



# **2012 Waste Management Phoenix Open Economic Impact Study**

**ASU W. P. Carey School of Business  
Department of Marketing**

**ASU W. P. Carey School Center for  
Competitiveness and Prosperity Research**

**Research Team**

**Michael Mokwa, John Eaton, Kent Hill, Bradley Fay**



**ARIZONA STATE UNIVERSITY**

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## EXECUTIVE SUMMARY

January 30 – February 5, the 2012 Waste Management Phoenix Open was held at the TPC Scottsdale in Scottsdale, AZ. The Arizona State University W. P. Carey School of Business in conjunction with its Center for Competitiveness and Prosperity Research and its Department of Marketing was commissioned to conduct an all-inclusive economic impact assessment of this event. This assessment included the impact of both direct and indirect visitor and organizational expenditures on the greater Phoenix-Metro regional economy.

The economic impact study utilized multiple research, survey and analytical methodologies appropriate to the objective and task. Teams of trained students from the ASU Sports Business Association conducted on-site surveys during the tournament. Ultimately, over 280 useable surveys from visitors to the Phoenix metropolitan area were collected and analyzed. “Multiplier effects” were calculated by the Center for Competitiveness and Prosperity Research in the W. P. Carey School of Business to determine the indirect impacts.

The study resulted in the following overall economic impact estimates upon the greater Phoenix-Metro region for the 2012 Waste Management Phoenix Open. This is the largest economic impact to date for any PGA tournament in Arizona. These results demonstrate that the Waste Management Phoenix Open is among the largest contributors of economic impact from a golf event across the nation.

<b>Total Economic Impact</b>	
Total Visitor Expenditure Impact	\$172.3 million
Total Organizational Expenditure Impact	\$49.7 million
<b>Total Economic Impact</b>	<b>\$222.0 million</b>

## INTRODUCTION

The Arizona State University W. P. Carey School of Business in conjunction with its Center for Competitiveness and Prosperity Research and its Department of Marketing was commissioned to identify the economic impact on the greater Phoenix-Metro area of the 2012 Waste Management Phoenix Open PGA golf tournament. This tournament was organized and operated by the Thunderbirds and was held January 30 – February 5, 2012. The economic impact from this event can be substantiated to contribute to increases in state and local tax revenues, as well as, higher employment and income levels.

Economic impact is defined and estimated as the increase in spending in a community as a result of the existence of an event or organization. Within the context of the WMPO, this includes the expenditures of visitors who identified that the WMPO was a key factor in visiting Arizona, plus organizational spending by the Thunderbirds and others involved in the tournament, and indirect multiplier effects. This report will outline the methodologies used and the results obtained in the study of the 2012 Waste Management Phoenix Open economic impact.

## METHODOLOGY

The 2012 Waste Management Phoenix Open economic impact estimate was developed using three distinct factors: (1) out of town direct visitor spending, (2) organizational spending, and (3) indirect multiplier effects.

### **Direct Visitor Spending**

The out-of-town direct visitor spending was estimated using the results of an on-site survey administered throughout the week of the tournament. The most fundamental factor in estimating visitor spending is how the term visitor is defined. For the purpose of this study a visitor was defined *as any individual who did not classify themselves as living in the greater Phoenix-Metro area or Phoenix Valley for any portion of the year.* “Snow Birds” or part-time residents were **not** considered visitors and as such any respondent that indicated they were staying in the Valley for more than one month was excluded from the final data set.

## **Survey Creation**

The visitor survey was developed through discussions with the Thunderbird Executive Director and other leaders of the organization as well as a careful review and analysis of past surveys. The final survey included 39 questions. There were four primary objectives for the survey: (1) determine the role that the 2012 Waste Management Phoenix Open played in the decision to visit the Valley; (2) estimate the total amount an individual and their travel party spent while in the Valley; (3) determine the total number of people in a travel party; and (4) establish the total number of nights a travel party stayed in the Valley. As secondary objectives, questions were asked that ascertained intent to return to the Valley in the future, satisfaction with the overall experience at the tournament, and demographic information.

