

**NORTHERN
ARIZONA
UNIVERSITY**

Economic
Policy Institute

Economic Policy Institute
**The Economic
Impact of
Overland Expo
West (Flagstaff)
2022**



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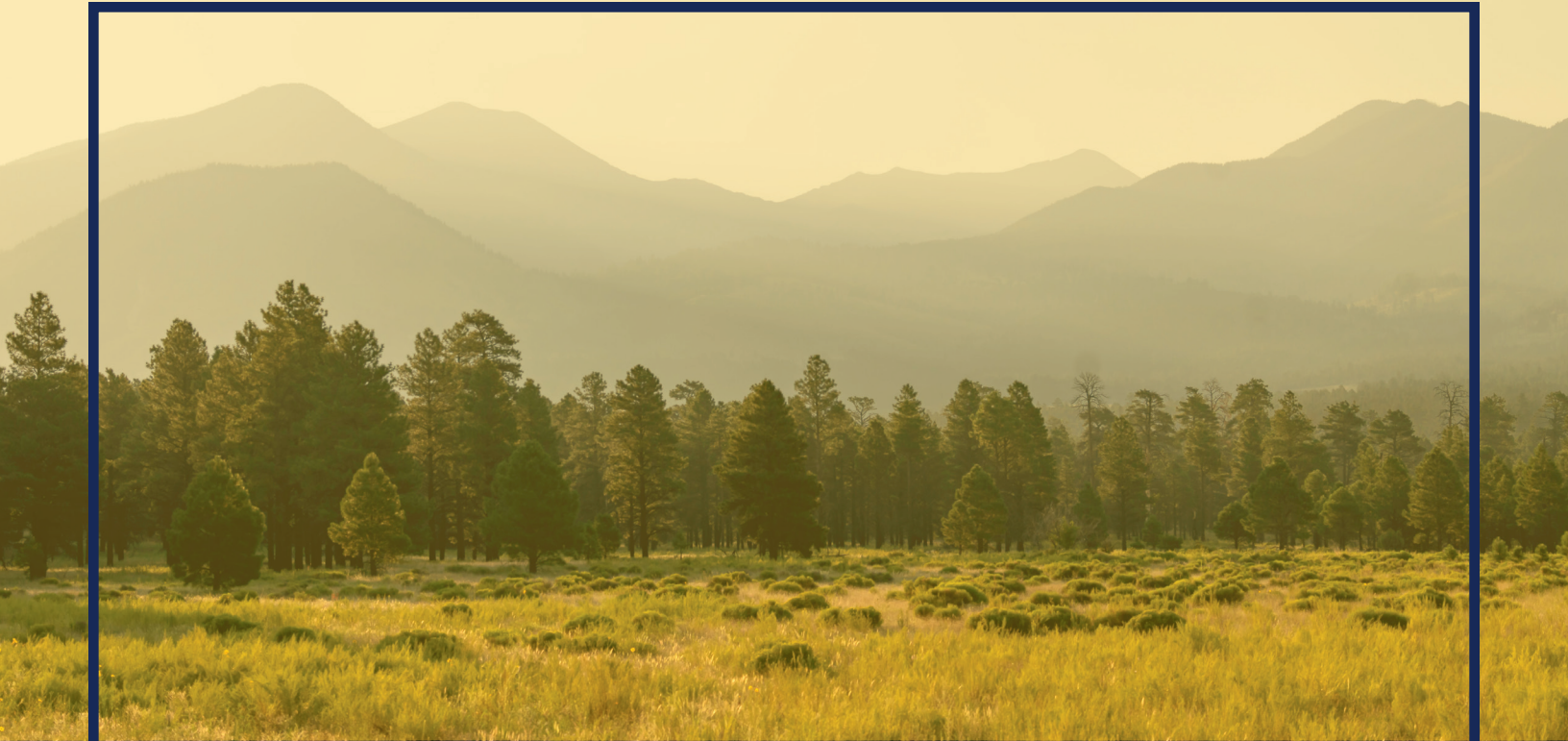


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Introduction

Overland Expo West (Flagstaff) 2022 Data

Brief Overview of Overland Expo 2022

Overland Expo is an adventure-travel event series operated by the event solution company Lodestone Events. Overland Expo West has been held annually in Flagstaff, Arizona since 2010 at various sites. In 2022, the three-day event from May 20 to May 22 attracted 13,904 attendees (in which there were 12,214 day-pass attendees, and 1690 campers), and 360 exhibiting companies with 2,500 exhibiting employees to participate. 13,225 attendees traveled from outside Flagstaff.

