

Economic Impact of the 2014 Mardi Gras Season

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EXECUTIVE SUMMARY

Total direct economic impact of Mardi Gras on the New Orleans economy	\$164,274,980
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Total direct and indirect impact of Mardi Gras on the New Orleans economy	\$465,214,106
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Percentage of New Orleans GDP	2.22%
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Tax Revenues Flowing to the City of New Orleans and other Local Government Entities as a result of Mardi Gras	\$17,596,832

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I. INTRODUCTION

The Carnival Krewe Civic Foundation, Inc. commissioned this report in order to evaluate the economic effects of the 2014 Mardi Gras season on the city of New Orleans. In 2014, the official Mardi Gras Holiday occurred on Tuesday, March 4th; however, for the purpose of this study, the 12-day Mardi Gras period began on Friday, February 21st and lasted through Tuesday March 4th. This is the fourth post-Katrina iteration of this study; the first was completed in 2007, then again in 2009, and updated in 2011. For this analysis, the Freeman Consulting Group, consisting of students in the Tulane MBA, MFIN, MACCT, and undergraduate Business Programs were instrumental in gathering and analyzing the data. While a great deal of the information within is newly collected, some figures were updated from the original study.

The 2007 study focused almost exclusively on the tax revenues generated as a result of Mardi Gras. The 2009 and 2011 studies took a more expansive view looking not only at increases in tax revenues but also at the overall economic impact on the New Orleans economy. Spending by the private sectors remained relatively flat over those two years despite a major downturn in the economy, and thus the tax revenues generated did as well. However, as reported by the City, public expenditures, as reported by City Hall, dropped dramatically thereby decreasing the total economic impact.

Given that the national economy is in the midst of a rebound, the question for 2014 is: will we see greater increases in the economic impact of Mardi Gras? Further, will there be an equivalent increase in tax revenues flowing in the City and other local government entities? The answer to these two questions is yes and no. The contribution that Mardi Gras has on the New Orleans GDP increased substantially. This is due mainly to an increase in City expenditures as reported by the Mayor's Office as well as an increase in spending by the Carnival Krewes. In the latter case, some of the increase may be the result of data gathering and reporting by the Carnival Krewe Captains. This may also be a contributing factor to the increase in City expenditures though it seems likely, given the timing of the 2014 Mardi Gras season in relation to the Boston Marathon bombing created greater security concerns and thus the City appeared to spend significantly more on emergency preparedness. Another contributing factor to the increase in

economic impact is the increase in available hotel rooms in New Orleans since 2011. However, while there was substantial increase in tax revenues, the increase did not match the increase in economic impact.

The Freeman Consulting Group began working with Professor Toni Weiss in June 2014. The team primarily assisted with Mardi Gras Krewe outreach as well as general data sourcing, collection, and analysis. Participating in the economic impact study has provided students with a rewarding experience and an intimate glimpse into the inner workings of an economic impact study, as well as a comprehensive understanding of the rich traditions of Mardi Gras. The Freeman Consulting Group is grateful for the opportunity to contribute lasting impact to this project due to its financial, historical, and cultural significance.

II. THE FREEMAN CONSULTING GROUP

The Freeman Consulting Group (FCG) is a membership based student association housed within the A.B. Freeman School of Business at Tulane University. The organization operates with the support of the Tulane Association of Business Alumni and the Levy-Rosenblum Institute for Entrepreneurship. FCG, made up of domestic and international students who have cultivated interests in accounting, finance, law, marketing and other subjects, aims to provide opportunities for experiential learning to graduate and undergraduate students in the business school. The group's core mission is to leverage the collective skills of each project team in order to create positive and impactful change for our members, our clients, and our city. The opportunities are presented to students as professional consulting projects on behalf of businesses in the New Orleans and surrounding area. Members of FCG provide services on a volunteer basis at no charge to the recipient. Student teams are expected to work closely with partner clients to assess their needs and issues in order to plan, develop, and implement recommendations based on research, evidence, and academic experience.

III. HISTORY

This is the fourth time, post-Katrina, that this analysis and subsequent report have been produced. The first year, 2007, came on the heels of Hurricane Katrina. 2007 marked the second post-hurricane Mardi Gras season and most of the city and its residents were still entrenched in “recovery mode.” Further, the 2007 study focused primarily on the tax revenues generated as a result of Mardi Gras.¹ The second occurrence of the study, in 2009, took a broader approach, looking not only at tax revenue streams for the City and other local government entities but also at the economic impact on the New Orleans economy. The results were impressive. Mardi Gras contributed \$322M towards the New Orleans GDP, over 1.5% of the total GDP for the year. Surprisingly, these results came just months after the country entered into the Great Recession. However, a significant amount of the outlay of dollars for Mardi Gras happens weeks and months prior to the actual 12-day season as Krewes prepare to parade and tourists make holiday plans. The effects of the recession were seen in the 2011 Mardi Gras season as tourism, average daily hotel room rates, and overall spending decreased. Additionally, the City aggressively curtailed spending, though the net fiscal benefit to the City increased as did the dollar return on investment. The following table outlines the results from the previous three economic impact studies.