## **Sampling and Survey Administration**

The survey was administered each day of the event by Sports Business Association students from the W. P. Carey School of Business at Arizona State University. Eight to fifteen students conducted surveys each day. A sampling plan was designed considering diverse time periods and areas to collect data. Then, the students were assigned data collection areas throughout the course, spread across various admission levels (e.g. skyboxes and corporate village, general admission areas) to obtain an accurate sample of fans/customers. The surveyors were instructed to intercept attendees utilizing a random process of engaging every tenth individual whom they passed. A second, distinct, survey focusing on residents was also conducted each day of the tournament. Further, one or more students were tasked with tabulating the proportion of visitors to residents at the tournament. These students were stationed at the sole entrance to the event and asked as many parties as possible whether they were Phoenix-Metro area residents or visitors to the valley. A sampling plan for this was designed carefully considering the prospective diversity of fans who attend the tournament during different periods. The data collected was used to establish the percentage of visitors of the overall attendees to the 2012 WMPO.

## **Surveyor Training**

Surveyors were selected competitively based on their active participation in the ASU Sports Business Association, willingness to participate and complete training sessions, and ability to adhere to demanding interview schedules and protocols. Many had participated in similar research projects.

Prior to being stationed on the course, each surveyor was given training and precise instructions as to their day's activities. First, they were trained on the process of randomly selecting subjects, as detailed above. Second, the surveyors were educated about the specific intent and meaning of all of the survey questions to facilitate that accurate data would be obtained. Third, they were trained how to politely and unobtrusively approach prospects and manage encounters with those who participated and who did not chose to participate. Finally, the definition of a visitor was reinforced. Students then practiced data collection before entering the tournament.

## **Survey Procedure**

2012 Waste Management Phoenix Open attendees were approached utilizing the random sampling technique described above. After agreeing to participate in the survey, respondents were first asked if they were residents or visitors. If they indicated that they were residents, they were invited to complete the resident survey mentioned above. If the respondent indicated that they were visitors, the rest of the visitor survey was given. A small incentive (tournament pin or ball mark) was provided to acknowledge and thank survey participants. Also, those who chose not to participate were thanked for attending the tournament and encouraged to have an enjoyable experience.

## **Data Analysis**

When all responses had been gathered, each survey and each data point was analyzed for accuracy and screened for usability. Surveys of respondents that did not meet the requirement for classification as a "visitor" were removed. Additionally, responses that were incomplete, contained extreme outliers, or may have biased the results upwards, were removed from the final analysis.

## **Organizational Spending**

The organizational spend associated with the 2012 Waste Management Phoenix Open was determined in two parts. Directed discussions with the Thunderbirds identified the specific aspects of their annual expenditures that were applicable to economic impact analysis. This consisted of spending that was directly to the local community and would not have otherwise been infused into the economy were it not for the 2012 Waste Management Phoenix Open. Corresponding sources of organizational spending included out-of-town participants in the tournament (e.g. players and caddies), out-of-town media covering the event, and those organizations, like the PGA, who played a role staging and supporting the events. Their expenditures in the local community related directly to the tournament were included in the analysis of organizational spending.

## **Indirect (Total) Economic Impact**

In order to determine the cumulative economic impact during the 2012 Waste Management Phoenix Open, it was necessary to identify the amount, infusion and circulation rates of spending. To accomplish this, the established IMPLAN economic impact assessment “multiplier coefficients” were used to determine the indirect impacts. All expenditures were grouped into distinct categories, the appropriate coefficients were applied, the data was analyzed, and the cumulative effects were determined.

## **RESULTS**

A total of 312 surveys were collected to determine direct visitor impact. Following data purification, 281 total responses were found to be complete. Of these responses, 65% indicated that the 2012 Waste Management Phoenix Open was key a factor in their decision to visit the valley. The following analysis is based on the sample of who stated that the tournament was a key factor in coming to the Phoenix area. The details of responses to this question are seen in Table 1 below.

