

# **VIRGINIA AIRPORT SYSTEM ECONOMIC IMPACT STUDY**

## **EXECUTIVE SUMMARY**



# The Economic Importance of Virginia's Airports

The Commonwealth of Virginia's diverse system of 66 public-use airports plays a vital role in the state and regional economies by creating jobs and contributing to overall economic development. In addition, airports in Virginia serve as gateways to the nation's air transportation system and connect the Commonwealth to the global economy.

The Virginia Department of Aviation prepares this statewide economic impact study periodically to identify the economic benefits associated with nine commercial service and 57 general aviation airports serving communities throughout Virginia. This study focuses on the economic benefits created by the businesses and tenants on Virginia's airports, the visitors who travel through those airports, and the in-state companies who rely on the airports to support and conduct their business.

## Flight Information

### ARRIVALS

AIRLINE	FLIGHT	SCHEDULED	STATUS	REMARKS
Chicago	*****7215	8:48 PM	5	
Wash-Dulles	*****7277	8:34 PM	5	
Atlanta	*****708	11:58 PM	On Time	
Baltimore	*****531	10:25 PM	On Time	
Boston	*****4529	10:25 PM	5	
Charlotte	*****537	8:53 PM	3	Now At 8:47
Charlotte	*****319	8:45 PM	3	Now At 8:35
Charlotte	*****3351	10:20 PM	3	On Time
Charlotte	*****1850	11:48 PM	3	Now At 11:40
Chicago	*****1555	8:55 PM	Now At 8:49	
Chicago	*****1070	8:33 PM	5	Now At 8:55
Chicago	*****1161	10:25 PM	5	Now At 12:19
Cincinnati	*****1555	8:55 PM	Now At 8:49	
Detroit	*****1452	10:27 PM	3	On Time

### ARRIVALS

AIRLINE	FLIGHT	SCHEDULED	STATUS	REMARKS
Houston	*****26138	10:42 PM	1	On Time
Indianapolis	*****537	8:53 PM	3	Now At 8:47
Las Vegas	*****1497	10:45 PM	3	On Time
Miami	*****450	11:48 PM	3	Now At 11:48
Minneapolis	*****2198	10:48 PM	3	On Time
Nashville	*****734	9:09 PM	3	Now At 8:30
New York	*****3470	8:40 PM	3	Now At 8:35
New York	*****432	9:40 PM	5	On Time
New York	*****4791	10:59 PM	3	On Time
Newark	*****3480	8:59 PM	1	Now At 8:12
Newport	*****3319	8:45 PM	3	Now At 8:00
Oklahoma	*****2935	9:44 PM	5	Now At 8:33
Orlando	*****864	10:00 PM	On Time	
Philadelphia	*****734	9:09 PM	3	Now At 8:30

### ARRIVALS

AIRLINE	FLIGHT	SCHEDULED	STATUS	REMARKS
Philadelphia	*****2198	10:48 PM	3	On Time
Raleigh	*****4781	10:58 PM	3	On Time
San Diego	*****1497	10:45 PM	3	On Time
St Louis	*****2336	8:44 PM	5	Now At 8:33
Wash-Dulles	*****7704	10:27 PM	5	On Time
Wash-Nat1	*****3169	9:00 PM	3	Now At 8:27
Wash-Nat1	*****3110	10:05 PM	3	On Time
TOMORROW'S FLIGHTS				
Atlanta	*****1435	12:41 AM		
Atlanta	*****1536	7:49 AM		
Milwaukee	*****4435	12:45 AM		
New York	*****3819	8:00 AM	3	
Wash-Dulles	*****7369	7:46 AM	5	
Wash-Nat1	*****3130	8:40 AM	3	

### VISUAL PAGING

Flight Information Updated By Each Airline

Friday, June 28

08:40 PM

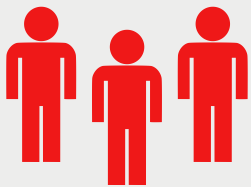


# ECONOMIC BENEFITS of Virginia's Airports



Virginia's system of 66 public-use airports gives the Commonwealth a safe and efficient transportation mode while stimulating economic growth and development. In 2016, through aviation-related services, the system supported 146,660 jobs and generated almost \$23 billion in economic activity while meeting the air travel needs of Virginia residents, businesses and visitors.

