

THE TEMPE VISITOR ECONOMY 2022

May 2023

Prepared for: Tempe Tourism Office



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INTRODUCTION PROJECT BACKGROUND

The travel sector is an integral part of the Tempe economy. Visitors generate significant economic benefits to households, businesses, and government alike and represent a critical driver of the city's future. In 2022, visitor-supported employment reached 8,399 jobs in the city, including indirect and induced impacts.

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 Tempe as it builds upon its visitor economy.

METHODOLOGY AND DATA SOURCES

An IMPLAN input-output model was constructed for Tempe. The model traces the flow of visitor-related expenditures through the local 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. Adjustments to model outputs were made to ensure results captured only benefits in the city of Tempe.

Visitors included those who stayed overnight or traveled more than 50 miles to the destination.

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

By establishing a timeline of economic impacts, the industry can track its progress.

To quantify the economic significance of the visitor economy in Tempe, Tourism Economics has prepared a comprehensive model detailing the far-reaching impacts arising from visitor spending. The results of this study show the scope of the travel sector in terms of direct visitor spending, as well as the total economic impacts, jobs, and fiscal (tax) impacts in the broader economy.

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.

The analysis draws on the following data sources:

- Bureau of Economic Analysis and Bureau of Labor Statistics: employment and wage data, by industry.
- STR and AirDNA lodging performance data, including room demand, room rates, occupancy, and room revenue, for hotels and short-term rentals.
- 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 Tempe based on aviation, survey, and credit card information.

ECONOMIC IMPACTS

KEY FINDINGS

DIRECT VISITOR SPENDING

Spending by visitors increased by more than \$250 million to reach \$1 billion in 2022. Building upon recovery in 2021, visitor spending reached 115% of pre-pandemic levels in 2022.

VISITOR VOLUMES

Visitors to Tempe topped 4.2 million in 2022, growing to 102% of pre-pandemic levels. The number of visitors to Tempe grew by more than a half million in 2022, an increase of 17%.



4.2 MILLION

Total Visitors to Tempe in 2022

TOTAL ECONOMIC IMPACT

Direct visitor spending of \$1 billion generated a total of \$1.3 billion in total business sales. This total economic impact included 8,399 jobs, and \$109 million in state and local tax revenues.



\$1.3 BILLION

Total Economic Impact of Tourism in Tempe in 2022

TOTAL ECONOMIC IMPACT



\$1.0B

Direct Visitor
Spending



\$1.3B

Total
Economic
Impact



8,399

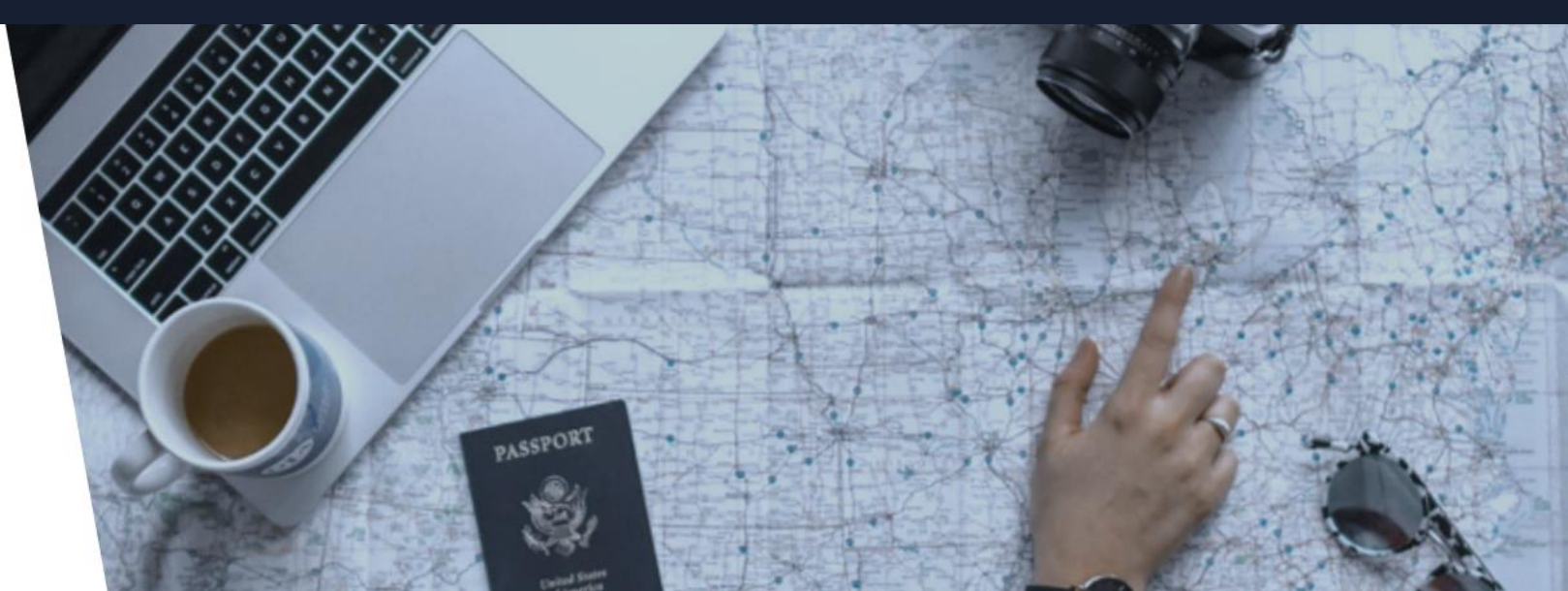
Total
Jobs
Generated



\$109M

State & Local
Taxes
Generated





VISITS & VISITOR SPENDING

Tempe saw visitor spending surpass pre-pandemic levels as the rebound from the pandemic continued in 2022. Visitors to Tempe spent \$1 billion in 2022, an increase of 30% that pushed spending to 15% above 2019 levels.