<b>Table 1: Role that WMPO played in decision to visit the Valley</b>	
42%	Primary factor
23%	A factor
35%	Not a dominant factor

A total of 2,419 responses were obtained in a separate, distinct survey specifically asking attendees if they were residents or visitors. Table 2 indicates that 29.77% of attendees were visitors:

<b>Table 2: Resident vs. Non-Resident Count</b>	
70.23%	Residents (1,699)
29.77%	Non-Resident/Visitors (720)

### **Attendance Details**

An important consideration in developing an overall estimate of the direct visitor spending due to the 2012 Waste Management Phoenix Open is the analysis of attendance figures and the estimate of unique visitors to the event. Three factors are vital in this analysis: (1) total attendance to the event; (2) percent of visitors; and (3) average number of days respondents attended the WMPO. Using this data, the total number of *unique* visitors to the valley can be estimated. The factors are depicted in Table 3:

<b>Table 3: Attendance Characteristics</b>	
518,262	Total Attendance
29.77%	Visitor rate
1.77	Average days attending the WMPO

In addition to identifying the number of visitors to the 2012 Waste Management Phoenix Open, it is clear that some visitors come to the valley but do not attend the tournament. Respondents were asked if any members of their travel party would not attend the 2012 Waste Management Phoenix Open. The survey indicated that 2.0% of visitors to the valley did not attend the 2012 Waste Management Phoenix Open. The estimate of total unique visitors to the Phoenix-Metro area directly attributable to the 2012 Waste Management Phoenix Open was: **67,320**.



All visitor respondents reported their spending patterns related to their time in Phoenix and to their transportation to and from Phoenix. Average daily spending was calculated and is presented in Table 4.

<b>Table 4: Attendee Visitor Spending</b>	
	Average Daily Spend
Lodging	\$58.71
Dining (including alcohol)	\$96.06
Groceries	\$18.92
Rental Car	\$8.03
Taxis	\$6.13
Entertainment	\$64.87
Airfare	\$20.13
Other Expenditures	\$27.36
<b>Total Daily Spend</b>	<b>\$300.21</b>

Next, it was necessary to identify the cumulative spending by visitors to the Phoenix-Metro area. This was obtained by multiplying the average daily spend for each category by the calculated 4.44 nights spent in the valley by each visitor, then multiplying by the total number of unique visitors. Note that these estimates do not include the multiplier effects of visitor spending. Table 5 demonstrates total **direct** visitor spending in each category which is directly attributable to the 2012 Waste Management Phoenix Open:

<b>Table 5: Total Direct Visitor Spending in Millions</b>	
Lodging	\$17.5
Food and Beverage (including alcohol)	\$28.7
Groceries	\$5.7
Rental Car	\$2.4
Taxis	\$1.8
Entertainment	\$19.4
Airfare	\$6.0
Other Expenditures	\$8.2
<b>Total Visitor Expenditures</b>	<b>\$89.7</b>

Without “multiplier effects” included, out-of-town visitors spent, as a direct result of the 2012 Waste Management Phoenix Open, **\$89.7** million while staying in the greater Phoenix-Metro area.

## Economic Impact Multiplier Effects

The direct visitor impact on the economy is only one portion of the total impact generated by the 2012 Waste Management Phoenix Open. There is also indirect impact generated by the process of spending and re-spending the dollars that are brought into the economy by Waste Management Phoenix Open visitors. These induced impacts are referred to as “multiplier effects” and are calculated by utilizing the IMPLAN economic impact assessment package. This indirect economic impact on the community from visitor spending is portrayed below in Table 6:

<b>Table 6: Indirect Economic Impact in Millions</b>	
Lodging	\$37.5
Food and Beverage (alcoholic and non-alcoholic)	\$59.3
Groceries	\$4.8
Rental Car	\$5.1
Taxis	\$3.6
Entertainment	\$40.9
Airfare	\$12.9
Other Expenditures	\$8.2
<b>Total Indirect Impact</b>	<b>\$172.3</b>

## Organizational Expenditures

In addition to visitor spending in the community, the WMPO also injects what is defined as “organizational spending” into the economy. These expenditures consist of select year round operating expenses for the Thunderbirds, event management and operations expenses, as well as, event participant, media and sponsor spending. \$22.9 million from the Thunderbird’s budget spent within the greater Phoenix-metro area was considered in the calculation of “economic impact.” Media expenditures totaled \$0.6 million.