	2009	2011	% change from 2009 to 2014
Direct Economic Impact	\$145,723,918	\$144,091,533	-1.12%
Total Economic Impact	\$322,209,017	\$300,656,546	-6.69%
Percent of New Orleans GDP	1.61%	1.50%	
Tax Revenues Generated	\$12,120,443	\$12,198,489	0.64%

While it would have made sense to repeat the study again in 2013, the NFL selected New Orleans to host Super Bowl XLVII, which had been scheduled to occur in the midst of the carnival season. Since the dates of both the Super Bowl and Mardi Gras are inflexible, accommodations needed to occur. Organizers decided that the first weekend of parades would occur one week earlier, the following weekend would be dedicated to the Super Bowl, and the

¹ Given the limited scope of the 2007 study, those numbers have not been included in the historical table.

final weekend and through Tuesday would be Mardi Gras. Due to the impossibility of separating the two simultaneous events, the study was rescheduled for the 2014 Mardi Gras season.

IV. METHODOLOGY

This report answers two questions: 1) What are the tax revenue streams flowing into local government entities as a result of Mardi Gras? and 2) What is the contribution of Mardi Gras (the event and the “franchise”) to the aggregate economic activity of New Orleans? The first question is narrower, and slightly easier to answer. The City of New Orleans incurs substantial costs, but also collects additional taxes, as a result of the staging of Mardi Gras. The largest and most visible expenditure is the overtime payment to the Police Department for traffic control and public safety duties during parades. But, there are also substantial expenses involving Emergency Medical Services, the Department of Public Works, the Sanitation Department, and the Judicial System. While not all of the tax revenues generated as a result of Mardi Gras flow directly into the City operating fund, it is important to look at dollars are coming back to local entities that benefit the citizens of Orleans Parish in contrast to what is being spent. The increases in tax revenues are generated by tourist dollars that flow in as people visit during Mardi Gras, as well as those that are attracted to New Orleans year-round by the appeal of the City that Mardi Gras helps to create, and lastly by large amounts of local dollars that are spent on Mardi Gras related items during the carnival season and throughout the year.

The question regarding economic activity is broader and tougher to answer precisely. The annual Gross Domestic Product (GDP) of New Orleans is approximately \$21 billion. This report will quantify what percentage of this figure can be attributed to Mardi Gras. There are two ways to measure GDP. In the expenditure approach, GDP is the sum of final spending by consumers, businesses, government, and net exports.² In the income approach, GDP is measured as the sum of the incomes of all the economy’s participants. The expenditure approach is used to calculate both the net fiscal benefit and the economic impact on the City.

²Net exports will not be included in this study

Mardi Gras is unique compared with other festivals in New Orleans and around the world in that the event and the city are closely linked in public perception. This linkage is particularly pronounced among people outside of New Orleans. If a restaurant in, say, Colorado, is going to have a New Orleans theme it likely will be decorated in purple, green and gold – the colors of Mardi Gras. If a tourist is thinking of some place fun to travel, he or she will be reminded of Mardi Gras even if it is June as can be evidenced by the sight of tourists wearing Mardi Gras beads in the French Quarter even during the summer months. When conventions come to town they often participate in “mini Mardi Gras” celebrations regardless of the time of year. Mardi Gras World stages Mardi Gras parades all over the country and people tour their facility here in New Orleans year-round. All of these activities are linked to Mardi Gras in New Orleans and are part of the economic activity that it generates.

In assessing the economic impact of an event, the issue of displacement must be addressed. Displacement occurs when expenditures associated with an event displace, or substitute for, expenditures that would otherwise have occurred. For instance, if a man buys a piece of jewelry to be given to his wife at a Mardi Gras Ball, those dollars would be included in the overall economic activity attributable to Mardi Gras and the sales taxes paid on the purchase would be included in the calculation of the net fiscal benefit. However, the man’s Mardi Gras purchase may displace a purchase that he would otherwise have made for Valentine’s Day. If so, then including his jewelry purchase in assessing the economic impact of Mardi Gras would overstate the impact of Mardi Gras because that expenditure would have been made anyway. Unfortunately, it is impossible to adequately measure displaced expenditure because it involves assessing what would have happened if Mardi Gras had not been held. However, New Orleans and Mardi Gras are so intertwined within the minds of those outside of New Orleans, and Mardi Gras is so deeply embedded in the fabric of people’s lives within New Orleans culture that imagining what a New Orleanian would do if there were no Mardi Gras is impossible.³

³That is not to imply that New Orleans is ONLY Mardi Gras, but that the line where Mardi Gras ends and the rest of what New Orleans has to offer, wonderful food, great music, unique culture is impossible to draw. The existence of Mardi Gras helped to create those other assets and those other assets helped to shape Mardi Gras.

The most difficult part of completing this study is gathering data. Surveys were sent to Captains of each Krewe in Orleans Parish asking about their collective and individual Krewe member expenditures. The FCG team created spreadsheets in an attempt to identify every commercial area that may exhibit an increase or decrease in sales due to Mardi Gras. However, the resources and manpower available to collect these numbers were limited. Emails and phone calls were made extensively, as were personal favors used. However, owners and managers were very reluctant to provide actual revenue figures, despite the assurance of confidentiality. Thus, the figures presented in this report do not capture the full economic impact. Statistical analysis was used to attempt to take the figures that were provided and scale them up to better measure the true impact, but it should be understood that the results of this report likely underestimate the value of Mardi Gras.

