

AN OXFORD ECONOMICS COMPANY

ECONOMIC IMPACT OF VISITORS IN VIRGINIA 2021

August 2022



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Economic Impact model framew

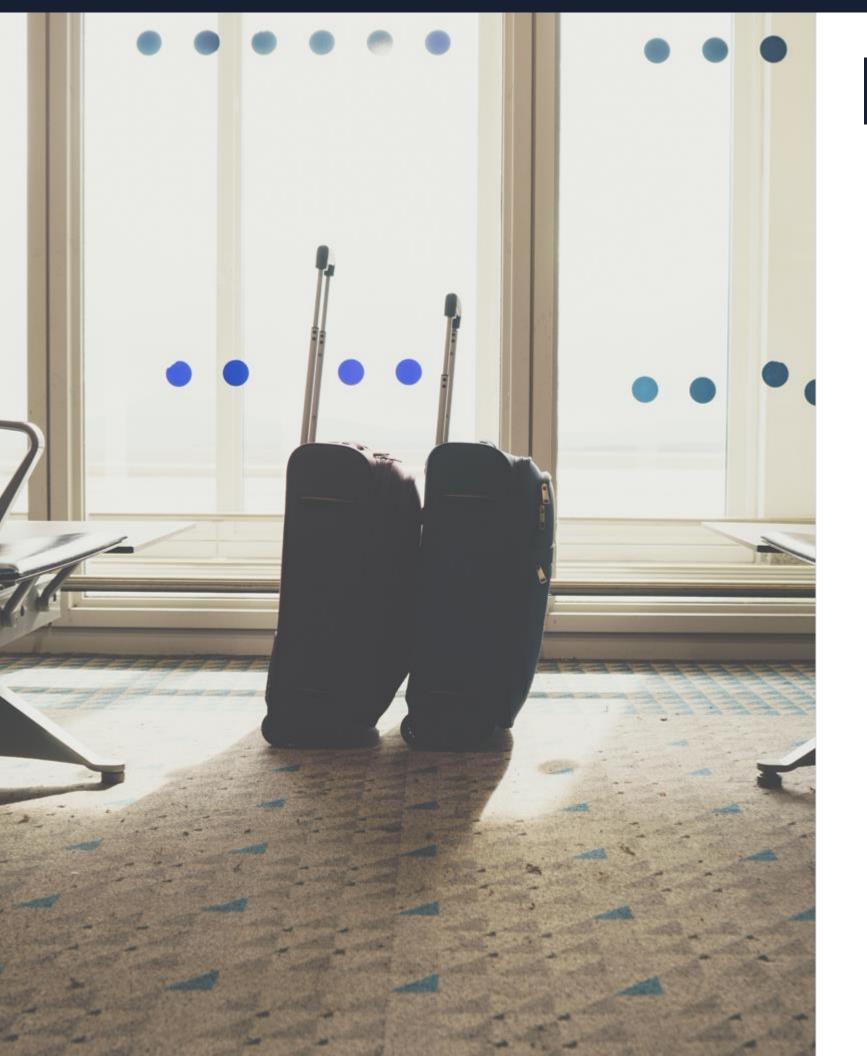
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INTRODUCTION PROJECT BACKGROUND

The travel sector is an integral part of the Virginia economy. Visitors generate significant economic benefits to households, businesses, and government alike and represent a critical driver of the state's future. How critical? In 2021, tourism-supported jobs accounted for 5.2% of all jobs in the state.

By monitoring the visitor economy, policymakers can inform decisions regarding the funding and prioritization of the sector's development. They can also carefully monitor its successes and future needs. This is particularly true for Virginia as it builds upon its tourism economy.

METHODOLOGY AND DATA SOURCES

An IMPLAN input-output model was constructed for the state of Virginia. The model traces the flow of visitor-related expenditures through the state's economy and their effects on employment, wages, and taxes. IMPLAN also quantifies the indirect (supplier) and induced (income) impacts of tourism. Tourism Economics then cross-checked these findings with employment and wage data for each sector to ensure the findings are within reasonable ranges.

Visitors included those who stayed in overnight accommodations or those who came from a distance greater than 50 miles and deviated from their normal routine.

The primary source of the employment and wage data is the Regional Economic Information System (REIS), maintained by the Bureau of Economic Analysis.

This is more comprehensive than Bureau of Labor Statistics (ES202/QCEW) data because sole-proprietors do not require unemployment insurance and are not counted in the ES202 data. By establishing a baseline of economic impacts, the industry can track its progress.