Additionally, PGA players, caddies and their “entourages” fall under this umbrella category. Based on hotel room occupancy analysis, it was conservatively estimated that **234** unique individuals visited the Phoenix-Metro area to participate or accompany participants. These individuals spend 5.4 nights in the Valley. Finally, it can be assumed that the spending from these individuals is likely to be at least equal to visitor spending rates, resulting in \$0.5 million. Thus, the total economic impact result of organizational spending, after including indirect inducements, was found to be **\$49.7 Million.**

### **Local and State Sales Tax Revenues**

The direct visitor impact and organizational expenditures induced by the WMPO also logically contributed to the local and state economy in the form of sales tax revenue. Indirect multiplier effects were not considered when calculating sales tax revenue. The direct sales tax revenue generated from the 2012 Waste Management Phoenix Open is estimated to be **\$8.2 million**. The portion of this total that is attributed to state sales tax is estimated at **\$5.5 million**.

### **Total Impact**

**The total economic impact that is attributed to the 2012 Waste Management Phoenix Open was found to be \$222.0 million.** This is the sum total of the three factors of economic impact: direct visitor spending, indirect visitor spending, and organizational spending.

## Appendix A: WMPO Demographic Comparisons, 2003 vs. 2007 vs. 2012

<b>Attendees by Age</b>			
	<b>2012</b>	<b>2007</b>	<b>2003</b>
18-24	12%	5%	1%
25-34	17%	31%	13%
35-49	27%	34%	38%
50 and over	44%	30%	48%

<b>How Many Times Have You Attended the Phoenix Open?</b>			
	<b>2012</b>	<b>2007</b>	<b>2003</b>
First Time	25%	20%	-
Second Time	16%	7%	-
Third/Fourth Time	15%	19%	-
Fifth Time or More	44%	54%	-

<b>Attendees by Income</b>			
	<b>2012</b>	<b>2007</b>	<b>2003</b>
Under \$40,000	9%	6%	2%
\$40,000-\$59,999	13%	10%	4%
\$60,000-\$79,999	15%	16%	16%
\$80,000-\$99,999	16%	12%	12%
\$100,000-\$149,999	19%	20%	24%
\$150,000-\$249,999	21%	19%	22%
\$250,000 and over	7%	17%	19%

<b>Attendees by Gender</b>			
	<b>2012</b>	<b>2007</b>	<b>2003</b>
Male	68%	77%	83%
Female	32%	23%	17%

<b>Do You Intend to Return Next Year to the Open?</b>			
	<b>2012</b>	<b>2007</b>	<b>2003</b>
Yes	92.2%	84.3%	-
No	7.8%	15.7%	-

**Appendix B:**  
**2012 Waste Management Phoenix Open**  
**Economic Impact Survey**



## **Official 2012 Waste Management Phoenix Open Survey For Visitors to the Valley**

### **Do You Enjoy the Tournament?**

Please help us by completing this  
***Official Waste Management Phoenix Open  
Economic Impact Survey***

This project is conducted by the W. P. Carey School of Business at Arizona State University with the Thunderbird Organization to estimate the economic impact of the Waste Management Phoenix Open. We want to know how much you spent or plan to spend on your visit here.

**Your replies will be anonymous.  
We will NOT ask you for your name, phone, e-mail, home address  
or for any other identifying information.**

Please answer ALL the questions as accurately as you can, but you are welcome to refuse to answer any question or to stop the survey at any time.

If you have any questions or concerns about the study,  
please contact ASU Professor Michael Mokwa at 480-965-3621.

**Thanks!**



## A. Your Travel Party

1. **How many people are in your travel party** – the group of family or friends you are traveling with? \_\_\_\_\_ people
2. Of the people in your travel party (including yourself), how many are from outside the Phoenix Metropolitan area? \_\_\_\_\_ people
3. Of the people in your travel party (including yourself), how many have tickets to the **Waste Management Phoenix Open**? \_\_\_\_\_ people
4. How strong of a factor was the **Waste Management Phoenix Open** in your decision to visit the area?
  - Definitely a primary factor
  - Definitely a factor
  - Not a factor
5. How many days will you be attending the **Waste Management Phoenix Open** this year? \_\_\_\_\_ days
6. As a result of attending the **Waste Management Phoenix Open** this year do you intend to return to Scottsdale within the next year for business or leisure?
  - Yes
  - No

## B. Your Lodging

1. **Please write the number of nights that are you staying in the Phoenix Metro area in the blank below.** Write in a "0" if you are not staying overnight. \_\_\_\_\_ nights
  2. Are you paying for your lodging or are you staying somewhere for free?
    - Staying Free
    - Paying for Lodging\*