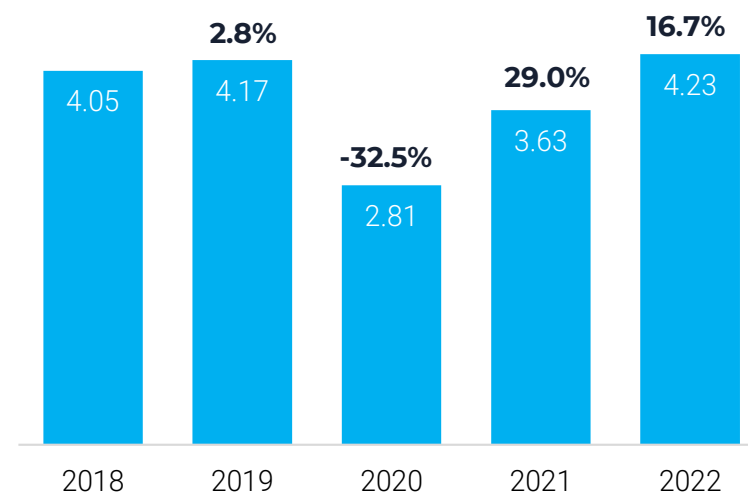
VISITOR VOLUME

Growth in 2022

Visitor volume increased 16.7% in 2022 to reach 4.2 million visitors.

In 2022, visitor volumes continued to rebound from pandemic-related declines and surpassed 2019 levels for the first time.

Tempe visitor volume
Amounts in millions of visitors



Source: Tourism Economics

VISITOR SPENDING

Visitors to Tempe spent \$1 billion across a wide range of sectors in 2022.

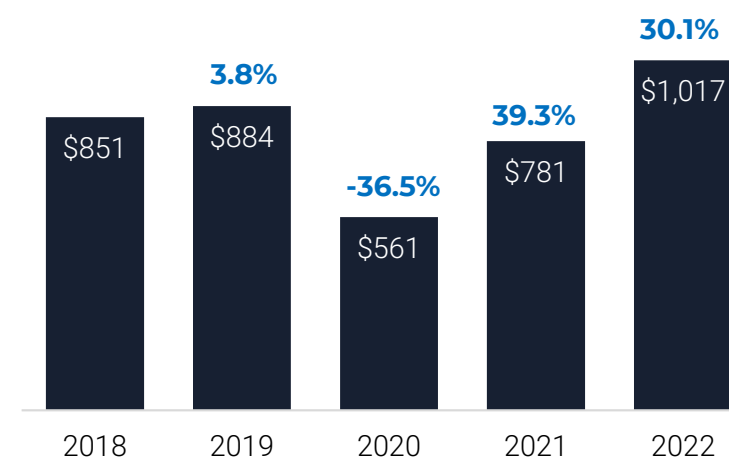
Of the \$1 billion spent in Tempe in 2022 by visitors, spending on food and beverage resulted in \$254 million, 25% of visitor spending.

Visitors to Tempe spent the next highest amount on lodging, including the value of second homes: \$243 million, or 24% of visitor spending.

Transportation within the destination, including purchases of gasoline and dollars spent on parking, registered \$217 million, 21% of visitor spending.

Retail and recreation captured 18% and 12% of visitor spending in Tempe, respectively.

Tempe visitor spending
Amounts in \$ millions

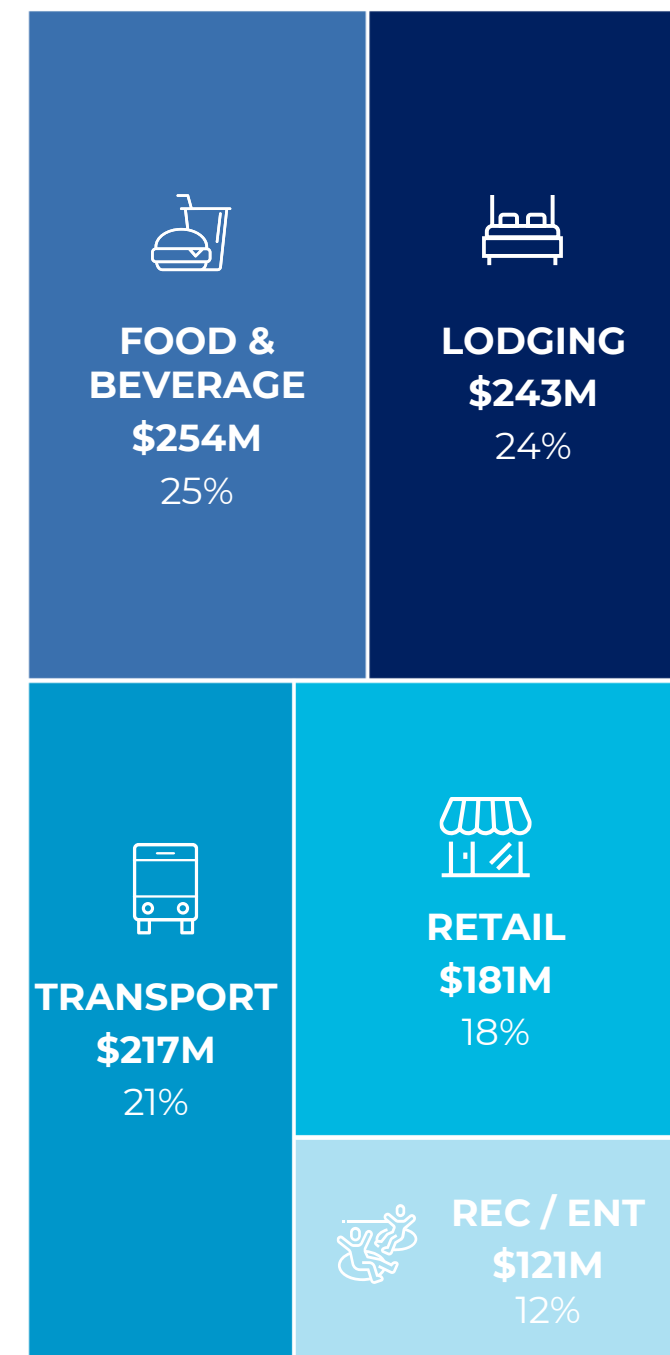


Source: Tourism Economics

\$1 BILLION



Total Visitor Spending in 2022



Source: Tourism Economics

Note: Lodging spending is calculated as an industry. Spending also includes spending on second homes.

