



AVIATION

Metro Denver and Northern Colorado Industry Cluster Profile

The aviation cluster includes companies that manufacture aircraft and provide air transportation services. More specifically, the cluster includes airlines, airports, aircraft manufacturing and technology companies, and support services. With more than 70 commercial reliever and general aviation airports throughout the state, the nine-county Metro Denver and Northern Colorado region¹ supports a strong foundation for the aviation cluster that includes nearly 600 businesses.

Denver International Airport (DIA) is a major economic engine for growth in the nine-county region's aviation cluster. DIA averaged more than 1,700 flight operations and roughly 142,400 passengers every 24 hours in 2010, making it the fifth-busiest airport in the nation and 10th busiest in the world. Total passenger traffic at DIA reached an all-time high of 52 million in 2010, up 4.1 percent from 2009, and set several records for monthly passenger traffic. This was the third year in DIA history that the airport's yearly passenger traffic exceeded 50 million. As a result, DIA is preparing for expansion over the next five to 15 years that will likely include new gates on existing concourses, improvements to the existing baggage and train systems, expanded parking areas and security, and a FasTracks commuter rail station. Further, DIA opened a one-stop-shop commerce hub for business owners to learn about the airport's procurement and contracting processes and insight into challenges and business opportunities in 2011. Passenger traffic totals in 2011 were among the highest reported in the history of DIA, bringing year-to-date passenger totals for October 2011 to 44.5 million, a 1.6 percent increase over the same 10-month period in 2010.

Evolving plans for DIA's South Terminal Redevelopment Program will transform the area directly south of Jeppesen Terminal. The initial phase of the \$500 million project will include a new on-site 500-room airport hotel, a station for the 23-mile commuter rail line that will connect DIA with Denver Union Station in downtown Denver, and an open-air plaza above the station providing connections to the main terminal. The South Terminal Redevelopment Program is scheduled for completion by 2016 and could create nearly 1,000 jobs and generate revenue for DIA and tax revenues for the City's General Fund. The Public Transit Center (PTC), which includes the FasTracks rail station, will be operational when the Regional Transportation District begins revenue service by 2016. The airport hotel will be located directly above the PTC with completion of the hotel in 2015.

Key developments in the region's aviation cluster in 2011 included:

- International carrier Icelandair will offer four nonstop flights each week between DIA and Reykjavik, Iceland, beginning in 2012. Once in Iceland, Icelandair offers connections to more than 20 destinations in Scandinavia, the United Kingdom, and Continental Europe. Icelandair's interline partnership with Frontier Airlines will enable travelers to book a single, combined ticket on Frontier and Icelandair-operated flights along with one-stop check-in and baggage transfer between the two airlines.
- Dallas-based Southwest Airlines acquired Florida-based AirTran Holdings to expand its presence to nearly 40 new markets and extend its existing network in New York, Boston, Baltimore, and Milwaukee. AirTran will continue to operate using its existing brand until the integration of the two airlines occurs in 2012. Southwest Airlines has expanded its operations at DIA and has become the No. 2 carrier at DIA behind United Airlines.
- Englewood-based Air Methods Corp. acquired both Texas-based United Rotocraft Solutions and OF Air Holdings Corp. and its subsidiaries including Omniflight Helicopters

¹ The nine-county Metro Denver and Northern Colorado region consists of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld Counties.

Inc. The company plans to improve its competitive cost structure, enhance its existing service to local communities, and expand its 300 helicopter and fixed-wing aircraft fleet.

The nine-county region fosters an environment of innovation and collaboration among the aviation, aerospace, cleantech, software, and telecommunications industries.

- In November 2011, Colorado Gov. John Hickenlooper announced the state's intent to pursue commercial spaceport designation with Adams County's Front Range Airport, a likely site for Colorado's first spaceport. Colorado was long viewed as too populous to support a spaceport, but rapidly changing technology is paving the way for horizontal launch facilities and a broad range of spaceport activity and commercial opportunities such as point-to-point launches and landings, suborbital flight, spacecraft R&D and manufacturing, crew training, Unmanned Aerial Vehicle activity, and platforms for advanced scientific research. Front Range Airport has begun the process of applying for a spaceport license, which could be granted by the Federal Aviation Administration (FAA) by the end of 2012.
- Englewood-based Jeppesen unveiled its Mobile FliteDeck iPad application that provides en route moving map functionality to assist pilots in implementing a paperless cockpit environment. The new application will replace 38 pounds of charts, handbooks, and logbooks that will save 326,000 gallons of jet fuel each year. Denver's largest carrier, United Airlines, was the first major airline to switch to the technology.
- Englewood-based Beyond Aviation, formerly Bye Energy, expanded its presence to Rocky Mountain Metropolitan Airport in Jefferson County and doubled its headquarters facility at Centennial Airport in 2011. The company began initial taxi tests on its electric Cessna 172 for its Green Flight Project, a collaborative effort between aerospace, aviation, and alternative energy industries to create an electric hybrid propulsion system for commercial application.
- Broomfield-based Aircell collaborated with American Airlines to launch its new in-flight wireless entertainment system that streams video content to passengers' personal devices. American is the first airline to test in-flight streaming video content and will conduct passenger testing on Boeing's 767-200 transcontinental aircraft.

