



Hibbs Brief

Hibbs Institute for Business & Economic Research

Can Seasonal Events Boost Local Economies? The Total Solar Eclipse Weekend in Tyler, Texas By Manuel Reyes, D.E.D. and Cecilia Cuellar, Ph.D.

In this issue of the [Hibbs Brief](#), we examine the total solar eclipse that we experienced on Monday, April 8, from an economic development standpoint, and we conduct an economic impact analysis of some business activities associated with this unique event in Tyler.¹

Seasonal events can often serve as temporary boosters for regional economies. These events capture the attention of individuals to the point that they are willing to travel hundreds or thousands of miles to enjoy the experience. These events can range from regional festivals or concerts to sporting matches or tournaments and natural phenomena such as an eclipse or aurora borealis.

From an economic development perspective, seasonal events create an additional demand from visitors for local products and services. Additionally, many local residents attend the events and spend dollars they would not on an ordinary day. Both visitors' and locals' extraordinary consumption represents a boost to local vendors' business activity and the local economy in general.

Total Solar Eclipse in Tyler — A Unique Event

A solar eclipse takes place when Earth, the moon and the sun line up. Since the moon passes between Earth and the sun, it blocks the sun's radiant light, creating a shadow. If the alignment causes a shadow that completely obstructs the light of the sun, we have a total solar eclipse.² This phenomenon not only fascinates viewers but also has economic repercussions that extend beyond the observation itself.

On Monday, April 8, 2024, Tyler, Texas, hosted a unique event that only a small portion of the United States (and the world) were able to observe: a total solar eclipse. Total solar eclipses do not occur often in the same locality. The last time that the nation experienced a similar phenomenon was in 2017, but it was not perceived in East Texas.³ The picture

below shows a map illustrating the localities in Mexico, the United States and Canada that were able to perceive a total solar eclipse in April 2024.



Source: NASA's Scientific Visualization Studio.

The Economic Impact of the Total Solar Eclipse

Economic impact analyses play a relevant role in investment decisions and public policy-making. This type of analysis provides a method for assessing the effects of a development project or an event on the local economy.

Tourism is a unique industry that can boost local economies via seasonal events and permanent exhibitions. Tourism is largely responsible for fueling the hotel industry, particularly during seasonal events. Hotel managers use pricing as a tool to effectively maximize their profits, given the large demand for rooms. Hotel room rates are frequently raised during seasonal events. For instance, room rates at the upcoming FIFA World Cup in 2026 are expected to increase substantially in the hosting cities.⁴ This increase, combined with the large demand for rooms, will generate a positive economic impact in these locations.

The eclipse was a unique event that brought people together and attracted tourists from multiple locations to the region and Tyler in particular.⁵ This influx of tourists was anticipated several weeks ago, which made hotel room

rates rise considerably during the event weekend. Occupancy rates also increased due to the event. Tyler hotels were fully booked during the eclipse weekend.

The Hibbs Institute’s researchers estimated the economic impact of visitors and their associated expenditures during the total solar eclipse weekend (April 5-8) in Tyler. We used the change in hotel room rates and the change in occupancy rates (weekend event – previous weekend with no event) to estimate the influx of visitors during the event weekend and conduct our impact estimates. In addition to hotel expenditures, visitors usually allocate funds for dining, entertainment and shopping at retail stores, among other spending. We used data from the Texas Economic Development Tourism office to estimate the typical spending of visitors in Tyler during the four-day period.⁶

Table 1 shows the average daily expenditures used to calculate visitor spending. The details of the methodology employed to calculate the impacts are included in an **Appendix** section at the end of this brief.

Table 1. Average Daily Expenditures of Tyler’s Visitors by Item Purchased

	Avg. Daily Expenditures
Arts, Entertainment & Recreation	\$21.08
Food Services	\$53.45
Food Stores	\$15.35
Retail Sales	\$41.48

Source: Hibbs Institute’s estimates using the Economic Development & Tourism data from the State of Texas, Office of the Governor.