VISITOR VOLUME & SPENDING TRENDS

Visitor spending surged 30.1% in 2022 after significant growth in 2021. Spending grew across all sectors, driven by pent-up demand and increases in prices.

Among all spending categories, growth in lodging, including short-term rentals and second homes, was especially notable in 2022. Capitalizing on a 31.1% increase in average room rates, spending on lodging increased 54.3%, reaching 130% of 2019 levels.

Spending on lodging, food and beverage, retail, recreation, and transportation all exceeded pre-pandemic levels for the first time in 2022.

Tempe visitor spending and annual growth

Amounts in \$ millions, 2022 % change, and % recovered relative to 2019

	2018	2019	2020	2021	2022	2022 Growth	% relative to 2019
Total visitor spending	\$851.5	\$883.6	\$560.7	\$781.3	\$1,016.7	30.1%	115.1%
Lodging*	\$171.4	\$186.6	\$104.3	\$157.7	\$243.3	54.3%	130.4%
Food & beverage	\$219.0	\$231.5	\$151.7	\$206.2	\$254.4	23.3%	109.9%
Retail	\$184.6	\$180.2	\$107.5	\$152.7	\$180.9	18.5%	100.4%
Transportation	\$173.6	\$177.8	\$129.1	\$172.1	\$217.2	26.2%	122.1%
Recreation	\$102.8	\$107.4	\$68.1	\$92.6	\$120.9	30.6%	112.5%

Source: Tourism Economics

*Lodging includes second home spending

Tempe visitor volume and spending, by market

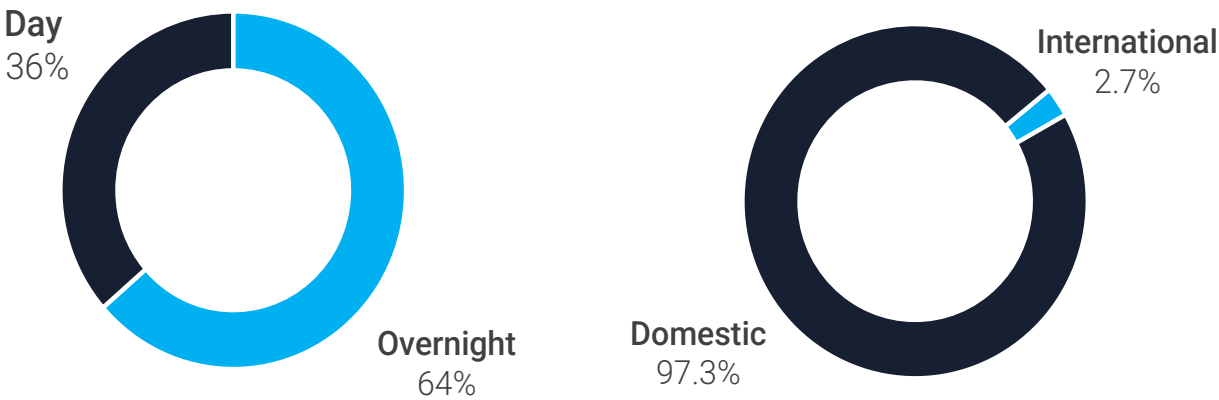
Amounts in millions of visitors, 2022 % change, and % recovered relative to 2019

	2018	2019	2020	2021	2022	2022 Growth	% relative to 2019
Total visitor volume	4.05	4.17	2.81	3.63	4.23	16.7%	101.6%
International	0.18	0.18	0.06	0.05	0.11	123.1%	65.0%
Domestic	3.88	3.99	2.75	3.58	4.12	15.2%	103.2%
Day	1.56	1.59	1.15	1.37	1.54	12.6%	96.8%
Overnight	2.32	2.40	1.60	2.21	2.58	16.8%	107.4%

Source: Tourism Economics

Tempe visitor volume share by segment

Percent of visitor volume by segment



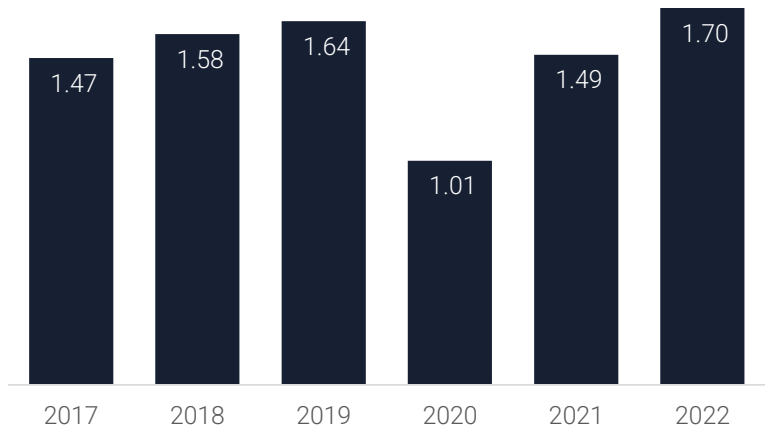
Source: Tourism Economics

TOURISM ECONOMY TRENDS

Hotel industry

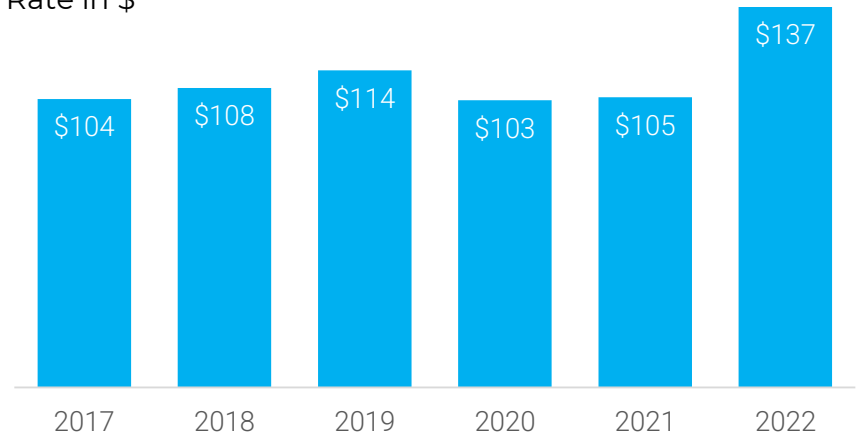
Hotel room demand increased 14.1% in 2022, accounting for 1.5 million room nights. Growth in 2021 and 2022 drove hotel room demand in Tempe to 103% of pre-pandemic levels. Room rates (ADR) rose 31.1% versus 2021, extremely high growth that saw rates reach 120% of 2019 levels.