Metro Denver's airports receive significant support from the region, especially from the Metro Denver Aviation Coalition (MDAC). MDAC is a membership committee of the Metro Denver Economic Development Corporation (Metro Denver EDC) that serves as a private-sector advocate dedicated to the continued growth and development of the region's aviation industry, including the long-term growth and vision of DIA and Metro Denver's three reliever and five general aviation airports.

Nine-County Region Airport Information

The nine-county region's commercial, reliever, and general aviation airports are major economic catalysts, generate significant economic benefits, and support hundreds of jobs. Further, the diverse system of airports helps to lead, sustain, and diversify the region's economy and contributes to the quality of life enjoyed by visitors, residents, and businesses. The state's largest airport—Denver International Airport—generates more than \$22 billion for the region annually. Combined, the nine-county region's airports contribute nearly \$24 billion to the region's economy annually, according to the Colorado Department of Transportation Division of Aeronautics.

Denver International Airport

DIA is a state-of-the-art facility owned and operated by the City and County of Denver. Located approximately 24 miles northeast of downtown Denver, DIA is the primary airport serving the nine-county region and the state of Colorado. DIA has more than 30,000-badged employees who work for the City and County of Denver, the airlines, security companies, the federal government, rental car companies, food and beverage concessions, cargo companies, and other airport-related business partners.

DIA accommodates more than 50 million passengers each year with six runways, three concourses, 95 gates, and 62 regional aircraft positions. Additionally, the airport occupies 53-square-miles which allow for longer runways and future expansion. DIA's sixth runway—the longest commercial runway in North America—opened in 2003 and can accommodate an

increased number of international flights. In total, 14 commercial carriers offer scheduled nonstop service from Denver to more than 160 domestic and international destinations. DIA serves as a major hub for United, Southwest, and Frontier Airlines.

The nine-county region is a natural hub for cargo operations due to its central location just 346 miles west of the geographic center of the U.S. Eight cargo airlines and more than 15 major and national airlines provide an extensive freight network between Denver and other cities, which offers close proximity to I-70, one of the country's primary east/west commerce routes. DIA handled 555 million pounds of cargo in 2010, which represents a 12.2 percent increase from cargo loads in 2009. Of the 2010 shipments, about 93 percent were freight and express while seven percent were classified as airmail.

DIA is a recognized leader in sustainability efforts and was the first airport in the nation to receive ISO 14001 Environmental Management System certification in 2004.

- DIA unveiled the airport's third and largest solar panel installation in 2011. Denver-based Oak Leaf Partners and Baltimore-based Constellation Energy Group Inc. developed the solar energy system for DIA that now produces more solar power than any other commercial airport nationwide. Combined, the three DIA systems meet about six percent of the airport's total power need.
- DIA is undergoing lighting sustainability projects including replacement of T-12 lamps with more energy efficient fixtures and replacing the airport's parking structure lighting with LED lighting.

Reliever Airports

Three reliever airports—those designated by the FAA to relieve traffic at commercial airports and general aviation airports, and provide other aviation services—are strategically located throughout the nine-county region. These airports are among the fastest growing in the country and represent a vital part of the aviation industry's future economic growth and vitality.

- **Centennial Airport** is the major local reliever airport for DIA and one of the premier business airports in the U.S. Services such as Flight for Life, law enforcement, medical flights, flight schools, and aircraft maintenance services are based at the airport. Centennial Airport is an international facility with a 24-hour U.S. Customs Office and 24/7 FAA-staffed control tower. Located near the Denver Tech Center and 22 other business parks, the airport is only 13 miles from downtown Denver. The airport and the surrounding 6,000 businesses generate 26 percent of Colorado's total Gross Domestic Product. Centennial Airport has four award-winning Fixed Base Operators providing all customer service needs to small aircraft and jets alike. The airport has three runways that range from 4,800 feet to 10,000 feet in length, including a CAT I ILS, and no flight delays. Centennial Airport is also a secure gateway to Reagan National Airport and it has the most decorated snow and ice control team in the Americas.
- **Front Range Airport**, located six miles southeast of DIA, is the region's only reliever airport without major residential areas nearby, making it both remote and convenient. At just under 4,000 acres, Front Range is the largest reliever airport in the region, and includes 1,000 acres for aviation and aerospace development. Front Range Airport has the nation's tallest general aviation tower, which controls two full-precision runways and associated taxiway and ramp system. The Colorado Division of Transportation's Division of Aeronautics is located at Front Range Airport in a state-owned building. Strategic Simulations Solutions is constructing a building on Front Range Parkway to house its Airbus 320 full-motion simulator, which will anchor airline pilot training for aviation and aerospace. The airport's new terminal renovation includes a corporate pilot lounge and full service restaurant and bar. Front Range began the process of obtaining spaceport designation, and anticipates the issue of a license for horizontal launch by the end of 2012.
- **Rocky Mountain Metropolitan Airport (RMMA)**, located between downtown Denver and Boulder, is the second-busiest general aviation airport in the state, averaging more than 160,000 operations each year. RMMA offers an Instrument Landing System and a user-fee designated U.S. Customs Office available 24 hours a day. Home to the U.S. headquarters of Pilatus Business Aircraft, the airport is adjacent to the Interlocken