The body of this report is organized as follows. The fifth section describes current New Orleans economic statistics as they relate to state and national statistics. The sixth section describes the aggregate expenditures associated with Mardi Gras. The seventh section explains incremental tourism and the brand value of Mardi Gras and its imagery. The eighth section estimates the net fiscal benefit of Mardi Gras to the City of New Orleans. The ninth and final section is the conclusion.

V. THE NEW ORLEANS ECONOMY

One cannot view the economic impact that Mardi Gras contributes without also considering the New Orleans economy as a whole. As seen from the 2009 and 2011 studies, Mardi Gras could be considered a lagging indicator, a measurable economic indicator that changes after the economy has changed directions. Thus, as the 2014 Mardi Gras season gained ground with the improvement in the National Economy since 2011, one would expect that the economic impact of Mardi Gras will continue to increase over the next few years.

The following table outlines the National, State and Local Economy. The numbers for the local economy are for the MSA (Metropolitan Statistical Area) rather than Orleans Parish.

REAL GROSS DOMESTIC PRODUCT

Real GDP (in millions of dollars)	2009	2010	2011	2012	2013	2014 ^A
New Orleans-Metairie-Kenner	\$63,137	\$64,649	\$68,940	\$69,997	\$70,665	
Louisiana	\$209,904	\$220,819	\$214,705	\$219,209	\$222,008	
National	\$14,418,700	\$14,783,800	\$15,020,600	\$15,369,200	\$15,710,300	\$16,164,100
Local as a % of State	30.08%	29.28%	32.11%	31.93%	31.83%	
Local as a % of National	0.44%	0.44%	0.46%	0.46%	0.45%	
State as a % of National	1.46%	1.49%	1.43%	1.43%	1.41%	
Real GDP (% change from previous year)	2009	2010	2011	2012	2013	2014 ^A
New Orleans-Metairie-Kenner		2.39%	6.64%	1.53%	0.95%	
Louisiana		5.20%	-2.77%	2.10%	1.28%	
National		2.53%	1.60%	2.32%	2.22%	2.89%

^A annualized data as of the third quarter of 2011

PERSONAL INCOME

Personal Income (in millions of dollars)	2009	2010	2011	2012	2013	2014 ^A
New Orleans-Metairie-Kenner	\$50,818	\$52,484	\$51,824	\$54,646	\$55,529	
Louisiana	\$162,403	\$168,231	\$176,149	\$186,923	\$190,590	
National	\$11,938,200	\$12,557,600	\$14,418,700	\$14,295,100	\$14,311,700	\$14,801,200
Local as a % of State	31.29%	31.20%	29.42%	29.23%	29.14%	
Local as a % of National	0.43%	0.42%	0.36%	0.38%	0.39%	
State as a % of National	1.36%	1.34%	1.22%	1.31%	1.33%	
Personal Income (% change from previous year)	2009	2010	2011	2012	2013	2014 ^A
New Orleans-Metairie-Kenner		3.28%	-1.26%	5.45%	1.62%	
Louisiana		3.59%	4.71%	6.12%	1.96%	
National		5.19%	14.82%	-0.86%	0.12%	3.42%

^A annualized data as of the third quarter of 2011

UNEMPLOYMENT RATE

Unemployment ^B	2009	2010	2011	2012	2013	2014 ^B
New Orleans-Metairie-Kenner	6.43%	7.43%	7.20%	6.50%	6.10%	5.40%
Louisiana	6.62%	7.46%	7.20%	7.03%	6.14%	5.30%
National	9.28%	9.63%	8.90%	8.10%	7.40%	6.23%

^B average for the year based on monthly figures

VI. AGGREGATE DIRECT EXPENDITURES

The impact of Mardi Gras on the City's GDP can be measured as the increment to aggregate consumption spending plus business fixed investment plus government expenditure plus net exports associated with Mardi Gras.⁴ As a practical matter, measuring this impact involves enumerating and summing up expenditure data from a variety of sources. A natural division is to sort expenditures by those occurring during the Mardi Gras season and those occurring outside of the Mardi Gras season.

The analysis begins by calculating the expenditures directly associated with Mardi Gras with an emphasis on those that occur during the Mardi Gras season (i.e., the 12-day period beginning with the second Friday before Mardi Gras and ending with Fat Tuesday.) The expenditures are divided into five categories: Lodging and Non-Lodging, Food and Alcohol, Mardi Gras Related Merchandise and Services, Krewe and Krewe Member Expenditures, and City Government.

A. Lodging and Non-Lodging Expenditures

Visitors come from out of town and spend money on lodging, food, transportation, merchandise, and miscellaneous services. From Smith Travel Services (STR) of Henderson, Tennessee, we obtained New Orleans hotel occupancy data for the 2014 Mardi Gras season. Unfortunately, as opposed to previous years in which daily data was available, for this study, only monthly data was provided. The 12-day Mardi Gras season spanned both the end of February and the Beginning of March, and thus it is likely that the true effect of Mardi Gras on the hotel industry is being undercounted. STR collects monthly data on occupancy, room rate, and lodging revenue per room from a large sample of Orleans Parish hotels. The hotels in the STR sample accounted for 18,700 rooms (approximately 51% of the total of hotel rooms in Orleans Parish) during the 2014 Mardi Gras season.⁵ The properties listed in the STR reports are located primarily in the French Quarter, Downtown, Warehouse District, and Uptown.

