

Original Florida Highwayman Artist  
**CARROLL SMITH, SR.**  
Born: January 4, 1900  
Died: December 15, 2012

# The Economic Contribution of Arts & Culture to St. Lucie County – 2019

Produced for the  
**St. Lucie Cultural Alliance**  
by  
**PRÆCIPIO EFS**

September 2019

# The Economic Contribution of Arts & Culture to St. Lucie County - 2019

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

Report produced for



**September 2019**

Analysis by

**Michael H. Slotkin, PhD (Principal)**  
**Alexander R. Vamosi, PhD (Principal)**



These estimates were produced under contractual agreement with St. Lucie Cultural Alliance (SLCA), a private nonprofit 501(c)(3) agency relaunched in 2018. SLCA's mission is to better position the arts and cultural sector as a significant contributor to the vibrancy, and educational and economic well-being, of St. Lucie County.

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**Foreword by Rebecca Miller, Chairwoman  
Board of Directors,  
St. Lucie Cultural Alliance**



Rebecca Miller, P.E, MBA

Dear Reader,  
The arts and culture sector is an economic engine, and this report illustrates how the sector contributes to the economic growth and resilience of St Lucie County's local economy. Therefore, it gives me great pleasure to write this brief foreword for our very first locally commissioned economic contribution study, and I'd begin by thanking you for taking this time to read our report.

Certainly, we understand how art and culture enhances and adds to quality of life, improves outcomes for our students, and we appreciate the synergy between the arts and business - but a truly interesting question is; *how much does the Art and Cultural sector contribute to the economic growth and resilience of St Lucie County?*

This economic impact study, commissioned by St Lucie Cultural Alliance [SLCA] and produced by Praecipio EFS, addresses this question by assessing the economic contribution of the sector based on data gathered from 15 sector participants, the outputs of which are the result of a rigorous and detailed analysis which assesses the sector's economic contribution. Data tells us that there were well over a quarter of a million attendances during the reporting period, which generated revenues of \$24.7 million and contributed \$10.6 million to our local GDP. These are quite extraordinary numbers, demonstrating how the arts and cultural sector provide the benefits of an economic engine – one that supports jobs, remit taxes, and contributes significantly to the overall St Lucie County economy.

I close this foreword with this observation; please remember that gathering data from 15 participants gives a truly conservative estimate of the true breadth of the economic contribution of the art and culture sector, and let's also remember that if we only consider economic impact then we will be commoditizing the arts – which diminishes not only arts, culture, but ultimately ourselves.

My most sincere thanks to the 15 participants who graciously agreed to participate in this report and submitted solid data to us, without whom this report could not have been completed. And finally, our report is relevant for decision-making in a variety of policy areas, at national and local levels and as a robust tool for advocacy... We hope you find it both interesting and useful.

Rebecca Miller  
Chairwoman, SLCA Board of Directors  
Fort Pierce, Florida  
September 2019

## EXECUTIVE SUMMARY

*The Economic Contribution of Arts & Culture to St. Lucie County* is a study commissioned by St. Lucie Cultural Alliance (SLCA), a 501(c)(3) agency whose role is “to better position the arts and cultural sector as a significant contributor to the vibrancy, and educational and economic well-being, of St. Lucie County.” The study estimates the significance of various arts and cultural activities on the St. Lucie 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 St. Lucie economy amounts to about **\$24.7 million** in sales and about **\$10.6 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 15 arts and cultural organizations which comprise this report’s focal group amounted to about \$7.77 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 \$13.8 million in terms of sales or output. This supported, in aggregate, just under 152 full and/or part-time jobs. The total value-added from operations, equivalent to county gross domestic product (and income), amounts to about \$4.9 million when both direct and secondary effects are considered. Finally labor income, which is a subset of value-added, comprised about 52.1 percent (\$2.55 of \$4.9 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	78.5	\$1,079,230	\$2,176,814	\$7,776,111
Indirect Effect	62.9	\$1,117,712	\$2,005,572	\$4,742,564
Induced Effect	10.5	\$358,124	\$718,958	\$1,312,504
<b>Total Effect</b>	<b>151.9</b>	<b>\$2,555,067</b>	<b>\$4,901,344</b>	<b>\$13,831,178</b>

Source: PRÆCIPRO EFS & St. Lucie 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 St. Lucie economy, albeit at a dramatically smaller degree than organization operating expenditures. This report estimates that capital-related activity during FY 2018 comprised approximately \$116,236 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 \$171,194 in terms of sales or output. This supported, in aggregate, approximately 1.3 full and/or part-time jobs.