Business Park and Westmoor Technology Park, and houses corporate aviation facilities, flight schools, and government offices. RMMA completed a new Airport Master Plan Update in 2009 and the airport is undergoing an environmental assessment to ascertain the impact of extending the runway safety area. In addition, the airport certified its recently completed Air Traffic Control Tower and installed a new airfield lighting control system in 2011.

General Aviation Airports

Colorado's general aviation airports form a cohesive system for commerce and air travel needs. Five general aviation airports are located in the nine-county region:

- Boulder Municipal Airport
- Erie Municipal Airport
- Fort Collins–Loveland Municipal Airport
- Greeley–Weld County Airport
- Longmont Municipal Airport

Key developments in the region's general aviation airports included:

- Fort Collins-Loveland's Municipal Airport completed a \$7 million renovation of its 8,500-foot runway. The project removed and replaced asphalt, upgraded runway lighting, and improved runway drainage. Additionally, the Colorado Department of Transportation's Division of Aeronautics awarded the airport a grant totaling \$7.7 million to fund ongoing maintenance and airport improvement projects. This was one of 46 grants totaling \$95 million awarded to Colorado's regional airports.
- Erie Municipal Airport had a number of improvement projects in 2011 made possible by close to \$1.5 million in FAA and state grant funds. Projects included the addition of an A4 taxiway and associated drainage project, bridge improvements, complete removal and reconstruction of the North apron, and installation of two, 12,000 gallon above ground fuel tanks and fueling system. In 2012, with the help of an additional \$550,000 in FAA and state grant funds, the airport will begin a new Airport Master Plan Study.
- The Boulder Municipal Airport is also undergoing a number of improvement projects including pavement maintenance on both runways and upgrading landside/airside access between the automobile parking area and the aircraft parking area. The airport's Master Plan Update identified ongoing general maintenance improvements for city-owned hangars and facilities that include painting and repair and future fencing projects and the installation of control access gates over the next few years.

Aviation Economic Profile

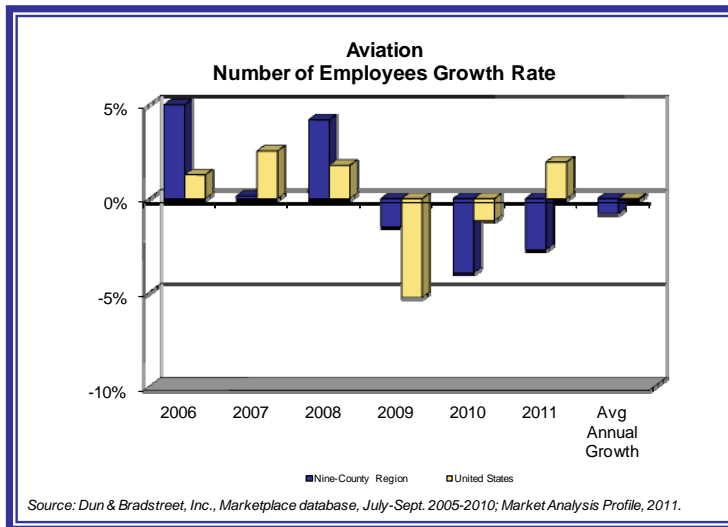
The aviation cluster consists of 41, six-digit North American Industry Classification System (NAICS) codes including aircraft manufacturing, passenger and freight air transportation, airport operations, and air traffic control.

With direct employment of about 14,650 aviation employees, the nine-county region ranked 11th out of the 50 largest metro areas in absolute employment in 2011. The region ranked 13th for aviation employment concentration. About 76 percent of Colorado's aviation cluster employees worked in the region.

	Nine-County Region	U.S.
Direct Employment, 2011	14,650	1,021,260
Number of Direct Companies, 2011	590	46,110
One-Year Direct Employment Growth, 2010-2011	-2.7%	2.0%
Five-Year Direct Employment Growth, 2006-2011	-4.0%	-0.4%
Avg. Annual Direct Employment Growth, 2006-2011	-0.8%	-0.1%
Direct Employment Concentration	0.8%	0.7%

Sources: Dun & Bradstreet, Inc. Marketplace database, July-Sept. 2006-2010; Market Analysis Profile, 2011; Development Research Partners.

Aviation Employment



- The aviation cluster directly employed about 14,650 people in the nine-county region in 2011.
- Aviation companies employed 0.8 percent of the region's total employment base, compared with a 0.7 percent employment concentration nationwide.
- Impacted by the most recent recession, employment in the region's aviation cluster declined in 2009 and 2010. Nine-county region employment remained sluggish through 2011 as a result of carriers' capacity reductions and financial restructuring.