⁴Again, net exports have not been included.

⁵This total does not include the plethora of B&B's that exist in NOLA both those that are advertised as such and the ones rented through sites such as Airbnb.com

Assuming that the STR sample is unbiased, grossing the figure up to account for the unreported data implies that the total lodging revenue for New Orleans hotels during the 2014 Mardi Gras season was \$70,524,408. A comparison with 2011 shows an increase in room days of 10% and an increase in average daily room rates of 22.5%.

The STR data does not indicate the number of visitors per room or expenditures other than lodging. To estimate visitor spending on non-lodging items such as food, drink, transportation, and other services, the STR data was combined with information culled from other less specific surveys. The number of visitors per occupied room was estimated to be 2.7, and spending per person on non-lodging expenses was estimated at \$63.25 per day.⁶ Together with STR data, these figures imply total non-lodging expenditures by visitors staying in hotels at \$61,887,975. Thus, lodging and non-lodging expenditures by visitors staying in hotels totaled approximately \$132,412,384 during the 2014 Mardi Gras season – a 25% increase from 2011.

This estimate likely understates visitor expenditure during the Mardi Gras season, as it vastly underestimates the number of out-of-town visitors that come to New Orleans during the 12-day season. While a significant number of tourists stay in hotels, and thus are accounted for in the figures above, anecdotal evidence suggests that many out-of-town visitors stay with friends in New Orleans or rent houses or other non-hotel accommodations during the Mardi Gras season. The development of websites such as Airbnb.com has contributed to tourists' ability to come to town more affordably but also less detectably. Additionally, many people who attend Mardi Gras celebrations in the city come from surrounding parishes and do not stay the night in New Orleans. They do, however, spend dollars in Orleans Parish that they would likely have not spent if it were not for Mardi Gras.

Thus, both the expenditures on accommodations and non-accommodations by visitors are greater than stated in this report. The best way to census those tourists who do not stay in hotels and to estimate such spending would be to conduct street surveys during the parades. In addition to

⁶ From the Mardi Gras Jefferson Parish 2008 study conducted Hospitality Research Center at the University of New Orleans and scaled up by the CPI from 2011

determining how many people attend Mardi Gras from out of town, such a survey could ascertain approximately how much each tourist spends per day.⁷

B. Food and Alcohol

Out-of-town visitors are not the only group that spends dollars during Mardi Gras. Locals spend money on entertaining out-of-town guests, incremental food and beverage consumption, incremental transportation within the city, and merchandise purchases including Mardi Gras themed jewelry, clothing, and household decorations. A survey, such as the one briefly described above, would not only more accurately aggregate the dollars flowing into the City from the outside, but would also provide a better idea of local spending patterns. In the absence of survey data, a proxy variable approach to estimate spending by locals and their guests, as well as day visitors.

It is hypothesized that if a household has guests staying with them during Mardi Gras then that household's grocery bill would increase. Additionally, many people host parties and open houses on parade days – events that all require some food and beverage to be served. While some people might have those functions catered by an area restaurant, much of the additional spending would be done at area grocery stores. Thus, it is believed that a portion of grocery store revenues during the Mardi Gras season can be directly attributed to Mardi Gras and therefore can be included in the economic impact that Mardi Gras has on the New Orleans economy. Additionally, the sales taxes collected on those sales would work to offset the costs to the City of New Orleans of staging Mardi Gras.

Only those stores located in Orleans Parish were considered. A few stores graciously provided revenue figures for the relevant time frame and organized it by department so that sales of alcoholic beverages could be aggregated separately. From these figures, revenues per square foot were calculated and, using the square footage of other stores, computed total grocery revenue for the Mardi Gras period. Some adjustments were required, and not all sales during the

⁷ A study much like the one described here was conducted in Jefferson Parish by researchers at the Hospitality Research Center of the University of Louisiana at New Orleans during the 2009 Mardi Gras season.

12-day season can be contributed directly to Mardi Gras. Strictly looking at the increase in sales from one week to another would underestimate the dollars as many households put off doing their “normal” grocery shopping during the week and most particularly during the weekends of Mardi Gras. Additionally, revenue figures on all grocery sales within Orleans Parish were not available. It is believed that the overestimation on one hand will cancel out the under estimation on the other. It is estimated that \$3,127,640 in grocery store sales excluding alcoholic beverages can be directly associated with Mardi Gras in 2014, a 14% increase over 2011.

The increase in alcohol sales was derived using a different approach. A number of bar owners and/or managers were contacted and were willing to share that they, on average, experience a 20% increase in sales during the Mardi Gras season. That information, along with some estimates of annual tax revenues generated by alcohol sales in the French Quarter, and the approximate number of bars in New Orleans, generated an increase in alcohol sales as a result of Mardi Gras of \$4,383,562.

