



THE ANNUAL ECONOMIC IMPACT OF WESTWORLD FOR THE CITY OF SCOTTSDALE



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L. WILLIAM SEIDMAN RESEARCH INSTITUTE

The L. William Seidman Research Institute serves as a link between the local, national, and international business communities and the W. P. Carey School of Business at Arizona State University (ASU).

First established in 1985 to serve as a center for applied business research alongside a consultancy resource for the Arizona business community, Seidman collects, analyzes and disseminates information about local economies, benchmarks industry practices, and identifies emerging issues that affect productivity and competitiveness.

Using tools that support sophisticated statistical modeling and planning, supplemented by an extensive understanding of the local, state and national economies, Seidman today offers a host of economic research and consulting services, including economic impact analyses, forecasting, survey research, attitudinal and qualitative studies, and strategic analyses of economic development opportunities.

Working on behalf of government agencies, regulatory bodies, public or privately-owned firms, academic institutions, and non-profit organizations, Seidman specializes in studies at the city, county or state-wide level. Clients include:

- Arizona Commerce Authority (ACA)
- Arizona Corporation Commission (ACC)
- Arizona Dept. of Health Services
- Arizona Dept. of Mines and Mineral Resources
- Arizona Diamondbacks
- Arizona Governor's Office of Strategic Planning and Business
- Arizona Hospital and Healthcare Association
- Arizona Investment Council (AIC)
- Arizona Mining Association
- Arizona National Football Championship
- Arizona Public Service Corporation (APS)
- Arizona School Boards Association
- Arizona Super Bowl Host Committee
- Arizona Technology Council
- Arizona Town Hall
- Banner Health
- BHP Billiton
- The Boeing Company
- The Business for Water Stewardship
- The Cactus League Association
- The Central Arizona Project (CAP)
- Chicanos por la Causa
- The City of Phoenix
- The City of Phoenix Fire Department
- The City of Prescott
- The City of Scottsdale
- Copperpoint Insurance
- David and Gladys Wright House Foundation
- Desert Caballeros Western Museum
- Dignity Health
- The Downtown Tempe Authority
- Environmental Defense Fund (EDF)
- Envision Healthcare
- EPCOR Water
- Epic Rides
- Excelsior Mining
- Fiesta Bowl
- Freedom Financial
- Freeport McMoRan
- Glendale Community College
- HonorHealth
- Intel Corporation
- iState, Inc.
- Maricopa Integrated Health System
- Nacero
- The NFL
- Navajo Dept. of Economic Development
- NCAA Final Four
- Pakis Foundation
- Phoenix Convention Center
- Phoenix Philanthropy Group
- Phoenix Sky Harbor International Airport
- Public Service New Mexico (PNM)
- Raytheon
- Republic Services, Inc.
- Rosemont Copper Mine
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- Science Foundation Arizona (SFAZ)
- Tenet Healthcare
- Turf Paradise & Delaware North
- Twisted Adventures, Inc.
- Valley METRO Light Rail
- Waste Management Inc.

EXECUTIVE SUMMARY

The total economic impact of Westworld's August 2018 – July 2019 operations and events for the City of Scottsdale economy is estimated at:

- \$111.7 million GDP by State (current \$).
- 1,884 jobs.
- \$68.6 million labor income (current \$).

This is exclusively based on:

- The employment footprint and operations of WestWorld.
- The local operational expenditure of event organizers with City of Scottsdale-based vendors for all signature, equestrian, and non-equestrian events held at the facility.
- The influx of event participant and day/overnight visitor dollars into the Scottsdale economy from people that primarily reside **outside** the City of Scottsdale.

The total economic impact estimates exclude any expenditure by City of Scottsdale residents visiting or participating at WestWorld's events, as their money is already available in the local economy and would in all probability still be spent locally elsewhere in the absence of WestWorld.

Seidman also estimates that the City of Scottsdale directly collects \$3.9 million in transaction privilege tax and transient (bedroom) tax as a result of WestWorld's 12-month calendar of events, direct operations, and State Shared Revenue allocations.¹

¹ Cities and towns in Arizona are partners with the State in a shared revenue program which passes through a percentage of funds from transaction privilege tax (sales tax), State income tax, and highway user revenues. Seidman's direct fiscal analysis for the City of Scottsdale estimates the first two sources of shared revenue. It excludes the City of Scottsdale's share of highway user revenues.

1. INTRODUCTION

Located in the heart of Scottsdale, WestWorld is a premier multi-use event facility, consisting of over 300,000 square feet of exhibition space on 386 acres of desert. An onsite Equidome offers seating for 3,400 at equestrian events held at the facility each year. WestWorld also hosts the Barrett Jackson Collector Car Auction, the Scottsdale Arabian Horse Show, International Motorcycle Show, and the International Sportsmen's Expo as part of an extensive annual events calendar.

