

The Economic Contribution of Arts & Culture to the Space Coast – 2019 Report



Produced for the
Brevard **C**ultural **A**lliance
by
PRÆCIPPIO EFS

May 2019

The Economic Contribution of Arts & Culture to the Space Coast - 2019

Organization Operational Spending, Construction & Refurbishment Expenditures, & Audience Participation Purchases

Report produced for



May 2019

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These estimates were produced under contractual agreement with Brevard Cultural Alliance (BCA), a private nonprofit 501(c)(3) agency founded in 1975. BCA's mission is to build and sustain a vibrant and dynamic arts and cultural sector integral to Brevard County's quality of life.

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**Foreword by Neil Levine,
Executive Director,
Brevard Cultural Alliance**

I'm delighted to pen this brief foreword, and I'd like to begin by thanking you for taking the time to read this report. Of course, we know art and culture enhances quality of life; improves outcomes for our students; and as a renowned hi-tech hub we appreciate the synergy between the arts and technology. In addition, the sector is also an economic engine, and the aim of this report is to illustrate how much the Arts and Cultural sector contributes to the economic growth and resilience of Brevard County.



Executive Director,
Neil Levine, Ph.D., FRSA, FCMI

The report assesses the sector's economic contribution based on data gathered from 64 participants who reported around 1.8 million attendances during the reporting period, which generated revenues of \$131 million, and contributed almost \$65 million to our local GDP. These quite extraordinary figures demonstrate how the arts and cultural sector is a dynamic economic engine - supporting jobs, remitting taxes, and contributing significantly to Brevard County.

The arts sector is reliant on discretionary spend and, although seeing strong attendance, we recognize box office receipts alone won't support programmatic excellence. Corporate grants have not returned to pre-recession levels, and philanthropic contributions remain depressed. In addition, Florida's Legislature had cut State-wide funding for the arts from \$43 million to \$2.5 million. This extraordinary cut resulted in Florida's ranking dropping from 10th to 40th in the nation, and of course this vastly reduced support restrains our aspirations for programmatic excellence.

However, we will work hard to continue to trend positive during 2020; our economy is strong, unemployment is down and, as the Arts and Cultural sector continues to innovate and prove itself resilient, I am confident that we will navigate today's disruptions - and once again thrive. As a sector we will continue to demonstrate positive social impact, significant choice for tourist destination, spark creativity and innovation in education - and significantly strengthen the economy.

I hope you will find this report to be relevant and a robust tool for advocacy, and I add my most sincere thanks to those who submitted data - without whom this report could not have been completed!

Dr. Neil Levine
Executive Director BCA
Florida's Space Coast
May 2019

EXECUTIVE SUMMARY

The Economic Contribution of Arts & Culture to the Space Coast is a study commissioned by Brevard Cultural Alliance (BCA), a 501(c)(3) agency whose role is to make arts, heritage, and cultural opportunities accessible to all residents and visitors in Brevard County, Florida. The study estimates the significance of various arts and cultural activities on the Space Coast economy, including direct, indirect, and induced effects. With respect to its constituent parts, the report focuses on the economic contribution of three distinct categories of final demand (i.e., spending): 1) arts and cultural organization budgetary items, including employee compensation and business operating expenses for fiscal year (FY) 2018; 2) capital expenditures occurring during FY 2018; and, 3) spending by arts and cultural event attendees on associated purchases such as meals and drinks, souvenirs, lodging, transportation, and other expenses that occur due to the attendee's art or cultural visit. To coincide with the release date of this report, all values have been converted into year 2019 dollars. This study estimates that the total economic contribution of arts and cultural activity on the Space Coast economy amounts to about **\$130.8 million** in sales and about **\$64.9 million** in terms of gross domestic product.

By category, this analysis estimates that in FY 2018 the aggregate expenditures on employee compensation and business operating expenses by the 64 arts and cultural organizations or events which comprise this report's focal group amounted to about \$29.9 million, when adjusted to present (i.e., 2019) dollars (see Table 1-ES; *direct effect sales*). Combined with subsequent secondary effects, both indirect and induced, the total effect of arts and cultural organization and event operations amounted to about \$52.7 million in terms of sales or output. This supported, in aggregate, just over 586 full and/or part-time jobs. The total value-added from operations, equivalent to county gross domestic product (and income), amounts to about \$23.3 million when both direct and secondary effects are considered. Finally labor income, which is a subset of value-added, comprised about 62.7 percent (\$14.6 of \$23.3 million) of total income generated through arts and cultural organization operating expenditures.