C. Merchandise and Services

Mardi Gras themed merchandise, jewelry, publications, and tours generate a huge amount of economic impact both during the 12-day Mardi Gras season and throughout the year. A significant amount of expenditures on merchandise that are directly associated with the actual season have been accounted for in the Krewe and Krewe member survey. However, there are vast numbers and types of retail establishments in New Orleans that see an increase in revenues as a result of Mardi Gras. Examples of businesses that contribute to the economic impact of Mardi Gras include but are not limited to jewelry stores, gift shops, clothing stores, tour companies, printers, parking garages, and taxi and limo services. Unfortunately, given the limited resources of time and money available for this research and the unwillingness of most storeowners to share revenue figures, a very truncated dollar figure was generated. Using the numbers that the team was able to gather along with some industry standard figures, and an understanding that these vastly underestimate the total sales, a figure of \$7,311,613 was calculated.

D. Mardi Gras Krewes and Krewe Members

Mardi Gras Krewes, the individual organizations, spend money on floats, throws, costumes, licenses, party venues, decorations, food and a host of other things related to parades and balls. In addition to spending by Krewes, Krewe members spend money individually on balls, throws, costumes, jewelry, and miscellaneous services such as transportation within the city. These expenditures are so closely related to events that occur during the season; accordingly, have been included in the report, even though much of the spending is done outside the 12-day Mardi Gras season. For example, float design and storage costs are incurred year round, and many balls are held outside the 12-day window of Mardi Gras.

To estimate expenditures by Krewes, a questionnaire was designed and distributed to all of the Captains of Krewes that parade in Orleans Parish. The survey was similar to that of previous years. This year, the survey was completed primarily via email and on the Internet. Each Orleans Parish parading Krewe Captain was sent an email containing a link to the online survey, as well as a printable version. Three requests were made via email and initially three completed surveys were received via the online link. After several weeks, the data collection group enlisted the help of Mr. Hunter Pierson and Mr. John Charbonnet who leveraged personal connections to encourage Captains to complete the survey. Mr. Pierson and Mr. Charbonnet made phone calls to their fellow Mardi Gras participants, which proved quite helpful in increasing the number of survey responses. One group member also attended the Mayor's Mardi Gras Advisory Committee Meeting to speak about the importance of the survey and the study. In the end, 14 responses were received in total, of which nine were completed online and five were printed and returned to the data collection group via mail.⁸

Given that the number of responses represented less than half of the Krewes that parade in New Orleans, the figures needed to be scaled up in order to attempt to achieve some degree of accuracy. There are 31 parading Krewes in New Orleans with a total 24,274 members.

The table below, outlines the aggregate numbers gathered.

⁸ A similar survey was sent to the Captains of the non-parading Krewes but no responses were received

Parading Krewes in New Orleans

Number of parading Krewes in New Orleans	31
Total Membership of all New Orleans parading Krewes	24474

Results of survey sent to all Krewes

# of Krewe Respondents Representing	14
# of Members	14843
# of Riders	16947

Expenses Incurred by Krewe

Associated with Parade	\$7,949,526
Associated with Ball	\$3,787,521

Expenses Incurred by Members

Associated with Parade	\$10,682,201
Associated with Ball	\$14,015,457

Total	\$36,434,705
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Scaling-up Results to Account for All New Orleans Parading Krewes

Average Expenditure per Krewe	\$2,602,479
Average Expenditure per Member	\$2,455
Average Expenditure per Rider	\$2,150

Total Expenditure based on \$'s per Krewe	\$80,676,847
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Total Expenditure based on \$'s per Member	\$60,075,656
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Average	\$70,376,252
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This represents a significant increase over the 2011 report. This could be the result of different people responding to the survey, different items being included, and/or different methods of estimating totals. However, there is still likely to be a great deal of under-reporting that occurs, and thus the figures should continue to be viewed as very conservative. For instance, one

expenditure that was not included was catering. Krewe members have to show up at the parade staging area hours before the parade begins to roll. Many traditionally pass the time in a “tail-gate” style with catered food and alcohol from local restaurants and caterers. These dollars were not picked up anywhere else in this report and thus the total economic impact doesn’t include it.

E. Government

City government spends money during Mardi Gras to maintain public safety and provide public services. Public safety was of particular concern this season, coming less than a year after the Boston Marathon bombing. Other key expenditures include police and fire department overtime and incremental property management, parks and recreation, and sanitation expenses. The City of New Orleans keeps records of the expenditures it makes relating to major events including Mardi Gras as part of its budget planning and control processes. The largest city expense, by far, is overtime payments to police, primarily for maintaining the public safety and traffic control at parades and on Mardi Gras day. Clean up expenses funded by the sanitation department represent another large outlay.

The table below presents information obtained from the Chief Administrative Office with in City Hall on expenditures associated with public services provided during the 2014 Mardi Gras season and a comparison of expenditures from previous years. As stated previously, some of the differences in government expenditures are the result of different and/or more accurate reporting rather than an actual change in outlays.

