- According to the Colorado Department of Labor and Employment, finance and insurance unemployment claims were the fourth lowest among all industries during the pandemic in Colorado.

Over the past five years, jobs in the **Financial Services Cluster have continued to grow with investments employment in the region up 19.7%**, insurance employment up 9.7% and banking and finance employment up 4%.

- Commonly referred to as "fintech," the Cluster saw a variety of innovations including new solutions built on cloud computing, digital platforms and distributed ledger technologies (DLT), mobile payments, crypto-assets and peer-to-peer (P2P) applications.

- Metro Denver is currently home to nearly 180 fintech companies with several fintech firms growing and expanding their presence in the region, including **Pie Insurance** and **Robinhood**, among others.

- 2020 was a record year for fintech funding and valuations in Metro Denver. According to **Pitchbook**, fintech-related deals in Metro Denver grew from 3 deals in 2010 totaling $15.2 million to 22 deals in 2020 totaling $45.7 million.

The Pandemic's Impact on the Tourism and Hospitality Industry

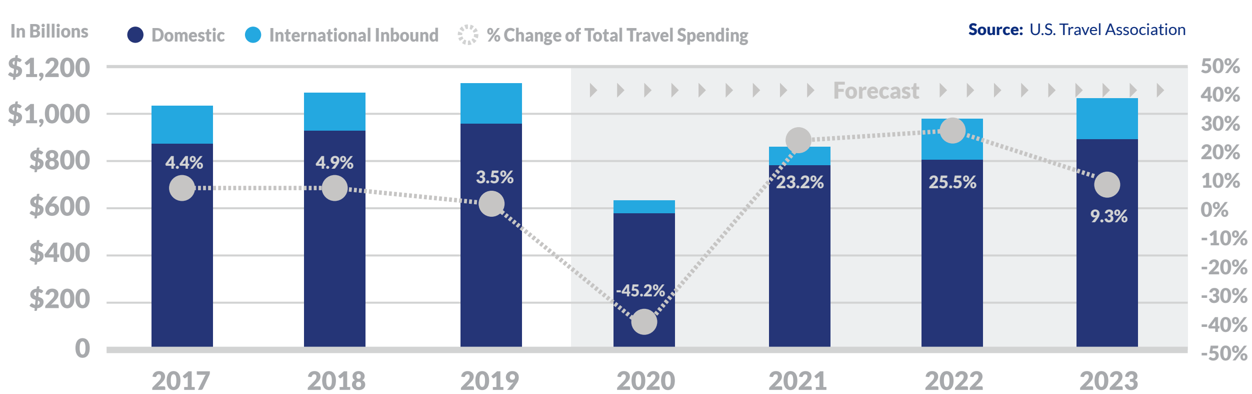
by Richard W. Scharf, President & CEO, VISIT DENVER
The Convention and Visitor's Bureau

Prior to the COVID-19 pandemic, the tourism and hospitality sector was one of the leading industries locally, statewide, and across the nation in terms of jobs and economic impact. Over the course of 2020, the pandemic has had an overwhelmingly disproportionate impact on our industry. However, we are optimistic that recovery of our industry will drive recovery of the economy overall.

According to the U.S. Travel Association (USTA), of all the jobs lost nationwide due to the pandemic, 39% are in leisure and hospitality. This vital sector of our national economy realized a devastating $500 billion in lost travel spending from March-December 2020, a 42% annual decline, causing a $64 billion loss in federal, state and local tax revenues.[1] While a substantial rebound is projected in 2021, it is estimated that the record-setting 2019 levels will not return until 2023 or later.[2]

Within the state of Colorado, the Colorado Tourism Office (CTO) has tracked the disproportionate impact of the pandemic by county level.[3] The urban Front Range and metro

Travel Spending in the U.S.



areas suffered the most significant losses while rural areas with open space were less impacted.

After recording consistent and strong employment growth throughout the past decade, the Colorado Department of Labor and Employment estimates that employment in the sector will suffer a 21% loss in 2020 compared to 2019 and only recover to 2014 employment levels in 2021.[4]

[1] https://www.ustravel.org/system/files/media_root/document/Research_Fact-Sheet_Industry-Table.pdf

[2] https://www.ustravel.org/research/travel-forecasts

[3] Colorado Tourism Office, Entrada data, 7/1/19-3/1/20 compared to 3/2/20-11/1/20

[4] Colorado Business Economic Outlook 2021

Leisure & Hospitality Employment 2011-2021 (Jobs in Thousands)