Table 1-ES. Economic Contribution from A&C Organizational Operating Expenditures				
Impact Type	Employment	Labor Income	Value Added = County GDP	Total Sales
Direct Effect	335.3	\$7,761,789	\$11,522,391	\$29,870,744
Indirect Effect	183.3	\$4,290,625	\$7,163,802	\$14,769,989
Induced Effect	67.7	\$2,558,492	\$4,603,881	\$8,081,557
Total Effect	586.3	\$14,610,906	\$23,290,074	\$52,722,291

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

The second component of economic contribution involves capital expenditures, as arts and cultural organizations, like any ongoing business concern, augment and refurbish infrastructure and equipment on a periodic basis. During FY 2018, new construction, repair and refurbishment projects, and replacement equipment purchases generated expenditure flows which impacted the Space Coast economy, albeit at a dramatically smaller degree than organization operating expenditures. This report estimates that capital-related activity during FY 2018 comprised about \$0.32 million in direct expenditures, when adjusted to present dollars (see Table 2-ES). Combined with subsequent secondary effects, both indirect and induced, the total effect of capital-related activity during FY 2018 amounted to about \$0.47 million in terms of sales or output. This supported, in aggregate, about 4 full and/or part-time jobs.

Table 2-ES. Economic Contribution from A&C Organizational Capital Expenditures				
Impact Type	Employment	Labor Income	Value Added = County GDP	Total Sales
Direct Effect	2.3	\$95,691	\$151,920	\$319,505
Indirect Effect	0.6	\$23,347	\$36,730	\$66,993
Induced Effect	0.7	\$25,269	\$45,471	\$79,819
Total Effect	3.5	\$144,307	\$234,121	\$466,317

Source: PRÆCIPIO EFS & Brevard Cultural Alliance

Finally, the last and largest component of economic contribution involves participation spending, as arts and cultural attendees made purchases associated with their excursion or visit. Items such as meals and drinks, lodging, souvenirs, transportation, day care, and other expenditures incurred by cultural participation provide an economic boost to the Space Coast economy. It is imperative that attendee purchases exclude spending at the venue as those dollars would have circulated through organization operating budgets and have already been factored into the assessment. Including only outside purchases, this report estimates that in FY 2018 audience participation expenditures amounted to about \$48.6 million, after margining and adjustment to 2019 dollars (see Table 3A-ES).

Table 3A-ES. Economic Contribution from A&C Audience Participation Expenditures				
Impact Type	Employment	Labor Income	Value Added = County GDP	Total Sales
Direct Effect	940.6	\$21,114,789	\$25,336,578	\$48,614,037
Indirect Effect	97.4	\$3,924,314	\$6,474,912	\$12,241,240
Induced Effect	140.6	\$5,314,292	\$9,566,037	\$16,788,114
Total Effect	1,178.7	\$30,353,395	\$41,377,527	\$77,643,390

Source: PRÆCIPIO EFS & Brevard Cultural Alliance

This amounts to a direct sales effect of about \$27.69 per attendee, for the 1.7555 million participants at events and activities hosted by the 64 organizations which comprise this study group. Combined with subsequent secondary effects, both indirect and induced, the total effect of audience participation expenditures during FY 2018 amounted to about \$77.6 million in terms of sales or output. This supported, in aggregate, just under 1,180 full and/or part-time jobs. The total value-added from operations, which again is equivalent to county gross domestic product and income, amounts to about \$41.4 million when both direct and secondary effects are considered.



Native Rhythms Festival

The economic contribution from audience participation spending can be further segmented to reveal associated impacts from cultural tourism, defined as visitation to the Space Coast from outside locales for the purpose(s) of arts & cultural enjoyment. This report estimates that in FY 2018, cultural tourism expenditures amounted to about \$16.7 million after margining and adjustment to 2019 dollars (see Table 3B-ES). Combined with subsequent secondary effects, both indirect and induced, the total effect of cultural tourism expenditures during FY 2018 amounted to about \$26.3 million in terms of sales or output. This supported, in aggregate, about 363 full and/or part-time jobs.

Table 3B-ES. Economic Contribution from A&C Cultural Tourism				
Impact Type	Employment	Labor Income	Value Added = County GDP	Total Sales
Direct Effect	282.8	\$6,440,957	\$8,866,429	\$16,680,139
Indirect Effect	35.7	\$1,424,859	\$2,285,808	\$4,341,226
Induced Effect	44.2	\$1,669,422	\$3,005,109	\$5,273,817
Total Effect	362.7	\$9,535,239	\$14,157,347	\$26,295,182

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

About 34 percent of the output (sales) and GDP (income) impacts from audience participation spending are associated with expenditures from cultural visitors to the area. The total sales effect of Space Coast arts & cultural tourists on overnight lodging is \$6.16 million, which when combined with an average daily room rate of \$115.10, implies an equivalency of about 53,520 room nights rented. It also generates a bed tax collection of about \$308k (i.e., \$6.16 million x 0.05).

All told, Table 4-ES summates the three categories of economic contribution, yielding a direct sales contribution of about \$78.8 million, when adjusted to 2019 dollars. Combined with subsequent secondary effects, both indirect and induced, the total effect of all arts and cultural related expenditures amounted to just over \$130.8 million in terms of sales or output. This supported, in aggregate, just over 1,768 full and/or part-time jobs. The total value-added, which is equivalent to county gross domestic product and income, amounts to about \$64.9 million when both direct and secondary effects are considered.

