City of

Virginia Beach Resort Event Proforma Analysis





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Planning and Community Development Department

Strategic Growth Area Office

Ronald D Berkebile

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Introduction

By request of Virginia Beach’s City Council and the City Manager’s Office, this analysis is a proforma estimation for nine Resort Strategic Growth Area (SGA) events. To derive the proforma, a revenue generation model was developed and offset with departmentally reported city expenditures.

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Missy Edmonds – Chief Operating Officer, Whisper Concerts, Inc.

Brande Rumpf – Executive Assistant, City of Virginia Beach Convention & Visitors Bureau

Travis Ansell – Administrator/Game Scheduler, North American Sand Soccer Championship

Frances E Emerson – Support Division Manager, Police Department

Phillip J Koetter – Operations Management Support, Public Works Department

Buddy Gilbert – Building Maintenance Administrator, Public Works Department

Mike Eason – Resort Administrator, City of Virginia Beach Convention & Visitors Bureau

Elisabeth Parker – Administrative Assistant, SGA Office

Casi Hannaford – Parking Administration Manager, SGA Parking Management Office

Executive Summary

The objective for this analysis was to estimate the economic impact of nine Resort SGA events. The analysis used a revenue generation model and offset it with departmentally reported city expenditures.

Between calendar year 2013 and 2015, the City of Virginia Beach SGA Office developed economic impact studies for several Resort SGA events. Recognizing universal spending metrics were not available, a marketing firm was contracted to assist. Survey instruments were developed, administered, and analyzed. The sampling was random and large enough to minimize the margin of error. In addition, without a way to definitively count attendance at the free events, an attendance estimation model was developed.

For the 2018 analyses, ex post facto data was not available; consequently, a proxy modeling strategy was developed. To generate economic impacts, the earlier models were modified, team participation statistics were compared, actual 2018 event parking counts were used, and spending metrics were updated using the Bureau of Labor Statistics’ (BLS) consumer price indices and Smith Travel Research (STR) average daily rates (ADR).

The economic impact analysis estimates consumer spending in the Virginia Beach economy. In the *Festival and Marathon Economic Impact* table below, the spending categories are cross-tabulated with each event and summed at the bottom.



Each category of spending (lodging, F&B, entertainment, and other) includes direct, indirect, and induced beneficiary revenues.[[1]](#footnote-1) Direct revenues are those received by businesses as a result of the event. Indirect revenues are those received by businesses supplying and servicing the direct beneficiaries. Induced revenues are disbursements of revenue to workers within direct and indirect businesses and spending by those workers.

Overall, the events generated $138.6 million of economic activity. Lodging generated $29.7 million, F&B $30.0 million, entertainment $8.1 million, and other spending categories $22.0 million.[[2]](#footnote-2)

The largest spending occurred at the East Coast Surfing Championship. $7.0 million was spent on lodging, $5.1 million on food and beverages, $1.6 million on entertainment, and $2.7 million on other purchases. In total, spending was $25.9 million.

The economic impact estimation enabled tax revenue calculations. The tax revenues were netted with departmentally derived event expenditures and became the basis for the proforma.[[3]](#footnote-3) Like the economic impact estimations, the revenues include direct, indirect and induced taxes. Departmental expenses are direct only. The proforma does not include indirect expenses (i.e. motor pool charges, depreciation, payroll support, etc.).

Overall, the events generated $5.9 million in tax revenues, City departments expended $1.3 million in event support, and the city generated a profit of $4.6 million (see the *City Proforma* table below).

Eight of the nine events generated a profit. The East Coast Surfing Championship generated the largest profit of $1.1 million. The American Music Festival was the only event incurring a loss ($140,000).

For more detail about the economic impact, fiscal impact, and proforma, each section in the main body offers greater detail.



Lastly, the input/output model (IMPLAN) can generate full-time equivalent (FTE) and wage estimations. The FTE estimates include direct, indirect, and induced private sector workers and are a reflection of the private sector work force benefitting from the festivals and marathons.



In total, the nine events supported/retained 1,499 FTEs and a total wage of $42.6 million.

