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The Center is located in the Southeast Louisiana Business Center on Martens Drive, two blocks west of the main campus of Southeastern Louisiana University. The Business Research Center is a proud member of the Association for University Business and Economic Research (AUBER) and the Council for Community and Economic Research (C2ER).

The following study was conducted at the request of Charles Effler, Director of the Southeastern Louisiana University Opera/Music Theatre Program, and was completed using generally accepted research methods, models and techniques.

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Sincerely,

A handwritten signature in black ink that reads 'William Joubert'. The signature is written in a cursive style with a long, sweeping tail on the 't'.

William Joubert  
Director  
Business Research Center

**Southeastern Louisiana University Business Research Center**  
*A Collaborative Effort of the Southeast Louisiana Business Center and  
the Southeastern Louisiana University College of Business*

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Estimated Economic  
Impact on  
Tangipahoa Parish  
of the June 2009  
Production of  
*Peter Pan*

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A production of the  
Southeastern Louisiana University  
Opera/Music Theatre Program

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March 2012

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Southeastern Louisiana  
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## Introduction

The Southeastern Louisiana University Opera/Music Theatre Program staged a production of *Peter Pan* in June 2009. The three performances, held at Southeastern's Columbia Theatre for the Performing Arts in Hammond, Louisiana, were attended by 1,732 patrons.

## Analysis Methodology

This analysis utilized the input-output method to estimate the economic impacts of the 2009 production of *Peter Pan* on the Tangipahoa Parish economy. The input-output method is based on the economic linkages between various sectors and industries, which cause every dollar of expenditures to "ripple through" the local economy. This results in every dollar of expenditures being "multiplied" to various degrees, causing a larger economic effect than the original amount of the expenditure. These "ripple" or "multiplier" effects continue to contribute to the economic impact of the expenditure until the effects leave the study area or become too small to measure.

The total economic impact of an event consists of *direct*, *indirect*, and *induced* effects. *Direct* effects of an artistic production are the immediate economic effects of expenditures in the area by organizers of the production and patrons who attend the performances. Production expenditures include staffing wages and benefits, set construction, administration and promotional expenses, etc. Audience expenditures included in the direct effects are all non-admission spending by patrons while they are in the community for the performance, such as dining and beverage expenditures, local retail shopping, and gasoline purchases.

*Indirect* effects occur in sectors that supply materials, goods, and services to those industries that were directly impacted by the event-related expenditures. For example, restaurants are *directly* impacted by expenditures of theatregoers. The suppliers who provide food, paper products, utilities, etc. to the restaurants are *indirectly* impacted, when the restaurants purchase more of these items in response to their increased sales. In turn, businesses that provide goods and services to the restaurant suppliers are indirectly impacted from the increased activities of the restaurant suppliers. These indirect impacts continue to contribute to the economic impact of the event under study until the subsequent expenditures become too small to measure or leave the study area, e.g. if the paper product supplier purchased the napkins he or she sells to the restaurants from outside the study area, that impact chain would stop. However, other expenditures by the paper product supplier, such as fuel and maintenance for a delivery truck, may continue to accrue to the study area.

*Induced* effects are created by the increase in consumer spending generated by increased payrolls in the directly and indirectly impacted industries. In the example above, restaurants will hire staff to handle the extra customers from the event in question. These restaurant employees will then

spend their wages on food, housing, entertainment, etc. In addition, the restaurant supply companies increase their payrolls, also resulting in additional consumer spending. The sum of all of the impacts deriving from increased payroll spending is the induced effect.

The sum of the direct, indirect, and induced effects represents the total economic impact. The total economic impact divided by the direct effect yields the economic impact *multiplier* of the event in question. For most events the multiplier will be between 1.0 and 2.0.

IMPLAN Professional 2.0<sup>®</sup> software and structural matrices were utilized to complete the economic impact analysis of the 2009 Southeastern Opera/Music Theatre Program production of *Peter Pan*.

## Background and Data

### *Production Expenditures*

The producer maintained detailed records of production expenditures, which were segregated into those paid to Tangipahoa Parish companies and individuals and those paid to entities outside of the Parish (Table 1).

**Table 1. Production expenditure allocation: 2009 production of *Peter Pan***

<u>Expenditure Category</u>	<u>Total \$</u>	<u>Tangipahoa Parish \$</u>	<u>Non-Tangipahoa \$</u>
Wages, benefits, & contract labor	\$ 45,856	\$ 36,701	\$ 9,155
Royalties and backdrop/equip. rentals	\$ 17,591	\$ -0-	\$ 17,591
Theatre rental	\$ 5,500	\$ 5,500	\$ -0-
Costume rental and supplies	\$ 4,474	\$ -0-	\$ 4,474
Set construction materials	\$ 3,507	\$ 3,146	\$ 361
Printing	\$ 2,688	\$ -0-	\$ 2,688
Postage	\$ 949	\$ 949	\$ -0-
Props	\$ 370	\$ 232	\$ 137
Miscellaneous supplies	\$ 351	\$ 351	\$ -0-
Photocopies	\$ 209	\$ 209	\$ -0-
Batteries and sound supplies	\$ 118	\$ 118	\$ -0-
<b>Total Expenditures</b>	<b>\$ 81,613</b>	<b>\$ 47,207</b>	<b>\$ 34,406</b>

Only the Tangipahoa Parish expenditures were used in an “analysis-by-parts” input-output model to calculate the economic impact of production expenditures on Tangipahoa Parish.

