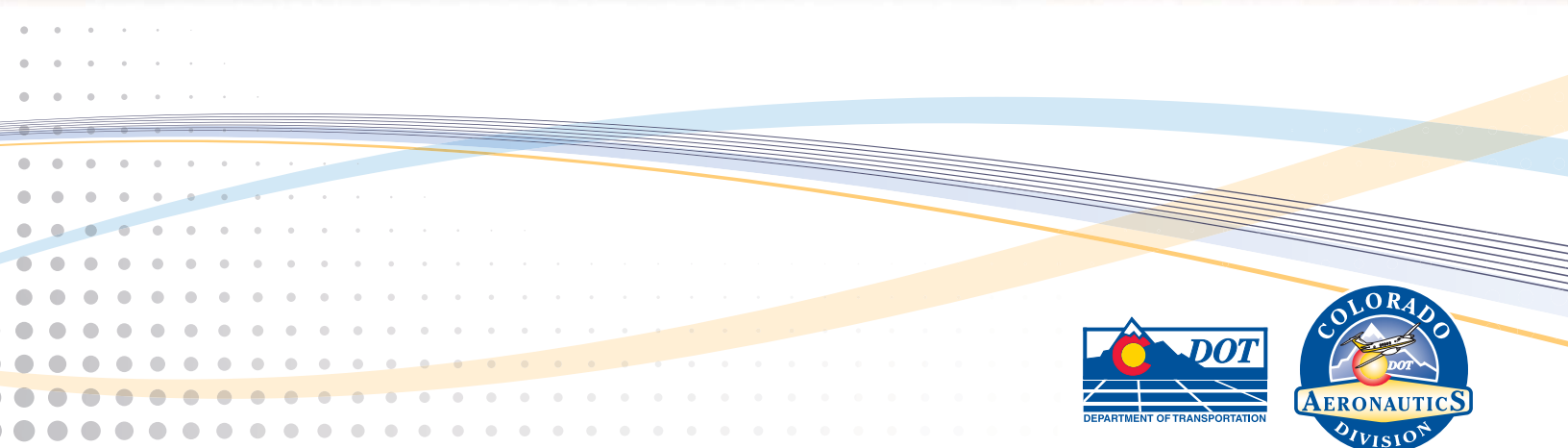
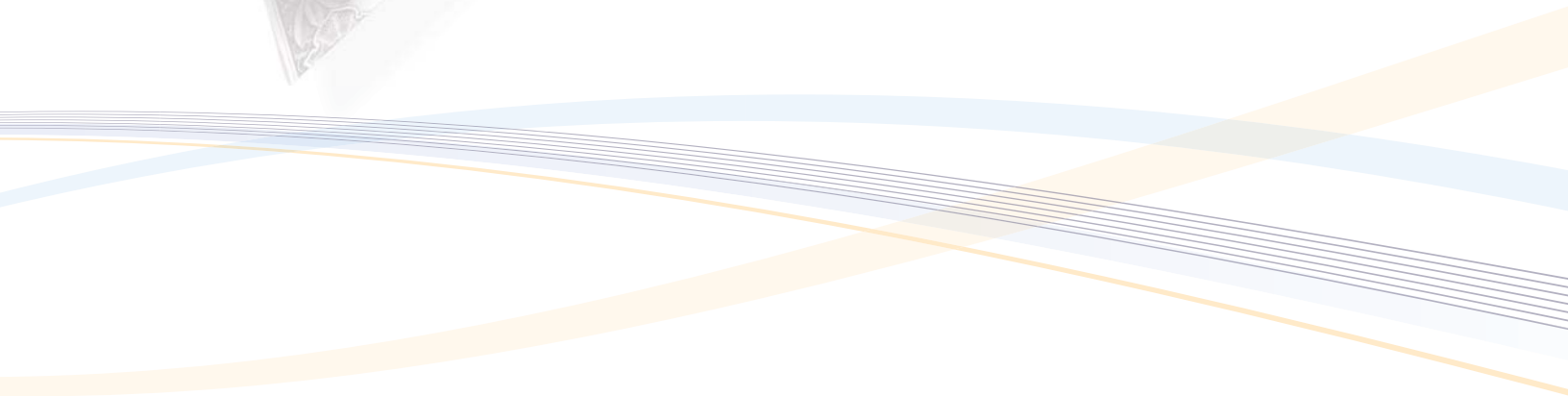