Data Collection

Between calendar year 2013 and 2015, the City of Virginia Beach SGA Office developed economic impact studies for several Resort SGA events. Recognizing universal spending metrics were not available, a marketing firm was contracted to administer and synthesize the data. The sampling was random and large enough to minimize the margin of error. Planning for the project began in early 2013.

Without a way to definitively count attendance at the free events, an attendance estimation model was developed. Adding to the estimation complexity, most events spanned more than one day and attendees were very fluid. To generate an attendance estimation, the early model utilized parking statistics and survey instrument metrics. For the 2018 estimations, the same methodology was used.

For the 2018 analyses, ex post facto data was not available; consequently, a proxy modeling strategy was developed. To generate economic impacts, the earlier models were modified, team participation statistics were compared, actual 2018 event parking counts were used, and spending metrics were updated using the Bureau of Labor Statistics’ (BLS) consumer price indices and Smith Travel Research (STR) average daily rates (ADR).

The City of Virginia Beach support activity expenditures were derived departmentally.

For the North American Sand Soccer Championship, event organizers assisted with the attendance estimation. The number of teams were compared for each event year, and the attendance was adjusted accordingly using the base year model. Marathon attendance was based upon outsourced counts and event organizer estimates.

Of the nine analyses requested, seven were previously analyzed by the SGA Office. They were the Patriotic Festival, North American Sand Soccer Championship, the Boardwalk Art Show, East Coast Surfing Championship, FunkFest, American Music Festival, and Neptune Festival. The two marathons (Shamrock and Rock ’n Roll) were analyzed by San Diego State University staff. The *Resort Event Analyses* table below identifies the nine events and activity dates. The “Previous Event Activity Dates Analyzed” column indicates the latest event survey dates resulting in an economic impact study. The “Current Event Activity Dates Analyzed” column indicates the 2018 event dates. Of importance, the past and present event activity weekends are consistent mitigating additional seasonal complexities.



Economic Impact

The economic impact analysis estimates consumer spending for each of the events. The 2018 proxy model assumes spending ratios and ranges are consistent with the earlier survey results. For instance, if the ratio of survey intercepts spending between $100 and $150 was 10% in the surveyed year, the same ratio would persist in 2018 and would be adjusted by the CPI or ADR index.

Because goods in 2018 would differ in price with the surveyed event year, a methodology was necessary to adjust spending patterns. In the original analyses, spending ranges were established. To account for the spending changes, adjustments were made to the number of estimated persons within the spending range. To calculate the number of persons moving from one range to the next, the CPI or ADR rate change was calculated and applied to the number of people. For instance, in the adjacent table, 1,349 intercepts (people who filled out an instrument during the survey period) spent between $25 and $49 during the event. The CPI indicated a price gain of approximately 4% between the surveyed event and the 2018 event. To determine price change movement, the CPI rate was multiplied by the 1,349 people in the spending range and subtracted (52). This assumes 52 people spent more in 2018 and were re-categorized within the $50 - $99 range. This offsetting method was applied to each range. This method was applied to all four spending categories and seven of the nine events. The applicable spending categories were lodging, food and beverage, entertainment, and other spending. The two original marathon spending analyses calculated *average* spending. With participation unchanging for both marathons, the CPI was simply applied to the averages to calculate the spending.[[4]](#footnote-4)

In the *Festival and Marathon Economic Impact* table below, each event is separated and the four spending categories columnized. With the exception of lodging, all columns include overnight and daily visitation spending. The all inclusive columns are F&B, entertainment, and other. While lodging could have rentals for daily participants, the surveys did not tabulate any transient lodging by local or regional participants; consequently, lodging only reflected overnight out-of-town visitors utilizing all forms of transient lodging (hotels, sharing economy, campground, B&B, and cottage rentals).

Each event has three economic impact rows. They are Direct Beneficiary Revenues, Indirect Beneficiary Revenues, and Induced Ripple Revenues. Typically, input/output modeling categories are direct, indirect, and induced, but the events do not directly retain the citywide event revenues; consequently, the revenues were relabeled. Direct beneficiary revenues are revenues generated as a result of the event and go directly to a business beneficiary (i.e. hotels, restaurants, retail, etc.). Indirect beneficiary revenues are attributed to direct beneficiary business spending. For instance, a restaurant directly benefits from the sale of prepared food, but the restaurants have to buy the raw food. The raw food distributor is the indirect beneficiary. Lastly, the the restaurant and raw food distributor pay workers for their services, and the workers spend on the economy. They account for the induced ripple revenues.