<b>Table 2-ES. Economic Contribution from A&amp;C Organizational Capital Expenditures</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added = County GDP</b>	<b>Total Sales</b>
Direct Effect	0.8	\$33,015	\$48,652	\$116,236
Indirect Effect	0.2	\$8,682	\$15,204	\$29,952
Induced Effect	0.2	\$6,822	\$13,711	\$25,006
<b>Total Effect</b>	<b>1.3</b>	<b>\$48,520</b>	<b>\$77,567</b>	<b>\$171,194</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance

Finally, the last and largest component of economic contribution involves audience 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 St. Lucie 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 \$6.8 million, after margining and adjustment to 2019 dollars (see Table 3A-ES).

<b>Table 3A-ES. Economic Contribution from A&amp;C Audience Participation Expenditures</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added = County GDP</b>	<b>Total Sales</b>
Direct Effect	139.7	\$3,042,821	\$3,557,865	\$6,800,277
Indirect Effect	14.6	\$483,640	\$879,280	\$1,810,857
Induced Effect	16.9	\$576,626	\$1,158,637	\$2,113,442
<b>Total Effect</b>	<b>171.2</b>	<b>\$4,103,087</b>	<b>\$5,595,782</b>	<b>\$10,724,576</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance

This amounts to a direct sales effect of about \$26.52 per attendee, for the 256,469 participants at events and activities hosted by the 15 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 \$10.7 million in terms of sales or output. This supported, in aggregate, just over 171 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 \$5.6 million when both direct and secondary effects are considered.

The economic contribution from audience participation spending can be further segmented to reveal associated impacts from cultural tourism, defined as visitation to the St. Lucie from outside locales for the purpose(s) of arts & cultural enjoyment. This report estimates that in FY 2018, cultural tourism expenditures amounted to about \$2.4 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 \$3.75 million in terms of sales or output. This supported, in aggregate, about 56 full and/or part-time jobs.

<b>Table 3B-ES. Economic Contribution from A&amp;C Cultural Tourism</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added = County GDP</b>	<b>Total Sales</b>
Direct Effect	44.6	\$947,466	\$1,273,371	\$2,403,165
Indirect Effect	5.5	\$183,691	\$324,746	\$672,451
Induced Effect	5.4	\$185,005	\$371,763	\$678,081
<b>Total Effect</b>	<b>55.5</b>	<b>\$1,316,162</b>	<b>\$1,969,880</b>	<b>\$3,753,696</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance



**Oxbow Eco-Center**

About 35 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 St. Lucie arts & cultural tourists on overnight lodging is \$887,134 which when combined with an average daily room rate of \$94.96, implies an equivalency of about 9,340 room nights rented. It also generates a bed tax collection of about \$44,357 (i.e., \$665,342 x 0.05).

All told, Table 4-ES summates the three categories of economic contribution, yielding a direct sales contribution of about \$14.7 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 \$24.7 million in terms of sales or output. This supported, in aggregate, just under 325 full and/or part-time jobs. The total value-added, which is equivalent to county gross domestic product and income, amounts to about \$10.6 million when both direct and secondary effects are considered.

<b>Table 4-ES. Total Economic Contribution from Arts &amp; Cultural Activity</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added = County GDP</b>	<b>Total Sales</b>
Direct Effect	219	\$4,155,067	\$5,783,331	\$14,692,624
Indirect Effect	77.8	\$1,610,034	\$2,900,055	\$6,583,373
Induced Effect	27.6	\$941,572	\$1,891,306	\$3,450,952
<b>Total Effect</b>	<b>324.4</b>	<b>\$6,706,673</b>	<b>\$10,574,693</b>	<b>\$24,726,948</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance



**Sunrise Theatre**

## PROJECT OVERVIEW, SCOPE, AND METHODOLOGY

### *Overview*

Relaunched in 2018, the SCLA is the designated local arts agency in St. Lucie County. The SLCA is “building a vibrant arts and cultural sector by advancing St. Lucie County as a cultural destination, working towards a sustainable sector countywide, and delivering arts programs that enhance the educational experience.” A **nonprofit, member-driven organization**, the SCLA promotes local artists, cultural organizations and events, art in public places, and more. It adheres to the adage that “in the best communities, arts and culture are abundant, accessible, and diverse – serving as a catalyst to generate economic impact, stimulate business development, spur urban renewal, attract tourists and area residents to community activities, and improve the overall quality of life.”