To quantify the significance of the visitor economy in Virginia, Tourism Economics developed a comprehensive model detailing the far-reaching impacts arising from visitor spending. The results of this study show the scope of the visitor economy in terms of direct visitor spending, along with total economic impacts, jobs, and fiscal (tax) impacts in the broader economy.

The analysis draws on the following data sources:

- Longwoods International: survey data, including spending and visitor profile characteristics for visitors to Virginia
- Bureau of Economic Analysis and Bureau of Labor Statistics: employment and wage data, by industry
- STR lodging performance data, including room demand, room rates, occupancy, and room revenue, for hotels and short-term rentals.
- AirDNA: short-term rental performance data, including demand and revenue
- Tax collections: Lodging and sales tax receipts
- US Census: business sales by industry and seasonal second homes inventory
- Tourism Economics: international travel data for overseas, Canadian, and Mexican travel to Virginia based on aviation, survey, and credit card information

ECONOMIC IMPACTS **KEY FINDINGS**

DIRECT VISITOR SPENDING IMPACT

In 2021, 102 million visitors spent \$25.2 billion across the Virginia economy. The Virginia visitor economy spans multiple industries. Visitors spend directly on accommodations, food and beverage, recreation, retail shopping, local transportation and air travel.

TOTAL ECONOMIC IMPACT

The direct visitor spending impact of \$25.2 billion generated a total economic impact of \$39.4 billion in Virginia in 2021 including indirect and induced impacts. This total economic impact sustained 273,150 jobs and generated \$2.5 billion in state and local tax revenues in 2021.



\$39.4 BILLION

Total Economic Impact of Tourism in Virginia in 2021





Direct Visitor Spending



\$39.4B

Total Economic Impact



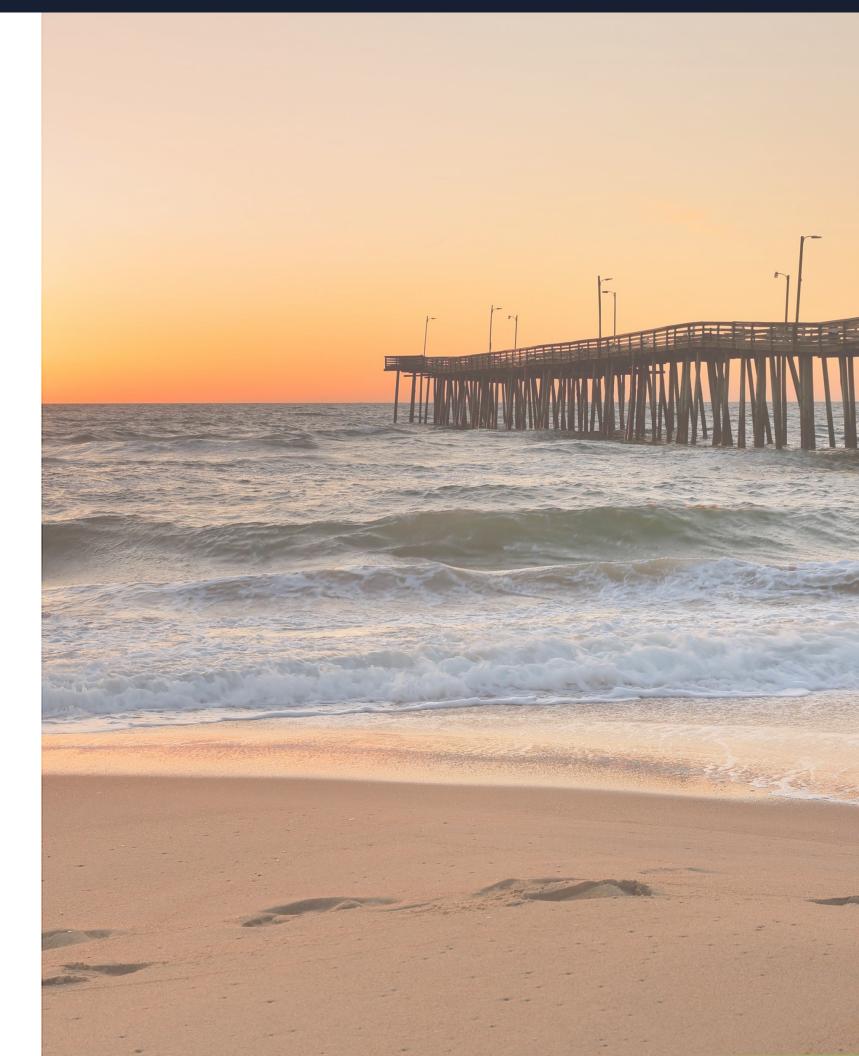
273,150

Total Jobs Generated





State & Local Taxes Generated





VISITS & VISITOR SPENDING

Virginia hosts millions of visitors each year. Following severe COVID-related declines the prior year, 2021 was a year of recovery in which direct visitor spending reached \$25.2 billion and visitor volume totaled 101.9 million.