Event Venue and Transportation Details

Overland Expo West provides a venue for off-roading enthusiasts of all skill levels to gather and interact, to meet with adventure equipment suppliers and off-road automakers, shop for gears, and get trained through hundreds of session-hours of classes, demonstrations, films, and presentations. Attendees could also camp on the event site. A total of 1690 attendees camped on Fort Tuthill County Park, where the event has currently been held for several years. Lodestone Events hosted a Gear and Beer festival, in downtown Flagstaff, before the Overland Expo West began. Chartered shuttle buses were used to transport the event attendees and exhibitors from Northern Arizona University campus, which is located in Flagstaff, to the event site. These activities helped to drive visitors to go to Flagstaff for dining, shopping, and entertainment, and generate economic impact for the local businesses.

Economic Impact of Overland Expo 2022

Economic Policy Institute (EPI), a think tank housed under The W. A. Franke College of Business at Northern Arizona University, is tasked to carry out the Economic Impact Analysis of this event. Over the years, EPI has been providing Technical Assistance (TA) to public and private sector clients. The purpose of this study is to measure the total economic impact of Overland Expo West 2022 on Coconino County.



Methodology

IMPLAN Model

The researchers at EPI used the Impact Analysis for Planning (IMPLAN) model to quantify the total economic impact of Overland Expo West 2022. IMPLAN is a platform that combines a set of extensive databases, economic factors, multipliers, and demographic statistics with a highly refined, customizable modeling system. The foundation upon which economic impact analyses are built is the input-output (I-O) model, which examines the inter-industry relationships within an economy, and captures all monetary market transactions between industries in a given period of time.

The results of an input-output (I-O) analysis are broken down into direct, indirect, and induced effects. The initial change, the direct effect has indirect or multiplier effects that reverberate throughout the local economy. As a result, the combination of these overarching economic effects often total greater than the initial economic input. Each level of effects captures a different portion of the complete economic impact picture.

Direct Economic Impacts

Direct Economic Impacts are the direct injections of new money into the community. For this study, it is the expenditures made within the Flagstaff area, and the money spent within the Flagstaff area by Lodestone to run this event. These include lodging, food & beverage, grocery shopping, transportation (public transit and parking), gasoline, retail shopping (souvenirs, gifts etc.), and recreational spending (entrance fee, entertainment).

To obtain the expenditure data, two surveys with slightly different questions were designed to gather information directly from the event attendees and exhibitors (see appendix 1 and appendix 3). The reasons include: (1) Each exhibitor company was sent one survey, but has multiple employees, while we surveyed attendees individually. (2) We assume the spending patterns of the two groups are different, such as, there might be higher average hotel expenditures by the vendors, whereas many attendees camp on the site. Surveying them separately could return more accurate data for our modeling.

Those surveys were distributed online through Qualtrics. Qualtrics is a web-based survey tool to conduct survey research, evaluations, and other data collection activities. NAU has partnered with Qualtrics to provide surveys for classes and research purposes. Those surveys were sent out to about 10,000 attendees and 360 exhibitors. We received 1,727 responses from the attendees and 121 responses from the exhibitors. Based on the survey results, we estimated the average spending in each category of both groups. The third part of direct expenditure, i.e., Lodestone's local spendings in preparing the event site and run the event were obtained directly from the event host, Lodestone Events. Note that, we were unable to ascertain the number of employees directly hired through Lodestone's local spending. Knowing this number would improve the accuracy of our model as well as increase the overall economic impact of the event.

Indirect vs Inducted Economic Effects

Indirect Economic Effects are the economic effects stemming from business-to-business purchases in the supply chain. For this study, it includes additional input made by local businesses as a result of the direct impact. Examples include retailing stores purchasing their commodities from producers or wholesale markets.