City of Tempe hotel room demand
Millions of room nights



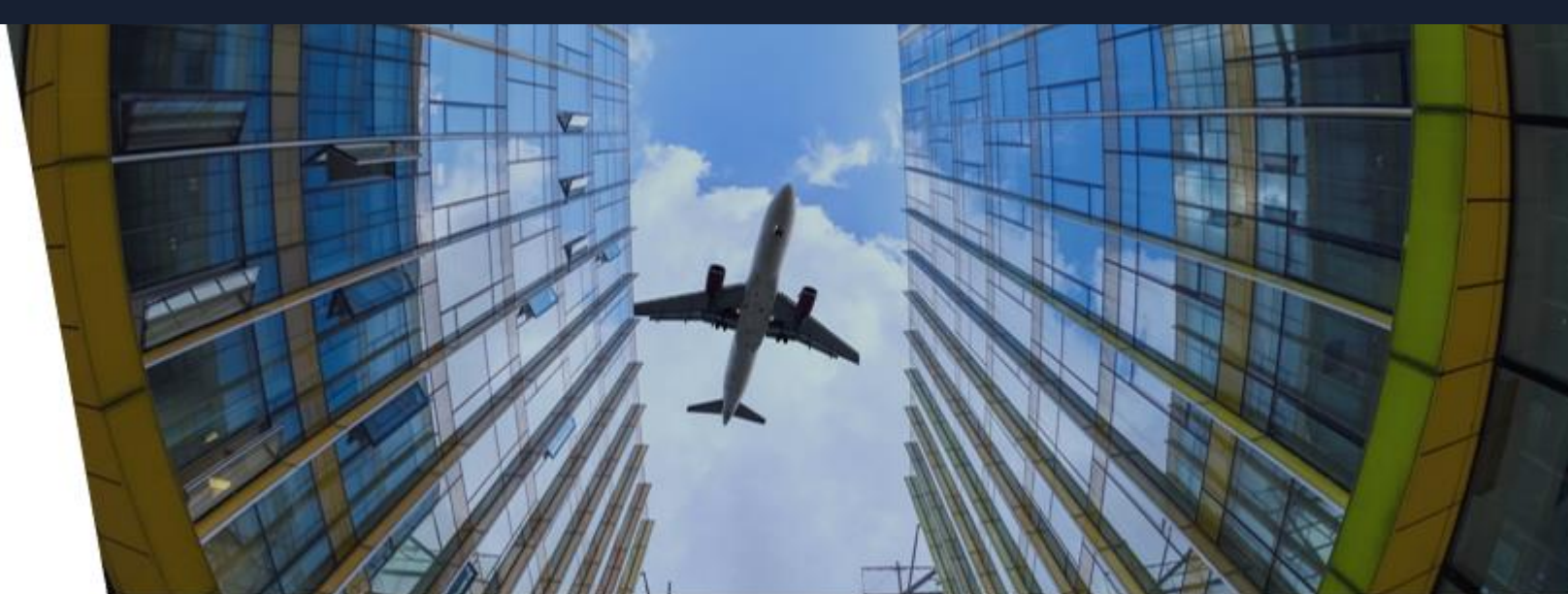
Source: STR

City of Tempe average daily rate (ADR)
Rate in \$



Source: STR





ECONOMIC IMPACT METHODOLOGY

The analysis of the Tempe 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 Tempe 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.

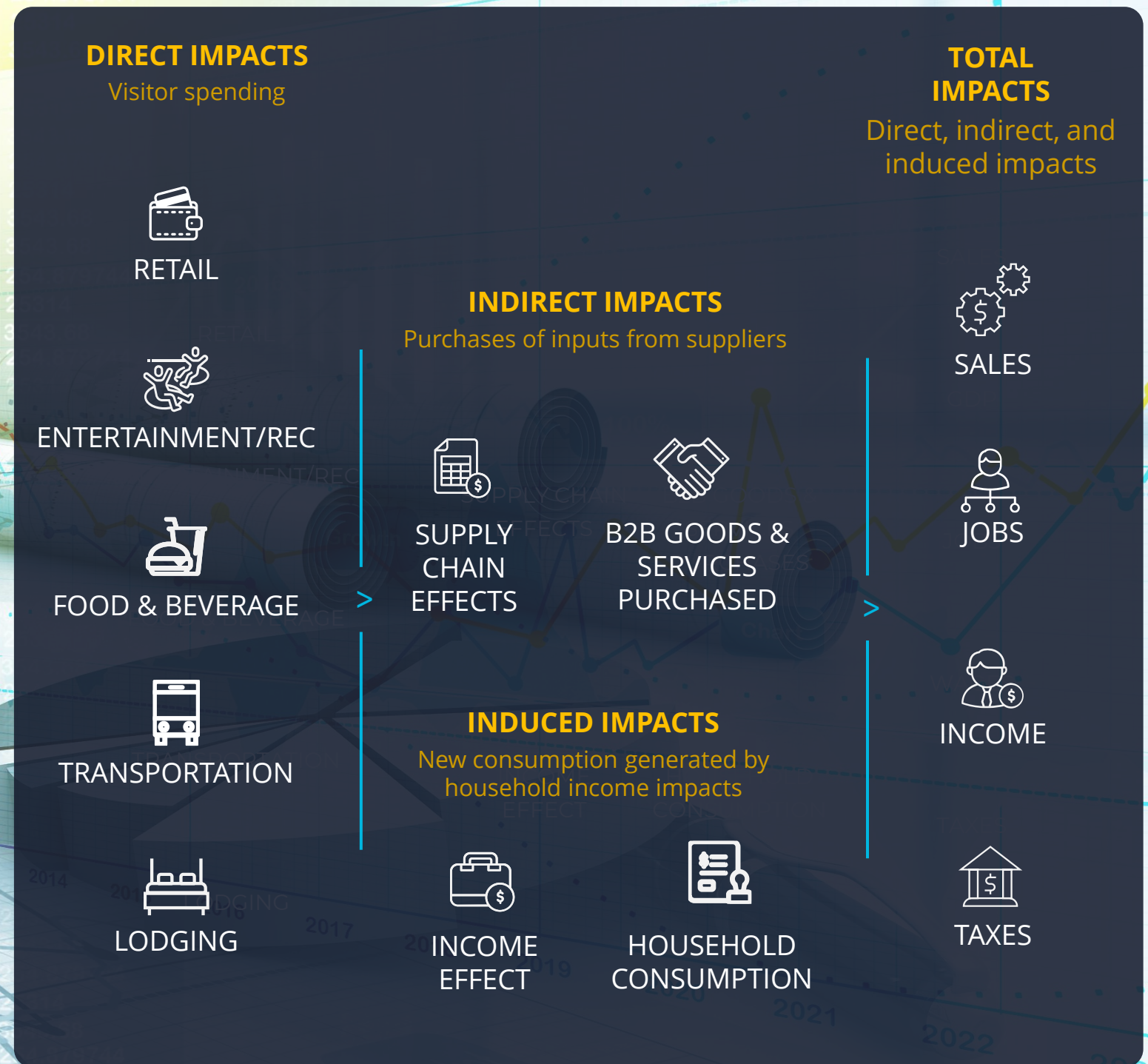
An I-O model represents a profile of an economy by measuring the relationships among industries and consumers and quantifies three levels of impact:

- 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
- Wages
- Employment
- Federal Taxes
- State Taxes
- Local Taxes

ECONOMIC IMPACT FRAMEWORK



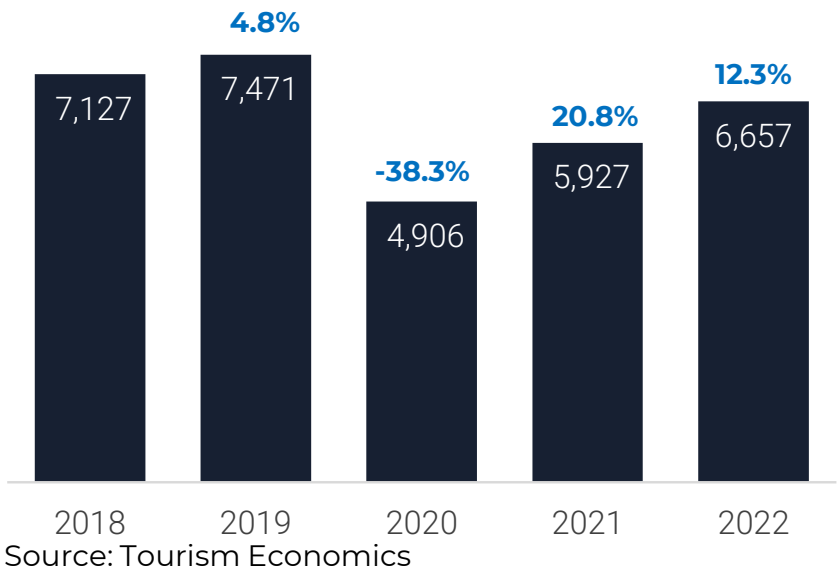
ECONOMIC IMPACT FINDINGS

DIRECT IMPACTS

Employment supported by visitor activity rose 12% in 2022, rebounding to 6,657 jobs. Despite increasing more than 700 jobs, the number of jobs directly supported by visitors remains below pre-pandemic levels.

Recovery in visitor-supported jobs has been slower than spending, with visitor-supported employment levels at 89% of pre-pandemic levels compared to 115% of spending. Employment growth is lagging the spending recovery as businesses initially proceeded cautiously and face ongoing labor shortages.

Visitor supported employment in Tempe
Amounts in number of jobs





ECONOMIC IMPACT FINDINGS

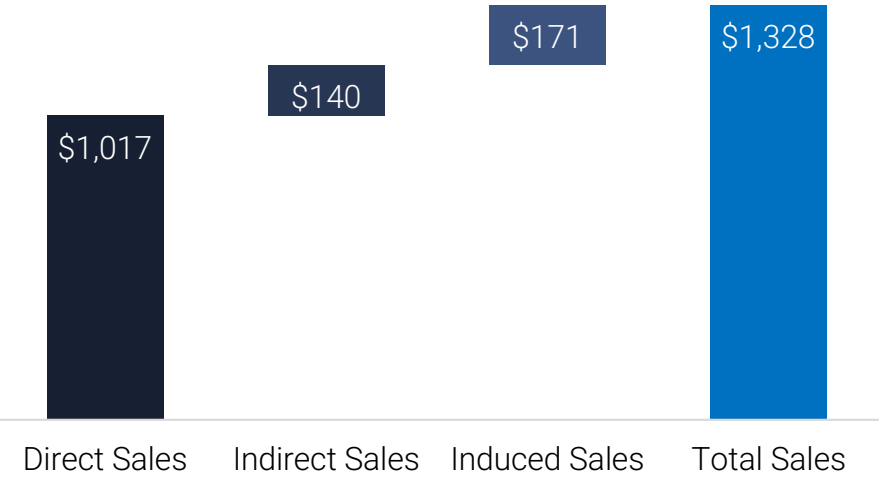
BUSINESS SALES IMPACTS

Visitors contributed a direct impact of \$1 billion in 2022. This direct impact led to \$311 million in indirect and induced impacts. In total, visitors to Tempe generated over \$1.3 billion in business sales.