During early spring 2019, the SLCA 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 in St. Lucie County. 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 the SLCA’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 SLCA’s project liaison working as an intermediary for PEFS. As for the spending profile, due to resource limitations, 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](http://www.bls.gov)) inflation data, Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) regional GDP and income data, and Florida Association of Realtors ([www.floridarealtors.org](http://www.floridarealtors.org)) data to establish a conservative, proxy estimate of attendee participation spending to be utilized for contribution analysis.



## 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, providing 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 15 arts organizations who agreed to share their budgetary data as well as attendance figures with SLCA. 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 15; thus, this report represents a conservative measure of the economic contribution provided by arts and culture to the economy of St. Lucie County. 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 on the Treasure Coast.

## Methodology

The principal design of *The Economic Contribution of Arts & Culture to St. Lucie County* is that of a **contribution** analysis, defined as an estimate of the flows of spending associated with arts and cultural activities in St. Lucie 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 St. Lucie County was constructed using **IMPLAN**,<sup>1</sup> 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

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<sup>1</sup> IMPLAN® Version 3.0. See [www.implan.com](http://www.implan.com).

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 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 St. Lucie 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.<sup>2</sup>

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<sup>2</sup> See also Stynes (1999) for an accessible backgrounder on contribution analysis.

## ECONOMIC CONTRIBUTIONS FROM OPERATING EXPENDITURES

One pathway by which arts and cultural activity spur economic activity on the Treasure 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 15 arts and cultural organizations which comprise the FY 2018 study group (see Table 5). Operating expenditures were aggregated into three distinct industry sectors and then entered into IMPLAN for analysis.

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

<b>A.E. Backus Museum &amp; Gallery</b>	<a href="http://backusmuseum.org">backusmuseum.org</a>
<b>Art Connection</b>	<a href="http://artconnectionofft.com">artconnectionofft.com</a>
<b>BlueBird Productions</b>	<a href="http://bluebirdproductions.org">bluebirdproductions.org</a>
<b>Fort Pierce Art Club</b>	<a href="http://treasurecoastartassociation.org">treasurecoastartassociation.org</a>
<b>Fort Pierce Jazz &amp; Blues Society</b>	<a href="http://jazzsociety.org">jazzsociety.org</a>
<b>Heathcote Botanical Gardens</b>	<a href="http://heathcotebotanicalgardens.org">heathcotebotanicalgardens.org</a>
<b>Indian River State College - Performing Arts</b>	<a href="http://irsc.edu">irsc.edu</a>
<b>Main Street Fort Pierce</b>	<a href="http://mainstreetfortpierce.org">mainstreetfortpierce.org</a>
<b>Oxbow Eco-Center</b>	<a href="http://stlucieco.gov">stlucieco.gov</a>
<b>Port St. Lucie Civic Center</b>	<a href="http://cityofpsl.com">cityofpsl.com</a>
<b>Seriously Mixed Media</b>	<a href="http://seriouslymixedmedia.com">seriouslymixedmedia.com</a>
<b>Summer Crush Vineyard &amp; Winery</b>	<a href="http://summercrushwine.com">summercrushwine.com</a>
<b>Sunrise Theatre</b>	<a href="http://sunrisetheatre.com">sunrisetheatre.com</a>
<b>Swig of Color</b>	<a href="http://swigofcolor.com">swigofcolor.com</a>
<b>Treasure Coast Chamber Singers</b>	<a href="http://tccsingers.org">tccsingers.org</a>

Source: PRÆCIPRO EFS & St. Lucie 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 15 participating organizations amounted to \$7,698,688. This is the numerical entry, albeit parsed into three 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**