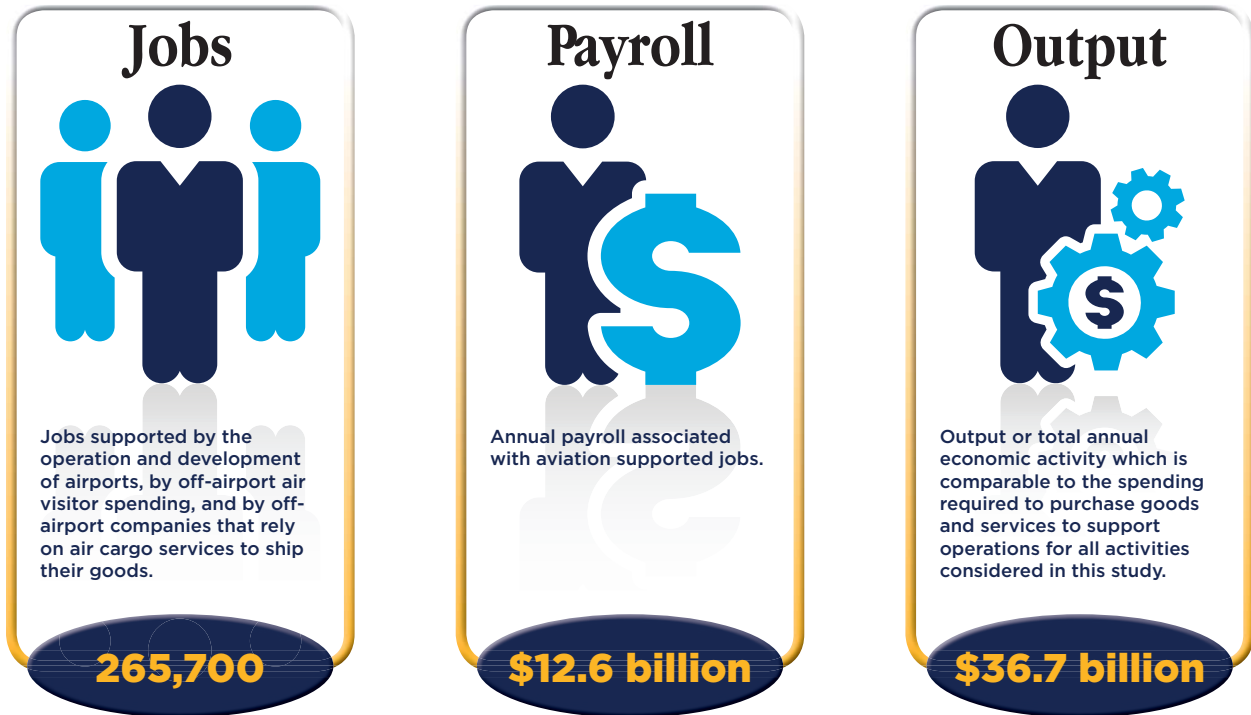
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ECONOMIC IMPACT STUDY
FOR
COLORADO AIRPORTS





Introduction

The 2013 Colorado Economic Impact Study documents how Colorado commercial and general aviation airports support the state's economy and the economies of communities throughout the state. Estimates of economic impact were developed for jobs supported, annual payroll, and total annual economic output.



Colorado's airport system transports people and goods to many domestic and international locations; airports facilitate commerce; and airports help to maintain Colorado's outstanding quality-of-life. Airports are essential to Colorado's diverse business base which includes employers in the areas of communications, agriculture, energy, high tech manufacturing and tourism. Airports also support essential services which include but are not limited to air ambulance flights, transportation for medical personnel, firefighting, law enforcement and search and rescue missions.



Agricultural Spraying Operations at Yuma Municipal Airport. Photo by Shahn Sederberg

Past and Current Economic Impacts

The Colorado Division of Aeronautics has periodically measured the economic impact of Colorado's commercial and public-use general aviation airports four times since 1998. Methodologies used to conduct these studies have been similar, but they are not identical. Therefore, results between reporting periods are not directly comparable.

This update included more research to translate part-time employment into full time equivalent jobs; it used airport specific estimates for general aviation visitors as opposed to national averages; and it considered local economic settings to estimate each airport's economic contribution to its service area.

In recent years, the aviation industry has, in part, contracted as a result of higher fuel prices. In addition, economic downturns and slow recoveries have reduced both business and leisure travel; and travelers also now have shorter stays and spend less per visit. Aviation, similar to other industries, now does more with less in terms of the number of people employed.

Even with a more conservative approach used to estimate economic impacts and external economic factors that have adversely impacted aviation, this study shows that total annual economic output associated with Colorado's airports has still increased.

Total Economic Output

Statewide



Denver International Airport



Other Commercial Service Airports



General Aviation Airports



Concourse B at Denver International Airport. Photo by Shahn Sederberg

Sources of Economic Impact

This study measured economic impacts in terms of **jobs**, **payroll**, and total annual **economic activity or output**. Sources of economic activity for these three impact categories are as follows:

Airports & Tenants



Many people are employed in Colorado to administer, maintain and operate airports. Many airports also have tenants or businesses that provide aviation services or services that support airport customers.

Capital Investment



Investment made to improve airports supports additional economic impact during the time when spending takes place. Economic impact in the capital investment category results from federal, state, local, and privately funded projects.

Visitor Spending



Millions of visitors arrive in Colorado each year on commercial airline flights or on general aviation aircraft. Jobs and associated payroll at hotels, restaurants, retail outlets and recreational venues are supported by visitor spending.

Air Cargo



Colorado manufacturers rely on air cargo services at Denver International to support their businesses. They ship goods to customers throughout the U.S. and internationally, resulting in additional economic benefits.