The economic impact of visitors during the solar eclipse weekend was substantial for the city of Tyler. It was estimated to total **\$7.7 million** during the four-day period. This number includes the impacts derived from an increase in hotel room rates and fully booked hotel rooms during the eclipse weekend (**1 million**), and the calculated visitor spending during these days (**6.7 million**). It is important to note that Tyler residents were not included in this analysis. Although this kind of event prompts many locals to join the visitors and go out to spend their dollars during the occasion, this estimate was out of the scope of the present exercise.

Seasonal Events — A Powerful Tool of Local Economic Development

Seasonal events can be used by city governments, regional economic development departments or chambers of commerce to attract people from other localities to enjoy the local events. The influx of visitors during such events increases the demand for various goods and services,

stimulating growth across sectors, such as hospitality, dining and retail. The rise in tourism activity creates employment opportunities, particularly in sectors directly linked to visitor experiences and accommodation. These new job openings not only bolster household incomes but also contribute to a dynamic and resilient labor market in the region.

In addition, seasonal events are powerful promotional tools that highlight the unique cultural and natural assets of a local economy and can foster a sense of pride and community engagement among residents. When visitors explore the area’s attractions and interact with the locals, they essentially serve as ambassadors for the region. As a result, they may share positive experiences, thereby generating sustained interest and potentially contributing to the area’s economic development.

Seasonal events are important to local economies. Please stay tuned for future events in Tyler and other areas within the East Texas region:

Tyler: Texas Rose Festival, Red Dirt BBQ & Music Festival, East Texas State Fair, Rose City Airfest, Downtown Film Festival and more.⁷

East Texas: Longview PRCA Rodeo, Gregg County Fair, Piney Woods Wine Festival, First Monday Trade Days, Autumn Festival, Lighted Christmas Parade, Snow Day Festival and more.^{8,9,10}

We would like to give special recognition and appreciation to the **Visit Tyler** office and the combined efforts of the City of Tyler, the Tyler Economic Development Council and the Tyler Area Chamber of Commerce in promoting Tyler and its wide range of events.

Appendix

Methodology

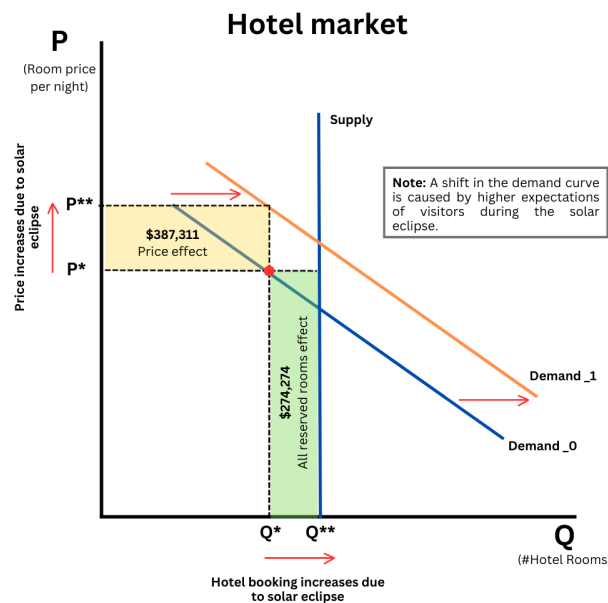
The economic impact analysis was estimated using three components: 1) the change in hotel room rates, 2) the change in hotel occupancy rates and 3) the estimated visitor spending. For the first component, the Hibbs Institute collected the room rates per night for hotels in Tyler for five weekends (three weekends before the event, the weekend of the event and the weekend following the event). During the weekend event, every hotel in Tyler increased their room rates significantly, ranging from 87% to 314% higher than other common weeks. **Table A** displays a heatmap of hotel room rates for the five weekends mentioned above. The table visually illustrates the change in hotel room rates via a gradual change of colors. While the green color indicates rates below the median, red means rates above the median (the darker the color is, the further the rate from the median). We have assigned an identification code to the hotels; thus, their names were omitted from the table.

This data allowed us to calculate the additional dollars gained by the hotels during the weekend of the event. We subtracted the room rate per night during the weekend event from the median price of each hotel. Then, we multiplied this difference by the number of hotel rooms that would have been occupied if there had been no total solar eclipse (using the hotel occupancy rates for April 2023). This method enabled us to calculate the net impact of price increases alone. The theoretical calculation is represented by the yellow rectangle in **Figure A**.