VISITOR VOLUME

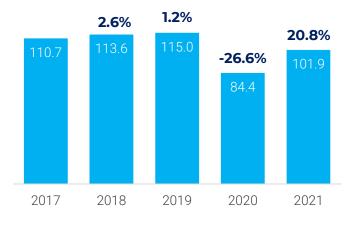
Recovery in 2021

Visitor volume was impacted in 2020 by COVID-19 restrictions and closures.

In 2021, travel confidence rebounded with easing restrictions and vaccines. With an increase of nearly 18 million visitors over the prior year, total visitation recovered to about 89% of 2019 volumes.

Virginia visitor volume

Amounts in millions



Sources: Longwoods Int'l, Tourism Economics

VISITOR SPENDING

Visitors to Virginia spent \$25.2 billion across a range of sectors in 2021.

Visitor spending expanded 44% in 2021, recovering to 87% of 2019 levels.

Of the \$25.2 billion spent in Virginia in 2021 by visitors, food and beverage purchases accounted for \$7.4 billion, 29% of the average visitor dollar.

Transportation, including both air and transportation within the destination, comprised 28% of each visitor dollar.

Lodging, including the value of second homes, accounted for \$4.9 billion, 19 % of the average visitor dollar.

Recreation spending comprised 13%, with retail registering 12% of each visitor dollar.

Virginia visitor spending

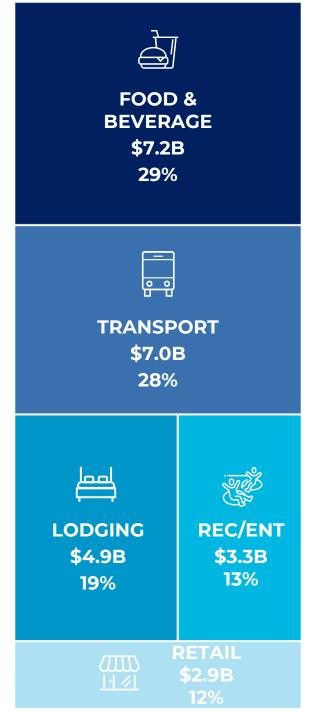
Amounts in \$ billions



Sources: Longwoods Int'l, Tourism Economics

\$25.2 BILLION

Total Visitor Spending in 2021



Source: Tourism Economics

Note: Lodging spending is calculated as an industry. Spending also includes dollars spent on second homes. Transport includes both air and local transportation.

VISITATION & SPENDING TRENDS

Visitor spending increased by 44% in 2021, a bounce back after the significant declines in 2020. Spending grew across all sectors, driven by strong room demand and increases in prices of key commodities, especially in lodging and transportation. Indeed, average room rates at hotels in the state increased 17%, with room demand increasing 35%.

Strong growth was seen in lodging, one of the hardest hit category during the pandemic. Lodging spending increased 48% after a fall of 41% in 2020. Despite the strong rebound, lodging spending remains at 87% of 2019 levels.

Recreational spending grew 46% in 2021, bringing it back to 94% of pre-pandemic levels.

While air transportation remains at about 70% of pre-pandemic levels, transportation within the destination reached 94% of 2019 spending, while food and beverage spending registered just over 92% of 2019 spending levels.

Virginia visitor spending

Amounts in \$ billions, 2021 percent change and percent recovered relative to 2019

	2017	2018	2019	2020	2021	2021 Growth	% relative to 2019
Total visitor spending	\$26.36	\$27.87	\$29.06	\$17.52	\$25.22	44.0%	86.8%
Food & beverage	\$7.02	\$7.45	\$7.81	\$5.17	\$7.20	39.3%	92.2%
Transportation**	\$8.06	\$8.50	\$8.95	\$4.58	\$6.96	52.0%	77.7%
Lodging*	\$5.05	\$5.33	\$5.57	\$3.28	\$4.86	48.2%	87.2%
Recreation	\$3.17	\$3.35	\$3.50	\$2.26	\$3.29	45.7%	93.9%
Retail	\$3.07	\$3.24	\$3.23	\$2.23	\$2.91	30.4%	90.2%