Tax Revenues



Airports, tenants, spending for capital investment, visitor spending, and air cargo shipments all contribute to local and state tax revenues. Estimates of these aviation related tax revenues were developed in this study.

Off-Airport Employment



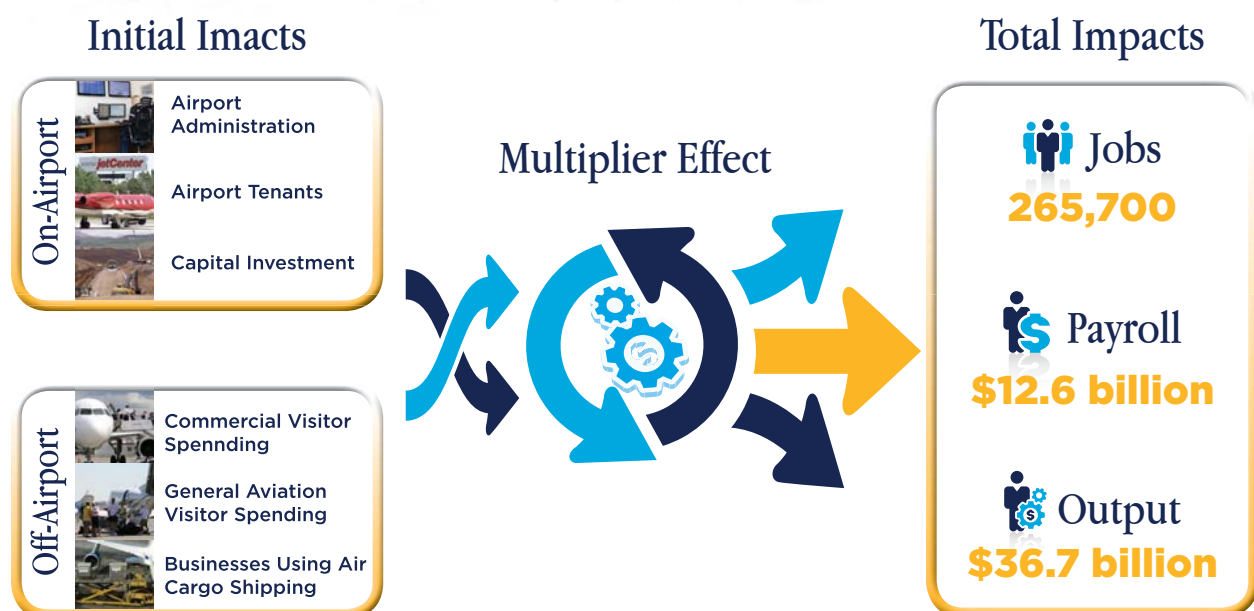
Many businesses in Colorado improve their efficiency by using aviation; the number of non-aviation jobs in Colorado that gain efficiency from commercial and/or general aviation was also estimated.

Study Methodology

All study airports provided assistance with collecting data used to estimate economic impacts. Airport operators provided inputs for economic activities related to operating their airports, their tenants, capital investments, as well as visitor estimates. When initial economic impacts enter the economy, the impacts re-circulate, generating successive rounds of spending, employment, payroll and output in other sectors of the economy. Economic impacts generated through the recirculation of initial impacts in the economy are classified in this study as “multiplier” effects.

Initial impacts multiply a greater number of times in an urbanized area than the same initial impact in a less developed area. For this study, six regions were used to establish appropriate multipliers for each airport. State level multipliers were used to calculate total statewide aviation related economic impacts. Since a higher percentage of all initial economic impacts are retained within the state's economy, statewide economic impacts are greater than the sum of the individual airport impacts.

This update used the IMPLAN model to estimate multiplier impacts. IMPLAN was selected, in part, because data tables in this model include more current socio-economic data than other similar models. IMPLAN also more readily supports the development of region-specific multipliers. The recirculation of initial economic impacts is not the same in rural Colorado as it is in the Denver Metropolitan area. The 2008 economic impact study used only statewide multipliers.



Statewide Airport Related Economic Impacts



Airport Administration

Each airport in Colorado, from the largest to the smallest, has some level of employment that is devoted to supporting airport administration, operation and maintenance. This study considered all employment associated with running Colorado's airports, both full-time and part-time and whether the employment is on or off the airport. For many airports, employees who help with legal, accounting, and human resource functions, for example, are not located at the airport and only a portion of their job is directly related to supporting the airport. The number of hours worked by each employee in support of an airport was used to translate part-time jobs into full time equivalent positions.



Tenants/Businesses

Many airports in Colorado also support aviation related tenants such as airlines, government agencies, rental car companies, fixed base operators, terminal concessionaires, flight instructors, aerial applicators and others. These tenants employ thousands of people in Colorado and create significant economic impact in terms of payroll and output (spending).



Capital Investment

Colorado's airports also undertake capital projects to maintain, improve, or expand airside and landside facilities; to enhance services they provide; to increase safety; and to purchase equipment. These capital expenditures support additional employment and payroll while projects are being planned and implemented.