Table 4-ES. Total Economic Contribution from Arts & Cultural Activity				
Impact Type	Employment	Labor Income	Value Added = County GDP	Total Sales
Direct Effect	1,278	\$28,972,269	\$37,010,889	\$78,804,286
Indirect Effect	281	\$8,238,286	\$13,675,445	\$27,078,222
Induced Effect	209	\$7,898,053	\$14,215,389	\$24,949,490
Total Effect	1,768	\$45,108,608	\$64,901,722	\$130,831,998

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance



Space Coast Symphony Orchestra

PROJECT OVERVIEW, SCOPE, AND METHODOLOGY

Overview

During early spring 2019, BCA contracted with PRÆCIPPIO EFS, Inc. (hereafter PEFS), an economic, financial, and statistical consulting firm located in Brevard County, Florida, and tasked them with providing economic contribution estimates of various arts and cultural activities occurring on the Space Coast. PEFS was charged with determining the economic contribution of: 1) organization operations, including employee compensation and operating expenses, for FY 2018; 2) capital-related activity occurring during FY 2018; and, 3) expenditures by cultural attendees on associated purchases made as a complement to their event participation. These purchases include meals, drinks, transportation, lodging, day care, souvenirs, and others.

Categories 1 and 2 are facilitated by the direct report of organization expenditure data from BCA's project liaison, serving as an intermediary data collector for PEFS. With respect to the components under study, Categories 1 & 2 constitute hard data as the organization budgetary items can be confirmed through audit. Category 3, the impact of associated audience participation expenditures, represents a reconnaissance estimate. Two types of data are required for estimating this contribution: i) an estimated spending profile per attendee, and ii) a precise count for the number of attendees. The latter data item is a hard count, once again facilitated by BCA's project liaison working as an intermediary for PEFS. Due to resource limitations preventing BCA from conducting yearly field surveys, this report utilizes 2015 benchmark data collected under the auspices of Americans for the Arts as well as Bureau of Labor Statistics (www.bls.gov) inflation data to establish a conservative estimate of attendee participation spending to be utilized for contribution analysis. As BCA will be limited in terms of the frequency of field surveying, the reconnaissance rules introduced in the 2014 BCA Economic Contribution Report will be used to establish spending profiles in lieu of audience intercept surveying; they will also be utilized in future studies.

Scope

This report comprises very specific economic contributions associated with arts and culture related activities, concentrating on a few dimensions which are typically covered in economic contribution studies. This report does not examine all potential benefits associated with arts and culture, some of which can be monetized and others which cannot. For example, it excludes analyses dealing with cultural and knowledge endowments, human capital improvements, business incubation and creativity, augmenting civic life, proving opportunities and outlets for juveniles and retirees, and other socio-economic effects benefitting the community. With respect to the contributions actually estimated, they are based on operating, capital, and audience participation expenditures derived from 64 arts

organizations and/or cultural events who agreed to share their budgetary data as well as attendance figures with BCA. It is generally acknowledged that the potential number of organizations who would fall under the umbrella of this type of study is far greater than 64; thus, this report represents a conservative measure of the economic contribution provided by arts and culture to the economy of the Space Coast. Despite these exclusions, the economic contributions reported are substantial, highlighting the pivotal role arts and culture plays in supporting and enriching economic and social life in Brevard County.

Methodology

The principal design of *The Economic Contribution of Arts & Culture to the Space Coast* is that of a **contribution** analysis, defined as an estimate of the flows of spending associated with arts and cultural activities in Brevard County and their identified changes in sales, income, and employment. Impacts are estimated via input-output modeling, where an **input-output** model describes the flows of economic activity between production sectors, capturing what industries must purchase from one another in order to produce goods and services. These flows have both **forward** and **backward** linkages, yielding a multiplicative process whereby spending generates indirect and induced effects, the magnitude of which depends upon spending **leakages**. In short, as the multiplier process unfolds, spending leaks out of the local economy in the form of taxes, savings, profits to out-of-area residents, and payments for goods and services from outside the study region (i.e., imports). In the case of a production function for the amenity services offered by an art or cultural organization, inputs utilized in producing the services which constitute final demand, such as labor, equipment, utilities, and others, are sometimes sourced from outside the study area; this would constitute a leakage.

An input-output model for the economy of Brevard County was constructed using IMPLAN,¹ an integrated software and data package used by more than 1,300 academic institutions, federal and state government agencies, and private consulting firms. Expenditures associated with arts and cultural related activities were then applied to IMPLAN's social accounting model which factors in commuting, tax, and saving behavior by households in establishing multiplier effects, yielding the summary results detailed in the Executive Summary and the balance of this report. IMPLAN also affords the analyst the ability to index prices to the appropriate study year.