Source: Longwoods Int'l, Tourism Economics

* Lodging includes second home spending

** Transportation includes both ground and air transportation

Virginia spending, by market

Amounts in \$millions

	2017	2018	2019	2020	2021
Total visitor spending	\$26,365	\$27,874	\$29,065	\$17,517	\$25,219
Domestic	\$24,671	\$26,066	\$27,294	\$17,180	\$24,749
International	\$1,694	\$1,808	\$1,771	\$337	\$470
Per visitor spending	\$238	\$245	\$253	\$208	\$247
Domestic	\$225	\$232	\$240	\$204	\$243
International	\$1,597	\$1,627	\$1,597	\$1,338	\$2,100

Source: Longwoods Int'l, Tourism Economics

Virginia visitation by segment

Amounts in millions of visitors

	2017	2018	2019	2020	2021
Total visitors	110.72	113.63	114.95	84.40	101.93
Domestic	109.66	112.52	113.84	84.15	101.70
International	1.06	1.11	1.11	0.25	0.22
Total visitors	110.72	113.63	114.95	84.40	101.93
Business	14.75	15.06	14.45	10.46	9.89
Leisure	95.96	98.57	100.51	73.94	92.04
Total visitors	110.72	113.63	114.95	84.40	101.93
Day	66.65	68.80	70.11	54.89	63.45
Overnight	44.07	44.83	44.84	29.52	38.48

Source: Longwoods Int'l, Tourism Economics



ECONOMIC IMPACT METHODOLOGY

Our analysis of the Virginia visitor economy begins with direct visitor spending and analyzes the downstream effects of this spending on the broader economy. To determine total economic impact, we input direct spending into a model of the Virginia economy, constructed using an IMPLAN input-output (I-O) model. The model traces the full extent of industry impacts as dollars flow through the local economy.

An I-O model represents a profile of an economy by measuring the relationships among industries and consumers and quantifies three levels of impact:

- **1. Direct impacts**: Visitor spending creates direct economic value within a discrete group of sectors (such as recreation and transportation). This supports a relative proportion of spending, jobs, wages, and taxes within each sector.
- **2. Indirect impacts**: Each directly affected sector also purchases goods and services as inputs (e.g. food wholesalers, utilities) into production. These impacts are called indirect impacts or supply-chain effects.
- **3. Induced impacts**: Lastly, the induced impact is generated when employees whose wages are generated either directly or indirectly by visitor spending spend those wages in the local economy. This is called the induced impact or income effect.

The Tourism Economics model calculates these three levels of impact - direct, indirect and induced - for a broad set of indicators, including:

• Spending

• Federal Taxes

- Wages
- Employment

- State Taxes
- Local Taxes



DIRECT IMPACTS

Tourism's contribution measured visitor spending



TOTAL IMPACTS Direct, indirect, and induced impacts



INDIRECT IMPACTS

Purchases of inputs from suppliers Suppliers' own supply chains



B2B GOODS & SERVICES PURCHASED

INDUCED IMPACTS

Consumer spending out of employees' wages:



HOUSEHOLD CONSUMPTION





GDP



JOBS



INCOME



ECONOMIC IMPACT FINDINGS

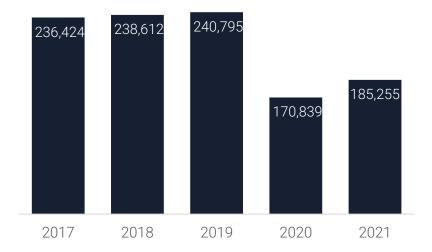
DIRECT IMPACTS

Amounts in number of jobs

Employment supported by visitor activity increased 8.4% in 2021, rebounding to more than 185,000 jobs. Despite the increase, the number of jobs directly supported by visitors remains 55,500 jobs below pre-pandemic.

Recovery in visitor-supported jobs has been slower than spending, with visitor-supported employed levels at 77% of pre-pandemic levels compared to 87% of spending.

Visitor supported employment in Virginia



Source: Tourism Economics





ECONOMIC IMPACT **FINDINGS**

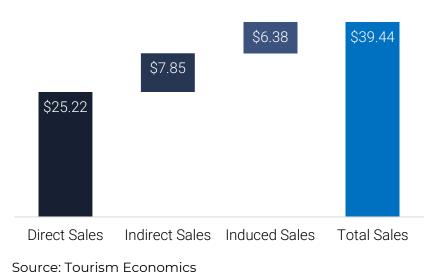
BUSINESS SALES IMPACTS

Visitors contributed a direct impact of \$25.2 billion in 2021. This direct impact of \$25.2 billion generated \$14.2 billion in indirect and induced impacts, resulting in a total economic impact of \$39.4 billion in the Virginia economy, 35% more than a year earlier.