Airport, tenant, and capital investment related spending at Colorado airports supports an estimated 110,707 jobs with an annual payroll of \$6.6 billion, which includes both the initial and the multiplier effects. Total annual economic activity associated with airport management, tenants and capital investment is estimated at \$18.2 billion.

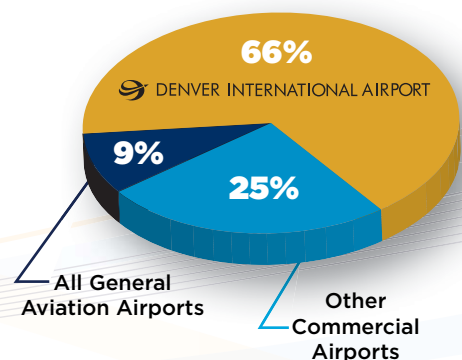
Total Annual Statewide Economic Impacts

Airport, Tenant & Capital Investment

| | Airports | Tenants | Capital Investment | Total |
|---------------------------|----------|---------|--------------------|---------|
| Jobs | 6,365 | 99,151 | 5,191 | 110,707 |
| Payroll (Billions) | \$0.3 | \$6.0 | \$0.3 | \$6.6 |
| Output (Billions) | \$0.7 | \$16.7 | \$0.8 | \$18.2 |

Total Annual Statewide Output

Airport, Tenant & Capital Investment



Statewide Visitor Economic Impacts

Visitors fly to Colorado for business trips, vacations, recreational activities, to see friends and family, and for other reasons such as school or military travel. This study estimated that 8 million visitors arrived at 14 different Colorado airports on commercial airline flights. An estimated 7 million of these commercial airline visitors arrived via Denver International. Visitor estimates include only the non-resident portion of each airport's total departing passengers and excludes connecting passengers at Denver International. The economic impact of spending by connecting and resident passengers is reflected primarily in economic impacts for terminal tenants or airport administration.

An additional estimated one million visitors also traveled to Colorado on general aviation aircraft. Among all general aviation visitors, 93 percent arrived at commercial airports and the remaining 7 percent arrived at general aviation airports.

Visitors who come to Colorado spend money on hotels, food and beverages, local transportation, retail purchases and recreational/entertainment activities. Most air visitors spend at least one night in the state; but some visitors, particularly general aviation visitors, may only stay for the day. Information on air visitor spending was obtained from surveys completed specifically for this study and from a variety of other secondary data sources.

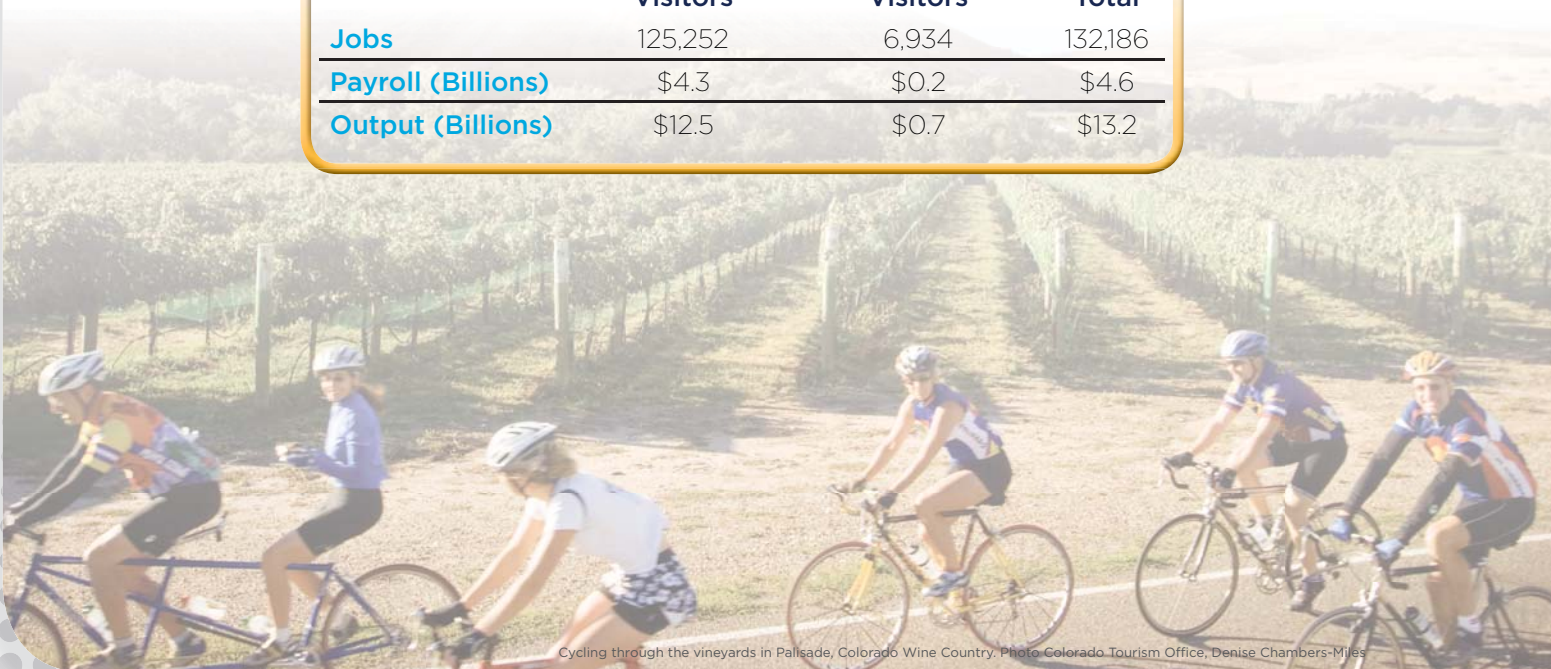
This study estimated all annual visitor-related spending (output) in Colorado and the associated number of jobs and annual payroll supported by visitor related spending. Total annual visitor related economic impacts shown here include the multiplier effects.