## Jobs



**146,660**

## Wages



**\$7.7 Billion**

## Economic Activity



**\$22.9 Billion**

- Virginia airports created and sustained **146,660 jobs or 3.6 percent** of total employment in Virginia.
- Jobs supported by Virginia airports contributed **\$7.7 billion in payroll** each year.
- More than 72,000 people boarded commercial aircraft in Virginia every day.
- Each day, more than 4,000 aircraft took off from and landed at Virginia airports.
- Each day, approximately 23,000 visitors arrived in the state on commercial airline or general aviation aircraft.
- Each job at Virginia's airports supported an additional **2.2 jobs** in the Commonwealth.



# VIRGINIA AIRPORTS

## Make Significant Contributions

Airports are essential components of the state's infrastructure, moving people and goods, facilitating commerce and maintaining a desirable quality of life for Virginia's residents.



### Businesses and Residents Depend on Airports

Companies of all sizes, from major employers to small businesses, depend on Virginia's airports for fast and efficient transportation of people, supplies and products. Residents and visitors rely on Virginia's airports for comfortable and convenient travel to and from cities across the U.S. and the world.



### Air Transportation Brings Tourists to Virginia

Tourism is another important contributor to Virginia's economy. It relies on commercial and general aviation to transport millions of visitors annually to the state's tourist destinations, including theme parks, state parks, scenic byways, historical sites and beaches.



### Airports Create Economic Benefits for All Virginians

The economic benefits of airports extend well beyond the boundaries of airports. Even residents who might never fly benefit from airports through the creation of businesses, jobs, income and tax revenues. Air cargo and freight operations support just-in-time delivery for manufacturers and consumers alike, while providing overnight shipping capabilities to global markets.



### Airports Enrich the Quality-of-Life for Virginia Residents

Airports also produce measureable value and intangible benefits difficult to quantify. Communities throughout Virginia rely on airports for essential services such as overnight delivery services, air ambulance services, aerial applications, traffic monitoring and law enforcement. Airports also enhance quality of life by providing educational and recreational opportunities, such as pilot training, air shows, ballooning, sightseeing and other types of recreational flying.



# Summary of ECONOMIC IMPACT

The economic contributions of each Virginia airport are measured in terms of jobs, payroll and economic activity.

## Total Economic Impacts of Airports on the Virginia Economy (\$ in Millions)

	Jobs	Wages	Economic Activity
Commercial Service Airports (Large & Medium Hub) <sup>\1</sup>	99,900	\$5,650	\$16,460
Commercial Service Airports (Small & Non-Hub) <sup>\2</sup>	40,640	\$1,730	\$5,330
General Aviation Airports	6,120	\$360	\$1,060
<b>Total Impacts of Airports</b>	<b>146,660</b>	<b>\$7,740</b>	<b>\$22,850</b>

<sup>\1</sup> Includes Washington Dulles International and Ronald Reagan Washington National airports.

<sup>\2</sup> Includes Charlottesville-Albemarle, Lynchburg Regional, Newport News-Williamsburg International, Norfolk International, Richmond International, Roanoke-Blacksburg Regional, and Shenandoah Valley Regional airports.



**Jobs** represent the total number of individuals employed, including both part- and fulltime positions.



**Wages** represent the annual salary, wages and benefits for employees, including all taxes.



**Economic Activity** includes annual gross sales for commercial firms and budget expenditures for government or non-profit entities.