Inducted Economic Effects are the economic effects created when local business owners, suppliers, and employees spend the additional income that they earned as a result of the direct and indirect impacts. For this study, the spending took place because Overland Expo increased the sales for the support sectors, increased incomes for the proprietors, and workers of those companies, and increased sales for local retail and service businesses that support those sectors and provide goods and services to the owners and employees of those companies.



Data Reasonings and Process

In our analysis, we determined that Coconino County is an appropriate region for the analysis. The reasonings are: (1) IMPLAN County level data; (2) The venue for the event, Fort Tuthill County Park is within the Coconino County jurisdiction. The park is 5 miles south of Flagstaff. Many of the spending activities took place in Flagstaff, such as shopping at Walmart and Target, dining, and hotel stays.

Once the above mentioned three categories of spending data were collected, they were assigned to their respective IMPLAN sectors for analysis. With a subscription of the IMPLAN, EPI was able to conduct the analysis and calculate the direct, indirect, and induced impact of the event.

Note that, the estimation is conservative since we had some shortcomings in our model. (1) We assume two people shared one room for all exhibitor employees who stayed in a hotel room; (2) Some spending activities were not included in the survey questions when we designed the survey, but were found out by our researchers interviewing people on the site. For example, one exhibitor bought a TV from the Walmart in Flagstaff to play the videos of their products and another vendor needed some automotive repairs. As a result, the actual economic impact is likely greater than what we are reporting.

Results

1. Average Spending

Average spending was estimated through the attendee and exhibitor surveys (see Appendix 1 to Appendix 4). We had a filter question to collect spending data from attendees and exhibitors who are from outside the Flagstaff area, because we wanted to isolate the new money injected into the region. The average spending of each category is shown in Table 1. The detailed process of calculating those average spendings could be found in Appendix 2 and Appendix 4.

Note: 1. We used different methods to estimate attendee and exhibitor lodging spending. For attendees, we asked average lodging spending for individuals. For exhibitors, we asked the questions of accommodation type and nights of stay, and used the ratio of hotel/Airbnb/Vrbo stay (66.66%) to multiply by number of exhibitor employees from outside Flagstaff area (2367=94.7% exhibitors are from outside Flagstaff based on the survey results, multiply by the number of total exhibitors 2500), and average nights of stay (3.83 nights), to come up with a total person nights of 6043. The total exhibitor lodging spending is based on a conservative estimate that two employees share one hotel room, and per room rate of \$130. Note that, each exhibitor receives one survey link for the company, which usually has more than one person.

2. For information purposes, we also asked the attendee their type of accommodation. 34.68% stay in hotel/Airbnb/Vrbo which equates to 2411 rooms under the conservative assumption that every person only stays for one night in Flagstaff area and with double occupancy. In addition to the exhibitors' total hotel/Airbnb/Vrbo double-occupancy room total of 3021 (6043/2). 5432 hotel/Airbnb/Vrbo total rooms for this event.

3. In IMPLAN model, we created an aggregated sector "Restaurant" that combines the IMPLAN sector 509 Full-service restaurants, 510 Limited-service restaurants, and 511 All other food and drinking places.

Table 1. Average Spending

Spending Category	IMPLAN Sector	Attendee per person average	Exhibitor per person average
Lodging	499	\$67.33 ²	\$248.95 ¹
Food & Beverage	509-511 ³	\$93.73	\$168.23
Groceries	407	\$52.75	\$114.69
Transportation	419	\$30.28	\$35.53
Gasoline	409	\$85.67	\$137.50
Retail Shopping	412	\$65.49	\$67.71
Recreation	505	\$52.81	\$49.74

Source: Overland Expo West 2022 Survey, EPI

In addition, Lodestone spent a total of \$401,000 locally, including hiring excavators, earth supply, security, sanitation, catering, audio and visual, bar staff, pay for campground rental, parking, advertising, medical and ambulance service. Those spendings were all ejected into the local region. Each spending category was assigned to its corresponding IMPLAN sectors.