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

Summary economic impacts (2022)

Amounts in \$ millions



Source: Tourism Economics

Business sales impacts by industry (2022)

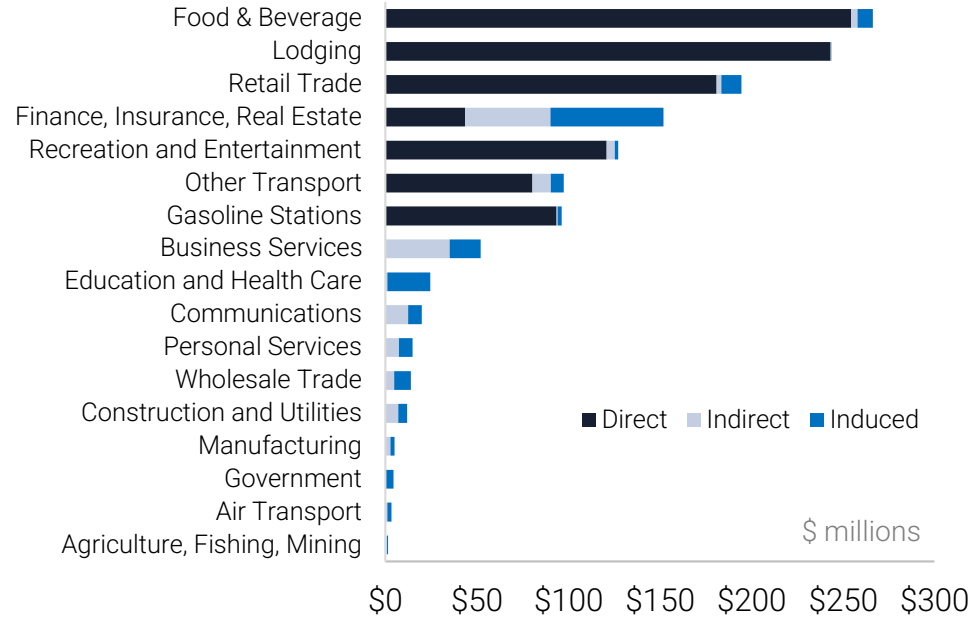
Amounts in \$ millions

	Direct Business Sales	Indirect Business Sales	Induced Business Sales	Total Business Sales
Total, all industries	\$1,016.7	\$140.3	\$170.8	\$1,327.7
Food & Beverage	\$254.4	\$3.5	\$8.4	\$266.3
Lodging	\$243.3	\$0.0	\$0.1	\$243.5
Retail Trade	\$180.9	\$2.6	\$11.0	\$194.5
Finance, Insurance, Real Estate	\$43.4	\$46.7	\$61.8	\$152.0
Recreation and Entertainment	\$120.9	\$4.4	\$1.9	\$127.1
Other Transport	\$80.4	\$9.9	\$7.0	\$97.3
Gasoline Stations	\$93.4	\$0.7	\$2.2	\$96.3
Business Services		\$35.0	\$16.9	\$52.0
Education and Health Care		\$1.0	\$23.5	\$24.5
Communications		\$12.3	\$7.5	\$19.8
Personal Services		\$7.4	\$7.5	\$14.8
Wholesale Trade		\$4.8	\$9.2	\$13.9
Construction and Utilities		\$7.1	\$4.7	\$11.8
Manufacturing		\$2.7	\$2.2	\$4.9
Government		\$0.3	\$4.0	\$4.4
Air Transport		\$1.0	\$2.3	\$3.2
Agriculture, Fishing, Mining		\$0.9	\$0.6	\$1.5

Source: Tourism Economics

Tourism business sales impacts by industry (2022)

Amounts in \$ millions



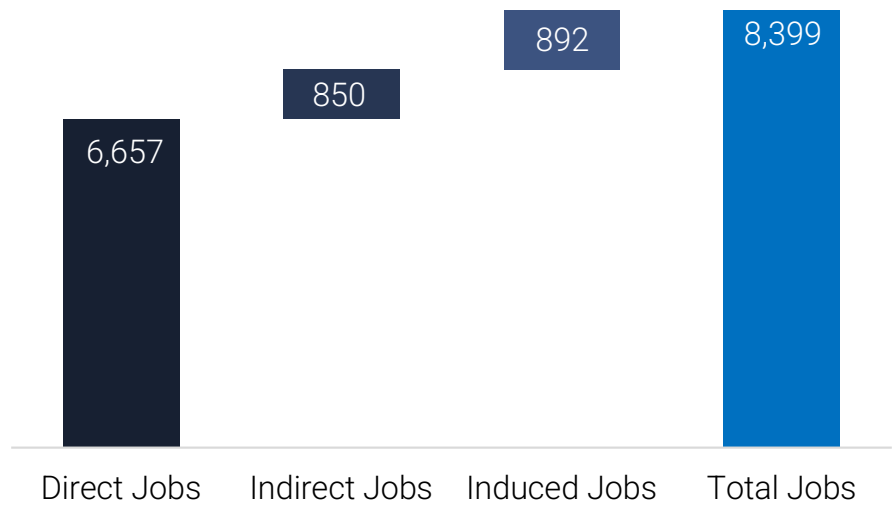
Source: Tourism Economics

JOB IMPACTS

Visitor activity sustained 6,657 direct jobs in 2022, with an additional 1,742 jobs supported from the indirect and induced impacts of visitor activity. The total jobs impact recovered to 8,399 in 2022, approximately one of every 18 jobs in Tempe.

Summary employment impacts (2022)

Amounts in number of jobs



Source: Tourism Economics

Visitor spending supported the largest number of jobs in the food and beverage industry (3,156) followed by lodging with 1,424 jobs and recreation with 1,076 jobs.

Tourism job impacts by industry (2022)

Amounts in number of jobs



Source: Tourism Economics



Summary job impacts by industry (2022)

Amounts in number of jobs

	Direct Jobs	Indirect Jobs	Induced Jobs	Total Jobs
Total, all industries	6,657	850	892	8,399
Food & Beverage	3,012	54	91	3,156
Lodging	1,422	0	1	1,424
Recreation and Entertainment	987	66	23	1,076
Retail Trade	580	19	58	658
Other Transport	401	110	56	567
Finance, Insurance, Real Estate	145	181	138	464
Business Services		258	115	373
Education and Health Care		10	190	200
Personal Services		60	128	188
Gasoline Stations	109	4	13	126
Communications		28	15	43
Wholesale Trade		15	25	39
Government		22	14	36
Construction and Utilities		11	9	20
Manufacturing		8	6	14
Air Transport		2	6	8
Agriculture, Fishing, Mining		3	4	7

Source: Tourism Economics

LABOR INCOME IMPACTS

Visitor activity generated \$268 million in direct labor income and a total of \$369 million when including indirect and induced impacts.

