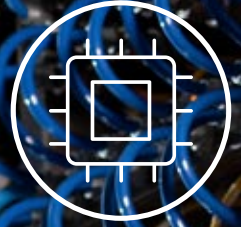




MetroDenverEDC



2023 INDUSTRY CLUSTER STUDY

# IT - SOFTWARE

METRODENVER.ORG

## ABOUT



The Metro Denver region continues to be a magnet for information technology start-ups and legacy businesses, and is a leader in cybersecurity, cloud-based technologies, and various software solutions. The IT-Software cluster supports business activities in all other sectors of the economy with a variety of products and services, ranging from virus protection and other security programs for computers to specialized, custom software and computer integrated systems design. IT-Software includes companies involved in off-the-shelf software products to custom computer programming, computer facilities management, computer systems design, and data processing services. Software companies also provide network solutions, web-based applications, and operating systems.

Over the past decade, Colorado's startup environment has matured beyond an early-stage ecosystem, and venture capital investment, talent, and secondary locations of Fortune 500 technology companies have followed. Burgeoning tech companies have chosen Colorado as their secondary headquarter location and doubled down on expanding their locations. Slack, Splunk, Facebook, Google, Palantir, and Robinhood are just a few of the unicorns to expand in Colorado in recent years.

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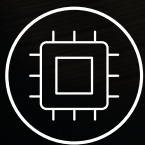
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## 2023 INDUSTRY CLUSTER SCAN

# IT - SOFTWARE

By The Numbers

## INDUSTRY SNAPSHOT US NUMBERS IN PARENTHESIS



**COMPANIES:** 8,270

**AVERAGE WAGE:** \$148,310

**EMPLOYMENT CONCENTRATION RANKING:** 5

**Direct Employment:** 89,440

**Direct Employment Concentration (2022):** 4.3% (2.8%)

**5-Year Employment Growth (2016 - 2022):** 50.6% (25.1%)

**1-Year Employment Growth:** 8.1% (7.7%)

# INDUSTRY OVERVIEW

The nine-county Metro Denver and Northern Colorado region's access to capital, clients, and talent routinely attracts IT-Software companies and support companies looking to relocate. Denver's interior and centralized location and convenient access to domestic and global markets make it easy for companies to reach other markets. A steady influx of both national and international IT-Software companies announced plans to move to Denver over the last year including Ireland-based Teamwork and several Australia-based companies including Humanitix, Lumary, Lumachain, and Preezie. The cluster experienced rapid growth in the five years leading up to 2021, with employment growth averaging 9.5% during this period. Despite headwinds from the pandemic and ongoing tech labor shortages, employment grew 3.5% in 2021 and accelerated to 7.4% growth in 2022.

Colorado is no longer just an early-stage ecosystem. Over the past 10 years, Colorado's startup ecosystem has matured and, with it, venture capital investment, talent, and secondary locations (and relocations) of Fortune 500 technology companies have followed. Coinciding with this evolution, Colorado has experienced a surge in advanced industries expertise, spin-off startups, and outside investment. Burgeoning tech companies have chosen Colorado as their secondary headquarter location and doubled down on expanding their locations. Trimble, HNA Live, and SnapDNA, are just a few of the companies that relocated to the area in 2022. In addition to companies expanding into the area, fundraising activity remained strong in the IT/Software cluster, both for the startup ecosystem and for more established companies. DispatchHealth, Guild Education, and Houscall Pro were among the largest fundraisers in 2022.

The region is one of the top markets in the U.S. for jobs and was the fastest growing cluster/subcluster in the region between 2017 and 2022. According to Comp TIA Cyberstates 2022, technology increasingly has a significant presence across the nation, not just in major hubs like San Francisco and San Jose. Denver is among the cities boasting sizable tech workforces and notable job gain rates. Denver ranked 8th among the top metros by tech economic impact as a percent of local economy and third among top metros by net tech employment job gains.

Tech workers were in high demand pre-pandemic and the COVID era's rapid moves further intensified that need. Technology companies expanded rapidly during the pandemic as nearly every aspect of life moved to require an online option. As the pandemic waned and companies were confronted with the possibility of a recession, major layoff announcements began to drop, accelerating through the second half of 2022. Tech giants like Twitter, Meta, and Stripe announced major layoffs, citing over-hiring during the pandemic and a general economic uncertainty as major reasons for these layoffs. These layoffs seemingly made little impact on the industry overall, which continued to face high demand for workers. Job openings far outpacing layoffs, leading to quick reabsorption of tech talent. According to research by ZipRecruiter, 79% of recently hired tech workers who were previously laid off said they found a new job within three months of beginning their job search.

Metro Denver's tech market remained particularly strong. CBRE's "Scoring Tech Talent 2022" ranked Denver as the 10th best market for tech talent due to an influx of millennials in the past five years. The results were driven by Denver's highly educated population, as well as by recent relocations of tech companies and their workers from San Francisco, New York City, and Chicago. The push towards remote work in the tech industry has allowed workers to move out of traditional tech hubs and into other high-quality markets. Strictly remote and hybrid work models continue to support the rapidly expanding cluster, with many companies continuing to have an anchor presence in the region.

<sup>1</sup>The nine-county region is comprised of two principal areas, Metro Denver and Northern Colorado. Metro Denver consists of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties. Northern Colorado consists of Larimer and Weld counties.

# CLUSTER DEFINITION

The Metro Denver and Northern Colorado region is comprised of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties. In this report, the IT-Software cluster is defined by seven, six-digit North American Industry Classification System (NAICS) codes including software reproduction, software publishers, custom computer programming, data processing and hosting, computer facilities management services, and computer systems design services that support business activities in all sectors of the economy. This definition allows for a comparative analysis of the region's IT-Software cluster relative to other metropolitan regions across the nation. This definition also avoids double-counting workers in other technology clusters such as broadband & digital communications and aerospace.