Economic contributions are determined by adjusting the aggregate expenditure or final demand value to ascertain the **direct effect**. The direct sales effect represents changes in production that occur due to changes (in this case) in arts and cultural related expenditures. Retail purchases, a portion of final demand, must be factored to segment the **purchaser price** into appropriate retail, wholesale, and transportation **margins** along with the **producer price**. In most

¹ IMPLAN® Version 3.0. See www.implan.com.

instances retail items are manufactured elsewhere; consequently, only those margins derived locally are factored into the direct effect. Services represent producer prices and thus need not be margined.

The establishment of the “true” direct effect becomes the starting point for a multiplicative process in which direct sales effects lead to secondary effects known as **indirect** and **induced effects**. The former are changes in production that occur as backward-linked industries respond to changes in final demand in directly affected industries. For example, an increase in restaurant meals triggers production responses from food and beverage vendors which supply eating and drinking establishments. These latter, induced effects, represent changes in economic activity resulting from income changes accruing directly or indirectly through changes in aggregate spending. In other words, workers supported by arts and cultural related activities expend their earnings on an array of consumer goods and services, much of which occurs locally.

The **total effect** sums both the direct and secondary effects, and represents the aggregate economic contribution of arts and cultural related activities in Brevard County, stated in terms of output, value-added, and employment. **Value-added** describes the payments made by industry to wages, interest, profits, and indirect business taxes, and is analogous to the gross domestic product (GDP) estimates provided in business/macroeconomic reports. For further details on the terminology utilized in economic contribution analyses (i.e., the bold terms in the narrative of this report, please see the glossary found in the Appendix.²



Cocoa Village Playhouse

² See also Stynes (1999) for an accessible background on contribution analysis.

ECONOMIC CONTRIBUTIONS FROM OPERATING EXPENDITURES

One pathway by which arts and cultural activity spur economic activity on the Space Coast is through the spending behavior of commercially active organizations. Arts and cultural institutions expend significant dollars conducting normal, day-to-day business operations. Broadly speaking, these operating expenses include salary and non-salary related charges such as marketing expenses, printing and office supplies, insurance and other business contractual services, production and event related purchases, rent, and others.

The specific contribution identified and estimated in this section concerns the aggregate expenditures on employee compensation and business operating expenses by the 64 arts and cultural organizations or events which comprise the FY 2018 study group (see Tables 5A-B). Operating expenditures were aggregated into six distinct industry sectors and then entered into IMPLAN for analysis.

Table 5A. Participating Arts and Cultural Organizations and/or Events – FY 2018

Brevard Cultural Alliance	artsbrevard.org
American Jazz Pianist Competition	americanjazzpianistcompetition.org
American Police Hall of Fame	aphf.org
American Space Museum	spacewalkoffame.org
Art & Antique Studio	artandantiquestudio.com
Art of Sustainability	theartofsustainability.org
ArtWorks of Eau Gallie Fine Arts Festival	artworksofeaugallie.org
Brevard Achievement Center	bacbrevard.com
Brevard Nature Alliance / Birding Festival	brevardnaturealliance.org
Brevard Symphony Orchestra	brevardsymphony.com
Brevard Symphony Youth Orchestra	bsyo.us
Brevard Watercolor Society	brevardwatercolorsociety.com
Brevard Youth Chorus	brevardyouthchorus.org
Brevard Zoo	brevardzoo.org
Carolyn Seiler & Friends Gallery	carolynseiler.com/#!__friends
Central Brevard Art Association	cbaaartists.com
Central Brevard Rock & Gem Club	centralbrevardgems.org
Cocoa Beach Art Show	cocoabeachartshow.com
Cocoa Beach Main Street	mainstreetcocoabeach.com
Cocoa Village Art & Craft Fairs	visitcocoavillage.com
Cocoa Village Playhouse	cocoavillageplayhouse.com
Cocoa Village Sip & Strolls .	visitcocoavillage.com
Dance Arts Centre	danceac.com
Derek Gores Gallery	derekgores.com/gallery/