First opened in 1987, WestWorld received a \$50 million two-year upgrade in 2013. Economic impact studies for the facility's signature events - the Barrett Jackson Car Auction and Arabian Horse Show - have previously been implemented by event organizers; but WestWorld's contribution to the City of Scottsdale economy reaches far beyond these two events. This is demonstrated in part by annual attendance figures at the facility. In FY2018, an estimated 907,000 tickets were sold at WestWorld, including 600,000 for the Barrett Jackson and Arabian Horse Show events. This means that over 300,000 people also paid to visit the facility for other types of equestrian and non-equestrian event.

The purpose of this study is to estimate the total annual economic impact of WestWorld's events for the City of Scottsdale. The key inputs for this modeling consist of local expenditures by event organizers, exhibitors or participants, and visitors/attendees. Any expenditure by local residents is excluded.

Section 2 briefly introduces the concept of economic impact.

Section 3 estimates the total economic contribution of WestWorld's inhouse operations and events for the City of Scottsdale over a 12-month time horizon. It includes a breakdown of total impacts for inhouse operations, equestrian events, non-equestrian events, and signature events. An estimate of direct taxes is also provided.

2. ECONOMIC IMPACT ANALYSIS: DEFINITION, METHOD, AND DATA INPUTS

Economic impact analysis traces the full impact - direct, indirect and induced - of an economic activity on jobs and incomes in a local economy. WestWorld directly impacts the local economy through the people it employs, its local supplier purchases, and local taxes. Indirect effects take place when Westworld's suppliers place upstream demands on their own suppliers. Induced effects when Westworld's workers, and the employees of its suppliers, spend a portion of their incomes in the local economy, and when governments spend new tax revenues.

The calendar of events hosted by Westworld attract an influx of new dollars into the local economy from at least two sources:

- People living outside the City of Scottsdale attending or participating in each event.
- Each event's organizers.

The events directly affect the local economy through the temporary employment of event staff and the direct spending of visitors. Indirect effects occur when the recipients of the visitor or event organizer dollars place upstream demands on their own suppliers. Induced effects when the workers based at the recipients of event organizer or visitor expenditure spend a portion of their incomes in the local economy, and when governments spend new tax revenues.

Seidman uses an IMPLAN model to estimate economic impacts for the City of Scottsdale. IMPLAN is a commercially licensed input-output model originally developed by the University of Minnesota. The IMPLAN model organizes the economy into 528 separate industries, and has comprehensive data on every area of the United States. It is widely used by economists to assess impacts of economic activities on a local economy. Seidman uses IMPLAN to estimate four measures of economic impact. These are:

- **Gross Domestic Product (GDP) by State:** this is synonymous with value added. It represents the dollar value of all goods and services produced for final demand in a state. It excludes the value of intermediate goods and services purchased as inputs to final production. It is also defined as the sum of employee compensation (wages, salaries and benefits, including employer contributions to health insurance and retirement pensions), proprietor income, property income, and indirect business taxes.

- **Employment:** this is a count of full- and part-time jobs. It includes both wage and salary workers, and the self-employed.
- **Labor Income:** this includes all forms of employment income, including employee compensation (wages and benefits) and proprietor income.
- **Output:** this is principally a measure of an industry's sales or receipts, which include sales to final users in the economy (GDP by State) or sales to other industries (intermediate inputs).²

Direct state and local government fiscal (tax) revenues are also estimated separate to the IMPLAN model

The IMPLAN model can be customized to provide results by zip code, county, or state. For the purpose of the current study, the following zip codes are assumed to represent the City of Scottsdale: AZ 85250; AZ 85251; AZ 85255; AZ 85257; AZ 85258; AZ 85259; AZ 85260; and AZ 85266.^{3,4}

Seidman draws from three data sources to estimate annual economic and fiscal impact. These are:

- An expenditure survey of participants and visitors at 12 equestrian and non-equestrian events hosted at WestWorld between August 2018 and July 2019.
- Organizational expenditure from event organizers.
- Visitor expenditure from the Barrett Jackson Car Auction and Arabian Horse Show .

A team of student researchers conducted a face-to-face survey at 12 events over 24 days to estimate the expenditure of non-Scottsdale-based participants and visitors at WestWorld's events. Responses were collected on iPads using a Qualtrics app. In total, Seidman collected 2,823 usable responses. Table 1 summarizes the distribution of survey responses by event.

Organizational expenditure is provided by event organizers post-event using an online survey.