# CLUSTER JOB TRENDS

- » The IT-Software cluster expanded for the 12th consecutive year in 2022, rising 8.1% over-the-year, compared with a 7.7% increase nationally.
- » IT-Software was one of the fastest growing clusters between 2017 and 2022 and was twice the national average, rising 50.6% compared with 25.1% nationwide.
- » Employment growth in the region's IT-Software cluster has exceeded the U.S. employment growth rate for seven consecutive years in 2022.
- » Nearly 90% of the state's total employment in the cluster was located in the Metro Denver region.
- » Over the past five years, the number of IT-Software companies in the region increased 48.2%.
- » The IT-Software cluster employed 4.3% of the region's total employment base in 2022, increasing 1.7% points since 2017.





# MAJOR INDUSTRY INVESTMENTS, EXPANSIONS & MILESTONES

The region's mix of innovation, funding, and quality of life supports a thriving environment for technology companies. Colorado is home to four cities ranked among the "Best Places to Live" in 2022, with Boulder ranked No. 4 in the U.S.; highlighted for being a city that attracts young professionals, families, academics, scientists, transplants from both coasts, and lovers of outdoor recreation. The region's strong base of tech expertise and skilled workers continually attracts, retains, and grows IT-Software companies. According to CBRE, Metro Denver has the eighth-fastest growing tech labor pool in North America.

A study by the Brookings Institution identified Denver as one of nine 'rising star' tech hubs that reported a significant surge in tech jobs over the last five years. Denver had particularly vibrant growth in hiring ads during the COVID-19 pandemic and added tech jobs at an annual growth rate of more than 3%.

Colorado's tech industry growth accelerated in 2022, with 18 Colorado companies on Deloitte's list of fastest-growing tech businesses in North America. In 2021, there were nine Colorado companies on the list and in 2019 there were eight. Denver-based **Fluid Truck** was the highest ranked Colorado company at No. 9, with 9,899% growth in 2022. Inc. magazine's 2022 list of the 5,000 fastest-growing private ventures in the U.S. included 146 Colorado-based companies, of which 96 of the companies are based in Denver and 19 are in Boulder.

Several companies announced plans to make the region their new headquarters, major hub, or expand their existing headquarters.

- » **Trimble**, an industrial technology company, relocated their headquarters from Sunnyvale, California to Westminster. The 240,000-square-foot campus houses more than 1,000 of Trimble's employees.
- » Arizona-based business intelligence, data management, and technology solutions company **EdgeR&D** selected Colorado for its expansion. Over the next eight years, the company will bring 69 new jobs to Douglas County, mainly focused in technical and professional roles including program managers, data and software engineers, and business analysts.
- » Data analytics company **HNA Live** selected Denver for its headquarters. HNA Live is a cloud solution company that uses artificial intelligence and 3D technology to enhance productivity of manufacturing facilities, which is being

expanded into real estate. The company currently has 13 employees across the U.S. and estimates it will create over 36 new jobs in sales, engineering, executive, and administrative roles in Denver.

- » Massachusetts-based **Dynatrace** selected Denver for its new office and leased 52,000 square feet at 1900 16th Avenue in LoDo. Dynatrace is a software intelligence platform that optimizes the health and business impact of client companies' software. The company had 15 employees in Denver in 2022 and expects to hire up to 400 within the next three years. The new positions will include a mix of technical roles as well as customer success and sales roles.
- » **RevGen Partners**, a business and technology consulting firm, announced plans to move from Centennial to downtown Denver by January 2023. The move will allow the company to expand from 100 people to 300 as it hires data scientists, data engineers, application developers, and others.

Metro Denver has become a popular destination for international companies looking to expand into the U.S. or open a North American hub. Many Australian companies have found a home in Metro Denver in recent years. Since Denver launched its global development program in 2018 to help foreign companies locate in the city, 75% of the inquiries it receives have come from Australia or New Zealand. Not only is Colorado more affordable than common coastal hubs like New York and San Francisco, but Colorado shares the outdoor focused and work/life balance values of many Australian companies.

- » In 2022, Denver officials launched a first-in-the-nation physical hub at Galvanize Denver's Platte Street building that will allow Australian companies opening an office in Denver to move into a common coworking space with other firms from their home country. The **AUSDenver Business Hub** is meant to foster an even greater pipeline of companies from Australia to Denver.
- » Australia-based SaaS nonprofit startup **Humanitix** will open its U.S. headquarters in Denver and plans to create 136 new full-time jobs over the next five years. The nonprofit reroutes event booking fees to charitable causes, primarily focused on children and education. Humanitix may also create more than 210 jobs over the next eight years or more, with those jobs including general management, software engineering, finance, and customer support and call center operators.
- » Australian health technology company **Lumary** plans to

expand its U.S. presence to Denver and bring 120 new jobs to the area. Lumary currently has 130 employees worldwide. The new jobs in Denver will have an average annual wage of \$80,596 and will include positions in business development and account oversight.

- » **Preezie**, an Australian software retailer, chose Denver as the location of its North American headquarters. The company opened its Denver office at the end of 2022 with plans to hire a core staff of six professionals for sales, marketing, and customer relations roles.
- » Irish software company **Teamwork** announced that it is making Denver its North American hub. The company has 350 employees worldwide, of which about 20 are in Denver. The software-as-a-service company provides a project-management platform to help businesses with organization, meeting deadlines, and sticking to budgets.

Other major company expansions were announced in 2022:

- » **Zoom Video Communications** had 380 employees in Metro Denver when it closed its offices in March 2020 due to the pandemic and moved all employees to remote work. Since then, Zoom has doubled its headcount to 700 and reopened its Denver Tech Center offices, giving employees the opportunity to decide when and how often they work from the office.