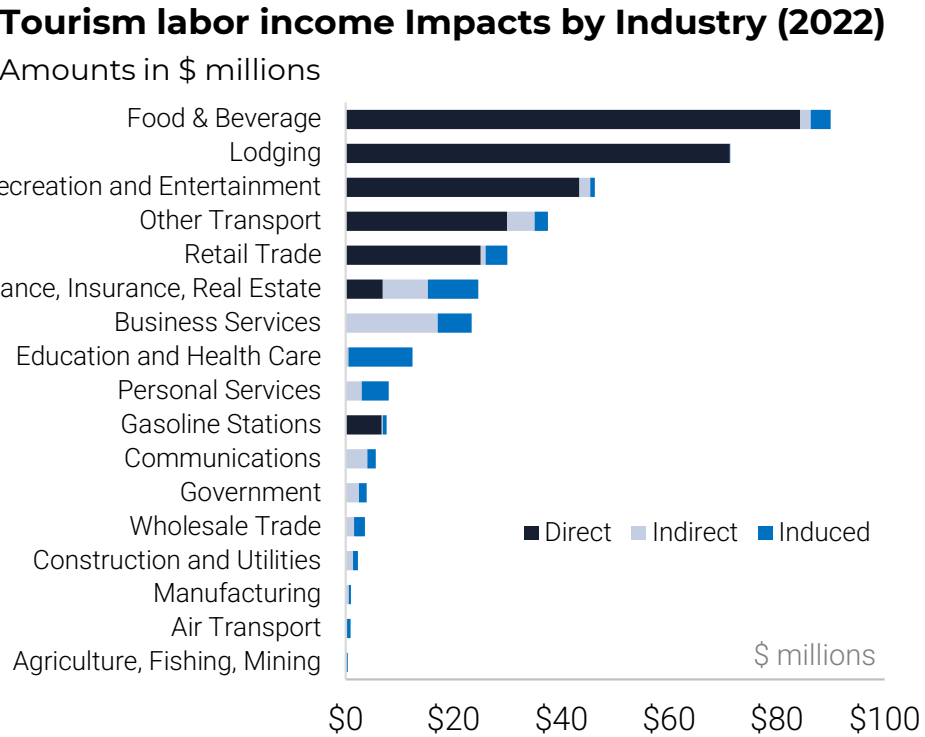
Summary labor income impacts (2022)

Amounts in \$ millions



Source: Tourism Economics

There are seven industries in which visitor activity supports \$20 million or more in personal income. These range from the obvious—food & beverage and lodging, to the less obvious—business services and finance, insurance, and real estate.



Source: Tourism Economics



Summary labor income impacts (2022)

Amounts in \$ millions

	Direct Labor Income	Indirect Labor Income	Induced Labor Income	Total Labor Income
Total, all industries	\$267.6	\$49.6	\$51.6	\$368.8
Food & Beverage	\$84.4	\$1.9	\$3.7	\$90.0
Lodging	\$71.3	\$0.0	\$0.1	\$71.4
Recreation and Entertainment	\$43.4	\$2.0	\$0.8	\$46.2
Other Transport	\$29.9	\$5.1	\$2.5	\$37.6
Retail Trade	\$25.1	\$0.9	\$4.0	\$30.0
Finance, Insurance, Real Estate	\$6.9	\$8.4	\$9.3	\$24.6
Business Services		\$17.1	\$6.3	\$23.4
Education and Health Care		\$0.6	\$11.9	\$12.4
Personal Services		\$3.0	\$5.0	\$8.0
Gasoline Stations	\$6.7	\$0.2	\$0.7	\$7.6
Communications		\$4.0	\$1.5	\$5.6
Government		\$2.5	\$1.5	\$3.9
Wholesale Trade		\$1.6	\$2.0	\$3.6
Construction and Utilities		\$1.3	\$0.9	\$2.3
Manufacturing		\$0.6	\$0.4	\$1.0
Air Transport		\$0.3	\$0.6	\$0.9
Agriculture, Fishing, Mining		\$0.2	\$0.2	\$0.4

Source: Tourism Economics

ECONOMIC IMPACT FINDINGS

FISCAL (TAX) IMPACTS

Visitor spending generated \$180 million in government revenues in 2022.

State and local taxes alone tallied \$109 million in 2022.

Each household in Tempe would need to be taxed an additional \$1,471 to replace the visitor-generated taxes received by state and local governments in 2022.

Fiscal (tax) impacts

Amounts in \$ millions

	Total
Total Tax Revenues	\$179.5
Federal Taxes	\$70.9
Personal Income	\$33.9
Corporate	\$5.8
Indirect Business	\$6.2
Social Insurance	\$25.0
State and Local Taxes	\$108.6
Sales	\$45.3
Lodging	\$23.8
Personal Income	\$6.1
Corporate	\$0.9
Excise and Fees	\$4.4
Property	\$28.2

Source: Tourism Economics



Visitor-supported revenues to state government increased to \$55 million in 2022. The majority of state revenues are from sales taxes, with lodging taxes, property taxes, income taxes, and corporate taxes, and excise and fees adding an additional \$25 million to state revenues.

Local tax revenues from visitor activity rose to \$53.5 million with sales taxes, property taxes, lodging taxes, and fees supporting local government revenues from visitor spending.