- About 75 percent of the region's aviation cluster employees worked in scheduled and nonscheduled air transportation, which includes both passenger and freight services. Airports and other facilities that provide flight support and related services employed another 13 percent.
- More than 87 percent of the region's aviation employees worked in the City and County of Denver (78 percent) and in Arapahoe County (nine percent).

Wages

The 2010 average annual salary for aviation employees in the nine-county region was \$47,060, compared with the national average of \$59,400. Total nine-county payroll in the aviation cluster reached nearly \$709 million in 2010.

Denver-Aurora-Broomfield MSA Occupational Salaries, 2010 Annual Average

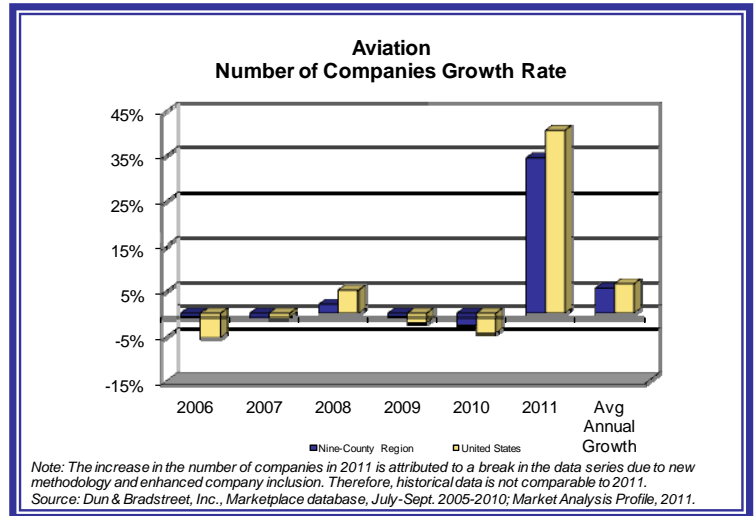
Air Traffic Controllers	\$120,400
Airline Pilots, Copilots, and Flight Engineers	\$73,980
Aircraft Mechanics and Service Technicians	\$58,210
Aircraft Cargo Handling Supervisors	\$51,720
Avionics Technicians	\$48,310
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	\$42,800

Note: Mean annual salary data is for the 10-county Denver-Aurora-Broomfield Metropolitan Statistical Area (MSA) consisting of Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, and Park Counties.

Source: U.S. Bureau of Labor Statistics, Metropolitan Area Occupational Employment and Wage Estimates, May 2010, www.bls.gov.

Aviation Companies

- About 590 aviation companies operated in the nine-county region in 2011.
- Nearly 80 percent of the region's aviation companies employed fewer than 10 people, while 0.8 percent employed 250 or more.
- More than 35 percent of the region's aviation companies provided airport operations and support services. Another 23 percent provided aircraft repair services and scheduled or nonscheduled air transportation, consisting of both passenger and freight services. The remaining companies were evenly distributed between aircraft and parts manufacturing, maintenance, and flight training.



- About 63 percent of the aviation companies in the region were located in Arapahoe, Jefferson, and Boulder Counties, and in the City and County of Denver.

Major Aviation Companies

- Air Methods Corp.
www.airmethods.com
- American Airlines, Inc.
www.aa.com
- Continental Airlines
www.continental.com
- Delta Air Lines, Inc.
www.delta.com
- DHL
www.dhl.com
- FedEx
www.fedex.com
- Great Lakes Aviation
www.greatlakesav.com
- Integrated Airline Services, Inc.
www.iasair.com
- Jeppesen
www.jeppesen.com
- Pilatus Aircraft
www.pilatus-aircraft.com
- Republic Airways Holdings, Inc.
www.flyfrontier.com
- Signature Flight Support
www.signatureflight.com
- Southwest Airlines
www.southwest.com
- United Airlines
www.united.com
- United Parcel Services Inc.
www.ups.com
- Worldwide Flight Services
www.wfs.aero

Key Reasons for Aviation Companies to Locate in the Nine-County Region

The region is a top aviation location offering:

1. A prime air transportation location

- Denver International Airport (DIA) was the fifth-busiest airport in the nation and 10th-busiest worldwide in terms of passenger traffic in 2010. The airport is home to 14 commercial airlines—the largest of which are United Airlines, Southwest, and Frontier Airlines—that offer scheduled nonstop service to more than 160 domestic and international destinations. (U.S. Bureau of Transportation Statistics, 2011; Airports Council International, 2011; and Denver International Airport, 2011)