- » Denver-based **Hotel Engine**, a booking platform that works with businesses to arrange short- and long-term lodging for their workers, had originally planned to hire 400 employees in 2022, but due to labor shortages, grew slightly slower, adding 170 new workers and bringing the company's headcount to 434. Hotel Engine also announced that it will be expanding to Ireland and the United Kingdom in early 2023.
- » **Blend360**, provider of data science and talent solutions services, opened a new office in Denver with plans to hire 100 technology focused employees locally in 2022. The new positions include data science, data engineering, and business intelligence roles, and about half of those positions were targeted for new college graduates.
- » California-based software company **Freshworks** is growing its presence in Metro Denver, with plans to expand its local workforce by about 50%. The company started with 12 people in 2020 and grew to nearly 100 employees in 2022. Freshworks provides software tools and platforms to help its customers manage their relationships with customers and employees.
- » Denver-based **SOBRsafe** began trading as a public company on the Nasdaq and plans to double its staff of 11 employees. The company provides preventative, touch-based technology to prevent alcohol-related incidents and plans to develop additional alcohol-detection applications for youth drivers and rehabilitation later this year.
- » Boulder-based mobile app startup **Nigh** released its pilot version of its app to the public in January 2023 after going through an "alpha phase" in 2022 that included mostly CU Boulder students. The company has grown to 17 employees, including 11 full-time staff and plans a fundraising round in 2023.
- » Denver-based construction software startup **Assignar**, a company which relocated to Denver from Australia in 2017, is now launching a presence in the U.K. The company provides cloud-based construction operations software to contracting companies that work on infrastructure, road, rail, and utilities projects.

The region has quickly become a hub for quantum computing activity over the last decade. Quantum computing is an emerging technology that uses the laws of quantum mechanics to solve complex problems. The region houses a vigorous ecosystem of quantum-intensive companies, from a few large entities such as Lockheed Martin and Honeywell, to numerous small and mid-sized companies and startups. CU Boulder is also home to several quantum science and

technology centers and the Cubit Quantum Initiative and is one of 12 research institutes focused on artificial intelligence and quantum information science. In 2022, Colorado signed a partnership with the country of Finland to work for bilateral foreign direct investment, research, and development as well as company exchanges and expansion opportunities in the area of quantum computing.

- » **Atom Computing**, a California-based startup that builds quantum computers opened a new 17,000 square foot research and development facility in Boulder. Atom chose Boulder due to the proximity to a workforce saturated with talent in the field and the high concentration of quantum computing companies in Metro Denver. The company plans to invest \$100 million in Colorado in the next three years as it works to scale its technology and grow its staff. Atom Computing currently employs 59 people, 22 of which are based in Boulder.
- » Boulder-based **ColdQuanta** raised \$110 million in a Series B funding round. The capital will be used to expand its product portfolio and to add engineering staff. The funding round comes as the company transitions from a research-driven organization to one focused on selling quantum computing technology. The company will be rebranding under the name **Inflection** as part of its commercial launch.

Metro Denver has emerged as a hub for foodtech startups, defined as tech-driven companies that are developing products and services to change how food is discovered, purchased, delivered, prepared, and eaten. Metro Denver was listed as one of the top foodtech ecosystems in the world, according to policy advisory and research firm Startup Genome. In 2022, many companies foodtech companies announced a expansions and headquarter relocation to Metro Denver, while several startups launched in the region.

- » Food safety startup **SnapDNA** relocated its headquarters from the Bay area to Broomfield and plans to hire up to 144 workers in the region in coming years.
- » **Lumachain**, an Australian startup that aims to increase efficiency across the global food supply chain, chose Denver for its U.S. headquarters.
- » **Bitewell**, which developed a healthy eating platform, selected Denver as the location of its first brick-and-mortar office. The company started in 2020 and previously was considered a fully remote company.
- » **Gigpro**, a hospitality staffing startup based in South Carolina, announced its expansion to Denver. Gigpro's platform allows restaurants, hotels, and resorts to post shifts and hire gig workers as needed.



- » **Feedplan** launched in 2022 in Denver and is developing a restaurant subscription platform that allows users to create weekly meal plans with local restaurants and receive discounted meals by prepaying.
- » **GoodieBag** launched its new platform in 2022 and plans to be based in Boulder. The platform helps restaurants salvage sunk costs by working with restaurants and grocers to sell surplus meals for discounted prices, rather than discarding the food.

### Venture Capital & Deal Activity

The region's venture capital funding in 2022 remained well-above pre-pandemic levels, despite falling from the record level reported in 2021. According to Pitchbook's latest Venture Monitor report, Colorado startups raised \$5.7 billion in 2022 and Colorado was among the top seven states for venture capital deal activity. While the flow of venture capital dollars in 2022 generally returned to the pre-pandemic trend of being concentrated along coastal tech hubs like New York and the San Francisco Bay Area, Metro Denver was among a handful of smaller markets where investment remained strong. Multiple Software/IT companies raised funds in 2022:

- » Denver health-tech unicorn **DispatchHealth** raised \$257 million in venture capital and \$75 million in debt to bolster its technology platform. DispatchHealth is a tech-enabled health company that sends caretakers to patients' homes to provide at-home care equal to what they would get in an urgent care or emergency room.
- » Denver-based **Guild Education**, which now has a valuation of \$4.4 billion, raised \$175 million in a Series F funding round to accelerate growth and capitalize demand for upskilling opportunities. Guild Education serves as a connector between a business's employees and education partners to allow for debt-free education opportunities. Guild Education was ranked #3 in LinkedIn's list of the top 50 U.S. startups in 2022.
- » **Housecall Pro**, a Denver-based mobile software platform for home-service businesses, raised \$125 million in a Series D funding round to fund a global operations expansion effort. The funds will be used to invest in sales, marketing, and engineering including hiring new staff in Denver.
- » **AMP Robotics Corp.** raised \$91 million in a Series C funding round, as the company looks to begin scaling its business and continuing to expand internationally. AMP Robotics produces artificial-intelligence software and robotic equipment used to automate the sorting of recyclable

materials. AMP recently opened a new 84,000-square-foot facility in Louisville. The company employs 300 workers, up from 90 at the beginning of 2021.