2. Estimated Total Impact of Overland Expo West (Flagstaff) 2022

All the categories of spending in Table 1 were entered into the IMPLAN model for the analysis. Direct, indirect, induced, and total effects derived from Overland Expo West 2022 expenditures are presented in Table 2. These outputs are based on Minnesota IMPLAN Group's 2020 data set. The three-day event created an estimated **\$8.3M** in total economic output, an estimated **95 full-time equivalent jobs**, **\$5.5M Direct spend**, generated a total of **\$3.3M** labor income. It contributed an estimated **\$4.7M** in value added/GDP.

Table 2. Estimated Total Impact of Overland Expo West (Flagstaff) 2022

Impact	Employment	Labor Income	Value Added	Output
1 - Direct	77.4	\$2,468,858	\$3,323,485	\$5,595,619
2 - Indirect	8.8	\$412,218	\$621,095	\$1,348,565
3 - Induced	9.2	\$456,333	\$800,247	\$1,348,763
	95.4	\$3,337,409	\$4,744,827	\$8,292,947

Source: IMPLAN model, 2020 Data, using inputs provided by the EPI, Lodestone Event, and IMPLAN Group LLC

3. Tax Impact

In addition to the direct, indirect and induced effects from the event spendings, tax dollars are also collected as a result of these economic activities. Table 3 distinguishes the various amounts of federal, state and local tax collections resulting from the event expenditures and the ripple effects of that economic activity. From the event's direct, indirect, and induced economic activity, approximately **\$1.1M** in taxes are collected.

Table 3. Tax Impact

Impact	Sub County General	Sub County Special Districts	County	State	Federal	Total
1 - Direct	\$134,963	\$145,587	\$99,702	\$362,789	\$155,084	\$898,124
2 - Indirect	\$13,637	\$14,790	\$10,087	\$39,955	\$43,221	\$121,690
3 - Induced	\$21,217	\$22,922	\$15,680	\$59,289	\$39,338	\$158,446
	\$169,817	\$183,299	\$125,469	\$462,032	\$237,642	\$1,178,260

Source: IMPLAN model, 2020 Data, using inputs provided by the EPI, Lodestone Event, and IMPLAN Group LLC

4-6. Top 5 Impact Sectors

Table 4 to 6 illustrate the top 5 sectors of impact that the event brings, in terms of output, value added, and employment.

Table 4. Top 5 Output Industries

Impact	1 - Direct	2 - Indirect	3 - Induced	
1 - Restaurants	\$1,697,779.7	\$67,607.1	\$115,582.4	\$1,880,969.2
508 - Hotels and motels, including casino hotels	\$1,283,299.3	\$19.6	\$44.2	\$1,283,363.0
505 - Other amusement and recreation industries	\$816,146.8	\$936.4	\$4,734.2	\$821,817.4
448 - Other real estate	\$112,000.0	\$338,583.3	\$56,590.9	\$507,174.2
419 - Transit and ground passenger transportation	\$484,552.5	\$1,376.1	\$2,329.8	\$488,258.4

Source: IMPLAN model, 2020 Data, using inputs provided by the EPI, Lodestone Event, and IMPLAN Group LLC

Table 5. Top 5 Employment Industries

Impact	1 - Direct	2 - Indirect	3 - Induced	
1 - Restaurants	20.57	0.82	1.40	22.79
508 - Hotels and motels, including casino hotels	14.19	0.00	0.00	14.19
505 - Other amusement and recreation industries	12.28	0.01	0.07	12.36
419 - Transit and ground passenger transportation	17.27	0.05	0.08	17.40
412 - Retail - General merchandise stores	3.82	0.04	0.34	4.20

Source: IMPLAN model, 2020 Data, using inputs provided by the EPI, Lodestone Event, and IMPLAN Group LLC

Table 6. Top 5 Value Added Industries

Impact	1 - Direct	2 - Indirect	3 - Induced	
1 - Restaurants	\$1,024,330.4	\$40,789.8	\$69,735.0	\$1,134,855.1
508 - Hotels and motels, including casino hotels	\$847,951.9	\$12.9	\$29.2	\$847,994.1
505 - Other amusement and recreation industries	\$533,706.7	\$612.3	\$3,095.9	\$537,414.9
409 - Retail - Gasoline Stores	\$208,522.2	\$4,806.3	\$5,486.7	\$218,815.2
407 - Retail - General merchandise stores	\$202,493.7	\$1,951.3	\$18,126.2	\$222,571.2
	\$3,323,485.4	\$621,095.2	\$800,246.5	\$4,744,827.1

