

The Virginia Museum of Contemporary Art: Challenges, Opportunities, and Economic Impact



THE VIRGINIA MUSEUM OF CONTEMPORARY ART: CHALLENGES, OPPORTUNITIES, AND ECONOMIC IMPACT

"A picture is a poem without words."

Horace

Regardless of their location throughout the world and all 50 U.S. states, museums play a critical role in educating and enriching the communities around them. Prior to the onset of the COVID-19 pandemic, museums, historical sites, and similar institutions in the United States supported more than 700,000 jobs and contributed an average of \$50 billion annually to the national economy.¹ During the initial months of the pandemic, however, almost every museum was closed to the public, resulting in significant layoffs and declines in revenue. In a recent survey by the American Alliance of Museums, almost 1 in 5 museum directors responded that there was some risk of their museum closing permanently due to the pandemic. The loss of museums would not only have a profound economic impact, but it would also alter the collective culture of the region, state, and nation. Sister Wendy Beckett, a unique art historian and popular television host once noted, "A country that has few museums is both materially poor and spiritually poor...museums, like theatres and libraries, are a means to freedom."

While the word "museum" might suggest displays of art or sculpture, the range and depth of organizations classified as museums may surprise the reader. Museums are charged with conserving, protecting, and displaying treasures from our past that might otherwise be lost to private collectors or even to the ages. Organizations focused on the visual arts, historical events and individuals, military services, various aspects of nature, science, and technology may reside in a small house or in multiple buildings storing hundreds of thousands of irreplaceable objects. These organizations are much more than a place to display or recreate history; they have a considerable role in the culture and economy of communities throughout Hampton Roads, Virginia, and the United States.

The support for museums is broad and bipartisan. A pre-pandemic survey of museum attendees found that 81% of Americans responded that they visited museums to "have fun," while 69% noted that their visit was a "cultural

activity." Eighty-nine percent of Americans, regardless of party persuasion, believed that museums provided important economic impacts back to their communities.² Museums were consistently ranked among the most trusted institutions nationally pre-pandemic, and a 2021 survey found that almost 9 out of 10 Americans shared that view.³ No other type of institution was as trusted as museums in the 2021 survey.

The Virginia Museum of Contemporary Art (Virginia MOCA for short) in Virginia Beach is a cultural jewel that continues to provide the region with remarkable artistic resources and programming. From Fiscal Year (FY) 2017 to FY 2022, Virginia MOCA attracted at least \$2.1 million in gifts from outside the city, gifts that were largely expended within Virginia Beach. Virginia MOCA also attracts visitors to the city; two most recent major exhibitions from November 2021 to September 2022

¹ American Alliance of Museums, Museum Facts and Data, <https://www.aam-us.org/wp-content/uploads/2022/02/Museum-Facts-2022-v2.pdf>

² LaPlaca Cohen/Kelton Global 2017 U.S. Culture Track Survey. <http://culturetrack.com/research/reports/> and AAM's Museums & Public Opinion 2017.

³ American Alliance of Museums, Museums and Trust 2021, <https://www.aam-us.org/2021/09/30/museums-and-trust-2021/>.

attracted 18,050 visitors, more than 59% of whom were from outside Virginia Beach.⁴

We examine the economic impact of Virginia MOCA's operations from FY 2016 to FY 2021. Direct spending by Virginia MOCA lifted annual economic output and regional GDP by approximately \$5.2 million and \$3.0 million in 2021 dollars, respectively, from FY 2016 to FY 2021. Using the attendance data, we estimate that museum visitors contributed at least \$537,000 in economic output and \$322,116 to regional GDP annually. These estimates suggest that a lower bound for the economic impact of Virginia MOCA is approximately \$5.7 million annually, and its average annual contribution to regional GDP is about \$3.3 million a year. We find that for every dollar invested in Virginia MOCA by the public and private donors, economic activity in Hampton Roads increased by more than three dollars.

We note that these estimates do not include the annual economic impact of Virginia MOCA's Boardwalk Art Show and, given that the 2022 event attracted more than 150 artists and thousands (if not tens of thousands) of visitors, we argue that the economic impact of Virginia MOCA is likely significantly higher than our initial estimates would suggest. We are, unfortunately, limited by what data are currently available. Accurately determining how many people visit the Boardwalk Art Show, where these visitors reside, and how much they spend is not only in the interest of Virginia MOCA but also the city of Virginia Beach.

In this report, we discuss how museums are part of the lives of Americans. We delve into who visits museums and estimate how many people volunteer in museums in Hampton Roads. We explore perceptions about Virginia MOCA before estimating its economic impact. We conclude with thoughts on how Virginia MOCA can leverage its reputation and economic impact to improve its visibility in the region and continue to grow attendance and donations in the post-pandemic environment.

⁴ These periods coincide with two major exhibitions at Virginia MOCA.

Museums – Recovering from COVID-19

Table 1 illustrates the highest attendance museums in the United States in 2019 and how attendance dropped dramatically in 2020. To say that the COVID-19 pandemic undermined museum attendance would be an understatement. In 2020, attendance at the top-20 museums in the United States fell from 49.8 million to almost 7.9 million. In 2021, estimated attendance rebounded somewhat to 13.4 million, however, this was about 33% of total attendance in 2019. It may take several years before we again observe pre-COVID attendance levels.

While every museum is unique, there are common characteristics across the museum industry. Museum revenue, in general, is driven by domestic attendance by U.S. residents, destination trips by international tourists, the prevalence of households earning more than \$100,000 annually, and the performance of financial markets. After reaching a high of \$19.0 billion in 2019, museum and historical site revenue declined to approximately \$16.9 billion in 2020 (Graph 1). However, the good news is that revenue is projected to reach \$19.4 billion in 2022 even while attendance continues to recover from the pandemic shock of 2020 (Graph 2).