Source: PRÆCIPIO EFS & Brevard Cultural Alliance

Table 5B. Participating Arts and Cultural Organizations and/or Events – FY 2018

Eau Gallie Arts District Main Street	eaugallieartsdistrict.com
Fifth Avenue Art Gallery	fifthavenueartgallery.com
Florida Historical Society	myfloridahistory.org
Florida Surf Museum	floridasurfmuseum.org
Foosaner Art Museum	foosanerartmuseum.org
Funk Center for Textile Arts	textiles.fit.edu
Greater Titusville Renaissance	greatertitusville.com
H.T. & H.V. Moore Cultural Complex	harryharrietteemoore.org
Henegar Center	henegar.org
Hometown Hope	hometownhopeinc.org
Indiafest	indiafestbrevard.org
Indialantic Chamber Singers	indialanticchambersingers.org
King Center for the Performing Arts	kingcenter.com
Melbourne Art Festival	melbournearts.org
Melbourne Chamber Music Society	melbournechambermusicsociety.org
Melbourne Community Orchestra	mcorchestra.org
Melbourne Main Street	downtownmelbourne.com
Melbourne Municipal Band	mmband.net
Museum of Dinosaurs	museumofdinosaurs.org
Native Rhythms Festival	nativerhythmsfestival.com
North Brevard Art League	northbrevardartleague.com
Platinum Show Chorus	platinumshowchorus.com
Rossetter House Museum	rossetterhousemuseum.org
Salvation Army Arts Program	salvationarmyflorida.org/ncbrevard/performing-arts-school/
SBG Fine Arts Gallery	sbgfineartsgallery.com
Space Coast Art Festival	spacecoastartfestival.com
Space Coast Cultural Arts & Business	sccabo.org
Space Coast Flute Orchestra	scfo.org
Space Coast Jazz Society	spacecoastjazzsociety.com
Space Coast Symphony Orchestra	spacecoastsymphony.org
Strawbridge Art League	strawbridgeart.org
Studios of Cocoa Beach	studiosofcocoabeach.org
Surfside Players	surfsideplayers.com
The Downtown Gallery	thedowntownartgallery.com
Titusville Playhouse	titusvilleplayhouse.com
Valiant Air Command / TICO Airshow	valiantaircommand.com
Viera Art Festival	vieraarts.com
Viera Dance Conservatory	vieradance.com
Walk on Water Ministries	walkonwaterhorses.com
WFT	wfit.org

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

Table 6 details the economic contributions in terms of sales, income (i.e., GDP), and employment (i.e., full and part-time job equivalents). The income contribution is further disaggregated into: i) labor, whether it is employee compensation or proprietors' income; ii) dividends, interest, and rent (i.e., other property income); and, iii) the income portion collected by government through sales and excise taxes, custom duties, etc. Though not a hard rule, professional economists tend to focus more on income contribution, while business and tourism officials, who typically express performance in revenue terms, concentrate on sales. Since some of the sales generated flow from one industry sector into another as part of the process in creating final goods, income or value-added will be a subset of total sales or output. Employment refers to the equivalent full and part-time jobs needed to sustain the increase in production generated by the various arts and cultural expenditures.

Collectively, the FY 2018 operating budgets of the 64 participating organizations and events amounted to \$29,842,446. This is the numerical entry, albeit parsed into five separate IMPLAN industry sectors, which precipitates the economic contribution and subsequent secondary effects, both indirect and induced. It is adjusted by IMPLAN into year 2019 dollars, which is why the number highlighted in blue in the "direct effect sales" cell in Table 6, differs slightly from the aggregated FY 2018 operating expenditures by the study group.

Table 6. Economic Contributions from Operating Expenditures – Full Table

ECONOMIC CONTRIBUTIONS	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
OUTPUT = SALES	\$29,870,744	\$14,769,989	\$8,081,557	\$52,722,291
VALUE-ADDED = GDP	\$11,522,391	\$7,163,802	\$4,603,881	\$23,290,074
<i>Labor Income</i>	\$7,761,789	\$4,290,625	\$2,558,492	\$14,610,906
Employee Compensation	\$7,340,628	\$3,353,229	\$2,315,111	\$13,008,968
Proprietors Income	\$421,161	\$937,396	\$243,381	\$1,601,939
<i>Other Property Type Income</i>	\$1,102,121	\$2,267,428	\$1,550,495	\$4,920,044
<i>Indirect Business Taxes</i>	\$2,658,481	\$605,749	\$494,894	\$3,759,124
EMPLOYMENT = FT & PT	335.3	183.3	67.7	586.3

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

In sum, the total effect of arts and cultural organization and event operations amounted to about \$52.7 million in terms of sales or output, and about \$23.3 million in terms of income. This supported, in aggregate, just over 586 full and/or part-time jobs. These numbers are highlighted in grey in Table 6, and correspond to the last row in Table 1-ES in the Executive Summary.

Oftentimes “multipliers” are reported in contribution analyses, which detail secondary effects in relation to the direct effects. For example, in Table 6 the output multiplier can be obtained by dividing \$52,722,291 by \$29,870,744, in essence, the ratio of the total output effect to the direct output effect. The output multiplier for operating expenditures is 1.765, implying that each dollar of sales generates an additional 76.5 cents in sales through secondary effects. Other contribution multipliers (i.e., value-added, employment, etc.) can be obtained in a similar manner.



Youth Mural Project

ECONOMIC CONTRIBUTIONS FROM CAPITAL EXPENDITURES

Capital expenses constitute new construction or refurbishment of infrastructure, painting, equipment replacement, and other related items. Collectively, in FY 2018 the 64 participating organizations and events amassed \$316,486 in capital expenditures, parsed into two separate IMPLAN industry sectors. Due to conversion into year 2019 dollars, the number highlighted in blue in the “direct effect sales” cell in Table 7 differs slightly from the aggregated FY 2018 capital expenditures figure cited above.