Source: IMPLAN model, 2020 Data, using inputs provided by the EPI, Lodestone Event, and IMPLAN Group LLC

Appendices

Appendix 1. Overland Expo Attendee Survey – Questions for IMPLAN

Q1. Thank you for attending Overland Expo West 2022! We have partnered with Northern Arizona University to conduct a survey so that we may better serve you at future events.

Participants who enter an email address will be registered to win a free Weekend Pass with Camping to next year's event! Thank you in advance for your participation and we look forward to seeing you at a future event.

-The Overland Expo Team

Q2. Do you live in Flagstaff area?
a. Yes
b. No

Q3. In the Flagstaff area, how much did you spend on food & beverage (not including groceries)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q4. In the Flagstaff area, how much did you spend on groceries?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q5. In the Flagstaff area, how much did you spend on retail shopping (souvenirs, gifts etc.)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q6. In the Flagstaff area, how much did you spend on gasoline?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q7. In the Flagstaff area, how much did you spend on transportation (include public transit and parking)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q8. In the Flagstaff area, how much did you spend on recreation (entertainment, etc.)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q9. In the Flagstaff area, how much did you spend on accommodation (if you stay at a campsite at Fort Tuthill County Campgrounds the whole time, please select \$0)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Appendix 2. Attendee Spending (all the data from survey results)

Table 7. Food & Beverage Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	35.47%	499	\$25	\$12,475
\$51 - \$100	24.31%	342	\$75	\$25,650
\$101 - \$150	15.07%	212	\$125	\$26,500
\$151 - \$200	17.63%	248	\$175	\$43,400
Other	7.53%	106	\$225	\$23,850
Total	100%	1407	Average	\$93.73

Table 8. Grocery Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	68.88%	963	\$25	\$24,075
\$51 - \$100	16.74%	234	\$75	\$17,550
\$101 - \$150	7.44%	104	\$125	\$13,000
\$151 - \$200	3.86%	54	\$175	\$9,450
Other	3.08%	43	\$225	\$9,675
Total	100%	1398	Average	\$52.75

Table 9. Retail Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	64.19%	898	\$25	\$22,450
\$51 - \$100	13.44%	188	\$75	\$14,100
\$101 - \$150	6.65%	93	\$125	\$11,625
\$151 - \$200	8.65%	121	\$175	\$21,175
Other	7.08%	99	\$225	\$22,275
Total	100%	1399	Average	\$65.49

Table 10. Recreational Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	74.05%	1033	\$25	\$25,825
\$51 - \$100	11.33%	158	\$75	\$11,850
\$101 - \$150	4.80%	67	\$125	\$8,375
\$151 - \$200	4.59%	64	\$175	\$11,200
Other	5.23%	73	\$225	\$16,425
Total	100%	1395	Average	\$52.81

Appendix 2. Attendee Spending (all the data from survey results)

Table 11. Transportation Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	93.39%	1300	\$25	\$32,500
\$51 - \$100	2.66%	37	\$75	\$2,775
Other	3.95%	55	\$125	\$6,875
Total	100%	1392	Average	\$30.28

Table 12. Gasoline Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0 - \$50	28.63%	404	\$25	\$10,100
\$51 - \$100	38.98%	550	\$75	\$41,250
\$101 - \$150	18.21%	257	\$125	\$32,125
\$151 - \$200	10.77%	152	\$175	\$26,600
Other	3.40%	48	\$225	\$10,800
Total	100%	1411	Average	\$85.67

Table 13. Accommodation Spending – attendees

Answer	%	Count	Mid-Point	Total
\$0	62.04%	871	\$0	\$0
\$1 - \$50	2.35%	33	\$25	\$825
\$51 - \$100	2.28%	32	\$75	\$2,400
\$101 - \$150	4.63%	65	\$125	\$8,125
\$151 - \$200	10.68%	150	\$175	\$26,250
Other	18.02%	253	\$225	\$56,925
Total	100%	1404	Average	\$67.33

Appendix 3. Overland Expo Exhibitor Survey – Questions for IMPLAN

Q1. Thank you for attending Overland Expo West 2022! We have partnered with Northern Arizona University to conduct a survey so that we may better serve you at future events. Thank you in advance for your participation and we look forward to seeing you soon.