# How Economic Impact is Measured

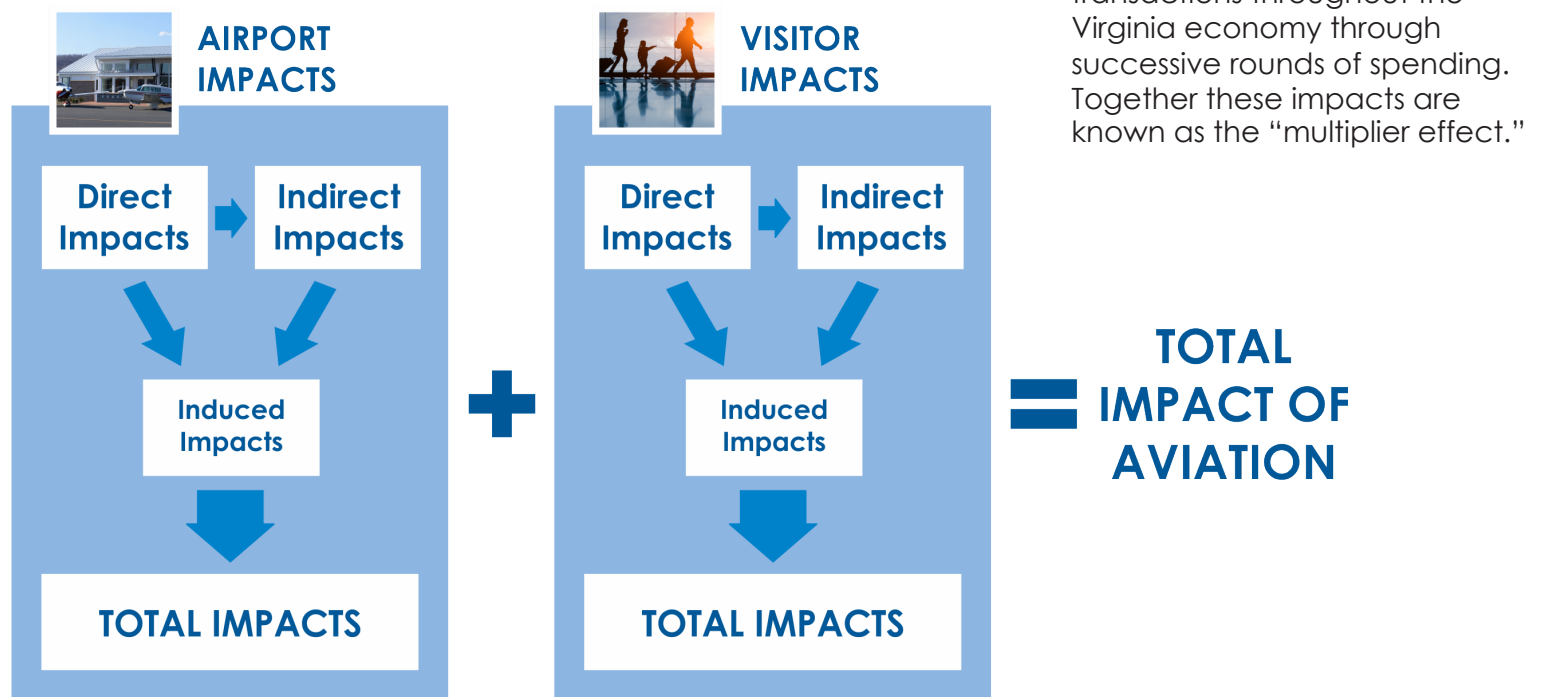
The contribution of airports to the Virginia economy was calculated from data collected through a comprehensive survey of airport managers, on-airport tenants, visitors and off-airport businesses in Virginia, as well as data from U.S. government agencies and IMPLAN, a widely accepted economic modeling system. The study reflects the Federal Aviation Administration's accepted methods and guidelines for estimating the economic impacts of airports and followed the procedures established by the Economic Impact Research Consortium.

**Economic impacts for all airports were classified into three impact categories: direct, indirect and induced. The total economic impact of airports is the sum of these categories.**

**Direct Impacts** stem from the activity that is directly related to aircraft operations, visitor spending or the activities of airport dependent businesses.

**Indirect Impacts** are the business-to-business transactions that occur as a result of off-airport purchases made by airport tenants, airport dependent businesses and the businesses that air visitors patronize.

**Induced Impacts** are realized when workers employed on airports or whose jobs are supported by businesses that serve visitors or airport dependent businesses, spend their earnings in their local communities.