Fiscal (tax) impacts, by category

Amounts in \$ millions

	State	Local
Total Tax Revenues	\$55.1	\$53.5
Sales	\$30.0	\$15.3
Lodging	\$12.4	\$11.3
Personal Income	\$6.1	
Corporate	\$0.9	
Excise and Fees	\$1.6	\$2.8
Property	\$4.1	\$24.1

Source: Tourism Economics

ECONOMIC IMPACTS IN CONTEXT

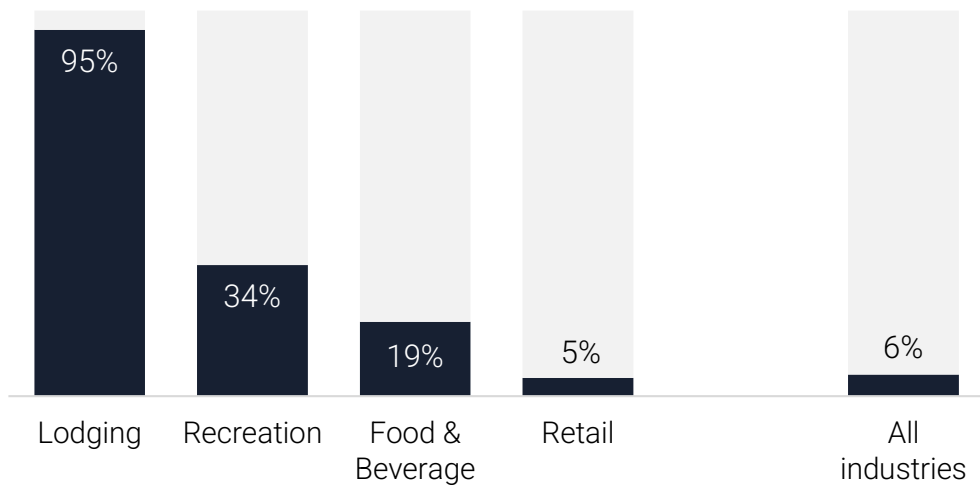
DIRECT TOURISM INDUSTRY

Visitor-supported employment is a significant part of several industries in Tempe—nearly all lodging employment, 34% of recreation employment, and 19% of food and beverage jobs, is supported by visitor spending.

Overall, direct tourism jobs accounted for 6% of all jobs in Tempe in 2022.

Direct tourism employment intensity

Amounts in percentage of total industry employment



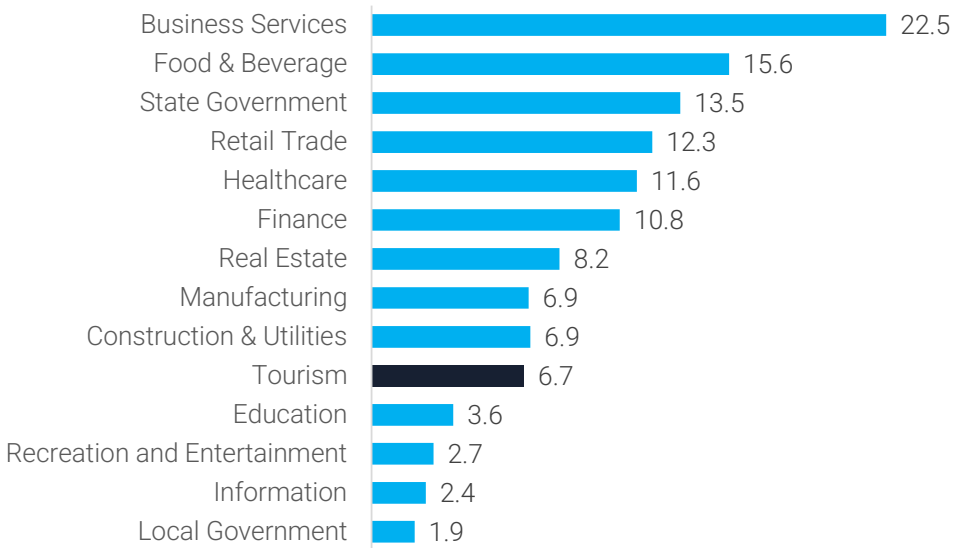
Source: BLS, BEA, Tourism Economics

IMPORTANCE OF TOURISM JOBS

Total direct employment from tourism in 2022 amounted to 6,700 jobs and ranked as the 10th largest employer in the city, representing 1-in-21 jobs.

Employment in the City of Tempe, by major industry

Amounts in thousands of jobs, 2021 estimates



Source: BEA, BLS, U.S. Census, Tourism Economics

ECONOMIC IMPACTS IN CONTEXT



\$1B VISITOR SPENDING

The \$1 billion in visitor spending is enough to buy nearly 34 million cases of beer at Four Peaks Brewing Company.



\$369M LABOR INCOME

The \$369 million in total income generated by tourism is the equivalent of \$4,998 for every household in Tempe.



8,399 TOTAL JOBS

The 8,399 employees supported by visitor spending are enough to fill every seat in Gammage Auditorium almost 3 times.



\$109M STATE & LOCAL TAXES

The \$109 million in state and local taxes generated by tourism would cover the average salaries of 1,946 public school teachers in Tempe.

APPENDIX B: DEFINITIONS

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 sales, jobs, income, and taxes) created directly from spending by visitors to a destination within a discreet group of tourism-related sectors (e.g. recreation, transportation, lodging).
Indirect Impact	Impacts created from purchase of goods and services used as inputs (e.g. food wholesalers, utilities, business services) into production by the directly affected tourism-related sectors (i.e. economic effects stemming from business-to-business purchases in the supply chain).
Induced Impact	Impacts created from spending in the local economy by employees whose wages are generated either directly or indirectly by visitor spending.
Employment	Jobs directly and indirectly supported by visitor activity (includes part-time and seasonal work). One job is defined as one person working at least one hour per week for fifty weeks during the calendar year.
Labor income	Income (wages, salaries, proprietor income and benefits) supported by visitor spending.
Value Added (GDP)	The economic enhancement a company gives its products or services before offering them to customers.
Local Taxes	City and County taxes generated by visitor spending. This includes any local sales, income, bed, usage fees, licenses and other revenues streams of local governmental authorities – from transportation to sanitation to general government.
State Taxes	State tax revenues generated by visitor spending. This will include sales, income, corporate, usage fees and other assessments of state governments.

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 highly-specialized 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.

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