Total Annual Statewide Economic Impacts

Visitor Spending

| | Commercial Visitors | General Aviation Visitors | Total |
|---------------------------|------------------------|------------------------------|---------|
| Jobs | 125,252 | 6,934 | 132,186 |
| Payroll (Billions) | \$4.3 | \$0.2 | \$4.6 |
| Output (Billions) | \$12.5 | \$0.7 | \$13.2 |



Cycling through the vineyards in Palsade, Colorado Wine Country. Photo: Colorado Tourism Office, Denise Chambers-Miles

Economic Impact for Businesses Relying on Air Cargo

In the Denver metropolitan area, there are manufacturers who produce goods that are shipped to various domestic and international destinations. High value and time sensitive products are often shipped by air from Denver International. Some of the leading commodities shipped via air cargo from Denver International are shown below:

- **Transportation equipment**
- **Electronics**
- **Computer equipment**
- **Precision instruments**
- **Chemicals**
- **Pharmaceuticals**



Denver International plays a critical role in supporting manufacturers, enabling them to export their products to other states and to international destinations. The economic impacts associated with these businesses represent additional economic output and employment that is possible because of air cargo services available at Denver International. Economic impacts related to on-airport air cargo activities at Denver International and other study airports are included in airport tenant related impacts.

Information from the Foreign Trade Division and the FHWA Freight Analysis Framework (FAF) of the U.S. Department of Transportation was used to estimate additional off-airport air cargo economic impacts. Annual estimates of the economic impacts for businesses that rely on air cargo shipping, shown here, include multiplier effects.

Total Annual Statewide Economic Impacts Businesses Relying on Air Cargo

| | Domestic Air Cargo | International Air Cargo | Total |
|---------------------------|-------------------------------|------------------------------------|--------------|
| Jobs | 18,748 | 4,060 | 22,808 |
| Payroll (Billions) | \$1.2 | \$0.3 | \$1.4 |
| Output (Billions) | \$4.3 | \$1.0 | \$5.4 |



Photo by Shahn Sederberg

Individual Airport Total Annual Economic Impacts

Total annual employment, payroll and output estimates for each system airport are shown here. These impacts include the multiplier effect, and the multipliers used to estimate these impacts are specific to each airport's location within Colorado.

Commercial Service Airports Total Annual Economic Impacts

| City | Airport Name | Total Employment | Total Payroll | Total Output |
|------------------|---|------------------|-----------------|------------------|
| Alamosa | San Luis Valley Airport | 176 | \$6,669,207 | \$23,532,768 |
| Aspen | Aspen-Pitkin County Airport | 8,310 | \$283,004,101 | \$841,142,866 |
| Colorado Springs | Colorado Springs Municipal Airport | 27,721 | \$1,753,550,417 | \$3,692,057,477 |
| Cortez | Cortez-Montezuma Municipal Airport | 129 | \$5,682,575 | \$16,938,630 |
| Denver | Denver International Airport | 188,338 | \$8,624,024,963 | \$26,279,909,001 |
| Durango | Durango-La Plata County Airport | 2,646 | \$94,483,704 | \$282,256,287 |
| Eagle | Eagle County Regional Airport | 6,294 | \$217,511,273 | \$635,901,268 |
| Grand Junction | Grand Junction Regional Airport | 2,871 | \$130,775,972 | \$380,039,796 |
| Gunnison | Gunnison-Crested Butte Regional Airport | 938 | \$34,743,998 | \$98,532,461 |
| Hayden | Yampa Valley Regional Airport | 3,034 | \$104,934,790 | \$299,330,000 |
| Loveland | Fort Collins-Loveland Municipal Airport | 826 | \$24,824,762 | \$129,425,610 |
| Montrose | Montrose Regional Airport | 2,035 | \$77,424,675 | \$221,760,254 |
| Pueblo | Pueblo Memorial Airport | 827 | \$22,521,045 | \$85,008,702 |
| Telluride | Telluride Regional Airport | 686 | \$27,349,782 | \$78,552,756 |