Department	Personnel*	Equipment	Additional Expenses	Total Expenses	Revenue	Total Cost
Homeland Security & Emergency Preparedness	\$28,889	\$78,307		\$107,195		\$107,195
Emergency Maintenance Division	\$13,112	\$15,825	\$15,825	\$44,762		\$44,762
Mosquito Control	\$389	\$96	\$513	\$998		\$998
Police Department	\$3,088,102	\$11,644		\$3,099,746		\$3,099,746
Fire Department	\$32,629	\$32,626		\$65,255	\$8,223	\$57,032
Emergency Medical Services	\$178,899	\$89,256		\$268,155	\$6,079	\$262,076
Mayor's Office	\$21,983		\$98,965	\$120,948	\$94,800	\$26,148
Property Management	\$21,069		\$215,234	\$236,304		\$236,304
Sanitation/Parks & Parkways	\$231,755	\$825,294	\$419,948	\$1,476,997		\$1,476,997
Department of Public Works	\$118,464	\$52,169	\$383,476	\$554,109		\$554,109
Finance	\$11,361			\$11,361		\$11,361
Safety & Permits	\$9,225	\$14		\$9,238		\$9,238
Total	\$3,755,877	\$1,105,230	\$1,133,961	\$5,995,068	\$109,101	\$5,885,966

*Personnel expenses include paid regular time, paid overtime, and the value of hours devoted to Mardi Gras operations by salaried employees.

Department/ Net Expenses	2009	2011	2014	% Change 2009 to 2011	% Change 2011 to 2014
Homeland Security & Emergency Preparedness	\$0	\$9,249	\$107,195		1059%
Emergency Maintenance Division	\$0	\$0	\$44,762		
Mosquito Control	\$0	\$0	\$998		
Police Department	\$2,407,073	\$1,500,710	\$3,099,746	-38%	107%
Fire Department	\$130,798	\$1,404	\$57,032	-99%	3962%
Emergency Medical Services	\$121,727	\$129,477	\$262,076	6%	102%
Mayor's Office	\$148,389	\$109,015	\$26,148	-27%	-76%
Property Management	\$257,567	\$261,840	\$236,304	2%	-10%
Sanitation/Parks & Parkways	\$0	\$833,791	\$1,476,997		77%
Department of Public Works	(\$475,585)	(\$962,303)	\$554,109	102%	-158%
Finance	(\$256,442)	(\$123,480)	\$11,361	-52%	-109%
Safety & Permits	\$0	\$0	\$9,238		
Total	\$2,333,527	\$1,759,703	\$5,885,966	-25%	234%

Government Expenditures play a crucial role in an economy’s GDP. The increases in emergency preparedness, maintenance, and medical services make sense in light of the increased need for extra security within very large street crowds. Both the Police and Fire Departments experienced a dip in spending in 2011 and then greater increases in 2014. The dip in 2011 is most likely due to the significant budget challenges facing the City of New Orleans and the need to dramatically curtail expenditures as a result of the significant budget gap that the Landrieu Administration inherited in 2010. Changes in accounting procedures are also likely to account for a significant difference in the numbers. For instance, in previous years, the Department of Public Works, in addition to experiencing costs, has recorded revenues in past years, thus creating a positive rather than negative cash flow. It is also possible that line items were simply booked under a different category in each of the three years reported.

F. Summary

The following table outlines the direct expenditures associated with Mardi Gras.

Direct Expenditure during the Mardi Gras Season

	Expenditure
Visitors staying in hotels	\$ 132,412,384
Food and alcohol	\$ 7,226,871
Merchandise and services	\$ 5,828,183
Krewe members	\$ 12,921,577
Subtotal - Private	\$ 158,389,014
City net expenditure	\$ 5,885,966
Total	\$ 164,274,980

VII. Incremental Tourism and Brand Value

Mardi Gras has a “franchise” value that extends well beyond the direct incremental spending associated with the occurrence of Mardi Gras. Mardi Gras has been celebrated in New Orleans since the early 1700’s and has become nearly synonymous with the city. Throughout its history,

Mardi Gras in New Orleans, like Carnival in Rio de Janeiro, has been an attraction to tourists. To support such tourism, the city developed an extensive infrastructure of lodging, food and drinking establishments, retail shops selling themed merchandise, and so forth, from which other events and businesses, such as conventions, unrelated to Mardi Gras per se, could benefit. Even outside of the Mardi Gras season, tourists are attracted to New Orleans by the Mardi Gras brand.

The economic “knock-on,” or spillover, effects of Mardi Gras are difficult to quantify, but are likely very large. For 2009, it was estimated that the range of possible values of an incremental multiplier, expressed as a multiple of measured expenditures, was between 0.5x to 2.0x, and an un-weighted average was taken. For 2011, given the national economic situation, the size of the brand value was lowered by weighing the average a bit more heavily on the lower end. For 2014, due to the uptick in the economy, the brand value was increased to be between 1.x and 2.5x with a weighted average favoring the higher brand value. The weighted average estimate of the aggregate economic activity in New Orleans associated with Mardi Gras is \$465,214,106 as shown below.

GDP Associated with Mardi Gras

Total direct expenditure (private)	\$	158,389,014
Government spending	\$	5,885,966
	Subtotal	\$ 164,274,980
Franchise value (lower estimate)	\$	158,389,013.68
Franchise value (higher estimate)	\$	395,972,534.19
	Total (low franchise value)	\$ 322,663,994
	Total (high franchise value)	\$ 560,247,514

Total (mean franchise value) \$ 465,214,106

This is a 54% increase from 2011, which can be explained by greater tourist dollars coming into the city, an increase in Krewe expenditures, and an increase in the City’s expenditures. Thus, using the New Orleans GDP figure of \$21 billion stated earlier, this figure represents an estimated 2.22% of the GDP of New Orleans, a 48% increase from 2011. As a perpetuity, the

present value of the total economic impact is about \$9 billion at current interest rates and adjusting for inflation.

