

## The Economic Impact of the Texas Blueberry Festival

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### Introduction

This year, Nacogdoches will host the 28<sup>th</sup> annual Texas Blueberry Festival. The purpose of this paper is to estimate the economic impact this event provides to the oldest town in Texas. Economic impact studies provide a dollar-value assessment of an event, attraction, business or industry. These dollar-valued impacts are derived from three separate components: Direct Impact, Indirect Impact, and Induced Impact.

### Types of Economic Impacts

I. The **direct impact** measures the revenues generated as a direct result of the activity or event. The revenues generated by event attendees, including visitors and vendors, will be considered as a direct effect only if they are from outside of the local community. Local attendees would be assumed to spend money on other purchases within the community even if the event were not occurring. Hence, the revenue generated by local residents would not be considered an influx of income. On the other hand, revenues generated by out of town visitors represent new income that exists only on account of the event being held. These direct revenues, representing net wealth inflows, drive the indirect impact.

II. The **indirect impact** represents additional input purchases made by local businesses as a result of the direct impact. It includes the money spent on additional inputs from local suppliers and the hiring of more labor. The local suppliers and businesses who receive this income will also re-spend a proportion of it on the purchase of inputs in the local economy. This process will continue until the amount re-spent diminishes.

III. The **induced impact** is created when local business owners, suppliers, and employees use the additional income that they earned as a result of the direct and induced impacts. A portion of this income will be re-spent in the local economy and become a source of income for other local business owners, suppliers, and employees. Again, recipients of this income will re-spend a portion of it locally until the total amount re-spent diminishes. The indirect and induced impacts re-circulate throughout the local economy, creating a multiplicative effect. This multiplier assumes a value greater than one and represents the sum of the direct, indirect, and induced impacts. Thus, the total local impact is a multiple of the direct effect.

$$(Total\ Impact) = (Direct\ Impact)(Multiplier)$$

The multiplier used to estimate the total impact on the economy will be obtained by the use of IMPLAN Software.

## Direct Impacts of Blueberry Festival

The direct impacts of the the Nacogdoches Blueberry Festival are broken down into the five following areas:

- I. Festival Preparation
- II. Visitor Spending
- III. Vendor Spending
- IV. Vendor Fees
- V. Lodging Expenses

## Description of Data

The data used to estimate the direct impacts was obtained from the economic impact reports provided by the Nacogdoches Chamber of Commerce for the years of 2012 to 2016. The revenues presented for visitors and vendors represent only those considered to be out of town. To account for the large variation in out of town visitors, the total impact analysis was run for both a low and high estimate.

## Data

### *I. Festival Preparation*

From 2012 to 2016, the Blueberry Festival budget remained constant at \$50,000 and was spent at local businesses primarily for marketing and advertising.

### *II. Visitor Spending*

The most commonly occurring estimate for total attendance at the Blueberry Festival was 19,000. The percent of attendees who were out of town ranged from 25% (2012) to 71% (2017). To account for this, a low estimation of 4,750 out of town visitors and high estimation of 13,490 out of town visitors was used to provide a range of possible total economic impact. The Nacogdoches Chamber of Commerce estimated visitor spending to be \$108. No information on what each dollar was spent on could be provided so I and my economics professors took the liberty of breaking down the spending of each visitor to the following: \$5 on gas, \$25 on blueberries, \$25 on food, and \$53 on general merchandise.

Table 1: Visitor Spending

Spending per Visitor	Low Estimation – 4,750	High Estimation – 13,490
Gas	\$23,750	\$67,450
Blueberries	\$118,750	\$337,250
Food	\$118,750	\$337,250
General Merchandise	\$251,750	\$714,970
Total	\$513,000	\$1,456,920

### *III. Vendor Spending*

The revenues generated by out of town vendor spending was estimated in 2015 to be \$16,200.

### *IV. Vendor Fees*

Of the 150 vendors, an estimated 50% come from out of town. The average fee charged for a vendor booth is \$200. Using this information, I estimated 75 out of town vendors at \$200 each to provide a total of \$15,000 in revenue.

### *V. Lodging Expenses*

The total revenues generated for lodging expenses was estimated by taking the average amount spent on hotels and motels directly attributed to the Blueberry Festival from 2012 to 2016.

Table 2: Lodging Expenses

<b>Year</b>	<b>Room Nights Occupied</b>	<b>% of Occupancy Attributed to Festival</b>	<b>Rooms Attributed to Festival</b>	<b>Cost Per Night</b>	<b>Total Cost</b>
<b>2012</b>	795	0.5	397.5	\$99.00	\$39,352.50
<b>2013</b>	722	0.5	361	\$99.00	\$35,739.00
<b>2014</b>	632	0.5	316	\$99.00	\$31,284.00
<b>2015</b>	632	0.5	316	\$99.00	\$31,284.00
<b>2016</b>	1496	0.475	710.6	\$99.00	\$70,349.40
<b>Average</b>	855.4	0.495	420.22	\$99.00	\$41,601.78

### **Estimation of Total Direct Impacts**

Using the data provided, the following tables give the low and high estimations of the total revenues generated from the direct impacts. This information was used in IMPLAN to estimate the total economic impacts of the Nacogdoches Blueberry Festival.

Table 3: Low Estimation

<b>Source</b>	<b>Revenues</b>
<b>Festival Preparation</b>	\$50,000.00
<b>Visitor Spending</b>	\$1,456,920.00
<b>Vendor Spending</b>	\$16,200.00
<b>Vendor Fees</b>	\$15,000.00
<b>Lodging Expenses</b>	\$41601.78
<b>Total</b>	\$912,767,78.00

Table 4: High Estimation

Source	Revenues
<b>Festival Preparation</b>	\$50,000.00
<b>Visitor Spending</b>	\$1,456,920.00
<b>Vendor Spending</b>	\$16,200.00
<b>Vendor Fees</b>	\$15,000.00
<b>Lodging Expenses</b>	\$41601.78
<b>Total</b>	<b>\$1,579,721.78</b>

## Results from IMPLAN

Table 5: Output from IMPLAN for Low Estimation

Impact Type	Employment	Labor Income	Value Added	Output
<b>Direct Effect</b>	4.6	\$272,411	\$245,803	\$419,262
<b>Indirect Effect</b>	0.7	\$22,835	\$34,467	\$68,097
<b>Induced Effect</b>	1.4	\$49,883	\$90,201	\$164,309
<b>Total Effect</b>	6.7	\$345,129	\$370,470	<b>\$651,669</b>

Table 6: Output from IMPLAN for High Estimation

Impact Type	Employment	Labor Income	Value Added	Output
<b>Direct Effect</b>	11.3	\$721,385	\$606,456	\$986,331
<b>Indirect Effect</b>	1.5	\$49,025	\$74,961	\$150,361
<b>Induced Effect</b>	3.6	\$130,068	\$235,320	\$428,538
<b>Total Effect</b>	16.5	\$900,479	\$916,737	<b>\$1,565,231</b>

## Conclusion

Using the results obtained from the use of IMPLAN software, the estimated total impact of the Nacogdoches Blueberry Festival ranges from \$651,669.00 to \$1,565,231.00.