Outside of direct impacts, significant benefits accrue in sectors like finance, insurance, and real estate, and business services.

Summary Economic impacts (2021)

Amounts in billions of nominal dollars



Business sales impacts by industry (2021)

Amounts in millions of nominal dollars

Total, all industries

Food & Beverage Finance, Insurance, Real Estate Lodging Air Transport **Business Services** Retail Trade Other Transport Recreation and Entertainment Communications Education and Health Care Personal Services Construction and Utilities **Gasoline Stations** Wholesale Trade Government Manufacturing Agriculture, Fishing, Mining

Source: Tourism Economics

Visitor economy business sales impacts by industry (2021)

Amounts in millions of nominal dollars



Source: Tourism Economics

Direct Business Sales	Indirect Business Sales	Induced Business Sales	Total Business Sales
\$25,219	\$7,849	\$6,376	\$39,444
\$7,199	\$358	\$480	\$8,037
\$1,089	\$1,889	\$2,213	\$5,190
\$4,473	\$2	\$3	\$4,477
\$3,914	\$33	\$41	\$3,988
\$987	\$2,052	\$567	\$3,606
\$2,914	\$100	\$481	\$3,495
\$1,635	\$688	\$144	\$2,467
\$2,068	\$289	\$96	\$2,453
	\$799	\$323	\$1,122
	\$30	\$938	\$967
\$233	\$202	\$348	\$783
	\$557	\$201	\$758
\$709	\$10	\$33	\$751
	\$319	\$239	\$558
	\$247	\$131	\$379
	\$242	\$121	\$363
	\$32	\$17	\$49

\$7,500 \$10,000

EMPLOYMENT IMPACTS

Visitor activity sustained 185,255 direct jobs in 2021, with an additional 87,899 jobs supported from the indirect and induced impacts of visitor activity. The total jobs impact recovered to 273,154 in 2021, one of every 19 jobs in the state.

Summary Employment Impacts (2021)

Amounts in number of jobs

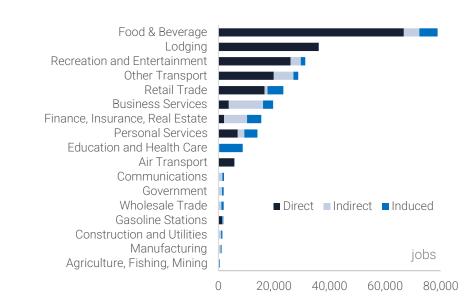


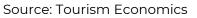
Visitor spending supports the largest number of jobs in the food & beverage industry (78,892).

Spending by businesses directly impacted by visitor spending supports 12,304 jobs in the business services industry – in areas like accounting, advertising and building services.

Tourism Job Impacts by Industry (2021)

Amounts in number of jobs







Summary Employment Impacts by Industry (2021)

Amounts in number of jobs

Total, all industries

Food & Beverage Lodging **Recreation and Entertainment** Other Transport Retail Trade **Business Services** Finance, Insurance, Real Estate Personal Services Education and Health Care Air Transport Communications Government Wholesale Trade **Gasoline Stations** Construction and Utilities Manufacturing Agriculture, Fishing, Mining

Source: Tourism Economics

Direct	Indirect	Induced	Total
Jobs	Jobs	Jobs	Jobs
185,255	46,861	41,038	273,154
66,721	5,578	6,593	78,892
36,102	14	27	36,143
26,003	3,682	1,570	31,255
19,913	7,084	1,721	28,718
16,605	1,101	5,710	23,416
3,786	12,304	3,609	19,699
2,039	8,269	5,119	15,427
7,011	2,332	4,748	14,091
	294	8,479	8,773
5,729	67	80	5,876
	1,442	619	2,061
	1,375	570	1,944
	1,103	798	1,901
1,345	104	338	1,787
	1,013	465	1,478
	810	346	1,157
	289	247	536

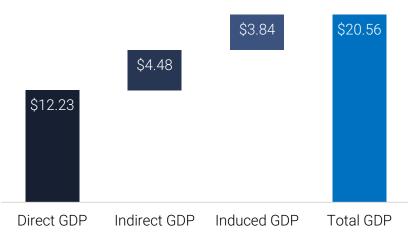
Source: Tourism Economics

VALUE ADDED IMPACTS

The value of all visitor-associated goods and services produced in Virginia in 2021 increased to \$20.6 billion, an increase of 22% over the prior year.