General Aviation Airports Total Annual Economic Impacts

| City | Airport Name | Total Employment | Total Payroll | Total Output |
|------------------|-------------------------------------|------------------|---------------|-----------------|
| Akron | Gebauer Airport | 0 | \$0 | \$0 |
| Akron | Colorado Plains Regional Airport | 40 | \$1,011,676 | \$3,960,257 |
| Blanca | Blanca Airport | 1 | \$49,000 | \$67,000 |
| Boulder | Boulder Municipal Airport | 340 | \$19,636,302 | \$69,928,445 |
| Brush | Brush Municipal Airport | 1 | \$61,034 | \$123,838 |
| Buena Vista | Central Colorado Regional Airport | 26 | \$901,093 | \$3,078,973 |
| Burlington | Kit Carson County Airport | 22 | \$583,934 | \$2,594,631 |
| Calhan | Calhan Airport | 2 | \$72,198 | \$373,555 |
| Canon City | Fremont County Airport | 65 | \$1,684,454 | \$6,775,398 |
| Center | Leach Airport | 2 | \$83,994 | \$189,702 |
| Colorado Springs | Meadow Lake Airport | 130 | \$4,941,197 | \$10,140,031 |
| Craig | Craig-Moffat County Airport | 14 | \$404,669 | \$1,087,749 |
| Crawford | Crawford Airport | 20 | \$523,847 | \$1,660,792 |
| Creede | Mineral County Memorial Airport | 1 | \$55,103 | \$91,093 |
| Del Norte | Astronaut Kent Rominger Airport | 13 | \$338,828 | \$1,259,127 |
| Delta | Blake Field | 20 | \$617,608 | \$1,552,679 |
| Delta | Westwinds Airpark | 3 | \$136,000 | \$290,000 |
| Denver | Centennial Airport | 6,792 | \$404,921,753 | \$1,322,113,315 |
| Denver | Rocky Mountain Metropolitan Airport | 2,670 | \$153,902,452 | \$460,506,178 |
| Denver | Front Range Airport | 489 | \$31,595,263 | \$75,527,117 |
| Dove Creek | Dove Creek Airport | 0 | \$0 | \$0 |
| Durango | Animas Airpark | 19 | \$708,347 | \$2,201,202 |

Table continued on Page 9



General Aviation Airports

Total Annual Economic Impacts
(Continued from Page 8)

| City | Airport Name | Total Employment | Total Payroll | Total Output |
|-------------------|------------------------------------|------------------|---------------|--------------|
| Eads | Eads Airport | 9 | \$241,640 | \$436,998 |
| Ellicott | Colorado Spring East Airport | 1 | \$65,852 | \$108,418 |
| Erie | Erie Municipal Airport | 217 | \$4,933,864 | \$12,832,775 |
| Fort Morgan | Fort Morgan Municipal Airport | 32 | \$1,038,009 | \$3,024,229 |
| Glenwood Springs | Glenwood Springs Municipal Airport | 36 | \$1,625,066 | \$3,920,371 |
| Granby | Granby-Grand County Airport | 21 | \$776,087 | \$2,340,018 |
| Greeley | Easton-Valley View Airport | 1 | \$53,000 | \$97,000 |
| Greeley | Greeley-Weld County Airport | 672 | \$30,783,822 | \$94,091,266 |
| Haxtun | Haxtun Municipal Airport | 2 | \$88,673 | \$195,054 |
| Holly | Holly Airport | 2 | \$69,000 | \$161,000 |
| Holyoke | Holyoke Municipal Airport | 16 | \$456,311 | \$1,693,988 |
| Hudson | Platte Valley Airpark | 1 | \$58,165 | \$112,979 |
| Julesburg | Julesburg Municipal Airport | 1 | \$56,000 | \$110,000 |
| Kremmling | McElroy Field | 19 | \$595,157 | \$2,046,641 |
| La Junta | La Junta Municipal Airport | 19 | \$755,705 | \$2,397,821 |
| La Veta | Cuchara Valley Airport | 1 | \$73,161 | \$149,416 |
| Lamar | Lamar Municipal Airport | 49 | \$1,221,790 | \$4,515,516 |
| Las Animas | Las Animas City & County Airport | 2 | \$102,011 | \$272,978 |
| Leadville | Lake County Airport | 28 | \$942,393 | \$3,425,548 |
| Limon | Limon Municipal Airport | 2 | \$89,652 | \$410,386 |
| Longmont | Vance Brand Municipal Airport | 204 | \$9,066,791 | \$27,744,992 |
| Mack | Mack Mesa Airport | 6 | \$276,019 | \$1,044,028 |
| Meeker | Meeker Airport | 61 | \$2,478,900 | \$5,963,101 |
| Monte Vista | Monte Vista Municipal Airport | 6 | \$211,000 | \$283,207 |
| Nucla | Hopkins Field | 9 | \$324,300 | \$983,656 |
| Pagosa Springs | Stevens Field | 59 | \$2,038,618 | \$6,946,527 |
| Paonia | North Fork Valley Airport | 3 | \$126,565 | \$239,129 |
| Rangely | Rangely Airport | 22 | \$630,181 | \$1,870,899 |
| Rifle | Garfield County Regional Airport | 456 | \$21,696,515 | \$56,938,799 |
| Saguache | Saguache Municipal Airport | 1 | \$52,000 | \$72,000 |
| Salida | Harriet Alexander Airport | 37 | \$1,491,762 | \$4,732,747 |
| Springfield | Springfield Municipal Airport | 8 | \$279,093 | \$1,065,553 |
| Steamboat Springs | Steamboat Springs-Bob Adams Field | 86 | \$2,794,202 | \$8,819,667 |
| Sterling | Sterling Municipal Airport | 32 | \$1,246,674 | \$3,638,168 |
| Trinidad | Perry Stokes Airport | 16 | \$453,252 | \$1,378,966 |
| Walden | Walden-Jackson County Airport | 6 | \$232,609 | \$607,237 |
| Walsenburg | Spanish Peaks Airfield | 9 | \$404,243 | \$1,137,983 |
| Westcliffe | Silver West Airport | 9 | \$353,589 | \$1,354,773 |
| Wray | Wray Municipal Airport | 23 | \$562,901 | \$998,919 |
| Yuma | Yuma Municipal Airport | 18 | \$597,571 | \$982,037 |