### *Patron Expenditures*

A survey was distributed to members of the audience at all three performances. Included in the survey were three questions requesting information necessary for this economic impact study:

- What is your home zip code?
- How much money did you (will you) spend locally (excluding show tickets), including food, drinks, gas, etc.?
  - \$0
  - \$5 - \$25
  - \$26 - \$40
  - \$41 - \$55
  - \$56 - \$65
  - \$66 - \$75
  - Over \$75 (please specify amount)
- Before or after the show, did you or do you plan to (check all that apply):
  - Eat at a local restaurant?
  - Have drinks locally?
  - Have dessert/coffee locally?
  - Shop in local stores?
  - Purchase gasoline?

Eighty-three patrons completed some or all of the survey. Seventy-eight respondents provided their home zip code, 79 responded to the question on anticipated spending, and 60 indicated their pre- and post-show activities.

The surveys were separated based on whether the respondent resided in Tangipahoa Parish or not, and the responses were then extrapolated to the entire 1,732 patrons, as detailed in Tables 2 and 3.

The following assumptions were used to address missing data:

- The five responses that did not include a zip code were allocated as 3 from Tangipahoa Parish and 2 from outside the Parish, based on the proportions of respondents who did provide their zip code. (41 from Tangipahoa Parish, 37 from outside the Parish)
- Two respondents from Tangipahoa Parish did not answer the expenditure question or the question on planned purchases. Their anticipated expenditures were assumed to be \$0.
- Two respondents from within the Parish did not answer the question regarding their anticipated expenditures, but did indicate their planned types of purchases. Expenditure amounts for respondents with similar planned purchases were averaged and used as estimates of the spending of those with missing expenditure answers.

- Ten respondents indicated that they planned to spend over \$75 on activities associated with their attendance at the *Peter Pan* performance, and were asked to specify the estimated amount. Five of them provided the following responses:
  - \$80
  - \$80
  - \$92
  - \$200
  - \$500

In order to estimate the spending of the five respondents who did not provide an amount, the first four responses listed above were averaged to obtain an estimate of \$113. This amount was used as a proxy response for the five respondents who indicated they planned to spend “Over \$75” but did not provide an amount. The \$500 response was viewed as an outlier, and although used in the analysis, was not included in the calculation of the average for the missing responses.

**Table 2. RESIDENT responses to: “How much money did you (will you) spend locally (excluding show tickets), including food, drinks, gas, etc.?” (TANGIPAHOA PARISH RESIDENTS)**

Spending Category	# of Responses	% of Responses	Extrapolated # of Patrons	Mid-point or Average \$	Total Estimated Spending
\$0	10	19.5%	209	\$0.00	\$0.00
\$5 - \$25	8	19.5%	167	\$15.00	\$2,504.10
\$26 - \$40	11	26.8%	230	\$33.00	\$7,574.89
\$41 - \$55	6	9.8%	125	\$48.00	\$6,009.83
\$56 - \$65	2	7.3%	42	\$60.50	\$2,524.96
\$66 - \$75	2	4.9%	42	\$70.50	\$2,942.31
Over \$75	<u>5</u>	<u>12.2%</u>	<u>104</u>	\$95.60	<u>\$9,974.65</u>
Totals	44	100.0%	918	Avg = \$34.35	<b>\$31,530.75</b>

Table 2 is provided only for informational purposes, since spending by Tangipahoa parish residents was not included in the impact analysis, which seeks to estimate the impact of the influx of “new” money into the parish.

While the *Peter Pan* production may have kept the entertainment spending of some Tangipahoa Parish residents “at home” instead of being spent outside the parish, and thus should technically be included in the impact analysis, some of the non-resident spending may have occurred in Tangipahoa Parish whether the production of *Peter Pan* was happening or not. Since the survey questionnaire did not address these issues, these two amounts were assumed by the authors to offset each other, and were ignored in the analysis model.

The non-resident patron expenditures detailed in Table 3 were used in estimating the economic impact of local expenditures by *Peter Pan* attendees.