To calculate the direct beneficiary spending, the intercept data was used, and the multipliers adjusted. For the indirect and induced spending, the direct revenues were input into an IMPLAN input/output software package. While IMPLAN is designed to calculate indirect and induced spending at various consumer levels, this analysis aggregated all the spending types by event. If a more detailed analysis is needed, it can be done, but it will take extra time to run 36 additional models. All IMPLAN categorical outputs are based upon City of Virginia Beach specific multipliers.

In review of the events prescribed, total direct revenues generated were $89.7 million, indirect $25.2 million, and induced $23.8 million for a grand total of $138.6 million. The week-long East Coast Surfing Championship generated the greatest total economic impact (direct + indirect + induced) at $25.9 million. It was followed by the Neptune Festival at $19.2 million and the Shamrock Marathon at $18.2 million. The category with the greatest direct spending was F&B at $29.8 million but was closely followed by lodging at $29.7 million.



Fiscal Impact

Once the economic impact was generated, this enabled the tax revenue calculations.

For both the surveyed analysis and the 2018 estimate, the transient lodging tax rate was 8.0% plus a $1.00 per room per night fee for hotels. The 8% rate was assumed to apply to all forms of transient lodging (hotels, campgrounds, sharing economy rentals, B&Bs, and cottages). When a hotel room is acquired, the lodger is subject to these taxes and the sales tax. Where lodging taxes are reported, sales taxes are excluded. Because *Other* spending is primarily associated with retail, and retail is solely sales tax oriented, all sales tax are compiled together in the *Other* category; consequently, lodging sales tax revenues are included in the *Other* spending category.

When lodgers were queried about transient spending, they were not asked to exclude the lodging tax, sales tax, and flat fees; consequently, lodgers likely responded with the estimated aggregate hotel transient cost plus all taxes and fees. To derive the lodging tax impact, a rate of 7.04% was applied to the reported spending. The adjustment aligns actual spending excluding taxes from intercept responses. The discounted rate was not apply to the sales tax or the lodging flat fee.

For both the surveyed analysis and the 2018 estimate, the meal tax rate was 5.5%. Like the lodging tax calculation, the reported tax revenues exclude sales taxes and are adjusted to align actual sales with responses. Meal sale taxes are aggregated within the *Other* spending category.

When attendees were queried about F&B spending, most did not exclude the meal tax, sales tax, or tips; consequently, attendees likely responded with the aggregate F&B cost plus all taxes and tips. To derive the F&B tax impact, a rate of 4.58% was applied. The discounted rate excludes sales tax and tips. To balance for non-tipping purchases and heavy tipping, a 10% average tip rate was used to calculate the reduced rate.

At the time of both surveys, dependent upon the type of entertainment, the tax rate was either 5% or 10%. Because the respondents didn’t describe the type of activity, the median of 7.5% was used to calculate the tax revenue.

When attendees were queried about entertainment spending, they likely did not exclude the admission tax; consequently, to derive the entertainment tax impact, a rate of 6.98% was applied to the reported entertainment spending.

The tax revenues for the Other spending category represent all sale taxes collected (includes sale taxes associated with lodging and F&B). While fees were also included in this estimate (i.e. parking), the survey did not differentiate between types of *Other* spending. By combining all sales tax within this category and excluding fees, an aggregate sales tax assessment was observed.



Using the economic model and IMPLAN data, business permit and occupational license (BPOL) fees were estimated. The BPOL category added $247,000 to the total tax revenue collection (see the *Festival and Marathon Fiscal Impact* table above).

Total taxes for the nine 2018 events was $5.9 million and the largest revenue generating event was the East Coast Surfing Championship at $1.1 million.

Employment

In addition to estimating output, IMPLAN also generates full-time equivalent (FTE) job creation/retention and salary estimates. Using each output category’s economic impact, the software estimates the number of jobs and payroll by spending category. Like the spending categories, the metrics used to calculate jobs and wages are City of Virginia Beach and industry specific.