- » Louisville-based cybersecurity firm **Swimlane** raised \$70 million in a Series C financing round. The company specializes in security automation and response by simplifying repeatable steps to reduce security risk. The funding will accelerate the company's growth and operations on a global scale. Swimlane currently employs about 150 people.
- » Denver-based **Flatfile**, an artificial intelligence company, raised \$50 million in Series B funding to grow its team of engineers and expand its customer base. The company currently employs 75 people, some of whom are located in Denver and the rest work remotely throughout the country.
- » Denver-based software startup **Spekit** raised one of the largest venture rounds by a woman-led technology company in the state's history by bringing on a \$45 million Series B round. The company plans to use the funds to double its staff of more than 130 employees and expand its employee training product.
- » Denver-based security and networking company **Todyl** raised a \$28 million Series A investment round to further develop and expand its platform. The startup plans to open new security operation centers in the U.S. and overseas and more than double its headcount over the next year. The company currently has 19 employees in the Denver area.
- » Boulder-based adtech startup **Sovrn Holdings Inc.** raised \$36 million in Series C funding to further pursue its acquisition strategy. Since 2014, Sovrn has acquired six other companies. Sovrn runs a publishing platform for content creators that helps them operate their business, understand their readership, and manage consumer data. The company has increased its employee count by more than 50% across its offices in Boulder, San Diego, New York, London, and Switzerland.
- » **ThreatX**, a Louisville-based cybersecurity company, raised \$30 million in Series B funding. The company plans to expand its engineering, sales, and marketing teams as a result. The company grew 446% from 2018 through 2021.
- » Longmont-based **Fermyon Technologies** raised \$20 million in Series A funding in October. The cloud software development company employs 20 people globally and is looking to double its staff by mid-2023.

- » Denver-based rental technology startup **Nomad** brought on a \$20 million Series A round and plans to expand into 10 new markets over the next two years. Nomad is a marketplace that works with small-time rental property owners and guarantees owners will receive an agreed-upon rent, regardless of whether the unit is occupied. Nomad entered the Phoenix market in 2021 and plans to expand into Raleigh, N.C. this spring. The company has grown to nearly 40 employees and was expected to hire 50 more by the end of 2022.
- » Boulder-based payments startup **Tiled** raised \$11 million in a Series A extension, bringing its total fundraising amount to \$20 million. At the same time, the company increased from just over 10 employees in May 2021 to 50 in early 2022 and plans to increase its headcount to more than 150 over the next year. The company's staff largely is focused on technology with nearly 40% engineers, but it expects to hire in sales, marketing, engineering, implementation, and customer support.
- » Boulder-based product intelligence company **Smarter Sorting** added \$7 million to an ongoing funding round, bringing its investment to a total of \$32 million since March 2022. The company created a platform that leverages machine-learning technology to determine the chemical and ingredient information of consumer products.
- » **Copper Labs**, a Boulder startup that provides energy-monitoring technology for utilities and consumers, secured \$5.5 million in Series A financing. The company will use the new round to double its eight-person workforce in the Metro Denver area and accelerate adoption of its technology nationwide.
- » **Scholars**, a digital platform created in 2019 that connects companies with college students and young professionals for internships and entry-level positions, rebranded as Abode and raised \$5 million in seed funding in 2022. With the funding, the company plans to build out their product for employers, grow the team, and improve workplace culture. Since closing the round, **Abode** has grown its staff from five to 16.
- » Real estate software company **Zavvie Power Buyer LLC** closed a \$3.65 million funding round in early 2023.
- » Denver-based startup **Fulfilld** raised \$3.2 million in seed funding to get its warehouse management technology into the hands of more customers. The company currently employs a team of 16.
- » Boulder-based startup **Stylo** raised \$3 million in seed funding to push out its software that automates customer support functions. The company employs 15 people based across the U.S., Spain, Nepal, and Ukraine, and plans to hire more in 2023.
- » Denver-based cloud services distributor **Pax8** closed a \$1.7 million fundraising round that pushed the company's valuation into unicorn status. The company plans to expand its real estate footprint in the Denver area and continue expanding its headcount in the region. Pax8 has committed to hiring 1,000 additional employees in Colorado, 400 of which were expected in 2022. The company had about 1,200 employees in mid-2022, up from 600 at the start of 2020.

The creation of new venture capital funds focus on innovation from tech companies and will add to future investment in the Software - IT cluster:

- » Denver-based venture capital firm **Konvoy Ventures** launched a \$150 million fund focused on early-stage startups that work on video game technology and platforms. They plan to fund 30 startups over the next two years.
- » **Ping Identity**, a cloud-based cybersecurity company based in Denver, launched a \$50 million venture capital fund to propel innovation in the cybersecurity market. The new fund, called Ping Ventures, is seeking to invest in early-stage technology companies that are focused on protecting digital identity and access. Ping Ventures plans to provide guidance and act as a strategic partner for the companies in which it invests.