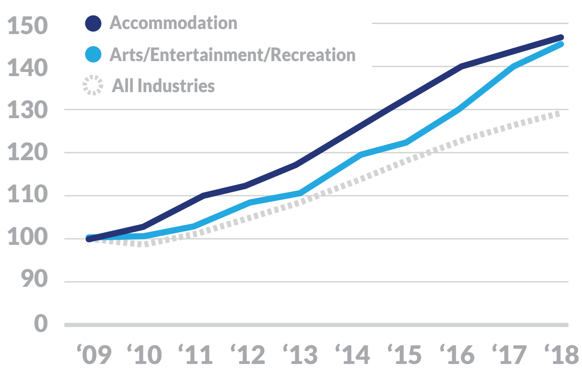
Year	Arts, Entertainment, & Recreation	Total Accommodation & Food Services	Total Leisure & Hospitality[a]
2011	45.6	225.8	271.4
2012	46.5	233.2	279.7
2013	47.3	242.1	289.4
2014	49.0	251.4	300.4
2015	50.8	262.0	312.8
2016	52.9	270.8	323.6
2017	55.4	277.8	333.2
2018	56.9	282.8	339.7
2019[b]	58.6	286.0	344.6
2020[c]	48.0	225.4	273.4
2021	51.6	241.0	292.6

[a] Revised [b] Estimated [c] Forecast

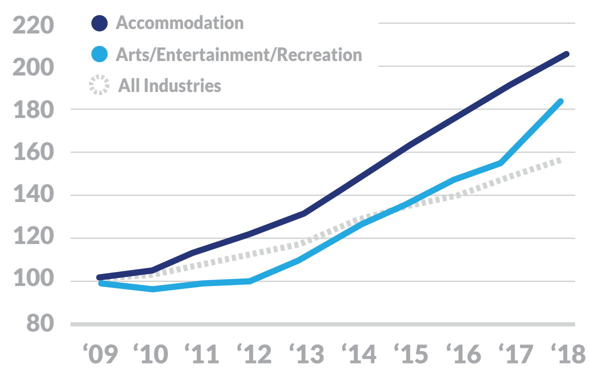
Source: Colorado Department of Labor and Employment

Locally, 2019 was a milestone year and accounted for more than 64,000 jobs in the metro area. Tourism Economics calculated that in the City and County of Denver, approximately one-in-15 jobs was directly supported by visitor spending, representing nearly 7% of all local jobs and making tourism the 4th largest industry in the City. Additionally, residents received $140 of net benefit and the City of Denver gained $4.52 in revenue for every tourism dollar spent.[5] And, job and wage growth in our sector outpaced the general economy in Denver from 2009-2018.[6]

Job Growth in the City of Denver
Index (Jan. 2009-100)



Income Growth in the City of Denver
Index (Jan. 2009-100)



Source: BEA; BLS; Tourism Economics

[5] https://www.denver.org/tourism-pays/tourism-pays-for-denver/

[6] Tourism Cost-Benefit Analysis, Tourism Economics

> **Retail spending in Metro Denver was up 3% in 2020,** and our sales tax collection has remained steady moving into 2021. **We anticipate a 4% increase in 2021** spending as consumers take advantage of more businesses opening later in this year.

Due to COVID-19, the closure of restaurants, museums and attractions, coupled with mass cancellation of concerts, festivals and events, means that nearly all of Denver's demand drivers have been silenced. This has been paralleled in the meetings and conventions segment, which has suffered a staggering $1 billion in lost business during the pandemic to date. The City's 2020 lodger's tax is estimated to be down 64% compared to 2019 while forecasting for 2021 lodger's tax projects a roughly 50% decline compared to 2019.

On the bright side, VISIT DENVER, the city's official marketing arm for leisure tourism and conventions, remains optimistic for a strong return to travel in the future, and is working hard to promote Denver's ability to deliver safe, enjoyable leisure visits plus meetings and conventions that will help restore this critical source of economic impact for our local community. During the height of the pandemic in the spring of 2020, VISIT DENVER ran local programs to help restaurants and cultural partners, before conducting a series of campaigns in the second half of the year designed to responsibly invite visitors and groups to the city.

- A summer recovery marketing campaign targeted regional visitors and those in select long-haul markets like Chicago.
- The first-ever Fall Denver Restaurant Week, which focused on to-go/delivery as well as in-person dining, helped drive much needed business to restaurants.
- This year's annual Mile High Holidays campaign also included the second lighting of the Mile High Tree, now in a new downtown location. The campaign promoted all the safe ways to celebrate throughout the metro area.
- Despite mandates that prevented groups from meeting in Denver, the sales team worked with clients to rebook more than $70 million in business, as well as providing resources for their virtual meetings.