- The nine-county region's central U.S. location allows convenient access as air travelers can easily reach two-thirds of the nation within two hours. Further, the region is within four hours flying time of every North American city with a population of one million or more. (Metro Denver Economic Development Corporation)
- DIA occupies the largest land mass of any commercial airport in the nation. Encompassing 34,000 acres, the airport's efficient design allows easily expandable terminals and concourses. In addition, significant land opportunities exist both inside and outside of the airport. (Denver International Airport, 2011)
- DIA tied with Atlanta's Hartsfield-Jackson Airport as the nation's "Top Domestic Airport" in *Executive Travel* magazine's 2011 "Leading Edge Awards." DIA has received the honor for four consecutive years. (*Executive Travel*, 2011)
- About 82 percent of all commercial flights arrived on time at DIA in the first 10 months of 2011, giving it the seventh-best on-time arrival average among the nation's major airports. That arrival record was higher than the national average of 78.6 percent. (U.S. Bureau of Transportation Statistics, 2011)
- DIA ranked fifth among the nation's 100 busiest airports for the largest decline in average domestic fare over the past decade. The average domestic fare at DIA fell 28.5 percent between the fourth quarters of 2000 and 2010, compared with a one percent decline nationwide. Competition among Denver's low-cost carriers and expansion of Southwest Airlines in recent years contributed to DIA's notable ranking. (U.S. Bureau of Transportation Statistics, 2011)
- Hotwire.com named Denver the nation's seventh-best travel value, according to the 2011 "Travel Value Index." The site evaluated the top 75 U.S. leisure markets based on the most affordable airfare, accommodations, and entertainment. (Hotwire.com, 2011)
- DIA was the first airport in the country awarded membership in the U.S. Environmental Protection Agency's Performance Track, which recognized facilities that exceeded regulatory requirements and strived to protect public health and the environment. DIA joined 13 other Colorado Performance Track members based on past environmental achievements, record sustained compliance, and commitment to continued environmental improvement, public outreach, and performance reporting. (Denver International Airport; U.S. Environmental Protection Agency)
- The City and County of Denver is the grantee of three general use Foreign Trade Zones in Metro Denver and Northern Colorado, or sites within the U.S. considered by the federal government to be outside Customs territory. Aspen Distribution, Inc. operates the original site located near the former Stapleton Airport, and the second zone, WorldPort at DIA, is just minutes from the airport. Great Western Industrial Park in Windsor is the newest and largest zone geographically which connects to the Burlington Northern Santa Fe and Union Pacific rail lines via the Great Western Railway of Colorado. (City and County of Denver)

2. An overall better quality of life

- *The Daily Beast* ranked Denver first among the nation's 30 fittest cities. The ranking reflects each city's percentage of physically active residents, the percentage of residents in good or excellent health, the percentage of residents characterized as obese, each city's placement on the Gallup-Healthways "Well-Being Index," and healthy behavior. (*The Daily Beast*, 2011)
- Colorado ranked fifth in a Harris survey that asked more than 2,400 U.S. adults where they would most like to live. Colorado ranked third-highest as a desired home state for younger respondents ages 18 to 34. Denver ranked as the 10th-most favored city in a separate Harris survey. (Harris Interactive, 2011)
- Colorado has the third-highest percentage of state land area devoted to the National Forest System, according to the U.S. Forest Service. With more than 40 state parks, 56 national parks and wilderness areas, and the greatest number of 14,000-foot peaks in the nation, Colorado's quality outdoor recreation serves as a cornerstone of the state's economy. (U.S. Forest Service, 2011; Colorado State Parks, 2011; Wilderness.net, 2011)
- Louisville topped *Money Magazine's* 2011 list of the "Best Places to Live," which highlights small cities and towns that offer excellent housing and education, job

opportunities, and abundant activities. Castle Rock (19th), Superior (20th), and Parker (29th) were also named to the list. (*Money Magazine*, 2011)

- Boulder ranked third on RelocateAmerica's 2011 list of the "Top 100 Places to Live." Criteria for the ranking included quality of life, community leadership, and measures related to education and employment. (RelocateAmerica, 2011)
- Denver ranked among five U.S. "Cities on the Edge" of greatness and received accolades for its educated population and support for extreme sports, according to Sperling's Best Places on behalf of Edge® Shave Gel. Criteria included commitment to green living and the vibrancy of each city's arts, culture, and sports scenes. (Sperling's Best Places, 2011)
- Metro Denver voters approved the funding of FasTracks in November 2004. FasTracks is a \$7.8 billion comprehensive plan for the design and construction of high-quality, multimodal transit service and facilities. FasTracks will vastly improve mobility throughout the region.
- The *U.S. News and World Report* ranked Denver the best city for public transportation in 2011. Criteria for the ranking included public transportation investment, safety, and ridership. Denver's light rail and bus rapid transit lines, convenient airport shuttle service, and ongoing FasTracks expansion contributed to this top position. (*U.S. News & World Report*, 2011)
- Colorado attracted a record 55.1 million visitors in 2010, including 28.9 million overnight visitors. Overnight and day visitors spent a record \$10.2 billion in Colorado in 2010, representing a 4.6 percent increase over 2009. (Longwoods International, "Colorado Travel Year 2010," 2011)
- The cost of living in Metro Denver is only five percent above the national average and is well below that of many other major cities. (The Council for Community and Economic Research, ACCRA Cost of Living Index, Q3 2011)
- Metro Denver's third quarter 2011 median home price of \$235,600 was significantly less than comparable communities on the east and west coasts, but is higher than the national median price of \$169,500. Metro Denver ranked 21st among 152 metro areas for median single-family home price in the third quarter of 2011. (National Association of Realtors, Q3 2011)
- With sunshine on nearly 70 percent of the days each year, Metro Denver ranked third-sunniest among 20 major U.S. cities. (U. S. National Oceanic and Atmospheric Administration, National Climatic Data Center, 2011)