### Mergers & Acquisitions

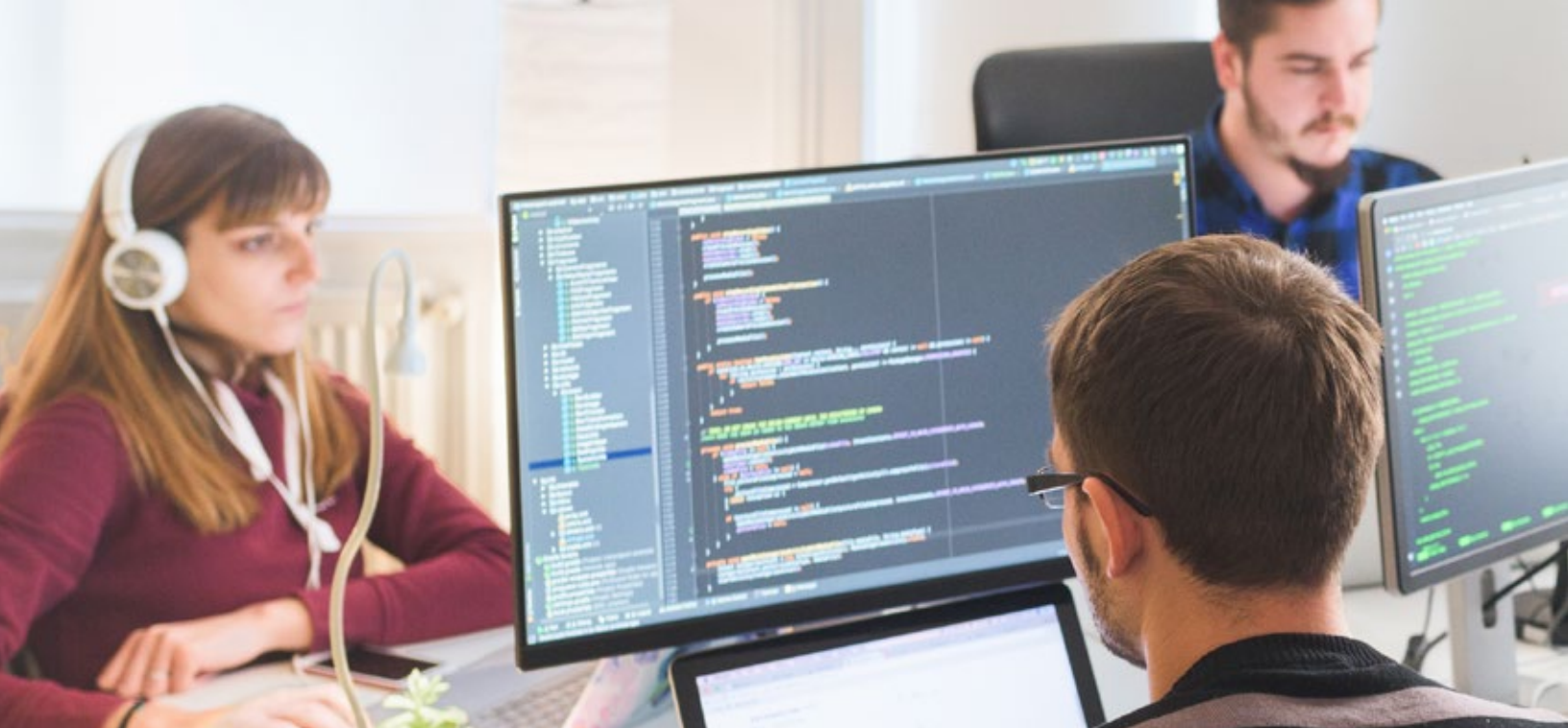
- » Denver-based provider of enterprise productivity software, **Gtmhub**, acquired two companies: **Koan** and **Cliff.ai**. **Koan**, a team management software startup based in Portland, Oregon; and **Cliff.ai**, a UK company that created operational intelligence software. The company is also rebranding to **Quantive**. As of the start of 2022, the remote-first company employed 240 people, with 15% of its employees working in Denver.
- » Hospitality business intelligence startup **OTA Insight**, an international company with U.S. headquarters in Denver, acquired **Transparent**, a provider of data and business intelligence for the short-term rental industry. Together the new companies will form the first cloud-based commercial



platform to serve both hotel and short-term rental industries. The company plans to double its local employee headcount to more than 100 by the end of 2022.

- » **Alchemer LLC**, a provider of customer experience and voice-of-the-customer software, acquired Seattle-based mobile feedback technology developer Apptentive Inc.
- » Denver-based health tech company **ArriveHealth** acquired a suite of technologies developed via UPMC Enterprises, a venture capital arm of health care provider and insurer University of Pittsburgh Medical Center that will allow the company to engage with patients via a chatbox and other automated features. Arrive Health's core product is patient-specific and location-specific cost and coverage data that helps providers coordinate and improve care.
- » Denver-based mental health tech unicorn **SonderMind** acquired Silicon Valley neuroscience company, Total Brain. SonderMind will integrate the app and research conducted by Total Brain in its therapy practices and offer clients the same digital wellness tools offered on Total Brain's app. About 30 employees from Total Brain will join the staff at SonderMind.

- » Industrial technology company **Trimble Inc.** spent nearly \$2 billion to absorb German transportation-logistics software company Transporeon.
- » Denver-based short-term rental data analytics startup **AirDNA** was acquired by San Francisco-based private equity firm Alpine Investors. AirDNA has a staff of nearly 100 and expects to grow by 50% over the next year. With a 5,500-square-foot office at 1509 Blake Street in Downtown Denver, the company is looking to expand but plans to stay in the area as it grows.
- » **Spatial Business Systems (SBS)**, a Littleton-based software developer, announced it was acquired by Peak Rock Capital from Austin, Texas. The deal is designed to help SBS expand and accelerate growth. SBS employs 60 people globally, split between their headquarters in Littleton and a satellite office in Melbourne, Australia.
- » Denver-based **Ping Identity Holding Corp.**, a cloud-based cybersecurity company, stopped trading on the stock exchange and became a privately held firm when it was sold to private equity giant Thoma Bravo in 2022. The company employs about 1,400 people, of whom about 500 work in the Denver area.