As we look ahead to 2021, we are optimistic that both leisure and meetings business will rebound in Denver and help drive Denver's – and the state's – economic recovery. With Denver International Airport's (DEN) strong domestic route network, as well as the new gate expansion project, and Denver's brand as an active, outdoor city that is particularly appealing to travelers, our community is well poised to benefit from pent up travel demand. As we look forward over the coming years, Denver has significant new products, experiences and infrastructure that will attract repeat and new visitors alike including reconstruction of the 16th Street Mall, expansion of the Colorado Convention Center, the removed Martin Building at Denver Art Museum, the new Meow Wolf, the redevelopment of the National Western Center, new hotels and attractions and more.

Food & Beverage Production

2019 Direct Employment
46,520

2020 Direct Employment
47,790

1-Year Employment Growth (U.S. Data)
2.7% (-1.9%)

The Food & Beverage Production Cluster has adapted to the pandemic at a rapid pace. To start 2020, some areas saw temporary plant closures, furloughs and layoffs. Across the state, the largest workplace outbreaks of COVID-19 were in meat processing and food production, disrupting the supply chain.

However, the surge and shift in consumer demand, driven by stay-at-home orders and sheltering-in-place precautions, also resulted in increased volume, revenue and profit. Many food and beverage manufacturers were quick to pivot and find new, innovative ways of delivering their product directly to consumers in some cases. Additionally, some manufacturers upgraded or renovated facilities to better address employee safety.

- Many Colorado distilleries shifted their focus from making spirits to producing hand sanitizer in response to the pandemic. According to the U.S. Distilled Spirits Council, 37 of Colorado's 102 distilleries are currently producing hand sanitizer.

- **JBS USA** announced an initiative called "Hometown Strong," with plans to invest $5 million in their Greeley community in response to the pandemic. Donations have helped to alleviate food insecurity, strengthen long-term community infrastructure and support emergency response and relief efforts.

- Several companies announced major expansions amid the pandemic:
  - **J.M. Smucker Company** broke ground on a 240,000-square-foot addition to its Longmont facility in May.
  - **Molson Coors Beverage Co.** broke ground on an upgrade of its 147-year-old Golden plant and will overhaul the infrastructure between its brewhouse and packaging facility.

Construction on the **$1.1 billion redevelopment of the National Western Complex** in Denver continued in 2020. **Colorado State University** broke ground on the first of three buildings of its Spur Campus. It will focus on everything from animal and human health to water, food and agriculture studies.

2019 Direct Employment

245,720

2020 Direct Employment

239,630

1-Year Employment Growth (U.S. Data)

-2.5% (-3.8%)

Healthcare & Wellness

The pandemic has triggered abrupt changes across the region's Healthcare & Wellness Cluster that will last for years to come. Healthcare systems across the region are facing unprecedented financial pressures as expanded demand for services has been somewhat offset by declines in the utilization of nonemergent care. However, companies reporting reductions in services that have led to staff reductions and furloughs could quickly regain losses after restrictions are lifted.

- Colorado hospitals are expected to face a revenue decrease between $4.5 billion and $7.1 billion over 2020 and 2021 due to the pandemic, according to the Colorado Hospital Association.

- Inpatient surgeries, outpatient visits and emergency visits were down at least 40% over the year.

While the crisis has highlighted some of the challenges in the region's healthcare system, it has also presented unique opportunities for companies to innovate in real time.

- The pandemic forced a rapid and monumental shift in how patient care is delivered using technology. According to the Colorado Health Institute, 80% or more of adult and pediatric primary care visits across the state are being conducted remotely. In fact, virtual visits were up more than 1,000% at **UCHealth** locations across Colorado as of mid-2020.

- Four healthcare systems in Metro Denver earned the 2020 CHIME Digital Health "Most Wired" recognition for utilizing information technology to improve patient care and safety during the pandemic, and several companies are using their telehealth platform to expand access to essential health services.

- Companies such as Denver-based **Cirrus-MD** and Boulder-based telehealth service **NextGen Virtual Visits** have expanded their employment base to support companies providing telemedicine services.

- In only two months (March-April 2020), there were 712,000 telehealth visits, which is nearly double the 420,000 telehealth visits that occurred during the entire two-year period from January 2018 to February 2020, according to CIVHC.

- Despite a decrease from May to July, use of telehealth in July 2020 was still significant and represented an increase of 1900% over February 2020 utilization.

- Gyms, fitness studios and wellness companies also adjusted to the new reality, with many companies offering virtual classes and digital fitness solutions.