3. Lower overall costs of doing business

- Colorado offers a simple corporate income tax structure based on single-factor apportionment, which allows companies to pay taxes based solely on their sales in the state. Along with few regulatory burdens, Colorado's corporate income tax rate of 4.63 percent is one of the lowest and most competitive tax structures in the nation. (State of Colorado; The Tax Foundation)
- Aircraft manufacturers in Colorado aviation development zones can qualify for a state income tax credit of \$1,200 per new employee in tax years between 2006 and 2017. (Colorado Department of Revenue)
- Legislation passed in 2008 abolished Colorado's fly-away sales tax on planes manufactured in Colorado. The exemption, a valuable incentive for aircraft manufacturers, applies to aircraft built in Colorado but housed in another state. (State of Colorado, Office of the Governor)
- Colorado has one of the nation's most small business friendly environments. The state ranked among the top 10 in the Small Business & Entrepreneurship Council's 2011 "Small Business Survival Index," which considers property rights, healthcare and energy costs, individual and corporate tax rates, and government spending. The state ranked most favorably for taxes on capital gains and corporate income. (Small Business & Entrepreneurship Council, 2011)
- Colorado ranked fifth overall on *Forbes'* 2011 "Best States for Business and Careers" list. Rankings were based on each state's business costs and regulations, economy, labor supply, quality of life, and growth prospects. Colorado received its highest rankings for

labor supply (first overall) and economic climate and quality of life (10th overall). (*Forbes*, 2011)

- Colorado ranked fifth among the nation's top states for business, according to an annual ranking by *CNBC*. The ranking evaluated each state's composite scores on 43 metrics in 10 broad categories, and Colorado earned top 10 rankings in the categories that measure business friendliness (sixth), quality of life (seventh), and workforce (seventh). (*CNBC*, 2011)
- Colorado has the nation's 10th-best tax climate for small businesses and entrepreneurs, according to the Small Business & Entrepreneurship Council's "Business Tax Index 2011." The index examines each state's tax policies on 18 metrics ranging from rates of property, income, and sales taxes to unemployment insurance taxes and levies on online commerce. (Small Business & Entrepreneurship Council, 2011)
- Metro Denver office rental rates averaged \$23.99 per square foot in the fourth quarter of 2011, making the region's office market highly competitive with other major markets in the U.S. (CoStar Realty Information, The CoStar Office Report, Q4 2011)

4. Access to aviation-related training programs

- Metropolitan State College of Denver's Department of Aviation and Aerospace Science offers majors in aviation technology and aviation management in addition to certificate programs in airport management and space commercialization for its more than 500 students. The Department received the 2011 Loening Trophy that recognizes the most outstanding all-around collegiate aviation program in the nation. (Metropolitan State College of Denver, 2011)
- Metropolitan State College of Denver and Aims Community College in Greeley are among 36 schools approved under the Federal Aviation Administration's (FAA) Air Traffic Collegiate Training Initiative. Schools approved under this program teach subjects that encompass FAA's Air Traffic Basics Courses and provide a qualified pool of applicants for hiring into the FAA air traffic controller workforce. Students at approved schools are eligible to bypass a portion of their required training at the FAA Academy. (Federal Aviation Administration, 2011)
- The Emily Griffith Opportunity School offers an FAA certified aircraft maintenance program in airframe and powerplant mechanics at its Aircraft Training Center located at Front Range Airport. The program has provided more than 1,500 highly qualified technicians to the aviation industry for over fifty years. (Emily Griffith Opportunity School)
- Denver's Take Flight Leadership Aviation program provides aviation education and scholarship resources for minority students interested in aviation careers. The legacy of Bessie Coleman and Tuskegee Airman developed the program to provide underprivileged adolescents the opportunity to achieve their future aviation careers through workshops, exposure to aviation occupations, and professional responsibilities. (Take Flight Leadership Aviation)
- Metropolitan State College of Denver's Center for Aviation and Aerospace Management Studies supports local industry and fills vital workforce needs throughout the state. The center has provided more than 100 graduates to Jeppesen to support the company's daily operations. The company commits \$10,000 per year to the center for faculty and student project development. (Metropolitan State College of Denver)
- Redstone College, located near Rocky Mountain Metropolitan Airport, offers programs in airframe and power plants and advanced electronics technology. (Redstone College)