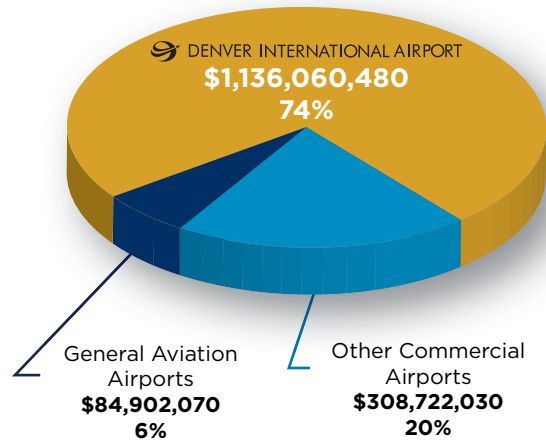
Total Annual Statewide Tax Benefits

Colorado also benefits from tax revenues derived directly from airport supported activities both on and off the airports. Annually, this study estimated that aviation activity contributed more than \$1.5 billion in tax revenues to local, state and federal governments. By far, the largest tax revenue contributor is sales tax collected from visitors on lodging, rental cars, restaurants, and retail items. Some visitor spending takes place on airport for rental cars and with terminal concessionaires. Most visitor related spending, however, takes place off airport.

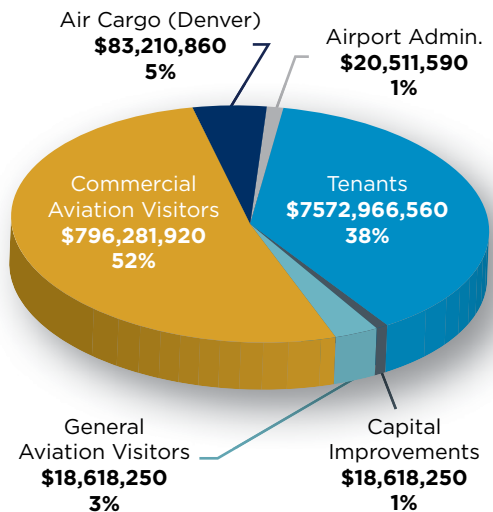
Sales taxes are also collected when purchases are made by employees whose jobs are supported by airports or employees who work at visitor supported establishments such as hotels and restaurants. Sales tax is also collected in connection with capital investment activity and air cargo commerce, as well as from employees in these sectors when they make taxable purchases. In total, Colorado realizes an estimated \$1 billion in sales tax revenues from aviation supported activities.

Two other important aviation related tax contributions are related to state and federal personal income tax. Aviation related employees pay an estimated \$104 million in Colorado personal income tax and \$402 million in federal income tax. Excise and sales tax on aviation fuel generated \$41.4 million in tax revenues during fiscal year 2012. Two thirds of this amount was returned directly to the Colorado airports with the remainder going to support grants for system airports.

Direct Tax Impacts DIA & Other Colorado Airports



Direct Tax Contributions By Group



Aviation Activities with Tax Impacts



Off-Airport Non-Aviation Business Benefits

Major employers in Colorado rely on commercial aviation, general aviation and air cargo to improve their efficiency. The Aircraft Owners and Pilots Association (AOPA) estimates that more than 60 percent of all general aviation flights in the U.S. are business related. A recent passenger survey at Denver International indicates that over 30 percent of the airport's visitors are traveling to Colorado for business meetings, conferences, or other business related trips. National statistics indicate that Denver International's total business related travel, when resident and connecting passengers are considered, is most likely in excess of the 30 percent reported for visitor related travel.