<b>ECONOMIC CONTRIBUTIONS</b>	<b>DIRECT EFFECT</b>	<b>INDIRECT EFFECT</b>	<b>INDUCED EFFECT</b>	<b>TOTAL EFFECT</b>
<b>OUTPUT = SALES</b>	<b>\$7,776,111</b>	<b>\$4,742,564</b>	<b>\$1,312,504</b>	<b>\$13,831,178</b>
<b>VALUE-ADDED = GDP</b>	<b>\$2,176,814</b>	<b>\$2,005,572</b>	<b>\$718,958</b>	<b>\$4,901,344</b>
<i>Labor Income</i>	<b>\$1,079,230</b>	<b>\$1,117,712</b>	<b>\$358,124</b>	<b>\$2,555,067</b>
Employee Compensation	\$1,208,433	\$903,832	\$313,620	\$2,425,884
Proprietors Income	(\$129,203)	\$213,881	\$44,504	\$129,182
<i>Other Property Type Income</i>	<b>\$193,148</b>	<b>\$673,876</b>	<b>\$270,794</b>	<b>\$1,137,818</b>
<i>Indirect Business Taxes</i>	<b>\$904,436</b>	<b>\$213,984</b>	<b>\$90,040</b>	<b>\$1,208,460</b>
<b>EMPLOYMENT = FT &amp; PT</b>	<b>78.5</b>	<b>62.9</b>	<b>10.5</b>	<b>151.9</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance

In sum, the total effect of arts and cultural organization and event operations amounted to about \$13.8 million in terms of sales or output, and about \$4.9 million in terms of income. This supported, in aggregate, just under 152 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 \$13,831,178 by \$7,776,111, in essence, the ratio of the total output effect to the direct output effect. The output multiplier for operating expenditures is 1.779, implying that each dollar of sales generates an additional 77.9 cents in sales through secondary effects. Other contribution multipliers (i.e., value-added, employment, etc.) can be obtained in a similar manner.



**Heathcote Botanical Garden**

## 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 15 participating organizations amassed \$114,675 in capital expenditures. Due to conversion into year 2019 dollars, however, 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**

<b>ECONOMIC CONTRIBUTIONS</b>	<b>DIRECT EFFECT</b>	<b>INDIRECT EFFECT</b>	<b>INDUCED EFFECT</b>	<b>TOTAL EFFECT</b>
<b>OUTPUT = SALES</b>	<b>\$116,236</b>	<b>\$29,952</b>	<b>\$25,006</b>	<b>\$171,194</b>
<b>VALUE-ADDED = GDP</b>	<b>\$48,652</b>	<b>\$15,204</b>	<b>\$13,711</b>	<b>\$77,567</b>
<i>Labor Income</i>	<b>\$33,015</b>	<b>\$8,682</b>	<b>\$6,822</b>	<b>\$48,520</b>
Employee Compensation	\$24,392	\$7,737	\$5,973	\$38,102
Proprietors Income	\$8,624	\$945	\$849	\$10,418
<i>Other Property Type Income</i>	<b>\$14,763</b>	<b>\$4,198</b>	<b>\$5,171</b>	<b>\$24,132</b>
<i>Indirect Business Taxes</i>	<b>\$874</b>	<b>\$2,324</b>	<b>\$1,718</b>	<b>\$4,915</b>
<b>EMPLOYMENT = FT &amp; PT</b>	<b>0.8</b>	<b>0.2</b>	<b>0.2</b>	<b>1.3</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance

In sum, the total effect of arts and cultural organization capital expenditures amounted to \$171,194 in terms of sales or output, and about \$77,500 in terms of income. This supported, in aggregate, approximately 1.3 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 1.473, implying that each dollar of sales generates an additional 47.3 cents in sales through secondary effects. Please note that multipliers will differ by industry and contribution category.



**Front Porch Blues at the Summer Crush Vineyard & Winery**



**Friday Fest Fort Pierce**

## ECONOMIC CONTRIBUTIONS FROM AUDIENCE EXPENDITURES

Almost 256,500 patrons attended arts and cultural events sponsored by the 15 participating St. Lucie County organizations during FY 2018, and spending by arts and cultural audiences are a significant driver of economic activity on the Treasure Coast. 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.