Summary Value-added Impacts (2021)

Amounts in billions of nominal dollars



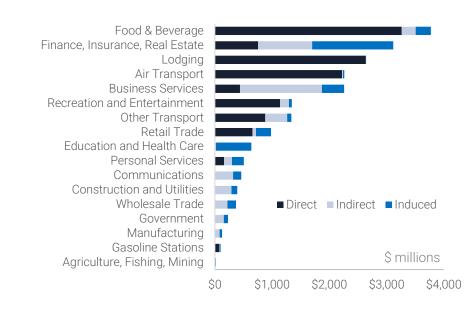
Source: Tourism Economics

The locally produced portion of visitor-associated sales in the food & beverage industry added \$3.8 billion to state GDP in 2021.

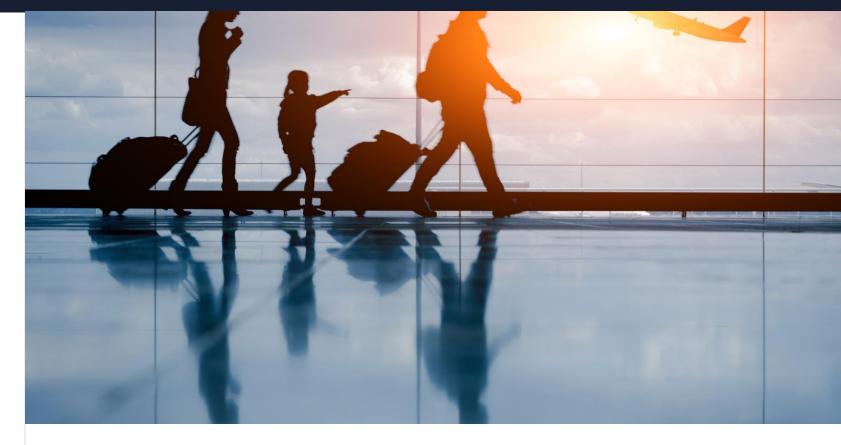
Spending by visitorassociated workers supported \$620 million in GDP contribution in the education and health care industries, showing how visitors support businesses across the industrial spectrum.

Tourism Value-added Impacts by Industry (2021)

Amounts in millions of nominal dollars



Source: Tourism Economics



Summary Value-added Impacts by Industry (2021)

Amounts in millions of nominal dollars

Total, all industries

Food & Beverage Finance, Insurance, Real Estate Lodging Air Transport **Business Services Recreation and Entertainment** Other Transport Retail Trade Education and Health Care Personal Services Communications Construction and Utilities Wholesale Trade Government Manufacturing Gasoline Stations Agriculture, Fishing, Mining

Direct GDP	Indirect GDP	Induced GDP	Total GDP
\$12,234	\$4,480	\$3,843	\$20,558
\$3,265	\$243	\$266	\$3,774
\$754	\$944	\$1,418	\$3,117
\$2,639	\$1	\$2	\$2,641
\$2,222	\$19	\$22	\$2,263
\$438	\$1,431	\$391	\$2,260
\$1,139	\$156	\$51	\$1,346
\$880	\$384	\$71	\$1,336
\$657	\$61	\$262	\$981
	\$18	\$620	\$638
\$161	\$137	\$209	\$507
	\$318	\$142	\$460
	\$290	\$102	\$392
	\$220	\$149	\$369
	\$157	\$72	\$229
	\$82	\$44	\$127
\$79	\$5	\$17	\$101
	\$12	\$7	\$19

LABOR INCOME IMPACTS

Visitor activity generated \$7.1 billion in direct labor income and a total of \$11.8 billion when including indirect and induced impacts. Total tourism-generated income in Virginia in 2021 rebounded 17% above 2020.