# On-Airport Tenants

## Virginia's on-airport tenants and businesses create \$17 billion in economic activity.

On-airport tenants and businesses create jobs and purchase goods and supplies from other Virginia businesses which create and support additional jobs in other sectors of the state's economy. Examples of on-airport tenants and businesses include: airlines, air-taxi operators, air ambulance operators, air charter companies, aircraft sales and management companies, airport management, corporate flight departments, fixed based operators (FBOs), ground transportation operators, local and state government agencies, rental car agencies, retail concessions, the Transportation Security Administration (TSA) and others.

- **Employees of on-airport tenants and businesses earn an average annual salary of \$64,000.**

### Annual Economic Impacts of On-Airport Tenants and Businesses (\$ in Millions)

	Jobs	Wages	Economic Activity
Commercial Service Airports (Large & Medium Hub)	64,550	\$4,230	\$12,840
Commercial Service Airports (Small & Non-Hub)	18,700	\$1,070	\$3,400
General Aviation Airports	4,380	\$320	\$930
<b>Total Impacts of On-Airport Tenants &amp; Businesses</b>	<b>87,630</b>	<b>\$5,620</b>	<b>\$17,170</b>



# Virginia's Airport System

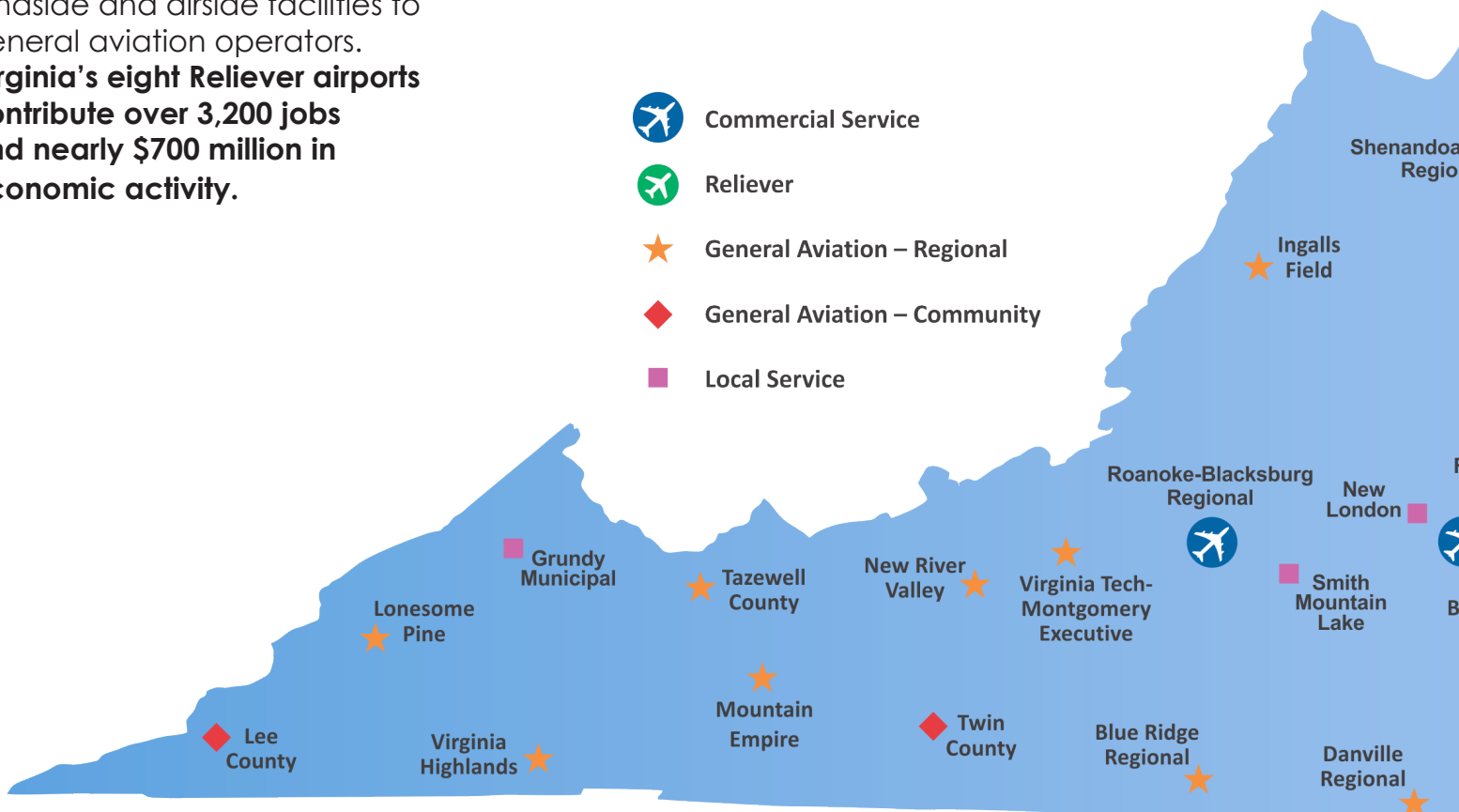
**Virginia's economy benefits from a diverse system of nine commercial service airports and 57 general aviation airports.**