-The Overland Expo Team

Q2. Is your company based in the Flagstaff area?
a. Yes
b. No

Q3. How far did you travel to get to the event?
a. Less than 100 miles
b. 101 - 300 miles
c. 301 - 600 miles
d. 601 miles or more

Q4. How many staff members (including yourself) attended the event?

Q5. What type of accommodation did you have in the Flagstaff area (select all that apply)?
a. Hotel room
b. AirBnB/Vrdo/etc.
c. Paid campsite
d. Primitive camping (no fee)
e. Staying with family/friends
f. N/A

Q6. How many nights did you and your staff have accommodation in the Flagstaff area?

Q7. How much did you spend on food & beverage (do not include groceries) in the Flagstaff area?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q8. How much did you spend on groceries?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q9. How much did you spend on retail shopping (souvenirs, gifts, etc.)?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q10. How much did you spend on gasoline in the Flagstaff area?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q11. How much did you spend on transportation (including public transit/parking) in the Flagstaff area?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Q12. How much did you spend on recreation (entertainment, etc.) in the Flagstaff area?
a. \$0 - \$50
b. \$51 - \$100
c. \$101 - \$150
d. \$151 - \$200
e. Other: _____

Appendix 4. Exhibitor Spending (all the data from survey results)

Table 14 . Type of Accommodation – exhibitors

Answer	%	Count
Hotel room	37.14%	39
AirBnB/Vrdo/etc...	29.52%	31
Paid campsite	9.52%	10
Primitive camping (no fee)	15.24%	16
Staying with family/friends	1.90%	2
N/A	6.67%	7
Total	100%	105

Table 15. Food & Beverage Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	8.33%	8	\$25	\$200
\$51 - \$100	8.33%	8	\$75	\$600
\$101 - \$150	11.46%	11	\$125	\$1,375
\$151 - \$200	32.29%	31	\$175	\$5,425
Other	39.58%	38	\$225	\$8,550
Total	100%	96	Average	\$168.23

Table 16. Grocery Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	25.77%	25	\$25	\$625
\$51 - \$100	19.59%	19	\$75	\$4,251
\$101 - \$150	13.40%	13	\$125	\$1,625
\$151 - \$200	31.96%	31	\$175	\$5,425
Other	9.28%	9	\$225	\$2,025
Total	100%	97	Average	\$114.69

Appendix 4. Exhibitor Spending (all the data from survey results)

Table 17. Retail Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	62.50%	60	\$25	\$1,500
\$51 - \$100	14.58%	14	\$75	\$1,050
\$101 - \$150	3.13%	3	\$125	\$375
\$151 - \$200	14.58%	14	\$175	\$2,450
Other	5.21%	5	\$225	\$1,125
Total	100%	96	Average	\$67.71

Table 18. Gasoline Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	8.33%	8	\$25	\$200
\$51 - \$100	23.96%	23	\$75	\$1,725
\$101 - \$150	17.71%	17	\$125	\$2,125
\$151 - \$200	34.38%	33	\$175	\$5,775
Other	15.63%	15	\$225	\$3,375
Total	100%	96	Average	\$137.50

Table 19. Transportation Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	85.26%	81	\$25	\$2,025
\$51 - \$100	8.42%	8	\$75	\$600
Other	6.32%	6	\$125	\$750
Total	100%	95	Average	\$35.53

Table 20. Recreation Spending – exhibitors

Answer	%	Count	Mid-Point	Total
\$0 - \$50	73.68%	70	\$25	\$1,750
\$51 - \$100	12.63%	12	\$75	\$900
\$101 - \$150	5.26%	5	\$125	\$625
\$151 - \$200	7.37%	7	\$175	\$1,225
Other	1.05%	1	\$225	\$225
Total	100%	95	Average	\$49.74