Aviation Industry Cluster Definition

NAICS Code*	NAICS Description	SIC Code	SIC Description
238320 (P)	Paint & wall covering contractors	1721-0301	Aircraft painting
314110 (P)	Carpet & rug mills	2273-0100	Aircraft & automobile floor coverings
314110 (P)	Carpet & rug mills	2273-0101	Aircraft floor coverings, except rubber or plastic
326211 (P)	Tire mfg. (except retreading)	3011-0102	Airplane inner tubes
326211 (P)	Tire mfg. (except retreading)	3011-0202	Airplane tires, pneumatic
331491 (P)	Nonferrous metal (except copper & aluminum) rolling, drawing, & extruding	3357-9901	Aircraft wire & cable, nonferrous
332111 (P)	Iron & steel forging	3462-9901	Aircraft forgings, ferrous
332112 (P)	Nonferrous forging	3463-9901	Aircraft forgings, nonferrous
332312 (P)	Fabricated structural metal mfg.	3449-9904	Landing mats, aircraft: metal
332510 (P)	Hardware mfg.	3429-0401	Aircraft hardware
332912 (P)	Fluid power valve & hose fitting mfg.	3492-01	Fluid power valves for aircraft
332999 (P)	All other miscellaneous fabricated metal product mfg.	3537-0101	Aircraft engine cradles
333319 (P)	Other comm'l & service industry machinery mfg.	3699-0302	Flight simulators (training aids), electronic
333924 (P)	Industrial truck, tractor, trailer, & stacker machinery mfg.	3537-0201	Aircraft loading hoists
334519 (P)	Other measuring & controlling device mfg.	3829-0102	Fuel densitometers, aircraft engine
334519 (P)	Other measuring & controlling device mfg.	3829-0103	Fuel mixture indicators, aircraft engine
334519 (P)	Other measuring & controlling device mfg.	3829-0104	Fuel system instruments, aircraft
334519 (P)	Other measuring & controlling device mfg.	3829-0110	Pressure & vacuum indicators, aircraft eng.
334519 (P)	Other measuring & controlling device mfg.	3829-0111	Synchronizers, aircraft engine
334519 (P)	Other measuring & controlling device mfg.	3829-0112	Testers for checking hydraulic controls on aircraft
334519 (P)	Other measuring & controlling device mfg.	3829-0113	Thrust power indicators, aircraft engine
336311 (P)	Carburetor, piston, piston ring, & valve mfg.	3592-0101	Valves, aircraft
336321 (P)	Vehicular lighting equip. mfg.	3647-9901	Aircraft lighting fixtures
336322 (P)	Other motor vehicle electrical & electronic equip. mfg.	3694-0206	Motors, starting: automotive & aircraft
336360 (P)	Motor vehicle seating & interior trim mfg.	2399-0404	Automobile & aircraft seat belts
336360 (P)	Motor vehicle seating & interior trim mfg.	2531-0302	Aircraft seats
336411	Aircraft mfg.	3721	Aircraft
336412	Aircraft engine & engine parts mfg.	3724	Aircraft engines & engine parts
336413	Other aircraft part & auxiliary equip. mfg.	3728	Aircraft parts & equip., NEC
423860 (P)	Transportation equip. & supplies (except motor vehicle) merchant wholesalers	5088-0301	Aeronautical equip. & supplies
423860 (P)	Transportation equip. & supplies (except motor vehicle) merchant wholesalers	5088-0302	Aircraft & parts, NEC
423860 (P)	Transportation equip. & supplies (except motor vehicle) merchant wholesalers	5088-0303	Aircraft engines & engine parts
423860 (P)	Transportation equip. & supplies (except motor vehicle) merchant wholesalers	5088-0304	Aircraft equip. & supplies, NEC
423860 (P)	Transportation equip. & supplies (except motor vehicle) merchant wholesalers	5088-0306	Helicopter parts
424720 (P)	Petroleum & petroleum products merchant wholesalers (except bulk stations & terminals)	5172-0201	Aircraft fueling services
441229 (P)	All other motor vehicle dealers	5599-01	Aircraft dealers
481111	Scheduled passenger air transportation	4512	Scheduled air transport
481112	Scheduled freight air transportation	4512	Scheduled air transport
481211	Nonscheduled charter passenger	4522	Nonscheduled air transport
481212	Nonscheduled charter freight	4522	Nonscheduled air transport
481219	Other nonscheduled air transportation	4522	Nonscheduled air transport
481219	Other nonscheduled air transportation	7997-9901	Aviation club, membership
488111	Air traffic control	9621-01	Aircraft regulating agencies
488119	Other airport operations	4581	Airports, flying fields, & airport terminal services
488190	Other support activities for air transportation	4581	Airports, flying fields, & airport terminal services
488190	Other support activities for air transportation	7699-2200	Aircraft & heavy equip. repair services