## Airport Classifications

The Virginia airport system consists of 66 airports, including the Washington Dulles International and Ronald Reagan Washington National airports. The Virginia Air Transportation System Plan (VATSP) classifies the airports into five categories based on their role in the overall system:

**1. Commercial Service:** These airports provide scheduled airline services (air carrier or regional/commuter services) and accommodate at least 10,000 annual passenger enplanements. **Virginia's nine Commercial Service airports create over 140,000 jobs in the Commonwealth and \$21.8 billion in economic activity.**

**2. Reliever:** Reliever airports are general aviation airports located in metropolitan areas that serve to reduce congestion at nearby commercial service airports by providing comparable landside and airside facilities to general aviation operators. **Virginia's eight Reliever airports contribute over 3,200 jobs and nearly \$700 million in economic activity.**



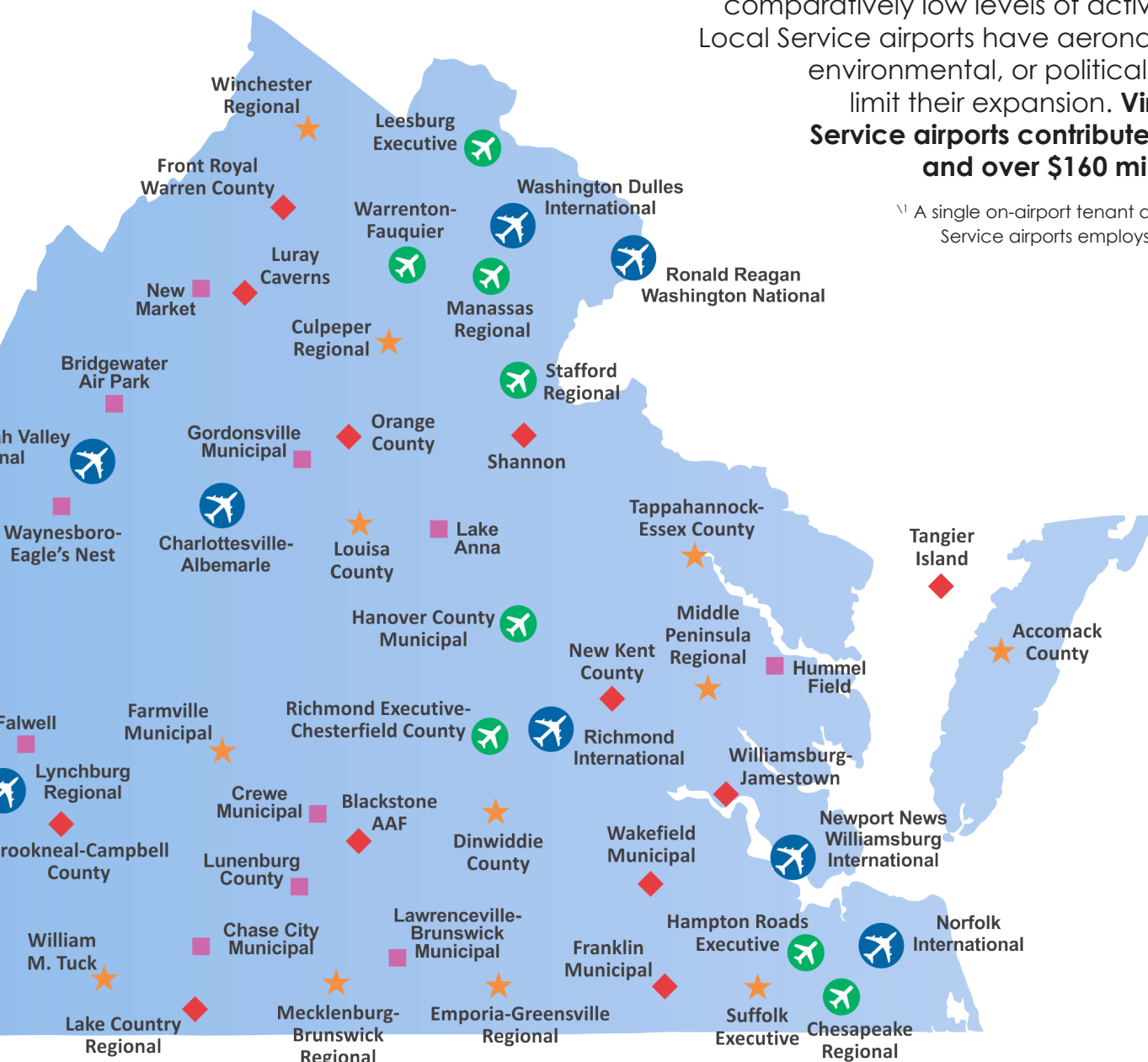


**3. General Aviation – Regional:** These airports serve large geographic areas and are often the only airport facilities in the region. General Aviation Regional airports serve the needs of businesses as well as recreational users by offering services and amenities such as jet fuel, instrument approaches, FBO services and aircraft hangars. **Virginia's 21 General Aviation Regional airports generate over 1,400 jobs and \$160 million in activity.**

**4. General Aviation – Community:** These airports serve the needs of businesses and recreational users but often serve a more limited market area than the regional airports. They provide services such as aircraft rentals, flight instruction and AvGas fuel. **Virginia's 14 General Aviation Community airports create about 650 jobs and over \$70 million in activity.