Table 7. Economic Contributions from Capital Expenditures – Full Table

ECONOMIC CONTRIBUTIONS	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
OUTPUT = SALES	\$319,505	\$66,993	\$79,819	\$466,317
VALUE-ADDED = GDP	\$151,920	\$36,730	\$45,471	\$234,121
<i>Labor Income</i>	\$95,691	\$23,347	\$25,269	\$144,307
Employee Compensation	\$84,901	\$20,962	\$22,866	\$128,729
Proprietors Income	\$10,790	\$2,385	\$2,404	\$15,578
<i>Other Property Type Income</i>	\$53,735	\$8,539	\$15,313	\$77,587
<i>Indirect Business Taxes</i>	\$2,494	\$4,845	\$4,888	\$12,227
EMPLOYMENT = FT & PT	2.3	0.6	0.7	3.5

Source: *PRÆCIPPIO EFS & Brevard Cultural Alliance*

In sum, the total effect of arts and cultural organization and event capital expenditures amounted to about \$0.466 million in terms of sales or output, and about \$0.234 million in terms of income. This supported, in aggregate, approximately 3.5 full and/or part-time jobs. These numbers are highlighted in grey in Table 7, and correspond to the last row in Table 2-ES in the Executive Summary. The output multiplier for capital expenditures is 1.46, implying that each dollar of sales generates an additional 46 cents in sales through secondary effects. Multipliers differ by industry and contribution category.



King Center



Brevard Symphony Orchestra

ECONOMIC CONTRIBUTIONS FROM AUDIENCE EXPENDITURES

Almost 1.7555 million patrons attended arts and cultural events sponsored by the participating Space Coast organizations during FY 2018, and spending by arts and cultural audiences are a significant driver of economic activity in Brevard County. By their very nature, arts and cultural activities prompt associated purchases by event attendees that, in many cases, equal or exceed the actual cost of admission itself. For example, evening performances are oftentimes preceded by dinner and drinks, may require child care services, and occasionally entail specialty retail purchases such as clothing or accessories. Other associated purchases include snacks and refreshments, ground transportation expenses, overnight lodging accommodations, souvenir and gift purchases, and others.

In the 2014 economic contribution report a methodology was established for determining a proxy spending profile for Space Coast audiences in the absence of primary intercept data. For this year's report, the established guidelines require benchmarking to Central Florida estimates from Arts and Economic Prosperity V combined with simple indexing of these FY 2015 benchmarks by the consumer price index (CPI). Tables 8a-8b and 9a-9b highlight the FY 2015 spending profile for Central Florida as revealed in Arts and Economic Prosperity V as well the benchmarked profile for Space Coast arts & culture audiences. In addition, aggregate expenditures for local patrons versus cultural tourists are included.

Table 8a. 2015 Spending Profile for Central Florida A&C Audiences

	Local Patrons	Cultural Tourists	ALL Central Florida Event Attendees
Meals/Refreshments	\$15.59	\$17.97	\$16.05
Souvenirs and Gifts	\$2.93	\$6.75	\$3.67
Ground Transportation	\$2.59	\$6.33	\$3.31
Overnight Lodging	\$0.83	\$17.97	\$4.14
Other	\$2.48	\$4.60	\$2.89
Total Per-Person Spending	\$24.42	\$53.62	\$30.06

Source: Americans for the Arts, AEPV

Table 8b. 2015 Aggregate Expenditures for Central Florida A&C Audiences

	Local Patrons	Cultural Tourists	ALL Central Florida Event Attendees
Total Event Attendance	5,478,145	1,310,139	6,788,284
Percent of Attendees	80.7 percent	19.3 percent	100 percent
Average Dollars Spent Per Attendee	\$24.42	\$53.62	\$30.06
Total Event-Related Spending	\$133,776,301	\$70,249,653	\$204,025,954

Source: Americans for the Arts, AEPV

Table 9a. 2019 Proxy Spending Profile for Space Coast A&C Audiences

	Local Patrons	Cultural Tourists	ALL Brevard County Event Attendees
Meals/Refreshments	\$15.65	\$18.03	\$16.11
Souvenirs and Gifts	\$2.94	\$6.77	\$3.68
Ground Transportation	\$2.60	\$6.36	\$3.32
Overnight Lodging	\$0.84	\$18.03	\$4.15
Other	\$2.49	\$4.62	\$2.90
Total Per-Person Spending	\$24.51	\$53.81	\$30.16

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

Table 9b. 2019 Proxy Aggregate Expenditures for Space Coast A&C Audiences

	Local Patrons	Cultural Tourists	ALL Brevard County Event Attendees
Total Event Attendance	1,416,688	338,812	1,755,500
Percent of Attendees	80.7 percent	19.3 percent	100 percent
Average Dollars Spent Per Attendee	\$24.51	\$53.81	\$30.16
Total Event-Related Spending	\$34,723,023	\$18,231,474	\$52,954,497

Source: PRÆCIPPIO EFS & Brevard Cultural Alliance



Valiant Air Command

Overall, the 1.7555 million attendees of the 64 arts and cultural organizations comprising this study expended more than \$52.95 million on purchases associated with their patronage, yielding a weighted average per patron spending of \$30.16. These FY 2018 aggregate audience expenditures, parsed into multiple IMPLAN industry sectors, precipitate the economic contribution and subsequent secondary effects, both indirect and induced, detailed in Table 10. Due to the *margin*ing of retail sales, the number highlighted in blue in the “direct effect sales” cell in Table 10 differs slightly from the aggregated FY 2018 audience expenditures figure cited above.