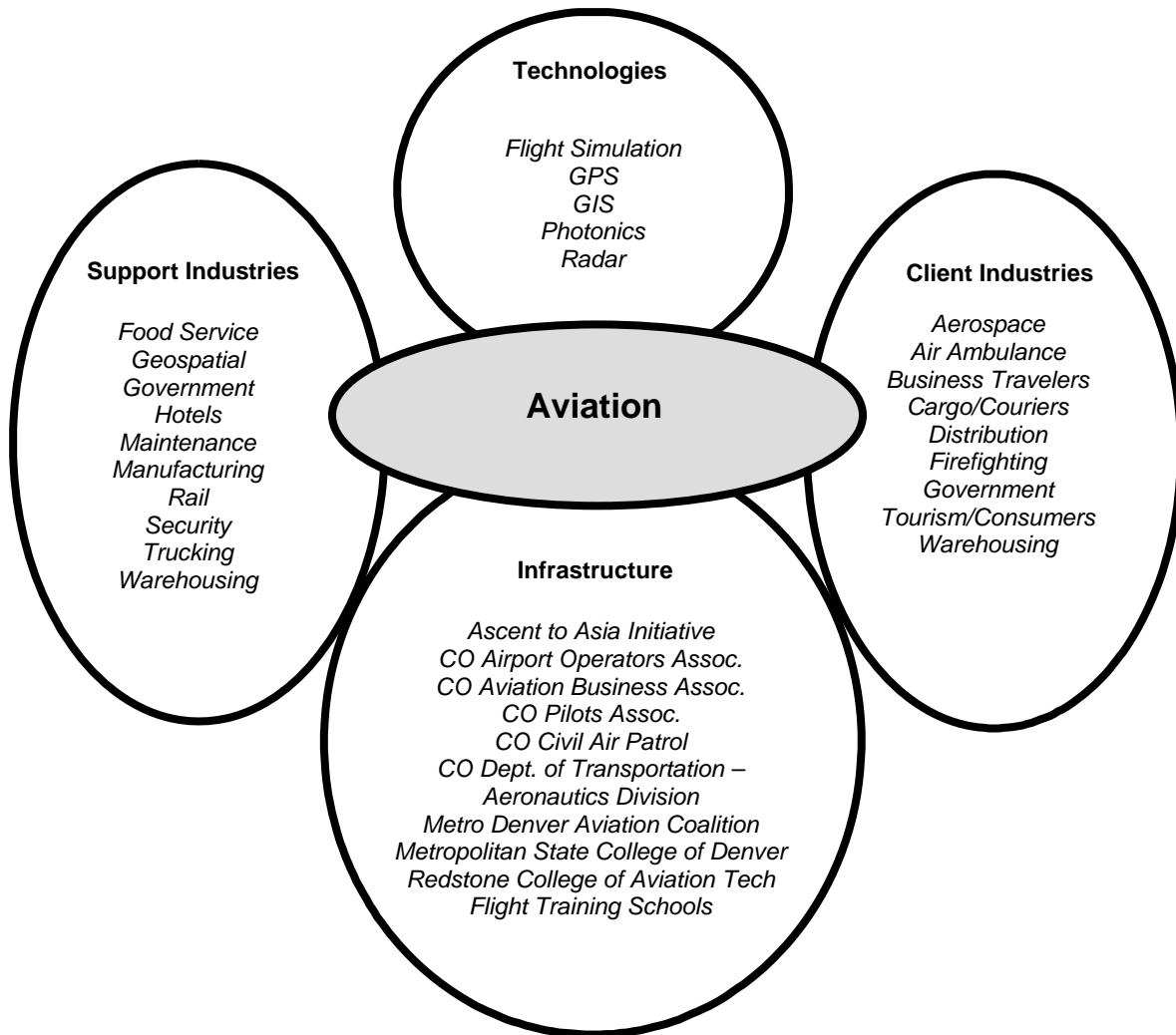
Aviation Industry Cluster Definition (Cont'd)

NAICS Code*	NAICS Description	SIC Code	SIC Description
488190	Other support activities for air transportation	7699-2201	Aircraft flight instrument repair
488190	Other support activities for air transportation	7699-2202	Aviation propeller & blade repair
488190	Other support activities for air transportation	7699-2206	Hydraulic equip. repair
532411 (P)	Commercial air, rail, & water transportation equip. rental & leasing	7359-0401	Aircraft rental
541330 (P)	Engineering services	8711-9902	Aviation and/or aeronautical engineering
561330 (P)	Professional employer organizations	7363-9908	Pilot service, aviation
561599 (P)	All other travel arrangement & reservation services	4729-0101	Airline ticket offices
561720 (P)	Janitorial services	4581	Airports, flying fields, & airport terminal services
611512	Flight training	8249-9901	Aviation school
611512	Flight training	8299-9908	Flying instruction
713990 (P)	All other amusement & recreation industries	7999-1002	Air shows
811213 (P)	Communication equip. repair & maintenance	7622-0101	Aircraft radio equip. repair
811219 (P)	Other electronic & precision equip. repair & maintenance	7629-9901	Aircraft electrical equip. repair
926120 (P)	Regulation & admin of transportation programs	9621-01	Aircraft regulating agencies

**(P) indicates that only part of the NAICS industry category is represented in the industry cluster definition.*

Note: NEC indicates "not elsewhere classified."

Aviation Industry Cluster Relationships



For additional information, contact us:



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