7TH

Denver ranked seventh among U.S. cities for **best work-life balance**, (#16 internationally). – *Kisi, 2020.com*

10TH

WalletHub recently ranked Denver as the **10th healthiest city**.

IT-Software

IT-Software has been one of the most resilient clusters during the pandemic, facilitating business productivity and supporting critical infrastructure as employees around the globe transition to remote work. Ongoing demand for IT-Software services during 2020 positively influenced employment in this cluster, particularly for cloud infrastructure services, security software and specialized software solutions. While some companies within the cluster have trimmed payrolls due to a global parts shortage, the unpredictability of supply chains and overall business disruption, this industry remains a growth catalyst in Metro Denver.

2019 Direct Employment

72,900

2020 Direct Employment

79,420

1-Year Employment Growth (U.S. Data)

8.9%
(3.4%)

Real Estate & Tech Footprint

The region's rising presence on the national and international real estate stages has made it a magnet for tech companies looking for either a new headquarters location or a satellite office. While the impacts of the pandemic are still unfolding, they have manifested initially in decreased leasing activity and increased availability of subleased space.

- Technology companies expanded real estate occupancy along the Front Range by 23% from 2018 to 2020, increasing the total footprint of the industry from 17.4 million square feet to 21.4 million square feet. Software companies have the second-largest footprint in the state, occupying 6.4 million square feet, up from 5.2 million square feet in 2018.

- The Boulder-Broomfield area had the highest concentration of tech occupancy relative to overall office occupancy at 43%. In Metro Denver, 13% of occupied office space housed tech companies.

1ST

Colorado ranked **first among the 50 states for personal income growth** in 2019, **rising 6.1%**. – *Bureau of Economic Analysis, 2020*

Venture Capital & Investments

Companies in the region's IT-Software Cluster attracted significant capital and investments in 2020 as the pandemic accelerated a dramatic shift to e-commerce and cloud-based services. Venture capital deal-making has remained steady throughout the pandemic.

- In 2020, Denver-based **Palantir Technologies** filed an IPO with a market valuation above $10 billion.

- Among the 18 startup cities analyzed in the **2020 Boulder Innovation Venture 2.0**, Boulder and Denver ranked among the top 10 cities per capita for venture capital investment.

- According to **Pitchbook**, companies in IT-Software in 2020 attracted $756 million in venture capital in 150 deals, representing almost half of the total amount invested across all industries in the region.

- In 2020, Metro Denver saw multiple venture capital deals and investment opportunities valued over $50 million including: **Handshake**, **JumpCloud**, **Outrider**, **Deepwatch**, **Stedi Inc.** and **Udemy**.

The Road Ahead

Equipment systems collecting convalescent plasma. Physicians offering primary care visits through telemedicine. Distilleries shifting production from making spirits to manufacturing hand sanitizer. The story of our economy in 2020 is largely one of creative resilience.

Each industry cluster faced unprecedented challenges due to COVID-19, and businesses were all forced to adapt. Over the past year, we've learned that global crises of the scale of a pandemic require patience, steadiness and a long-game approach.

Along with resilience, there is a sense of cautious optimism. This is clear – particularly from the businesses and in the industries that were well positioned to adapt to changes in the economy. But it is also evident in the individual stories of companies that found flexibility and determination to push through an incredibly tough year and keep going to reach the other side.

Moving forward, the strength of those industries that will thrive in this year of recovery will help position our region to bounce back even stronger.

- As we look ahead in 2021, employment growth is expected across industries with the **fastest gains in leisure, hospitality, wholesale and retail trade, professional services, education and health**.

- Of the estimated 74,000 jobs lost in 2020, we believe about **48,000 jobs will be recovered this year**. It will likely be the end of 2022 before all lost jobs are added back into the economy.

- Despite COVID-19, we are still a very attractive place to live and work. **Denver was recently ranked the #8 city for relocation** as a result of the pandemic.

- And our commitment to public health has paid off. In early 2021, Wallethub said Colorado is the **third safest state in the U.S**.

For full versions of our 2020 Industry Cluster Studies, visit:

www.metrodenver.org/industries/overview

Let's Build Something Bigger Than Business Together.

As part of our brain trust, the EDC's 250 investors get unmatched access to the decisions, directions and collaboration opportunities that are transforming the landscape of our economy, region and communities. Join us to make your voice heard, collaborate with Metro Denver's top business leaders and be a part of leading the changes you want to see happen. Every challenge is an opportunity for us to think bigger, do better and move forward, together.

For more information on becoming part of the Metro Denver EDC, contact us at **investor@metrodenver.org**

Data research provided by Development Research Partners, Inc.
www.developmentresearch.net

Metro Denver EDC

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