Table 10. Economic Contributions from Audience Participation Expenditures – Full Table

ECONOMIC CONTRIBUTIONS	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
OUTPUT = SALES	\$48,614,037	\$12,241,240	\$16,788,114	\$77,643,390
VALUE-ADDED = GDP	\$25,336,578	\$6,474,912	\$9,566,037	\$41,377,527
<i>Labor Income</i>	\$21,114,789	\$3,924,314	\$5,314,292	\$30,353,395
Employee Compensation	\$17,171,704	\$3,426,085	\$4,808,442	\$25,406,230
Proprietors Income	\$3,943,085	\$498,230	\$505,850	\$4,947,165
<i>Other Property Type Income</i>	\$776,867	\$2,008,365	\$3,223,086	\$6,008,159
<i>Indirect Business Taxes</i>	\$3,445,082	\$542,232	\$1,028,659	\$5,015,973
EMPLOYMENT = FT & PT	940.6	97.4	140.6	1,178.7

Source: PRÆCIPIO EFS & Brevard Cultural Alliance



Eau Gallie Arts District

The total effect of audience expenditures amounted to about \$77.6 million in terms of sales or output, and about \$41.4 million in terms of income. This supported, in aggregate, just over 1,180 full and/or part-time jobs. These numbers are highlighted in grey in Table 10, and correspond to the last row in Table 3A-ES in the Executive Summary. The output multiplier for audience participation expenditures is 1.597, implying that each dollar of direct sales generates an additional 59.7 cents in output through secondary effects.

As discussed in the Executive Summary, the economic contributions detailed in Table 10 can be segmented to reveal the impacts derived solely from cultural tourism, which is a focal point of Destination Marketing Organizations. About 34 percent of the output (sales) and GDP (income) impacts from audience participation spending are associated with expenditures from cultural visitors to the area. Even further than that, IMPLAN details impacts by industry, so that it is possible to ascertain the total sales effect of Space Coast arts & cultural tourists on overnight lodging. About \$6.16 million is the aggregated output effect, which when combined with an average daily room rate of \$115.10, implies an equivalency of about 53,520 room nights rented. It likewise entails a bed tax collection of about \$308k (i.e., \$6.16 million x 0.05).



Dance Arts Center

TOTAL ECONOMIC CONTRIBUTIONS FROM ARTS AND CULTURE

Due to the linear properties inherent in input-output analysis, the total economic contribution from arts and cultural activities is simply an amalgamation of the contributions derived from each sub-category of expenditure: 1) arts and cultural organization operational expenses; 2) capital procurement; and, 3) spending by arts and cultural event attendees on associated purchases. Table 11 below aggregates the results from Tables 6, 7, and 10, respectively.

In sum, the total estimated effect of arts and cultural activities on the Space Coast economy amounted to about \$130.8 million in terms of sales or output, and about \$64.9 million in terms of income. This supported, in aggregate, just over 1,768 full and/or part-time jobs. These numbers are highlighted in grey in Table 11, and correspond to the last row in Table 4-ES in the Executive Summary. The overall output multiplier for arts and cultural related expenditures is 1.66, implying that each dollar of sales generates an additional 66 cents in sales through secondary effects. In a variety of Brevard County tourism related studies conducted by PEFS, overall multipliers of this magnitude tend to be observed.

Table 11. Total Economic Contributions from Art & Culture Expenditures – Full Table

ECONOMIC CONTRIBUTIONS	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
OUTPUT = SALES	\$78,804,286	\$27,078,222	\$24,949,490	\$130,831,998
VALUE-ADDED = GDP	\$37,010,889	\$13,675,445	\$14,215,389	\$64,901,722
<i>Labor Income</i>	<i>\$28,972,269</i>	<i>\$8,238,286</i>	<i>\$7,898,053</i>	<i>\$45,108,608</i>
Employee Compensation	\$24,597,233	\$6,800,276	\$7,146,418	\$38,543,927
Proprietors Income	\$4,375,036	\$1,438,010	\$751,635	\$6,564,682
<i>Other Property Type Income</i>	<i>\$1,932,563</i>	<i>\$4,284,332</i>	<i>\$4,788,894</i>	<i>\$11,005,789</i>
<i>Indirect Business Taxes</i>	<i>\$6,106,056</i>	<i>\$1,152,826</i>	<i>\$1,528,441</i>	<i>\$8,787,324</i>
EMPLOYMENT = FT & PT	1,278	281	209	1,768