### Tech Real Estate Trends

According to CBRE's Tech-30 report Denver's 14.2% growth in tech jobs in 2020 and 2021 propelled the city to the seventh-highest gain in office rents, 10.3%, among Tech-30 markets. Denver's growth is driven by companies looking to expand into new markets and homegrown companies. Tech companies claimed 87% of the nearly \$2.2 billion in venture capital funding awarded to Denver companies in the first half of 2022. The impact of Denver's tech industry is felt in the office leasing market as Denver ranks seventh in terms of gains in office rents among tech hubs. Technology was the third-most active industry for office leasing in Denver in 2021.

Even as demand for tech real estate grows, many companies continue to reassess their needs for physical space as many companies adopt a more permanent hybrid or remote working culture. New data from FinancialForce found that 16.1% of Boulder's population was working from home at the beginning of the pandemic, the highest percentage among metropolitan areas nationally. Fort Collins and Denver ranked fifth and sixth on the list, with 11.7% and 11.4% of their populations working remotely. Denver has experienced an influx of people working from home since 2020, which is expected to continue to grow due to the region's status as a remote-worker hub. Through its 2022 Tech Sentiment report, Dice found that 90% of tech workers nationwide believe the opportunity to work remotely is an important factor when considering their next job. With the continuation of remote work among many tech companies

in Metro Denver, tech workers migrate from traditional tech hubs on the coast in order to achieve a better work-life balance. Many companies are rethinking their physical space by consolidating or redesigning office space to better match the remote and hybrid models:

- » **Autodesk** closed a portion of its Denver office, putting a large portion of its Denver space up for sublease. This consolidation will allow the company to reinvest in other areas of growth and allow employees to work remotely, in the office, or hybrid.
- » San-Francisco-based cloud communications company **Twilio** subleased a portion of its office space in downtown Denver as the company switched to a remote-first approach. Under the new policy, employees have the option of either working from home or from one of the company's several offices across the globe.
- » **Guild Education** subleased 47,000 square feet of space, or about half of its office space in Denver. The company now employs 1,400 people, with nearly half located outside of Denver.
- » Remote-first company **Housecall Pro** does not require employees to work from the office, but opened a physical office in Denver's River North Art District neighborhood in 2022 and is recruiting employees in the Denver area. Housecall Pro currently employs 1,300 employees, 125 of whom work from Denver.
- » Digital asset manager **Brandfold**, a company that was acquired by Washington-based Smartsheet in 2020,



closed its Denver office at the end of 2022 as part of an effort to balance actual usage of physical offices with the way employees want to work.

- » Global edtech company **2U Inc.** closed its downtown office.

### **Innovation & Entrepreneurship**

The region is naturally primed for entrepreneurs and has long been recognized for its high-tech innovation and development. Metro Denver is in the top 30 startup ecosystems in the world and No. 10 in North America, according to Startup Genome. As proof of that small business ecosystem, 98% of Colorado's businesses are small businesses. Further, Coloradans launched a record number of new businesses in 2022, with more than 175,000 people filing paperwork for new businesses, up 37% over-the-year, according to the Quarterly Business & Economic Indicators Report from the Leeds School of Business at University of Colorado Boulder. Colorado continues to rank nationally as a top 10 location for new businesses and business formations.

JLL's 2022 "Innovation Geographies" report analyzed over 100 cities globally to identify the most advanced innovation ecosystems and talent hubs to provide a global comparison of the most attractive cities for people, businesses, and capital. Metro Denver ranked 22nd in the world for talent concentration and 52nd for innovation. According to the report, smaller cities like Denver that have high tech concentrations are becoming increasingly attractive to companies and people and are outperforming competitors when it comes to the real estate market.

- » Denver ranked 6th in CBRE's "2022 Tech-30" report with high-tech job growth of 14.2% and high-tech office market rent growth of 10.3%.
- » Denver ranked among the "Top 12 Best Cities for Tech Jobs in 2022." (TechTarget).
- » Denver is the 6th best large city to start a business (Wallethub, 2022).
- » Twelve Metro Denver cities were ranked among the best small cities in the U.S. to start a business. Englewood was the top ranked Metro Denver city at No. 26, followed by Longmont (No. 40) and Lafayette (No.47).
- » For the third year in a row, Colorado ranked first for "Best States for Women-Led Startups" in 2022 by small business reviewer Merchant Maverick.
- » Colorado ranked best state for women entrepreneurs, according to banking platform NorthOne. Colorado was the only state to rank in the top 10 nationally for each of the gender-specific metrics. The analysis shows that Colorado has the highest percentage of women-owned businesses in the country at 10.39%.
- » Wallethub ranked Colorado No. 6 in their "2022 Best & Worst State Economies" report. The report analyzed 28 metrics of economic performance and strength including GDP growth, startup activity, and the share of jobs in high-tech industries.

# IT-SOFTWARE ECONOMIC PROFILE

## 9-County Rankings, 2022

### IT-Software Summary

Software direct employment concentration rank	5th (From 2021)
Software direct employment rank	10th (From 2021)