Due to the prohibitive cost associated with audience data collection, smaller agencies oftentimes search for surrogate values from nearby locales, making appropriate adjustments for consistency with any previous survey efforts as well as cost of living increases. Brevard County, for example, has anchored their biannual audience expenditure estimates to the broader Central Florida study conducted by Americans for the Arts, with future years then indexed to 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, along with the benchmarked 2019 profile for Space Coast arts & culture audiences. In addition, aggregate expenditures for local patrons versus cultural tourists are also included. As can be inferred by the fact that the ALL Attendees 2019 Space Coast estimate of \$30.16 (see Table 9a) is about on par with the 2015 Central Florida estimate of \$30.06 (see Table 8a), the anchoring of the Space Coast estimate initially recognizes the assumption that Space Coast audience spending is lower (about 6 percent), prior to inflation adjustment for the years 2015 to 2019. This is based on contemporaneous survey results obtained when the Brevard Cultural Alliance (BCA) did conduct audience intercept surveys about a decade ago.

**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
<b>Total Per-Person Spending</b>	<b>\$24.42</b>	<b>\$53.62</b>	<b>\$30.06</b>

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
<b>Total Event Attendance</b>	5,478,145	1,310,139	6,788,284
<b>Percent of Attendees</b>	<i>80.7 percent</i>	<i>19.3 percent</i>	100 percent
<b>Average Dollars Spent Per Attendee</b>	\$24.42	\$53.62	\$30.06
<b>Total Event-Related Spending</b>	\$133,776,301	\$70,249,653	<b>\$204,025,954</b>

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
<b>Meals/Refreshments</b>	\$15.65	\$18.03	\$16.11
<b>Souvenirs and Gifts</b>	\$2.94	\$6.77	\$3.68
<b>Ground Transportation</b>	\$2.60	\$6.36	\$3.32
<b>Overnight Lodging</b>	\$0.84	\$18.03	\$4.15
<b>Other</b>	\$2.49	\$4.62	\$2.90
<b>Total Per-Person Spending</b>	<b>\$24.51</b>	<b>\$53.81</b>	<b>\$30.16</b>

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
<b>Total Event Attendance</b>	1,416,688	338,812	1,755,500
<b>Percent of Attendees</b>	<i>80.7 percent</i>	<i>19.3 percent</i>	100 percent
<b>Average Dollars Spent Per Attendee</b>	\$24.51	\$53.81	\$30.16
<b>Total Event-Related Spending</b>	\$34,723,023	\$18,231,474	<b>\$52,954,497</b>

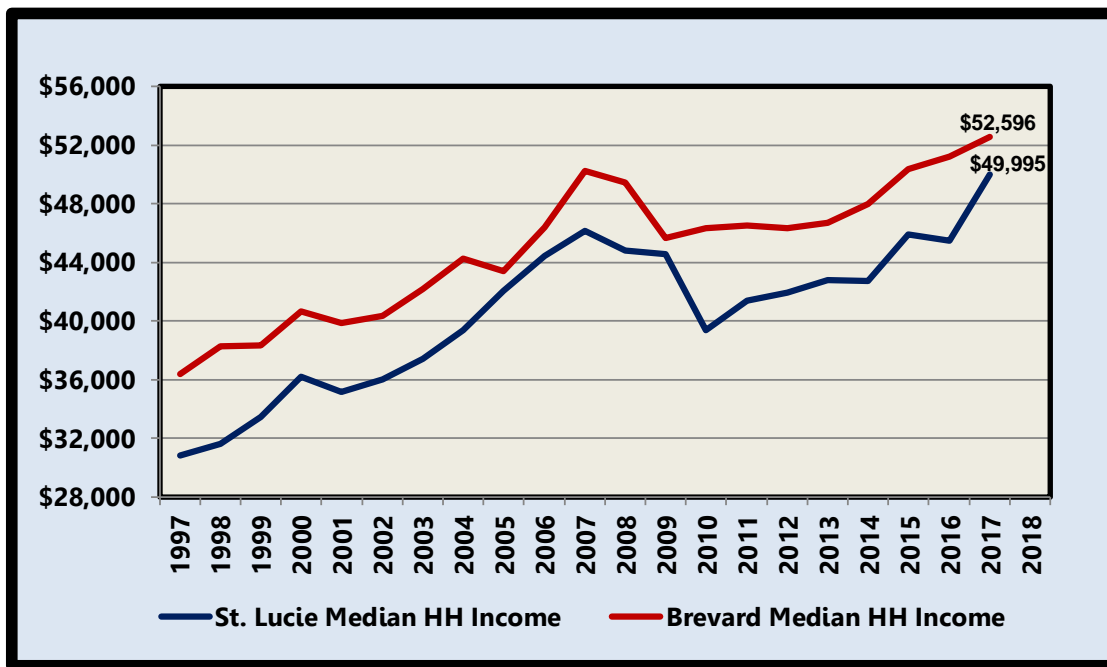
Source: PRÆCIPPIO EFS & Brevard Cultural Alliance