**

**5. Local Service:** The Local Service airports provide limited general aviation services and accommodate comparatively low levels of activity. Many of the Local Service airports have aeronautical, physical, environmental, or political constraints that limit their expansion. **Virginia's 14 Local Service airports contribute nearly 800 jobs and over \$160 million in output.** <sup>1</sup>

<sup>1</sup> A single on-airport tenant at one of Virginia's Local Service airports employs more than 270 people.



# Impacts of Visitor Spending

Virginia's airports are conduits for bringing millions of visitors to the Commonwealth. In 2016, over 10 million visitors came to the Commonwealth through its airports and spent an estimated \$3.6 billion. These visitors include travelers who arrived at any Virginia airport on general aviation. Visitor spending supported nearly 60,000 total jobs in the Commonwealth, generating over \$2 billion in earnings and nearly \$6 billion in total economic activity.

## Annual Economic Impacts of Visitors (\$ in Millions)

	Jobs	Wages	Economic Activity
Commercial Service Airports (Large & Medium Hub)	35,350	1,420	\$3,630
Commercial Service Airports (Small & Non-Hub)	21,940	660	\$1,930
General Aviation Airports	1,740	40	\$130
<b>Total Impacts of Visitors</b>	<b>59,030</b>	<b>\$2,120</b>	<b>\$5,690</b>





# Other Economic Impacts Associated with Virginia Airports

**Virginia's airports also contribute to the Commonwealth's economy in ways that are more difficult to quantify as traditional measures of economic impact.**

Commercial aviation is inextricably entwined with Virginia's economy. Airlines and airports purchase goods and services from other sectors of the economy to operate. Similarly, a significant portion of Virginia's businesses depend on the Commonwealth's airports. Domestic and foreign trade rely on transportation in general and aviation in particular for their business. **In total, businesses spent over \$4.2 billion on aviation.**