VIII. INCREASE IN TAX REVENUES

Mardi Gras season, as well the tourism and brand value it creates generate, a sizeable tax revenue stream for the State of Louisiana as well as the City of New Orleans.⁹ The division of these dollars between the different government entities is outlined in the following section.

A. Distribution of Hotel/Motel and Sales Taxes

While the Hotel/Motel tax is 13%, the City of New Orleans collects only 4% of this figure with the rest going to the Louisiana State Department of Revenue.¹⁰ The 4% collected by the City is allocated between the general operating fund of the City (1.5%), the Orleans Parish School Board (1.5%), and the New Orleans Regional Transit Authority (1%). In a similar fashion, the general sales tax and the sales tax on food and drugs collected in Orleans Parish is 9% and 8.5% respectively, however, 4% goes directly to the State while 2.5% goes into the City's general operating fund, 1.5% to the School Board and 1% and 0.5% to the RTA, again, respectively.

One could say that only those dollars flowing into the general operating fund should be considered for this report as the bulk of the burden of the expenditures for staging Mardi Gras come from this source of dollars. However, it is the purpose of this report to show the benefits that Mardi Gras brings to the citizenry both in terms of increased economic activity and increases

⁹ Many other parishes around the State benefit from increases in tax revenues from their own Mardi Gras celebrations. This report, however, focuses entirely on Orleans Parish/City of New Orleans

¹⁰ Approximately 75% of the 9% hotel motel taxes collected by the State flow back into State entities located within Orleans Parish, the Louisiana Stadium and Exposition District (Superdome), the Ernest N. Morial New Orleans Convention Center, and the private non-profit New Orleans Convention and Visitors Bureau. An argument can be made that these entities make a substantial contribution to the New Orleans economy and should thus be included in the tax revenue calculations. However, as New Orleans City government shoulders the burden of the public expenditures of staging Mardi Gras, only those dollars that go directly to local governmental entities within Orleans Parish will be included.

in tax revenues. As both the School Board and the RTA benefit the Orleans Parish residents these tax collections have been included.¹¹

B. Tax Revenues

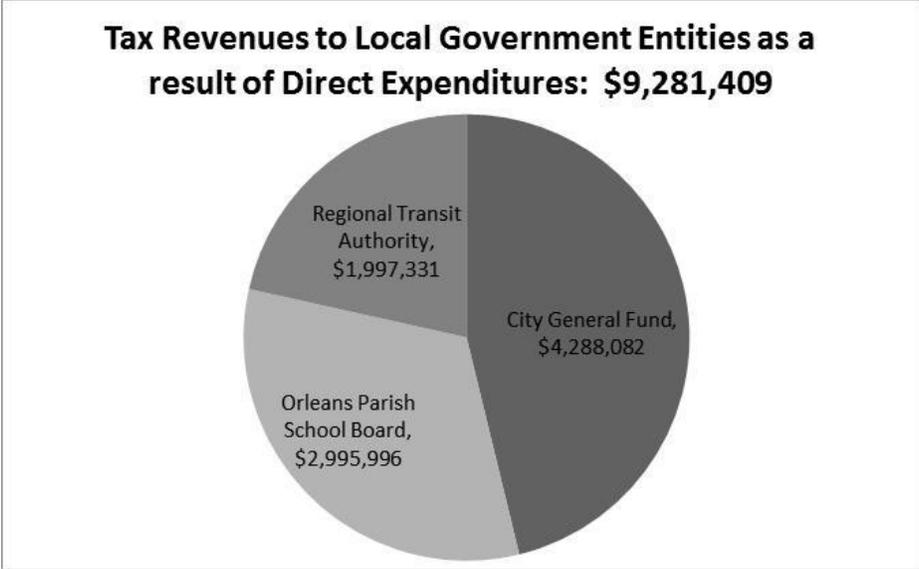
While the public expenditures necessary to stage Mardi Gras are relatively straight forward to calculate, incremental revenues, especially taxes, on the other hand, cannot be measured directly from City budget data, and so must be computed indirectly. Two approaches were used: In the first approach, statutory tax rates were applied to direct expenditures associated with Mardi Gras, adjusting, where relevant, for non-taxable expenditures. This is called the direct expenditure method. A disadvantage of this method by itself is that it ignores the leverage (economic spillover) effects of Mardi Gras. In order to correct this oversight a hypothesized aggregate tax rate was applied to the mean estimate of incremental private spending associated with the franchise value of Mardi Gras and adding the result to the first figure. This second approach is called the aggregate expenditure method.

As shown in the table below, the direct expenditure method produces an estimated tax revenue stream of \$9,281,409. In this table, the expenditure figures have been adjusted to eliminate non-taxable spending. This is a significant increase over the 2011 Mardi Gras season.