Given that the SLCA funding is at a premium, surrogate valuation provides a cost-effective approach to ascertain St. Lucie art & cultural audience expenditures. A question remaining, however, is to what extent the 2019 Space Coast estimates represent an appropriate benchmark, and what, if any, adjustments should be made to the Space Coast proxy for utilization in St. Lucie? Brevard County’s population of about 600,000 is essentially twice the size of St. Lucie County, and its bed tax collections of approximately \$16 million are roughly four times greater.

But other purchasing power and cost-of-living metrics would appear to suggest that these two Florida coastal counties are actually reasonably similar,

supporting the usage of the Space Coast spending profile as a starting point for establishing a St. Lucie audience expenditure proxy. Figures 1 & 2 reveal median household income in the respective counties as well as the annual resale price of existing homes in their respective metropolitan statistical areas (MSA). Both economic indicators track well with another, with Brevard’s median household income slightly ascendant but Port St. Lucie MSA’s median resale price of an existing home consistently superior. It should be noted, however, that while Brevard County is congruent with the Palm Bay-Melbourne-Titusville MSA, both St. Lucie and Martin Counties comprise the Port St. Lucie MSA. In terms of resale prices, Martin County does skew a bit higher than St. Lucie County.

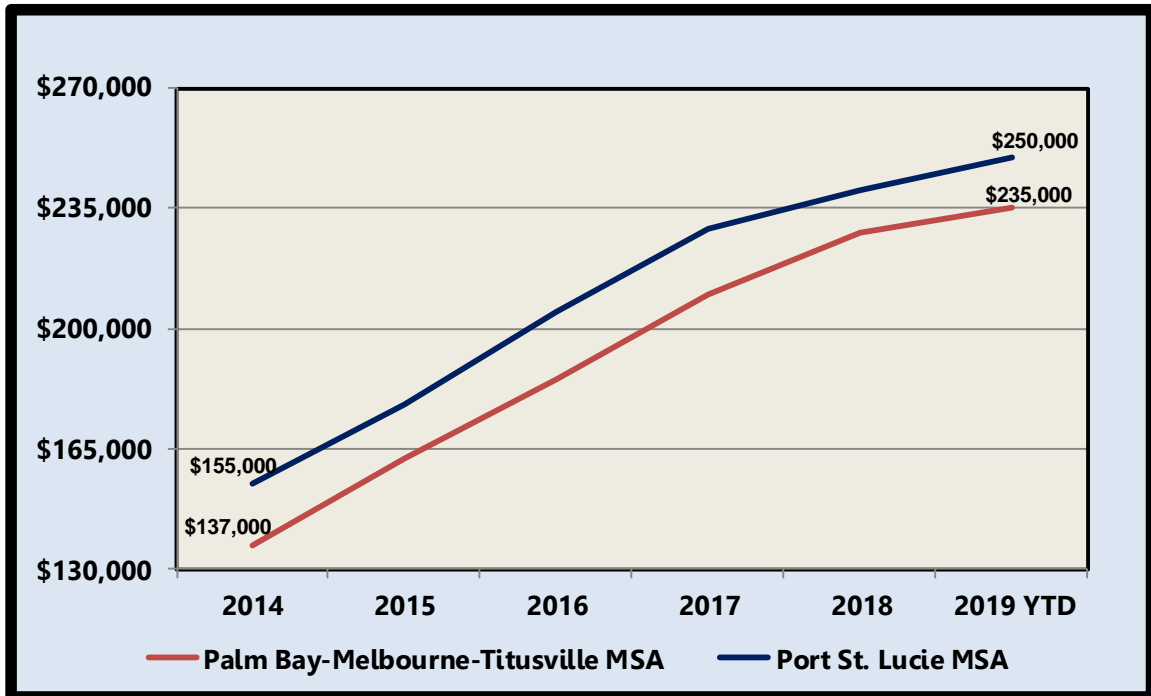
Figure 1. Median Household Income, Brevard & St. Lucie Counties, Florida, 1997 - 2017



Source: U.S. Census Bureau

For this report, one moderating adjustment has been made on the Space Coast proxy to provide a conservative estimate for St. Lucie audience spending. In recognition of more modest household income as well as lower average daily room rates on lodging accommodations, St. Lucie spending profiles are lowered by five percent from the Space Coast proxy. In total, this change serves to reduce the total per-person spending by attendee from \$30.16 to \$28.85. Tables 10a-b reveal the proxy spending profile and aggregate audience expenditures for St. Lucie County.