## **Wider Economic Benefits of Aviation**

Virginia's economy leverages the immediate international connectivity of Washington Dulles International Airport. **Nearly 840 foreign-owned firms, employing over 180,000 individuals, operate in Virginia.**

## **Aviation's Economic Benefits on Productivity, Trade and Investment**

Aviation supports further benefits to Virginia's economy by enhancing productivity, trade, and investment. **By enhancing global connectivity, commercial air service supports an additional 2,500 jobs in the Commonwealth.**

# Taxes

**Direct employment at Virginia's airports generates significant tax revenues for federal, Virginia, and local governments. Totals surpassed \$530 million in federal tax revenues and \$535 million in Virginia and local taxes.**

	Federal Taxes (\$ 000s)				State and Local Taxes (\$ 000s)			
	Social Insurance	Personal Income Tax	Other Federal Taxes/Fees	Total Federal Taxes	Social Insurance	Personal Income Tax	Other State and Local Taxes/Fees	Total State and Local Taxes
Commercial Service Airports (Large & Medium Hub) <sup>\1</sup>	\$190,000	\$150,000	\$33,000	\$372,000	\$2,000	\$41,000	\$331,000	\$373,000
Commercial Service Airports (Small & Non-Hub) <sup>\2</sup>	\$61,000	\$40,000	\$22,000	\$123,000	\$1,000	\$12,000	\$127,000	\$141,000
General Aviation Airports	\$17,000	\$16,000	\$3,000	\$37,000	\$225	\$4,000	\$18,000	\$22,000
<b>Total</b>	<b>\$268,000</b>	<b>\$206,000</b>	<b>\$58,000</b>	<b>\$532,000</b>	<b>\$3,225</b>	<b>\$57,000</b>	<b>\$476,000</b>	<b>\$536,000</b>

\1 Includes Washington Dulles International and Ronald Reagan Washington National airports.

\2 Includes all other commercial service airports in Virginia



**The employment impacts from visitor spending added another \$270 million in federal taxes and \$230 million in taxes to Virginia and local governments. In addition, the direct spending by visitors added nearly another \$250 million in retail sales and hotel occupancy taxes.**





# Commercial Service Airports

**Virginia's commercial service airports account for 95% of the total economic activity of the Commonwealth's airport system.**

- Ronald Reagan Washington National and Washington Dulles International airports are major contributors of economic benefits, and together they created **\$16.5 billion** in economic activity in Virginia. Other commercial service airports in Virginia were the source of **\$5.3 billion** of economic activity.
- Virginia's commercial service airports generated **\$32,670** of economic activity for every aircraft take-off and landing.
- In 2016, Virginia's commercial service airports contributed **\$21.8 billion** in economic activity, which supported **140,540 jobs** with an annual payroll of nearly **\$7.4 billion**.

## Total Annual Economic Impacts of Virginia's Commercial Service Airports (\$ in Millions)

	Total Consolidated Impacts		
	Jobs	Wages	Economic Activity
Charlottesville - Albemarle	2,220	\$100	\$300
Lynchburg Regional	1,770	\$60	\$180
Newport News - Williamsburg International	2,490	\$120	\$410
Norfolk International	14,920	\$600	\$1,800
Richmond International	15,760	\$690	\$2,090
Roanoke - Blacksburg Regional	3,050	\$140	\$480
Ronald Reagan Washington National	48,750	\$2,690	\$8,130
Shenandoah Valley Regional	430	\$20	\$60
Washington Dulles International	51,150	\$2,950	\$8,340
<b>Total - All Commercial Service Airports</b>	<b>140,540</b>	<b>\$7,370</b>	<b>\$21,790</b>

# General Aviation Airports

## Virginia's GA airports contribute over \$1 billion in economic activity.

General aviation airports make important contributions to economic development for the Commonwealth and for the local communities they serve. In addition to economic benefits, the system of airports provides numerous critical services to enhance the quality of life, health, safety and welfare of Virginia citizens. In 2016, Virginia's public-use general aviation airports contributed about \$1.1 billion in economic activity to the state economy and they supported over 6,100 jobs with an annual payroll of over \$360 million.