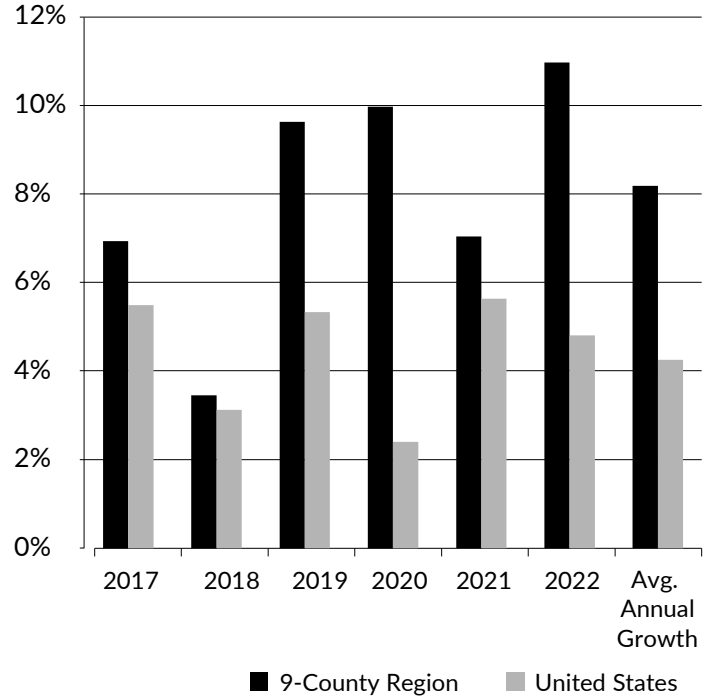


### IT-Software Employment & Company Profile 2022

	9-County Region	USA
Direct Employment, 2022	89,440	4,203,170
Number Of Direct Companies, 2022	8,270	286,050
One-Year Direct Employment Growth, 2021-2022	8.1%	7.7%
Five-Year Direct Employment Growth, 2017-2022	50.6%	25.1%
Avg. Annual Direct Employment Growth, 2017-2022	8.5%	4.6%
Direct Employment Concentration	4.3%	2.8%
% Of Companies With <10 Employees	86.8%	86.3%

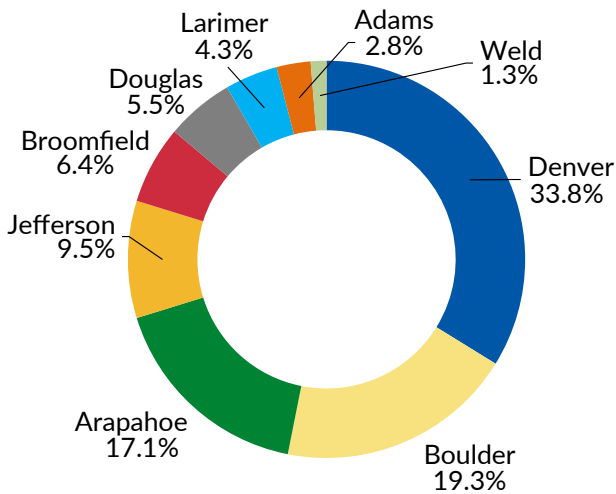
Sources: Dun & Bradstreet, Inc., Hoover's Online Database; Market Analysis Profile, 2017-2022; Development Research Partners.

### Number of Companies Growth Rate



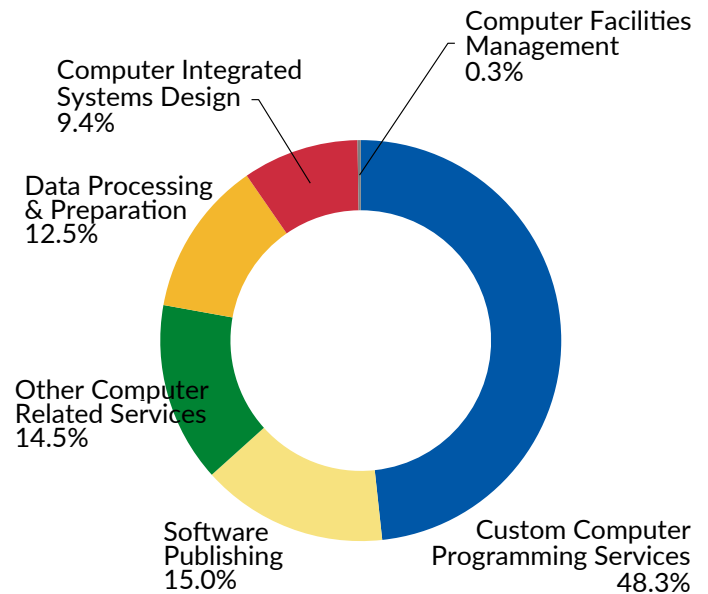
Source: Dun & Bradstreet, Inc., Hoover's Online Database; Market Analysis Profile, 2017

### Employment by County 2022



Sources: Market Analysis Profile, 2022; Development Research Partners.

### Employment by Category 2022



Sources: Market Analysis Profile, 2022; Development Research Partners.

<sup>2</sup>Direct employment rank based on the number of employees in the industry cluster in a region. Employment concentration rank based on the direct cluster employment in a region expressed as a percent of total employment in all industries in the same region. Rankings are for the 50 largest metropolitan statistical areas (MSAs). No multiplier effects are included. 1st = highest for both rankings.

# INDUSTRY INFRASTRUCTURE



## IT-SOFTWARE WORKFORCE PROFILE

The region offers a vibrant and inclusive IT community, strong entrepreneurial culture, and ample networking to attract workers.

- » Tech jobs accounted for 6.7% of total jobs in Denver's workforce, 1.6 times higher than the national average of 4.1% (CBRE).
- » Denver ranked 10th and Boulder ranked 12th on BestCollege's list of the top 25 Tech Hubs in 2022.
- » Denver ranked No. 15 among U.S. cities for the number of tech jobs posted from January through October 2022 in the Tech Jobs Report (Dice, 2022).
- » Denver is the 11th best city for tech jobs, according to a 2022 list of the best places for tech jobs in the U.S. from website Learn to Code with Me.
- » Boulder ranked #15 on CompTia's 2022 Tech Town Index.
- » Metro Denver ranked No. 4 for science, technology, engineering, and mathematics job growth, according to the 2022 STEM Job Growth Index (RCLCO, 2022; CapRidge Partners, 2022).
- » Aurora, CO ranked 14th among the best cities for women in tech (SmartAsset, 2022).
- » Boulder ranked 20th among the top 25 Best US Cities for High-Paying Software Engineering Jobs in 2022 (CRN, 2022).
- » Denver and Boulder, which were scored together, ranked as the ninth best U.S. cities for tech talent according to a report from Cushman & Wakefield. The report cited educational programs nearby, access to outdoor activities, and a relatively low cost of living as key factors in their scoring. Denver and Boulder ranked 29th globally.
- » The region is home to at least 10 tech programs, boot camps, and coding schools that quickly train software developers and designers.
- » CU Boulder ranked among the top 25 best public computer engineering graduate programs in the nation in 2022 (U.S. News & World Report).
- » Colorado ranked No. 17 in the country for the number of graduates hired by large tech companies, according to a 2022 study by TonerGiant.
- » CBRE's "Scoring Tech Talent 2022" ranked Denver as the 10th best market for tech talent due to an influx of millennials in the past five years. The results were driven by Denver's highly educated population, as well as by recent relocations of tech companies and their workers from San Francisco, New York City, and Chicago.
- » Denver is ranked third among markets with the most concentrated millennial markets in North America, according to CBRE's "Scoring Tech Talent 2022". Denver's population of millennials, ages 25 to 39, increased by more