² Output or "gross receipts" is useful as a facilitating variable in the mathematical solution of regional input-output models. However, it is also acknowledged to be upward biased as an estimate of the effect of an economic activity on local area income. Value added (equivalent to GDP by State) in IMPLAN is a conceptually more precise estimate of income. The economic impact tables in this report display output to ensure consistency with the Barrett Jackson Car Auction study, but no comment about output is provided by Seidman due to its inherent upward bias.

³ Seidman acknowledges that there are other zip codes, parts of which fall under the jurisdiction of the City of Scottsdale. It is beyond the scope of the current study to try to sub-divide those zip codes into their constituent city shares.

⁴ The eight zip codes selected by Seidman to represent the City of Scottsdale were chosen by the City for a different 2019 study estimating the economic impact of the refurbishment and future events profile of the City of Scottsdale Stadium.

Table 1: Distribution of Surveys by WestWorld Event

	Total Survey Sample	Survey Respondents Primary Residence		
		City of Scottsdale	Maricopa County	Other
Equestrian Events				
Arizona Fall Championships	92	13	35	57
Arizona Reining Horse Association Summer Slide	82	29	54	28
Mother's Day Slide	81	29	48	33
Region 7 Horse Show	249	69	146	103
Sun Country Horse Show	211	22	73	138
Non-Equestrian Events				
Arizona Pinners Conference & Expo	233	11	151	82
Cynosport Dog Agility Show	218	26	99	119
Good Guys Collector Car Show	244	22	131	113
International Off-Road & UTV Expo	360	18	231	129
International Sportsmen's Expo	403	43	266	137
Maricopa County Home Show	312	46	248	64
Vintage Market Fall	338	41	269	69
Total	2,823	369	1,751	1,072

Source: Authors' Survey

Estimates of visitor expenditure for Barrett Jackson and the Arabian Horse Show are sourced from third party studies commissioned by the respective event organizers. The Barrett Jackson expenditure estimates are for 2016. However, visitor numbers to the 9-day auction have not changed since that time, so the 2016 expenditure data serves as a reasonable proxy. The Arabian Horse Show data is for 2019.

WestWorld also provided its own breakdown of direct employment and operational expenditure.

All monetary estimates of impact are expressed in current dollars.

3. ECONOMIC IMPACT OF WESTWORLD'S EVENTS FOR THE CITY OF SCOTTSDALE

Table 2 estimates the direct, indirect, and induced economic impact of Westworld's August 2018 – July 2019 operations and events for the City of Scottsdale economy alone. This is based on:

- The employment footprint and operations of WestWorld.
- The local operational expenditure of event organizers for all signature, equestrian, and non-equestrian events held at the facility.
- The influx of event participant and visitor dollars into the Scottsdale economy from people that primarily reside **outside** the City of Scottsdale. These consist of both day and overnight visitors.

Table 2: Total Economic Impact of WestWorld for the City of Scottsdale⁵

	GDP BY STATE (Millions \$) ⁶	EMPLOYMENT (Job Years) ⁷	LABOR INCOME (Millions \$) ⁸	GROSS OUTPUT (Millions \$) ⁹
Participant & Visitor Expenditures				
Direct	\$51.9	1,161	\$31.8	\$85.6
Indirect/Induced	\$38.6	461	\$24.0	\$63.2
Sub-Total	\$90.5	1,622	\$55.8	\$148.8
Event Organizer Expenditures				
Direct	\$10.7	121	\$5.5	\$16.2
Indirect/Induced	\$6.3	78	\$4.0	\$10.4
Sub-Total	\$17.0	199	\$9.5	\$26.6
WestWorld Employment/Operations				
Direct	\$2.4	42	\$2.2	\$8.3
Indirect/Induced	\$1.7	21	\$1.1	\$2.9
Sub-Total	\$4.1	63	\$3.3	\$11.2
Total Economic Impact	\$111.7	1,884	\$68.6	\$186.6

Source: Authors' Calculations

⁵ Columns may not tally exactly to totals due to rounding.

⁶ GDP by State represents the dollar value of all goods and services produced for final demand in the City of Scottsdale.

⁷ A job year is equivalent to one person having a job for 12 months.

⁸ Labor income equals employee compensation plus proprietor (self-employed) income.

⁹ Gross Output (or gross receipts) is useful as a facilitating variable in the mathematical solution of regional input-output models. However, it is also acknowledged by the U.S. Bureau of Economic Analysis (BEA) to be an upward biased estimate of the effect of an economic activity on local area income. Value Added or GDP by State is a conceptually more precise estimate of income in IMPLAN. No comment about Gross Output is provided by Seidman due to its inherent upward bias.