## Total Annual Economic Impacts of Virginia's GA Airports (\$ in Thousands)

	Total Consolidated Impacts				Total Consolidated Impacts		
	Jobs	Wages	Economic Activity		Jobs	Wages	Economic Activity
Accomack County	45	\$1,603	\$4,198	Luray Caverns	26	\$714	\$2,074
Blackstone AAF	159	\$8,264	\$27,125	Manassas Regional	1,351	\$117,438	\$375,492
Blue Ridge Regional	112	\$3,751	\$9,723	Mecklenburg-Brunswick Regional	26	\$1,432	\$3,271
Bridgewater Air Park	641	\$40,650	\$144,115	Middle Peninsula Regional	141	\$5,255	\$15,831
Brookneal-Campbell County	4	\$108	\$369	Mountain Empire	29	\$755	\$2,252
Chase City Municipal	6	\$286	\$652	New Kent County	46	\$1,787	\$4,650
Chesapeake Regional	126	\$5,030	\$12,572	New London	17	\$373	\$1,271
Crewe Municipal	3	\$139	\$369	New Market	37	\$1,045	\$2,799
Culpeper Regional	160	\$4,234	\$12,913	New River Valley	34	\$1,356	\$3,784
Danville Regional	54	\$1,713	\$5,639	Orange County	98	\$3,118	\$7,767
Dinwiddie County	151	\$6,357	\$17,893	Richmond Executive - Chesterfield County	266	\$15,181	\$52,450
Emporia-Greensville Regional	14	\$595	\$1,625	Shannon	69	\$2,526	\$6,854
Falwell	9	\$280	\$934	Smith Mountain Lake	23	\$915	\$2,752
Farmville Municipal	31	\$838	\$2,556	Stafford Regional	203	\$7,977	\$23,310
Franklin Municipal	19	\$1,153	\$2,657	Suffolk Executive	51	\$2,521	\$6,555
Front Royal-Warren County	67	\$2,249	\$6,575	Tangier Island	4	\$169	\$419
Gordonsville Municipal	31	\$2,241	\$4,844	Tappahannock-Essex County	69	\$4,905	\$10,631
Grundy Municipal	3	\$77	\$270	Tazewell County	10	\$327	\$978
Hampton Roads Executive	449	\$18,725	\$60,543	Twin County	34	\$823	\$2,771
Hanover County Municipal	111	\$4,016	\$11,032	Virginia Highlands	87	\$3,148	\$7,463
Hummel Field	9	\$291	\$842	Virginia Tech-Montgomery Executive	94	\$3,737	\$10,516
Ingalls Field	34	\$807	\$2,855	Wakefield Municipal	31	\$998	\$2,719
Lake Anna	8	\$1,402	\$2,147	Warrenton-Fauquier	131	\$4,302	\$12,052
Lake Country Regional	5	\$411	\$791	Waynesboro-Eagle's Nest	7	\$234	\$644
Lawrenceville-Brunswick Municipal	3	\$220	\$477	William M. Tuck	18	\$722	\$1,690
Lee County	13	\$387	\$1,012	Williamsburg-Jamestown	73	\$2,039	\$5,716
Leesburg Executive	586	\$56,229	\$121,482	Winchester Regional	179	\$6,855	\$20,960
Lonesome Pine	47	\$858	\$3,027	<b>Total General Aviation</b>	<b>6,119</b>	<b>\$361,645</b>	<b>\$1,061,194</b>
Louisa County	59	\$7,765	\$13,534				
Lunenburg County	6	\$314	\$752				

# Virginia Department of Aviation

## Our Vision

The Virginia Department of Aviation will be the standard of excellence amongst state aviation agencies. We will make the Virginia aviation system the model air transportation system, providing Virginia communities economic development opportunities and convenient access to the national air transportation system.



## Our Mission

Cultivate an advanced aviation system that is safe, secure and provides for economic development. Promote aviation awareness and education. Provide the safest and most efficient flight services for the Commonwealth leadership and state agencies.







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Economic Impact Study Executive Summary

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