**Table 3. NON-RESIDENT responses to: “How much money did you (will you) spend locally (excluding show tickets), including food, drinks, gas, etc.?”**

Spending Category	# of Responses	% of Responses	Extrapolated # of Patrons	Mid-point or Average \$	Total Estimated Spending
\$0	2	5.1%	42	\$0.00	\$0.00
\$5 - \$25	8	20.5%	167	\$15.00	\$2,504.10
\$26 - \$40	7	17.9%	146	\$33.00	\$4,820.39
\$41 - \$55	9	23.1%	188	\$48.00	\$9,014.75
\$56 - \$65	4	10.3%	83	\$60.50	\$5,049.93
\$66 - \$75	4	10.3%	83	\$70.50	\$5,884.63
Over \$75	<u>5</u>	<u>12.8%</u>	<u>104</u>	\$207.80	<u>\$21,681.30</u>
Totals	39	100.0%	814	Avg = \$60.14	<b>\$48,955.08</b>

Using the mid-points of the various spending categories as an average expenditure for respondents in the six lower categories, and the average of the indicated or proxy responses for the “Over \$75” category, patrons from Tangipahoa Parish spent an average of \$34.35 in non-ticket expenditures associated with their *Peter Pan* attendance.

Non-resident patrons’ expenditures were substantially higher, averaging \$60.14. Part of the difference may be explained by the higher percentage of non-resident patrons who planned to eat at a local restaurant, as shown in Table 4. A higher percentage of resident patrons indicated that they would go out for coffee or dessert.

**Table 4. Responses to: “Before or after the show, did you or do you plan to (check all that apply):”**

Type of Expenditure	Tangipahoa Parish Patrons			Non-Resident Patrons		
	# of Responses	% of Responses	Extrap. # of Patrons	# of Responses	% of Responses	Extrap. # of Patrons
Eat at a local restaurant	21	42.9%	394	29	60.4%	492
Have drinks locally	4	8.2%	75	4	8.3%	68
Have dessert/ coffee locally	14	28.6%	262	5	10.4%	85
Shop in local stores	6	12.2%	112	6	12.5%	102
Purchase gasoline	<u>4</u>	<u>8.2%</u>	<u>75</u>	<u>4</u>	<u>8.3%</u>	<u>68</u>
Totals	49	100.0%	918	48	100.0%	814

The first three expenditure categories in Table 4 all fall into the “Eating and Drinking” sector for input/output analysis. Because there was no way to link the type of expenditures (from Table 4) with the amount spent (from Table 3), the authors made the decision to allocate the expenditures based on the approximate proportions in Table 4: 80% of total theatergoer expenditures to the

“Eating and Drinking” sector, 12% to “Miscellaneous Retail” purchases, and 8% to “Gasoline” purchases. While a somewhat arbitrary allocation, it is similar to the expenditure patterns reported in other studies of this type (Hunter Interests (2005) and Bougere, et al. (2011)).

## Estimated Economic Impacts on Tangipahoa Parish

### *Production Impacts*

Using an “analysis by parts” approach, the \$47,207 of production expenditures spent in Tangipahoa Parish (see Table 1) were input into the appropriate sectors of the IMPLAN© model for Tangipahoa Parish.

Based on the provided production costs and the methodology discussed above, the economic impacts on Tangipahoa Parish of the \$81,613 (\$47,207 locally) spent producing *Peter Pan* in June 2009 are estimated to have been as follows (Table 5):

**Table 5. Estimated economic impacts of production expenditures**

Output Impact	\$126,789
Earnings Impact	\$ 47,648
Employment Impact (jobs supported for one year)	0.7
Estimated State/Local Tax Impact	\$ 2,377

### *Patron Expenditure Impacts*

Non-resident patrons were estimated to have spent \$48,955 in Tangipahoa Parish associated with their attendance at the *Peter Pan* performance (other than their ticket purchase). Based on these estimated patron expenditures and the methodology discussed above, the economic impacts on Tangipahoa Parish of non-resident patron spending associated with *Peter Pan* in June 2009 are estimated to have been as shown in Table 6.

**Table 6. Estimated economic impacts of patron expenditures**

Output Impact	\$ 78,176
Earnings Impact	\$ 25,674
Employment Impact (jobs supported for one year)	1.3
Estimated State/Local Tax Impact	\$ 5,037

## ***Total Combined Economic Impacts***

When the production impacts and patron expenditure impacts are combined, the total economic impacts of the 2009 production of *Peter Pan* are estimated to have been:

**Table 7. Total estimated economic impacts of the 2009 production of *Peter Pan***

Output Impact	\$ 204,965
Earnings Impact	\$ 73,322
Employment Impact (jobs supported for one year)	2.0
Estimated State/Local Tax Impact	\$ 7,414

The output impact is a measure of flows through the Tangipahoa Parish economy, and is included primarily for comparison with other economic impact studies. The earnings and employment impacts are much more meaningful measures for the residents of Tangipahoa Parish, as they represent jobs and wages supported within the parish.

## **Conclusions**

The 2009 production of *Peter Pan* by the Southeastern Louisiana University Opera/Music Theatre Program contributed a significant influx of spending into the Tangipahoa Parish economy. Actual production cost data and theatergoer expenditure estimates from a patron survey were utilized to conduct an input-output analysis of the total production.

Our analysis indicates that *Peter Pan* had an estimated total economic impact on Tangipahoa Parish of \$204,965. The event contributed an estimated \$73,322 of earnings to parish residents, supporting 2.0 annual jobs. State and local tax impacts were estimated to be approximately \$7,414.

## Bibliography

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