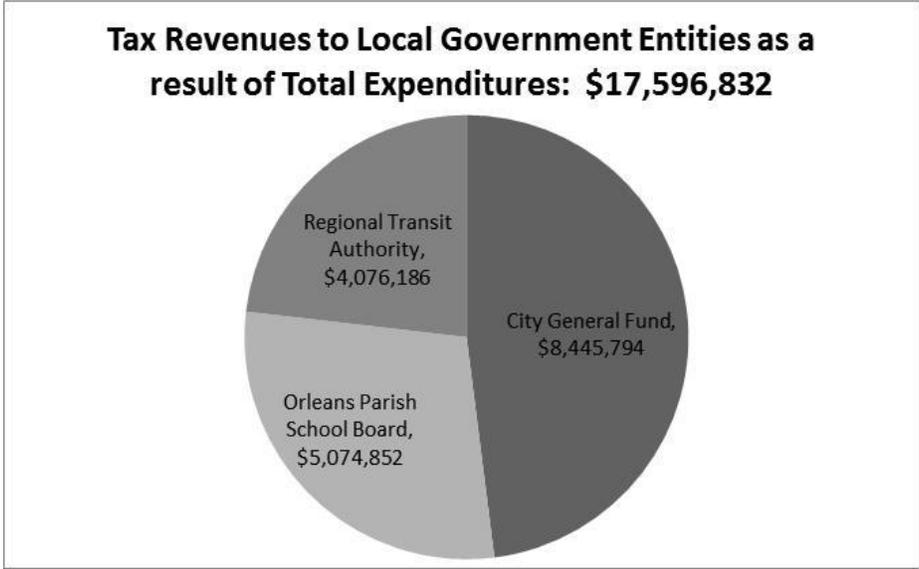
	Direct Expenditure	Tax Rate	Tax Revenue
Hotel/Motel room revenues	\$70,524,408	4%	\$2,820,976
Visitor spending	\$61,887,975	5%	\$3,094,399
Krewe taxable expenses	\$52,782,189	5%	\$2,639,109
Food and alcohol	\$7,226,871	5%	\$361,344
Merchandise and services	\$7,311,613	5%	\$365,581
Total	\$199,733,057		\$9,281,409

However, as stated previously, not all of these dollars go to the City's general operating fund. The chart below divides these dollars into the local government entities that benefit from this increase in tax revenues.

¹¹ Future studies should include estimates regarding any increased revenues and or expenditures experienced by the RTA as a result of Mardi Gras.



Augmenting the direct approach using the aggregate expenditure approach, applying a 3% average tax rate to the weighted average estimate of the incremental spending associated with the franchise value of Mardi Gras results in a total \$17,596,832. Again dividing up the dollars to the appropriate recipient results in the following chart:¹²



¹² Again, it should be noted that over \$11.5 million in tax revenues as a result of direct expenditures and over \$21.8 million in tax revenues as a result of total expenditures flow into the State of Louisiana and its political subdivisions, three of which are located in Orleans Parish. Future studies should look at the expenditures by the State that are the result of Mardi Gras such as the amount spent on State Police.

IX. CONCLUSION

The main conclusions along with additional relevant information are outlined in the table below.

	2009	2011	2014	% change from 2011 to 2014
Direct Economic Impact	\$145,723,918	\$144,091,533	\$164,274,980	14.01%
Total Economic Impact	\$322,209,017	\$300,656,546	\$465,214,106	54.73%
Percent of New Orleans GDP	1.61%	1.50%	2.22%	
Tax Revenues Generated	\$12,120,443	\$12,198,489	\$17,596,832	44.25%

Using the figures above one can see that the direct expenditures associated with Mardi Gras account for 0.8% of the New Orleans GDP but when the brand value that most certainly exists is included, that percentage increases to 2.22%. This may, at first glance, appear to be a small number, when put it into context it is quite extraordinary. A 12-day festival comprising such a significant component of a major metropolitan city's GDP is quite remarkable particularly in light of some of the other major industries within the City such as the Port of New Orleans, Tulane University (the City's major employer), and the health care industry.

Additionally, the tax revenues that are collected as a result of Mardi Gras are substantial. While the tax dollars flowing directly into the City's general fund do not cover the entire costs of staging Mardi Gras, when the brand value is applied and an implicit tax figure is calculated, it does result in a positive cash flow. These numbers are, of course, estimates and should not be used for specific budgetary purposes. Further, should there be, in fact, a negative or neutral cash flow for the City, the economic impact on the greater economy is enough of an argument for the City's continual support of Mardi Gras – though no argument should be needed. New Orleans and Mardi Gras are so completely linked together, within the society and culture of the City, that a person cannot talk about one without thinking of the other.

Finally, it has been noted throughout this report that while estimates have been made using the data collected, calculations could be improved and sharpened by cleaner, better, and more comprehensive data. The survey of carnival Krewes shows that valuable data can be collected directly from sources. Other surveys are necessary to gather information on spending by locals and visitors and sales of Mardi Gras related merchandise, for example. Obtaining high quality

information will be expensive, but valuable. This author urges the financial support of future Mardi Gras Economic Impact Studies by those entities that are most affected by the outcome, including the Mayor's Office of the City of New Orleans and the New Orleans Convention and Visitors Bureau.