Outreach to businesses around the state was conducted to provide a better understanding of how they benefit from aviation. Businesses were contacted in a variety of ways to participate in an on-line survey. Most statewide agencies, organizations and groups in Colorado, including chambers of commerce, were contacted to help distribute the survey. Through CDOT's Communications Office, news and media outlets throughout Colorado were provided with a press release that provided a survey link.

The purpose of reaching out to employers throughout Colorado was to estimate the number of additional jobs in Colorado that in some way gain efficiency from using aviation. These jobs are in addition to the jobs supported by airports, tenants, capital investment projects, air visitors and off-airport air cargo activity.

Based on information collected from the survey, an estimated 230,060 additional jobs in Colorado gain added efficiency by using aviation services. When these jobs are combined with all other jobs supported by airport related activities, an estimated 495,760 jobs, which represents 15 percent of Colorado's total employment, is in some way supported by aviation.



Changes in Economic Impacts

Any economic impact study is a snapshot of conditions present at the time the study is conducted. Data from previous and current reporting periods shows an upward trend in annual economic impacts associated with Colorado airports.

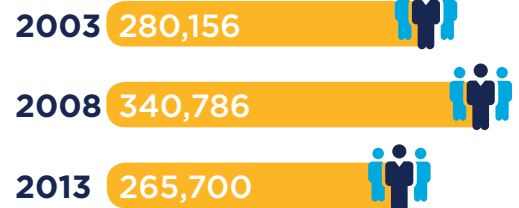
While total statewide economic impacts have grown, for some airports, external economic conditions and internal aviation industry conditions resulted in declines in aviation activity. Changing conditions dampened the 2013 economic impacts for some Colorado airports.

Despite the weak U.S. and global economies, Colorado's airport system continues to make significant positive and increasing contributions to the state's economy. Colorado's commercial and general aviation airports are not only important transportation assets, but they are also valuable economic resources.

This study estimates that Colorado's statewide annual aviation related economic output represents approximately 13.4 percent of Colorado's Gross State Product. By maintaining, protecting and improving Colorado's airports, the system will continue to provide a significant economic return for the investment made.

Comparison of Statewide Economic Benefits

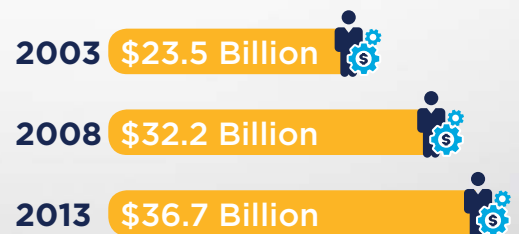
Jobs



Annual Payroll



Annual Output



Summary of Aviation Economic Impacts

Airports, companies relying on air cargo, and spending by air visitors contribute an estimated \$1.5 billion in aviation related tax revenues. There are an estimated 230,060 non-aviation jobs in Colorado that benefit from efficiencies gained through using the state's commercial and general aviation airports.

When all on-airport activities, such as airport management, airport tenants and airport capital investment projects are considered, along with multiplier effects, Colorado's airports support an estimated 110,707 jobs. Off-airport spending by visitors who arrive in Colorado on commercial airline or general aviation flights supports 132,186 additional jobs; and off-airport activities supported by air cargo shippers are responsible for another 22,808 jobs. The total annual payroll associated with these jobs is estimated at \$12.6 billion. The total annual economic output from the airport system, estimated in this study at \$36.7 billion, far exceeds the \$20 million investment from the Colorado Discretionary Grant Program made in 2013. Colorado airports are worth the investment!

Summary of Aviation Economic Impacts Jobs, Payroll & Output

| | Initial Impacts | Multiplier Impacts | Total Impacts |
|---------------------------|-----------------|--------------------|-----------------|
| Jobs | | | |
| On-Airport | 56,531 | 54,176 | 110,707 |
| Visitor Spending | 91,608 | 40,578 | 132,186 |
| Off-Airport Cargo | 9,173 | 13,636 | 22,808 |
| Total Jobs | 157,312 | 108,390 | 265,701* |
| Payroll (Billions) | | | |
| On-Airport | \$4.0 | \$2.6 | \$6.6 |
| Visitor Spending | \$2.6 | \$1.9 | \$4.6 |
| Off Airport Cargo | \$0.7 | \$0.8 | \$1.4 |
| Total Payroll | \$7.3 | \$5.3 | \$12.6 |
| Output (Billions) | | | |
| On-Airport | \$10.3 | \$7.8 | \$18.2 |
| Visitor Spending | \$7.4 | \$5.8 | \$13.2 |
| Off Airport Cargo | \$3.4 | \$2.0 | \$5.4 |
| Total Output | \$21.1 | \$15.6 | \$36.7 |

*The total estimate of airport related employment of 265,701 does not include this study's estimate of 230,060 jobs that benefit and gain efficiency from using the Colorado's commercial and general aviation airports.



Colorado Department of Transportation
Division of Aeronautics
5126 Front Range Parkway
Watkins, Colorado 80137
303.512.5250
www.colorado-aeronautics.org

Prepared by: ICF SH&E, with Jviation, EDR Group and KRAMER aerotek, Inc