The second component of our impact analysis uses the change in hotel occupancy rates. We calculated the difference between the total number of rooms for each hotel (100% occupancy rate) and subtracted the average number of rooms booked in April 2023. Then, we multiplied this difference by the average room rate by hotels three weeks before the event. This calculation isolates the effects of the increase in room rates. The theoretical calculation is represented by the green rectangle in **Figure A**.

The third component of the impact analysis employs annual spending estimates for the typical visitor in Tyler, TX, collected from the Texas Economic Development Tourism Office. From these estimates, we calculated a weighted average to determine monthly spending. Then, we derived the average daily spending per visitor from the April 2023 expenditures. Finally, we derived the most common items purchased while traveling per person and multiplied by the calculated number of visitors and the four days of the event.

Figure A. Hotel Market Due to Total Solar Eclipse



Source: Hibbs Insitute's elaboration.

Table A. Hotel Room Rates in Tyler, TX (March 15 – April 15, 2024)

Hotel ID	3 weekends before the event					2 weekends before the event					1 weekend before the event					Event Weekend					1 weekend after the event					Median price
	15-Mar	16-Mar	17-Mar	18-Mar	22-Mar	22-Mar	23-Mar	24-Mar	25-Mar	29-Mar	29-Mar	30-Mar	31-Mar	1-Apr	5-Apr	6-Apr	7-Apr	8-Apr	12-Apr	13-Apr	14-Apr	15-Apr				
H_001	\$ 95	\$ 96	\$ 80	\$ 80	\$ 100	\$ 96	\$ 80	\$ 80	\$ 80	\$ 94	\$ 94	\$ 80	\$ 80	\$ 153	\$ 153	\$ 260	\$ 233	\$ 97	\$ 95	\$ 81	\$ 84	\$ 94				
H_002	\$110	\$110	\$110	\$110	\$132	\$110	\$94	\$98	\$105	\$110	\$110	\$105	\$105	\$176	\$176	\$264	\$225	\$136	\$132	\$114	\$114	\$110				
H_003	\$140	\$140	\$116	\$98	\$114	\$114	\$94	\$98	\$105	\$105	\$105	\$94	\$98	\$158	\$168	\$179	\$171	\$122	\$114	\$98	\$107	\$106				
H_004	\$ 51	\$ 51	\$ 47	\$ 47	\$ 51	\$ 51	\$ 47	\$ 47	\$ 51	\$ 51	\$ 47	\$ 47	\$ 47	\$ 51	\$ 60	\$ 47	\$ 61	\$ 51	\$ 51	\$ 47	\$ 47	\$ 51				
H_005	\$128	\$128	\$123	\$134	\$128	\$128	\$123	\$134	\$128	\$128	\$123	\$134	\$128	\$174	\$174	\$270	\$197	\$128	\$128	\$123	\$134	\$131				
H_006	\$ 77	\$ 78	\$ 64	\$ 64	\$ 78	\$ 77	\$ 64	\$ 64	\$ 74	\$ 74	\$ 71	\$ 84	\$ 65	\$ 90	\$ 91	\$121	\$122	\$ 65	\$ 73	\$ 65	\$ 65	\$ 71				
H_007	\$ 89	\$ 89	\$ 79	\$ 79	\$ 89	\$ 89	\$ 79	\$ 79	\$ 89	\$ 89	\$ 89	\$ 79	\$ 76	\$169	\$169	\$169	\$169	\$ 84	\$ 84	\$ 76	\$ 76	\$ 87				
H_008	\$ 94	\$ 94	\$ 85	\$ 76	\$ 89	\$ 89	\$ 80	\$ 76	\$ 85	\$ 85	\$ 85	\$ 80	\$ 80	\$161	\$157	\$215	\$215	\$ 98	\$ 94	\$ 85	\$ 80	\$ 92				