Figure 2. Annual Median Resale Price, Palm Bay-Melbourne-Titusville and Port St. Lucie MSAs, Florida, 2014 – 2019 Year to Date



Source: Florida Association of Realtors

Table 10a. 2019 Proxy Spending Profile for St. Lucie A&C Audiences

	Local Patrons	Cultural Tourists	ALL St. Lucie County Event Attendees
Meals/Refreshments	\$14.86	\$17.13	\$15.32
Souvenirs and Gifts	\$2.79	\$6.43	\$3.52
Ground Transportation	\$2.47	\$6.04	\$3.19
Overnight Lodging	\$0.79	\$17.13	\$4.06
Other	\$2.36	\$4.39	\$2.77
<b>Total Per-Person Spending</b>	<b>\$23.29</b>	<b>\$51.12</b>	<b>\$28.85</b>

Source: PRÆCIPRO EFS & St. Lucie Cultural Alliance

Table 10b. 2019 Proxy Aggregate Expenditures for St. Lucie A&C Audiences

	Local Patrons	Cultural Tourists	ALL St. Lucie County Event Attendees
Total Event Attendance	205,175	51,294	256,469
Percent of Attendees	80 percent	20 percent	100 percent
Average Dollars Spent Per Attendee	\$23.29	\$51.12	\$28.85
<b>Total Event-Related Spending</b>	<b>\$4,777,562</b>	<b>\$2,622,069</b>	<b>\$7,399,631</b>

Source: PRÆCIPRO EFS & St. Lucie Cultural Alliance

Overall, the 256,469 attendees of the 15 arts and cultural organizations comprising this study expended about than \$7.4 million on purchases associated with their patronage, yielding a weighted average per patron spending of \$28.85. 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 11. Due to the *margining* of retail sales, the number highlighted in blue in the “direct effect sales” cell in Table 11 differs slightly from the aggregated FY 2018 audience expenditures figure cited above.

**Table 11. Economic Contributions from Audience Participation Expenditures – Full Table**

<b>ECONOMIC CONTRIBUTIONS</b>	<b>DIRECT EFFECT</b>	<b>INDIRECT EFFECT</b>	<b>INDUCED EFFECT</b>	<b>TOTAL EFFECT</b>
<b>OUTPUT = SALES</b>	<b>\$6,800,277</b>	\$1,810,857	\$2,113,442	<b>\$10,724,576</b>
<b>VALUE-ADDED = GDP</b>	<b>\$3,557,865</b>	\$879,280	\$1,158,637	<b>\$5,595,782</b>
<i>Labor Income</i>	<b>\$3,042,821</b>	\$483,640	\$576,626	<b>\$4,103,087</b>
Employee Compensation	\$2,429,574	\$401,296	\$504,862	\$3,335,732
Proprietors Income	\$613,247	\$82,344	\$71,764	\$767,355
<i>Other Property Type Income</i>	<b>\$26,582</b>	\$294,759	\$436,851	<b>\$758,191</b>
<i>Indirect Business Taxes</i>	<b>\$488,462</b>	\$100,881	\$145,161	<b>\$734,503</b>
<b>EMPLOYMENT = FT &amp; PT</b>	139.7	14.6	16.9	<b>171.2</b>

Source: PRÆCIPPIO EFS & St. Lucie Cultural Alliance



**Port St. Lucie Civic Center**

The total effect of audience expenditures amounted to about \$10.7 million in terms of sales or output, and about \$5.6 million in terms of income. This supported, in aggregate, a little over 171 full and/or part-time jobs. These numbers are highlighted in grey in Table 11, and correspond to the last row in Table 3A-ES in the Executive Summary. The output multiplier for audience participation expenditures is 1.577, implying that each dollar of direct sales generates an additional 57.7 cents in output through secondary effects.