Summary Labor Income Impacts (2021)

Amounts in billions of nominal dollars

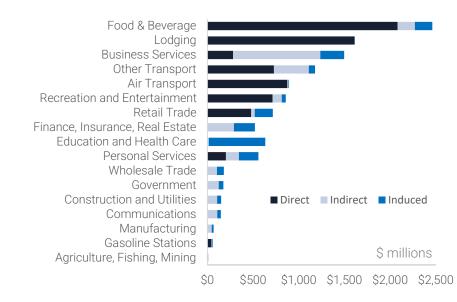


Source: Tourism Economics

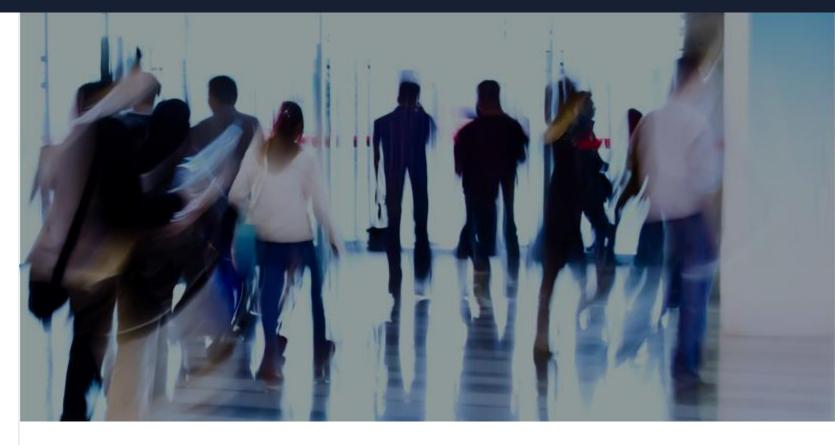
There are 10 industries in which visitor activity supports more than \$500 million in personal income. These range from the obvious-food & beverage and lodging, to the less obvious-business services and education & healthcare.

Tourism Labor Income Impacts by Industry (2021)

Amounts in billions of nominal dollars



Source: Tourism Economics



Summary Labor Income Impacts (2021)

Amounts in millions of nominal dollars

Total, all industries

Food & Beverage Lodging **Business Services** Other Transport Air Transport **Recreation and Entertainment** Retail Trade Finance, Insurance, Real Estate Education and Health Care **Personal Services** Wholesale Trade Government Construction and Utilities Communications Manufacturing **Gasoline Stations** Agriculture, Fishing, Mining

Source: Tourism Economics

Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Labor Income
\$7,135	\$2,624	\$2,074	\$11,833
\$2,081	\$190	\$190	\$2,461
\$1,611	\$1	\$1	\$1,613
\$282	\$954	\$261	\$1,497
\$728	\$382	\$68	\$1,178
\$875	\$6	\$8	\$889
\$713	\$101	\$44	\$858
\$479	\$40	\$197	\$716
\$120	\$290	\$230	\$641
	\$16	\$618	\$634
\$203	\$142	\$214	\$559
	\$105	\$75	\$181
	\$124	\$50	\$174
	\$107	\$43	\$150
	\$108	\$40	\$148
	\$48	\$20	\$68
\$43	\$3	\$11	\$57
	\$6	\$3	\$9

ECONOMIC IMPACT FINDINGS FISCAL (TAX) IMPACTS

Visitor spending, visitor supported jobs, and business sales generated \$4.3 billion in government revenues.

State and local taxes alone tallied \$2.5 billion in 2021.

Each household in Virginia would need to be taxed an additional \$776 to replace the visitor-generated taxes received by Virginia state and local governments in 2021.

Fiscal (tax) impacts

Amounts in millions of nominal dollars

	State	Loc
Total Tax Revenues	\$926	\$1,545
Sales	\$534	\$19
Bed Tax		\$208
Personal Income	\$249	
Corporate	\$31	
Excise and Fees	\$110	\$98
Property	\$2	\$1,04

Source: Tourism Economics

Fiscal (tax) impacts

Amounts in millions of nominal dollars

	Direct	Indirect / Induced	Total
Total Tax Revenues	\$2,910	\$1,360	\$4,270
Federal Taxes	\$1,086	\$714	\$1,799
Personal Income	\$363	\$261	\$623
Corporate	\$85	\$74	\$159
Indirect Business	\$93	\$35	\$128
Social Insurance	\$545	\$344	\$889
State and Local Taxes	\$1,825	\$646	\$2,471
Sales	\$552	\$177	\$729
Bed Tax	\$208	\$0	\$208
Personal Income	\$147	\$101	\$249
Corporate	\$17	\$14	\$31
Excise and Fees	\$154	\$54	\$208
Property	\$746	\$300	\$1,046

Source: Tourism Economics



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)8 |4 Visitors generated \$926 million in state taxes, an increase of 35% over the prior year.

Local visitor-supported taxes, sustained mainly through property taxes, registered \$1.5 billion in 2021.