\$ \_\_\_\_\_ per night
- \*If you are paying for lodging, what is your daily rate?
3. Please check your lodging type:
    - Hotel/motel/resort
    - Rental Apartment or Home
    - Private Home as Guest
    - RV Park
    - Didn't stay overnight
    - Other



4. Please check the city in which your lodging is located:

- |                                     |  |                                     |
|-------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> Ahwatukee  | <input type="checkbox"/> Glendale        | <input type="checkbox"/> Scottsdale |
| <input type="checkbox"/> Avondale   | <input type="checkbox"/> Litchfield      | <input type="checkbox"/> Sedona     |
| <input type="checkbox"/> Cave Creek | <input type="checkbox"/> Mesa            | <input type="checkbox"/> Sun City   |
| <input type="checkbox"/> Chandler   | <input type="checkbox"/> Paradise Valley | <input type="checkbox"/> Surprise   |
| <input type="checkbox"/> Flagstaff  | <input type="checkbox"/> Peoria          | <input type="checkbox"/> Tempe      |
| <input type="checkbox"/> Gilbert    | <input type="checkbox"/> Phoenix         | <input type="checkbox"/> Tucson     |

Other (please write-in): \_\_\_\_\_

### C. Your Travel Party's Expenditures

We would like to ask how much you (and those in your travel party, if any) **spent or charged in the 24 hours up to this event in the Valley area**. If you plan to be in the Valley less than a day, estimate your actual and planned expenses for whatever time you are here.

*For example, if there are four people in your travel party and you each spent \$10 on lunch, you would list \$40 (4 X \$10) for lunch. Or, if there are 2 people in your travel party and you share a room, you would list the daily rate for one room.*

As a double check, how many people are in your immediate travel party? \_\_\_\_\_ people

Please try to estimate the total amount **everyone in your immediate group (added together)** will have spent **per day**:

\$ _____	Lodging
\$ _____	Dinner
\$ _____	Lunch
\$ _____	Breakfast
\$ _____	Alcoholic Beverages (not included above)
\$ _____	Rental car (daily rate plus insurance charges)
\$ _____	Taxis or limos
\$ _____	Golf Outings (including green fees, cart rental, etc.)
\$ _____	Other entertainment or recreation (excluding tickets for Fiesta Bowl events)
\$ _____	Groceries
\$ _____	Spending on souvenirs, gifts, etc. (but not groceries)
\$ _____	Other expenditures





## D. Your Travel

1. Did you travel to the Phoenix Metro area by air?  
 Yes     No (If no, skip the next two questions)
  - a. How many in your travel party also traveled by a commercial airline?  
\_\_\_\_\_ people
  - b. About how much did your round-trip ticket cost?  
\$ \_\_\_\_\_ per round-trip ticket
2. How many people in your travel party are renting cars locally?  
\_\_\_\_\_ people are renting cars

## E. About You

1. How many times have you attended this tournament?  
 First time     2     3 or 4     5 or more
2. How likely is it that you would return for this event?  
 Very likely     Somewhat likely     Somewhat unlikely     Very unlikely
3. What type of pass did you use to enter the tournament?  
 General Admission     Greenskeeper     Corporate Village  
 Member's Club     Clubhouse     Skybox
4. How would you rate your overall experience here today?  
 Excellent     Good     Average     Poor
5. How would you rate your parking experience here today?  
 Excellent     Good     Average     Poor
6. How would you rate the food and beverage options?  
 Excellent     Good     Average     Poor



7. How would you rate the customer service you've received today?

- Excellent       Good       Average       Poor

8. Which of the following age group are you a part of?

- 18-24       25-34       35-49       50 or over

9. Which of the following categories does your household income fall into?

- Under \$40,000       \$40,000-\$59,999       \$60,000-\$79,999  
 80,000-\$99,999       \$100,000-\$149,999  
 \$150,000-\$249,999       \$250,000 or more

10. Is your current long-term residence located inside or outside Arizona?

- Inside Arizona       Outside Arizona

11. What is your gender?

- Male       Female

12. Which of the following best describes your level of education?

- High School       College       Post-graduate

13. What is your 5-digit zip code of your primary residence?:

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**Thank you!**  
**Please return this survey to the student volunteer.**