As discussed in the Executive Summary, the economic contributions detailed in Table 11 can be segmented to reveal the impacts derived solely from cultural tourism, which is a focal point of Destination Marketing Organizations. About 35 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 St. Lucie County arts & cultural tourists on overnight lodging. About \$887,000 is the aggregated output effect, which when combined with an average daily room rate of \$94.96, implies an equivalency of about 9,340 room nights rented. It likewise entails a bed tax collection of about \$44,357 (i.e., \$887,134 x 0.05).



**Treasure Coast Chamber Singers**

## 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 12 below aggregates the results from Tables 6, 7, and 11, respectively.

In sum, the total estimated effect of arts and cultural activities on the St. Lucie economy amounted to about \$24.7 million in terms of sales or output, and about \$10.6 million in terms of income. This supported, in aggregate, just under 325 full and/or part-time jobs. These numbers are highlighted in grey in Table 12, 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 1.683, implying that each dollar of sales generates an additional 68.3 cents in sales through secondary effects.

**Table 12. Total Economic Contributions from Art & Culture Expenditures – Full Table**

<b>ECONOMIC CONTRIBUTIONS</b>	<b>DIRECT EFFECT</b>	<b>INDIRECT EFFECT</b>	<b>INDUCED EFFECT</b>	<b>TOTAL EFFECT</b>
<b>OUTPUT = SALES</b>	<b>\$14,692,624</b>	<b>\$6,583,373</b>	<b>\$3,450,952</b>	<b>\$24,726,948</b>
<b>VALUE-ADDED = GDP</b>	<b>\$5,783,331</b>	<b>\$2,900,055</b>	<b>\$1,891,306</b>	<b>\$10,574,693</b>
<i>Labor Income</i>	<i>\$4,155,067</i>	<i>\$1,610,034</i>	<i>\$941,572</i>	<i>\$6,706,673</i>
Employee Compensation	\$3,662,399	\$1,312,864	\$824,454	\$5,799,718
Proprietors Income	\$492,668	\$297,170	\$117,118	\$906,956
<i>Other Property Type Income</i>	<i>\$234,493</i>	<i>\$972,833</i>	<i>\$712,816</i>	<i>\$1,920,141</i>
<i>Indirect Business Taxes</i>	<i>\$1,393,772</i>	<i>\$317,188</i>	<i>\$236,919</i>	<i>\$1,947,879</i>
<b>EMPLOYMENT = FT &amp; PT</b>	<b>219</b>	<b>77.8</b>	<b>27.6</b>	<b>324.4</b>

Source: PR/ECIPIO EFS & St. Lucie 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 St. Lucie's cultural organizations contribute to improving and advancing life on the Treasure Coast. Thank you for reading.

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## APPENDIX - GLOSSARY OF TERMS

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



<b>Producer Prices</b>	<b>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.</b>
<b>Production Function</b>	<b>The relationship between the output of a good and the inputs required to produce that good for any given industry.</b>
<b>Proprietors Income</b>	<b>Sole proprietorship and self-employed income</b>
<b>Purchaser Prices</b>	<b>Prices paid by the end user of the good or service at a retail store.</b>
<b>SAMs</b>	<b>Social Accounting Matrices are a set of regional economic accounts which describe transfers between institutions as well as value added components</b>
<b>Total Effects</b>	<b>The sum of direct, indirect and induced effects.</b>
<b>Type SAM Multipliers</b>	<b>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.</b>
<b>Value-Added</b>	<b>Payments made by industry to workers, interest, profits and indirect business taxes; equivalent to GDP</b>

### **About the Authors**

**Michael H. Slotkin, PhD (Principal).** Dr. Slotkin is a co-founder and President of PRÆCIPPIO EFS, an economic, financial, and statistical consulting firm based in Brevard County, Florida. He also holds an appointment as Professor of Economics in the Bisk College of Business at the Florida Institute of Technology in Melbourne, Florida. Dr. Slotkin earned his doctoral degree in economics from the University of North Carolina at Chapel Hill, where he specialized in international trade theory.

**Alexander R. Vamosi, PhD (Principal).** Dr. Vamosi is a co-founder and Vice-President of PRÆCIPPIO EFS, an economic, financial, and statistical consulting firm based in Brevard County, Florida. He also holds an appointment as Associate Professor of Economics in the Bisk College of Business at the Florida Institute of Technology in Melbourne, Florida. Dr. Vamosi earned his doctoral degree in economics from the University of North Carolina at Chapel Hill, where he specialized in econometrics, international economics and monetary theory.