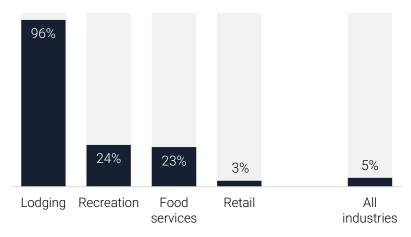


ECONOMIC IMPACTS **IN CONTEXT**

Visitors sustain nearly all employment in the lodging sector, nearly a quarter of recreation employment, and 23% of food & beverage employment is supported by visitor spending.

Tourism employment intensity

Amounts in percentage of total industry employment



Source: BEA, BLS, Tourism Economics



ECONOMIC IMPACTS

\$25.2B VISITOR SPENDING

The \$25.2 billion in visitor spending means that more than \$69 million was spent EVERY DAY by visitors in Virginia.

generated by tourism is the equivalent of \$3,700 for every household in Virginia.

The number of jobs sustained by tourism (273,154) supports 5.2% of all jobs

\$2.5B STATE & LOCAL TAXES

The \$2.5 billion in state and local taxes generated by tourism would cover the average salary of more than 45,070 public

APPENDIX

Glossary – Spending Definitions

Term	Description
Lodging	Includes visitor spending in the accommodation sub-sector. This includes food and other services provided by hotels, rentals and similar establishments.
Food and beverage	Includes all visitor spending on food & beverages, including at restaurants, bars, grocery stores and other food providers.
Recreation	Includes visitor spending within the arts, entertainment and recreation sub-sector.
Shopping	Includes visitor spending in all retail sub-sectors within the local economy.
Local transport	Includes visitor spending on local transport services such as taxis, limos, trains, rental cars, buses, and the local share of air transportation spending.
Service stations	Visitor spending on gasoline.
Second homes	Where applicable, spending associated with the upkeep of seasonal second homes for recreational use as defined by the Census Bureau.

Glossary – Economic Impact Definitions

Term	Description
Direct Impact	Impacts (business sa from spending by visi of tourism-related sec lodging).
Indirect Impact	Impacts created from inputs (e.g. food who production by the dire economic effects ste purchases in the supp
Induced Impact	Impacts created from employees whose wa by visitor spending.
Employment	Jobs directly and indi part-time and season working at least one h calendar year.
Labor income	Income (wages, salar supported by visitor s
Value Added (GDP)	The economic enhan services before offeri
Local Taxes	City and County taxes any local sales, incom revenues streams of transportation to san
State Taxes	State tax revenues ge sales, income, corpor state governments.

ales, jobs, income, and taxes) created directly sitors to a destination within a discreet group ectors (e.g. recreation, transportation,

m purchase of goods and services used as olesalers, utilities, business services) into rectly affected tourism-related sectors (i.e. emming from business-to-business oply chain).

m spending in the local economy by vages are generated either directly or indirectly

directly supported by visitor activity (includes nal work). One job is defined as one person hour per week for fifty weeks during the

aries, proprietor income and benefits) spending.

ncement a company gives its products or ring them to customers.

es generated by visitor spending. This includes me, bed, usage fees, licenses and other f local governmental authorities – from nitation to general government.

enerated by visitor spending. This will include rate, usage fees and other assessments of

ABOUT TOURISM ECONOMICS

Tourism Economics is an Oxford Economics company with a singular objective: combine an understanding of the travel sector with proven economic tools to answer the most important questions facing our clients. More than 500 companies, associations, and destination work with Tourism Economics every year as a research partner. We bring decades of experience to every engagement to help our clients make better marketing, investment, and policy decisions. Our team of highlyspecialized economists deliver:

- Global travel data-sets with the broadest set of country, city, and state coverage available
- Travel forecasts that are directly linked to the economic and demographic outlook for origins and destinations
- Economic impact analysis that highlights the value of visitors, events, developments, and industry segments
- Policy analysis that informs critical funding, taxation, and travel facilitation decisions
- Market assessments that define market allocation and investment decisions

Tourism Economics operates out of regional headquarters in Philadelphia and Oxford, with offices in Belfast, London, Frankfurt, Ontario, and Sydney.

Oxford Economics is one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on 200 countries, 100 industrial sectors and over 3,000 cities. Our best-of-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact. Headquartered in Oxford, England, with regional centers in London, New York, and Singapore, Oxford Economics has offices across the globe in Belfast, Chicago, Dubai, Miami, Milan, Paris, Philadelphia, San Francisco, and Washington DC, we employ over 400 full-time staff, including 300 professional economists, industry experts and business editors—one of the largest teams of macroeconomists and thought leadership specialists.

For more information: admin@tourismeconomics.com

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