The total economic impact estimates exclude any expenditure by City of Scottsdale residents visiting or participating at WestWorld's events, as their money is already available in the local economy and would in all probability still be spent locally elsewhere in the absence of WestWorld.

Table 2 estimates that the infusion of participant and visitor dollars from people residing outside the City of Scottsdale is responsible for 1,622 jobs, paying \$55.8 million labor income across the 12-month time horizon. The total GDP by State contribution of event participants and visitors for the City of Scottsdale economy is \$148.8 million.

Table 2 also estimates that the local expenditure of event organizers is responsible for 199 jobs, paying \$9.5 million labor income across the 12-month time horizon in the City of Scottsdale. The total GDP by State contribution of event organizers for the City of Scottsdale economy is \$17.0 million.

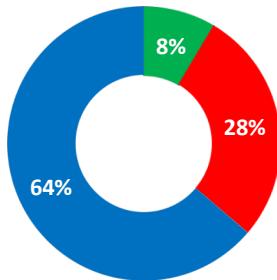
The total impacts of WestWorld's inhouse employment footprint and facility operations is estimated at 63 direct, indirect and induced jobs, paying \$3.3 million labor income across the 12-month time horizon in the City of Scottsdale. The total GDP by State contribution of the facility for the City of Scottsdale economy is \$4.1 million.

The total impact of WestWorld's August 2018 - July 2019 operations and events on the City of Scottsdale economy, taking into account both direct and indirect/induced effects, is therefore estimated at \$111.7 million GDP by State, 1,884 jobs, and \$68.6 million labor income. These impacts are for the City of Scottsdale alone. They also exclude any expenditure by City of Scottsdale residents attending WestWorld, as that money is already available within the local economy.

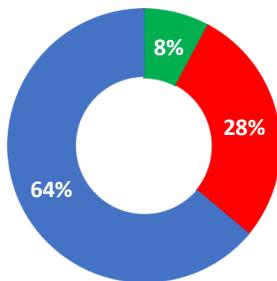
Figure 1 divides the participant/visitor and event organizer estimates of economic impact in the City of Scottsdale by type of event. That is, the figure excludes any impacts associated with WestWorld's own annual employment and operations. The figure illustrates that the two signature events account for 64% the estimated total annual economic impacts. Non-equestrian events account for approximately 28% of the estimated total annual economic impacts. Equestrian events account for 8% of the estimated total annual economic impacts.

Figure 1: Distribution of Annual Total Economic Impacts in the City of Scottsdale by Type of Event¹⁰

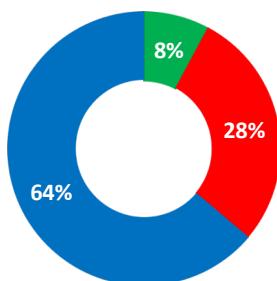
GDP BY STATE (MILLIONS \$)



EMPLOYMENT (JOB YEARS)



LABOR INCOME (MILLIONS \$)



Key:

■ Equestrian Events

■ Non-Equestrian Events

■ Signature Events

Source: Authors' Calculations

¹⁰ Figure 1 excludes any economic impacts associated with WestWorld's annual employment and operations.

The estimates of economic impact presented in Table 2 exclude any local tax impacts. Table 3 therefore estimates the fiscal (tax) impacts of the 12-month calendar of events directly collected by the City of Scottsdale. An estimated \$3.9 million is collected by the City of Scottsdale directly because of WestWorld. This consists of 1.75% transaction privilege tax and a 5% transient tax applied to any lodging for 29 days or less. The City of Scottsdale also receives \$70,857 in direct taxes from WestWorld's own operations, and a State Shared Revenue allocation from Arizona's annual transaction privilege tax collections, and annual individual and corporate income tax collections.¹¹ These direct annual fiscal payments are all included in the \$3.9 million total shown in Table 3.

Table 3: Direct Fiscal Impact of WestWorld's Annual Events for the City of Scottsdale

	Direct Tax Collections (Millions \$)
Equestrian Events	\$0.3
Non-Equestrian Events	\$0.9
Signature Events	\$2.3
WestWorld Direct Operations	\$0.1
State Shared Revenue	\$0.3
Total Direct Taxes	\$3.9

Source: Authors' Calculations

¹¹ Cities and towns in Arizona are partners with the State in a shared revenue program which passes through a percentage of funds from transaction privilege tax (sales tax), State income tax, and highway user revenues. Seidman's direct fiscal analysis for the City of Scottsdale estimates the first two sources of shared revenue. It excludes the City of Scottsdale's share of highway user revenues.



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