than 14% from 2015 to 2020 and about one-quarter of the city's population falls into this group, while the national U.S. average is 20%.

- » Denver technology salaries rose 10.6% between 2021 and 2022 according to a report by Hired. Denver's average tech salary in 2022 was \$149,506. According to the analysis, Denver experienced the third-largest boost in tech salaries due to an influx of workers relocating from tech hubs.

### Age Distribution

- » The age distribution of workers in the region's IT-Software cluster is concentrated in the younger age brackets, with the largest share in the 25-34 age group.
- » More than 56% of the region's employees are between the ages of 25 and 44 years old, compared with the age distribution across all other industries in the region (45.9%).

### Wages

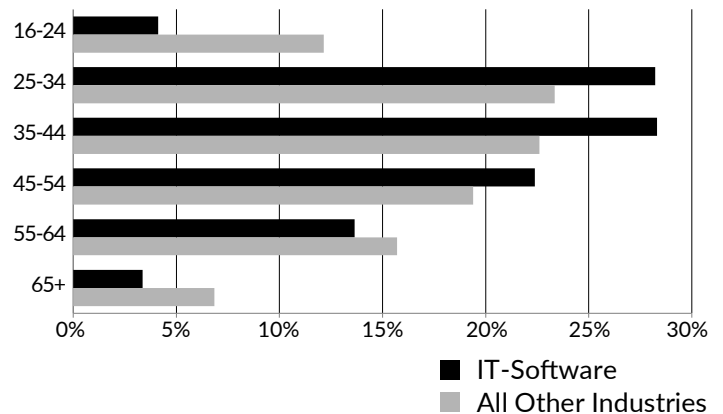
- » The 2021 average annual salary for workers in the IT-Software cluster was \$148,310 in the region, compared with the national average of \$158,150.
- » The average starting salary for workers in the IT-Software cluster (\$78,500) was the highest among any of the clusters in the region and was nearly double the average across all industries (\$43,070).

- » Total payroll increased 14% in 2021, totaling more than \$12 billion.

### Occupation & Salary Profile

The Occupation & Salary Profile below includes the 10 largest cluster occupations. It details the total number of workers employed in that occupation across all industries, the number of available applicants that would like to be working in that occupation, the number of recent graduates that are qualified for that occupation, and the median and sample percentile annual salaries.

**Metro Denver & Northern Colorado's Distribution of Employment by Age**



Source: QCEW Employees, Non-QCEW Employees, & Self Employed - Lightcast 2022.4 Class of Worker.

### Metro Denver and Northern Colorado IT-Software Occupation & Salary Profile, 2022

10 Largest IT-Software Occupations in Metro Denver and Northern Colorado	Total Working Across All Industries (2022)	Number of Available Applicants (2022)	Number of Graduates (2021)	Median Salary	10th Percentile Salary	25th Percentile Salary	75th Percentile Salary	90th Percentile Salary
Software Developers	37,179	260	3,228	\$119,901	\$76,977	\$97,231	\$140,252	\$167,728
Computer User Support Specialists	13,845	387	12,540	\$61,444	\$38,215	\$47,653	\$82,184	\$99,094
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	29,574	540	6,414	\$65,884	\$36,133	\$47,997	\$106,356	\$155,057
Computer Systems Analysts	10,118	153	3,336	\$100,461	\$71,011	\$80,577	\$130,063	\$166,584
Computer and Information Systems Managers	9,071	156	9,713	\$161,673	\$114,607	\$130,175	\$209,878	\$256,833
Project Management Specialists	22,125	121	12,928	\$96,404	\$58,193	\$73,369	\$125,876	\$155,002
Network and Computer Systems Administrators	9,772	174	3,080	\$96,298	\$58,395	\$74,732	\$117,007	\$132,932
Market Research Analysts and Marketing Specialists	21,225	190	8,296	\$76,476	\$44,466	\$56,605	\$102,678	\$132,186
Computer Network Architects	7,069	19	2,801	\$128,221	\$78,041	\$97,655	\$161,093	\$175,742
Computer Occupations, All Other	5,973	247	6,990	\$101,000	\$56,005	\$75,281	\$131,150	\$166,397

Notes: The number of available applicants is a point-in-time measurement of the number of people who have registered in Colorado's workforce development system's statewide database, Connecting Colorado, as being able and available to work in a particular occupation. Results should be interpreted with caution since registration in Connecting Colorado is self-reported. In addition, the skills rubric may assign up to four occupation codes for each registrant. Therefore, the number of available applicants could be inflated. Source: Arapahoe/Douglas Works!; QCEW Employees, Non-QCEW Employees, & Self Employed - Lightcast 2022.4 Class of Worker.



**For additional information, contact us:**

1445 Market Street  
Denver, CO 80202-1790  
303.620.8092

email: [info@metrodenver.org](mailto:info@metrodenver.org) | [www.metrodenver.org](http://www.metrodenver.org)