H_009	\$ 96	\$ 97	\$ 75	\$ 81	\$ 90	\$ 88	\$ 75	\$ 80	\$102	\$102	\$ 92	\$ 75	\$ 83	\$195	\$195	\$233	\$237	\$103	\$101	\$ 78	\$ 80	\$ 86				
H_010	\$115	\$107	\$103	\$101	\$114	\$102	\$ 98	\$101	\$108	\$ 99	\$ 94	\$ 98	\$ 98	\$176	\$176	\$180	\$171	\$130	\$124	\$ 98	\$102	\$106				
H_011	\$116	\$116	\$114	\$146	\$134	\$122	\$114	\$146	\$116	\$116	\$114	\$128	\$128	\$174	\$299	\$244	\$174	\$134	\$134	\$123	\$128	\$128				
H_012	\$ 79	\$ 82	\$ 71	\$ 71	\$ 80	\$ 81	\$ 71	\$ 71	\$ 81	\$ 82	\$ 71	\$ 71	\$ 71	\$224	\$224	\$251	\$224	\$ 82	\$ 81	\$ 71	\$ 71	\$ 80				
H_013	\$112	\$112	\$107	\$107	\$107	\$107	\$107	\$107	\$107	\$107	\$107	\$107	\$107	\$179	\$179	\$269	\$170	\$134	\$125	\$107	\$107	\$107				
H_014	\$118	\$118	\$112	\$118	\$118	\$118	\$112	\$118	\$104	\$104	\$ 98	\$104	\$104	\$246	\$237	\$260	\$284	\$132	\$127	\$ 98	\$104	\$118				
H_015	\$105	\$105	\$105	\$116	\$101	\$101	\$101	\$101	\$101	\$101	\$101	\$101	\$101	\$170	\$233	\$278	\$233	\$112	\$116	\$107	\$112	\$112				
H_016	\$ 96	\$ 94	\$ 93	\$ 95	\$ 94	\$ 94	\$ 93	\$ 93	\$ 96	\$ 95	\$ 93	\$ 93	\$ 93	\$159	\$201	\$254	\$220	\$159	\$160	\$101	\$101	\$ 96				
H_017	\$ 66	\$ 67	\$ 57	\$ 57	\$ 66	\$ 66	\$ 57	\$ 57	\$ 61	\$ 61	\$ 57	\$ 57	\$ 57	\$ 96	\$ 99	\$103	\$ 97	\$ 62	\$ 62	\$ 58	\$ 58	\$ 62				
H_018	\$120	\$125	\$ 74	\$ 72	\$129	\$129	\$ 72	\$ 72	\$ 99	\$ 99	\$ 72	\$ 76	\$139	\$139	\$139	\$169	\$169	\$ 91	\$ 92	\$ 74	\$ 75	\$ 89				
H_019	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 80	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79	\$ 79				
H_020	\$ 80	\$ 80	\$ 78	\$ 78	\$ 80	\$ 80	\$ 78	\$ 78	\$ 80	\$ 80	\$ 80	\$ 80	\$ 80	\$ 96	\$120	\$120	\$120	\$ 90	\$ 80	\$ 80	\$ 80	\$ 80				
H_021	\$257	\$257	\$218	\$218	\$257	\$257	\$218	\$218	\$257	\$257	\$218	\$218	\$257	\$257	\$257	\$257	\$322	\$257	\$257	\$218	\$218	\$257				
H_022	\$ 45	\$ 45	\$ 45	\$ 39	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 45	\$ 39	\$ 39	\$ 45	\$ 45	\$ 45	\$ 45	\$ 39	\$ 45				
H_023	\$ 52	\$ 55	\$ 46	\$ 47	\$ 51	\$ 54	\$ 46	\$ 47	\$ 52	\$ 55	\$ 46	\$ 46	\$ 54	\$ 60	\$ 61	\$ 61	\$ 46	\$ 52	\$ 55	\$ 46	\$ 46	\$ 52				
H_024	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 91	\$ 91	\$ 91	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51	\$ 51				
H_025	\$ 60	\$ 60	\$ 51	\$ 51	\$ 54	\$ 54	\$ 49	\$ 49	\$ 54	\$ 54	\$ 49	\$ 50	\$ 66	\$ 74	\$ 71	\$ 49	\$ 49	\$ 60	\$ 60	\$ 51	\$ 51	\$ 54				
H_026	\$ 52	\$ 52	\$ 48	\$ 48	\$ 52	\$ 52	\$ 48	\$ 48	\$ 52	\$ 52	\$ 48	\$ 48	\$ 52	\$ 52	\$ 52	\$ 48	\$ 48	\$ 52	\$ 52	\$ 48	\$ 48	\$ 48				

Notes: Hotel room rates were collected on February 23, 2024. This table is limited to hotels for which room rates were accessible for all five weekends on the day we collected.