Source: PRÆCIPIO EFS & Brevard Cultural Alliance

CLOSING COMMENTS

These efforts at reporting the economic contribution from arts and cultural activity are best viewed as self-limited, good-faith attempts to provide a holistic picture of expenditures *solely based on entities willing to participate in the process*. The number of organizations who potentially could be included in this study exceeds the numbers who have actually contributed data. The fact that organizations have agreed to share their economic data is a testament to their belief in the value of these efforts as well as a movement towards greater congruence between the estimated values and what we would expect the *true* value to be. Since attendee figures and organizational spending are based on hard counts and not statistically imputed values, the numbers in this report are still a lower-bound of that true value.

We close this report by reiterating cautionary notes offered earlier in the report, which highlighted the potential benefits associated with arts and culture that are not included in this analysis. The augmentation of cultural and knowledge endowments, human capital improvements, business incubation and creativity effects, the promotion of civic life, the improvement in opportunities and outlets for juveniles and retirees through volunteerism, the emotional release-valve for working professionals, and other socio-economic effects benefitting the community are all byproducts of a vibrant arts and cultural sector. While they are not part of the preceding analysis, they are indicative of the way the Space Coast's cultural organizations contribute to improving and advancing life in Brevard County. Thank you for reading.



Harley Bassoons

REFERENCES

- Americans for the Arts (2015). *Arts & Economic Prosperity V: The Economic Impact of Nonprofit Arts and Culture Organizations and Their Audiences*.
- IMPLAN Group, LLC. *IMPLAN System* (data and software), 16740 Birkdale Commons Parkway, Suite 206, Huntersville, NC 28078. [Online]. <www.implan.com>.
- PRÆCIPPIO EFS (2014). *Space Coast Arts & Culture - Economic Contribution Estimates – 2014 Report*. Brevard Cultural Alliance.
- PRÆCIPPIO EFS (2015). *Space Coast Arts & Culture - Economic Contribution Estimates – 2015 Report*. Brevard Cultural Alliance.
- PRÆCIPPIO EFS (2017). *Space Coast Arts & Culture - Economic Contribution Estimates – 2017 Report*. Brevard Cultural Alliance.
- Stynes, Daniel J. *Economic Impacts of Tourism*. Michigan State University.

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SCSO Film Series

APPENDIX - GLOSSARY OF TERMS

Backward Linkage	Links an industry to its suppliers or a household and the producers of household goods and services
Capture Rate	The portion of total nonprofit art and culture audience spending that accrues to local production (i.e., the direct effect)
Direct Effects	The set of expenditures applied to the predictive model for impact analysis (i.e., the first round of spending)
Employee Compensation	Wages, salaries, other labor income, and employer and employee contributions to social insurance
Final Demands	Consist of purchases of goods and services for final consumption as opposed to an intermediate purchase where the good will be further remanufactured
Forward Linkage	Links between an industry producing a good or service and the consumers of the good or service
Contribution Analysis	An estimate of the flows of spending associated with economic activities and their identified changes in sales, income, and employment within a specific region.
IMPLAN	A software package used for input-output analysis
Indirect Business Taxes	Sales, excise taxes, custom duties, fees collected by businesses
Indirect Effects	The changes in sales, income or employment within the region in backward-linked industries supplying goods and services
Induced Effects	The increase in sales within a region from household spending of the income earned via direct and indirect effects
Input-Output Model	Models the flows or interactions between industrial sectors (I-O) within a county or region
Labor Income	In general it represents all forms of employment income. In I-O it is the sum of employee compensation and proprietor income.
Leakages	Dollars lost from the local economy in the form of state and federal tax payments, savings, profits earned by non-residents, and payments for goods/services imported from outside of the study region
Margins	Represent the difference between producer and purchaser prices
Other Property Type Income	Dividends, interest, rent

Producer Prices	Prices of the goods at the site of production for commodity industries. For the margin industries, it is the value added (or the margin) to the value of goods purchased for resale.
Production Function	The relationship between the output of a good and the inputs required to produce that good for any given industry.
Proprietors Income	Sole proprietorship and self-employed income
Purchaser Prices	Prices paid by the end user of the good or service at a retail store.
SAMs	Social Accounting Matrices are a set of regional economic accounts which describe transfers between institutions as well as value added components
Total Effects	The sum of direct, indirect and induced effects.
Type SAM Multipliers	The total production requirements of all industries within a given region to meet the industry and institutions' demands, as specified by the user, triggered by \$1 of consumption of the goods/services produced by a specified industry. They include direct, indirect, and induced effects and account for commuting, tax, and saving behavior by households.
Value-Added	Payments made by industry to workers, interest, profits and indirect business taxes; equivalent to GDP

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