The total jobs created/retained and attributable to the festivals and events are 1,499 and salaries are estimated at $42.6 million (see the *Festival and Marathon Employment Impact* table above). 76% of the jobs and 64% of salaries are attributable to direct business beneficiaries.

The East Coast Surfing Championship was the largest contributor to job creation/retention and wages. In total the event supported 281 full-time equivalent jobs and salaries of $8.1 million.

City Expenditures

To estimate the City’s proforma, the fiscal impact was offset with departmental expenditures directly related to the event. Indirect expenditures were not included. For instance, while police overtime was included, police support staff costs were not. The support staff would include Police payroll staff, etc. In addition, citywide support staff costs are not included. These would include motor pool costs, IT costs, depreciation of vehicles, etc. The expenditures included in this proforma include Convention and Visitor Bureau marketing costs, advertising costs, grants, Police Department overtime, Public Works salaries and operational costs, and Fire Department support.

To offset these costs, the Resort Management Office requires a fee. Primarily, the cost is based upon a ratio of the total cost. Most event organizers are charged at a 50% rate for police, public works and fire support. In the table below, the cost recovery column is the amount recovered from event organizers.

The American Music Festival recovery ($606,000) is the largest of all events (see the *City Festival and Marathon Costs* table below). It is followed by the Shamrock Marathon at $67,000 and Rock ‘n Roll Marathon at $37,000.

The Convention and Visitors Bureau issued three grants to two events. The largest one went to the Neptune Festival. It was $275,000. It was followed by the Patriotic Festival at $115,000.

The Convention and Visitors Bureau also assists events with advertising and marketing. The largest recipient of advertising/marketing benefits was the Rock ‘n Roll Marathon at $152,000. It was followed by the Shamrock Marathon at $99,000 and the Patriotic Festival at $60,000.

The Shamrock Marathon had the largest police overtime expenditure at $47,000. It was followed by the Patriotic Festival at $27,000 and the Rock ‘n Roll Marathon at $23,000.

The Shamrock Marathon also required the largest public works support at $76,000. It was followed by the Rock ‘n Roll Marathon at $36,000 and Neptune Festival at $30,000.

Overall, the largest cost after recovery was for the American Music Festival at $650,000. It was followed by the Neptune Festival at $301,000 and Patriotic Festival at $195,000.



City Proforma

The *City Proforma* table below illustrates three perspectives. The Direct Beneficiary City Profit/Loss rows compare direct beneficiary revenues with the City of Virginia Beach expenditures. In total, direct beneficiaries generated $5.6 million in tax revenue, and the City expended $1.3 million for a net profit of $4.3 million.

The largest profit generating event was the East Coast Surfing Championship. Direct beneficiaries generated $1.1 million in tax revenue and the City expended $28,000 for a net profit of $1.1 million.

One event ran a deficit. It was the American Music Festival. Direct beneficiaries generated $507,000 in tax revenue and the City expended $650,000 for a net loss of $144,000.

The Direct + Indirect Beneficiary City Profit/Loss estimation is the sum of direct and indirect revenues minus expenditures. In total, direct and indirect beneficiaries generated $5.7 million in tax revenue, and the City expended $1.35 million for a net profit of $4.4 million.

The addition of indirect revenues helped the American Music Festival, but the festival did not break-even. Approximately $6,000 was added in tax revenues mitigating some of the loss ($135,000).

The Direct + Indirect + Induced Beneficiary City Profit/Loss estimation is the sum of direct, indirect, and induced revenues minus expenditures. In total, direct, indirect, and induced beneficiaries generated $5.9 million in tax revenues, and the City expended $1.35 million for a net profit of $4.6 million.

The addition of induced revenues moved the American Music Festival closer to break-even. Approximately $17,000 was added to the direct and indirect tax revenues mitigating more of the loss ($119,000).



1. For an explanation of the term “beneficiary,” see the Economic Impact section within the main body of the analysis, p. 9. [↑](#footnote-ref-1)
2. For an explanation of the inclusive nature of the “Other” category, see the Economic Impact section within the main body of the analysis, p. 11. [↑](#footnote-ref-2)
3. For a detailed list of expenditures, see the City Expenditure section within the main body of the analysis, p. 14. [↑](#footnote-ref-3)
4. Event organizers estimated the constant counts between event years [↑](#footnote-ref-4)