Source: Hibbs Institute's elaboration using room rates from each hotel website.

Methodology (Continues...)

For this brief, the Hibbs Institute researchers have selected the Input-Output (I-O) analysis to conduct their economic impact estimates and have chosen to use JobsEQ software by Chmura Economics & Analytics. JobsEQ software is widely accepted and used extensively by numerous public and private organizations, including universities, to conduct economic impact studies.

The Input-Output (I-O) analysis illustrates how industries are linked by the intermediate inputs they provide to produce the final output in an economy. An I-O model captures all rounds of inter-industry relationships that comprise the production processes of industries in a given economy. Therefore, an I-O model can be used to estimate the regional effects of a specific change introduced to a region's economy (sometimes called a "shock").

The I-O analysis divides the total economic impact into three components:

- Direct effects refer to the initial change in demand resulting from new or current expenditure or employment. This effect is the impact that is applied to the predictive model for analysis.
- Indirect effects sum up all of the second, third and other round increases in business activity across all industries that result from spending by the firms that received the initial investment and, in turn, have to buy resources to complete their bargain or must replenish existing resources.
- Induced effects measure the impact of household spending on goods and services within a region by using (spending) the added income or compensation workers and business proprietors receive in both the direct and indirect impacts of regional industries.

Table B includes direct, indirect and induced effects for the three components of the analysis, as well as their corresponding total impacts.

Table B. Direct, Indirect, Induced and Total Effects for the Three Impact Components

	Direct Effect	Indirect Effect	Induced Effect	Total Effect
Component 1. Net impact of raising hotel room rates	\$387,311.32	\$88,547.00	\$141,659.00	\$617,517.32
Component 2. Net impact of all fully booked hotel rooms	\$274,274.08	\$62,704.00	\$100,315.00	\$437,293.08
Component 3. Net impact of visitors expenditures	\$4,580,554.42	\$917,812.00	\$1,171,289.00	\$6,669,655.42
Overall Economic Impact	\$5,242,139.82	\$1,069,063.00	\$1,413,263.00	\$7,724,465.82

Source: Hibbs Institute's estimates using (I-O) analysis.

End Notes

¹ The total solar eclipse passed over North America, traveling through Mexico, the United States, and Canada. In the United States, it crossed 13 states, including Texas, covering a large part of the East Texas region.

² NASA. Types of Solar Eclipse. <https://science.nasa.gov/eclipses/types/>

³ NASA. Types of Solar Eclipse. [https://](https://eclipse2017.nasa.gov/eclipse-who-what-where-when-and-how) <https://eclipse2017.nasa.gov/eclipse-who-what-where-when-and-how>

⁴ Los Angeles Stadium will be the venue for USA's opening fixture of the FIFA World Cup 26™ on Friday, 12 June 2026.

<https://www.fifa.com/fifaplus/en/tournaments/mens/worldcup/canadamexicousa2026/articles/los-angeles-stadium-host-usa-opening-game>

⁵ WAFB9 News asserts that visitors to Tyler included people from Hawaii and Alberta, Canada, who traveled specifically to experience this unique moment.

<https://www.wafb.com/2024/04/08/crowd-awe-moon-blots-out-sun-total-solar-eclipse/>

⁶ Hibbs Institute's estimates using the Economic Development & Tourism data from State of Texas, Office of the Governor.

<https://www.travelstats.com/impacts/texas>

⁷ Please visit the following link to see all the full range of events in Tyler, Texas. <https://www.visitt Tyler.com/businesses/to-do/annual-events>

⁸ Please visit the following link to see all the full range of events in Longview, Texas. <https://www.tourtexas.com/destinations/longview-events>

⁹ Please visit the following link to see all the full range of events in Canton, Texas. <https://www.tourtexas.com/destinations/canton-events>

¹⁰ Please visit the following link to see all the full range of events in Lindale, Texas. <https://www.visitlindale.com/events>

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