Turning our attention to art museums, private donations, earned revenue, and endowment income accounted for most of the revenue in 2017 (Graph 2). Attracting visitors is crucial to generating revenue in the short term and for cultivating donations in the long term. Private gifts and recurring donations often make the difference in the financial viability of museums. Store sales accounted for the majority of earned revenue in 2017, and these sales were especially important for the one in three museums that offered free admission or a suggested donation for admission.

TABLE 1**HIGHEST ATTENDANCE MUSEUMS IN THE UNITED STATES, 2019-2021***

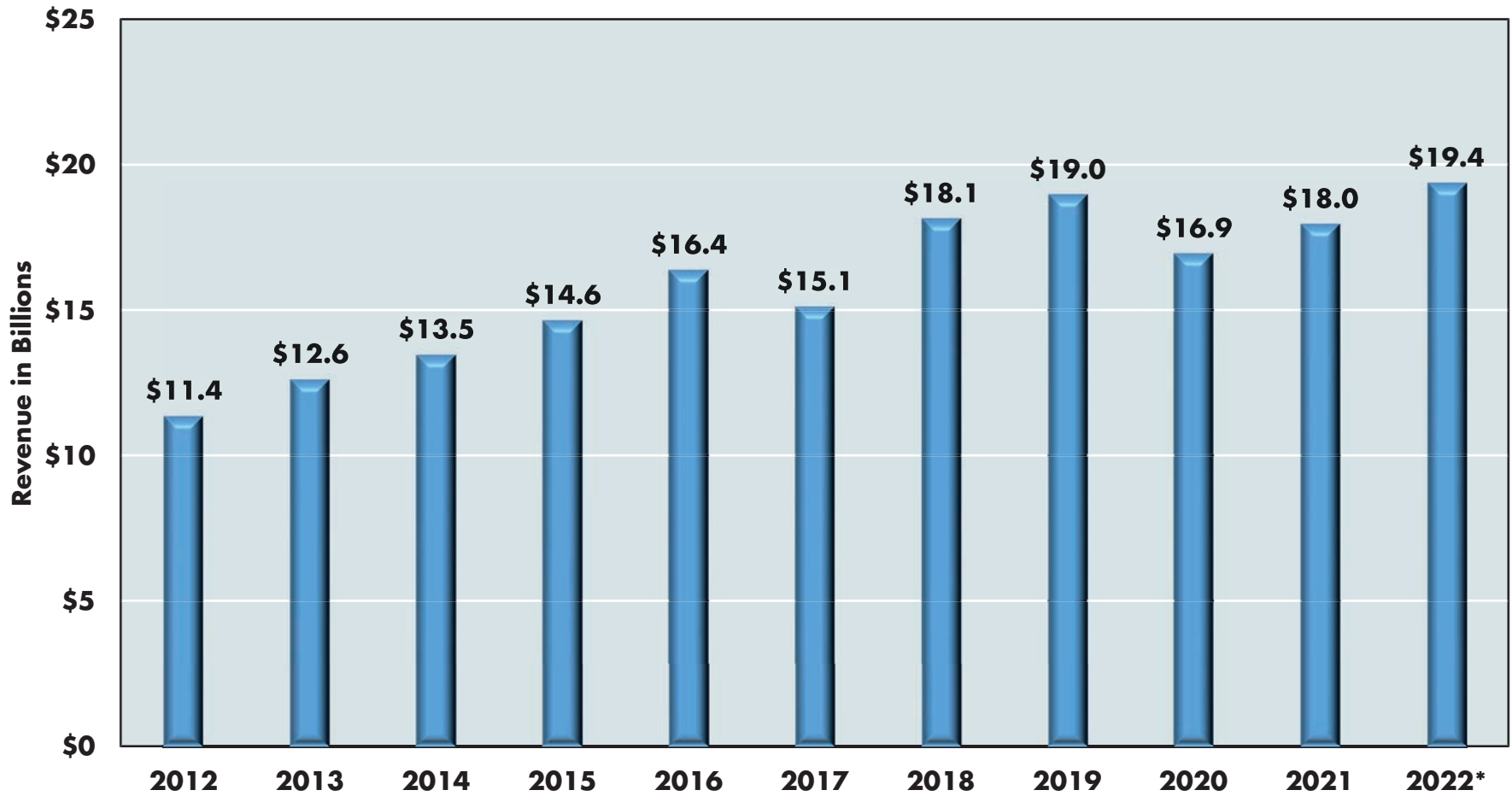
Museum	Location	2019	2020	2021
Metropolitan Museum of Art	New York	6,770,000	1,125,000	1,958,000
National Museum of Natural History	District of Columbia	4,200,000	573,000	982,000
National Gallery of Art	District of Columbia	4,074,000	730,000	1,705,000
National Air and Space Museum	District of Columbia	3,200,000	267,000	411,000
National Museum of American History	District of Columbia	2,800,000	311,000	570,000
California Science Center	California	2,200,000	271,000	726,000
National Museum of African American History	District of Columbia	2,000,000	368,000	393,000
Smithsonian American Art Museum	District of Columbia	2,000,000	387,000	420,000
Museum of Modern Art	New York	1,992,000	706,000	1,161,000

Source: AECOM 2021 Theme and Museum Index: The Global Attractions Attendance Report <https://aecom.com/wp-content/uploads/documents/reports/AECOM-Theme-Index-2021.pdf>.

*The American Museum of Natural History reported 5,000,000 visitors in 2019 but did not report attendance for 2020 and 2021 and is thus not included in the table for comparative purposes.

GRAPH 1

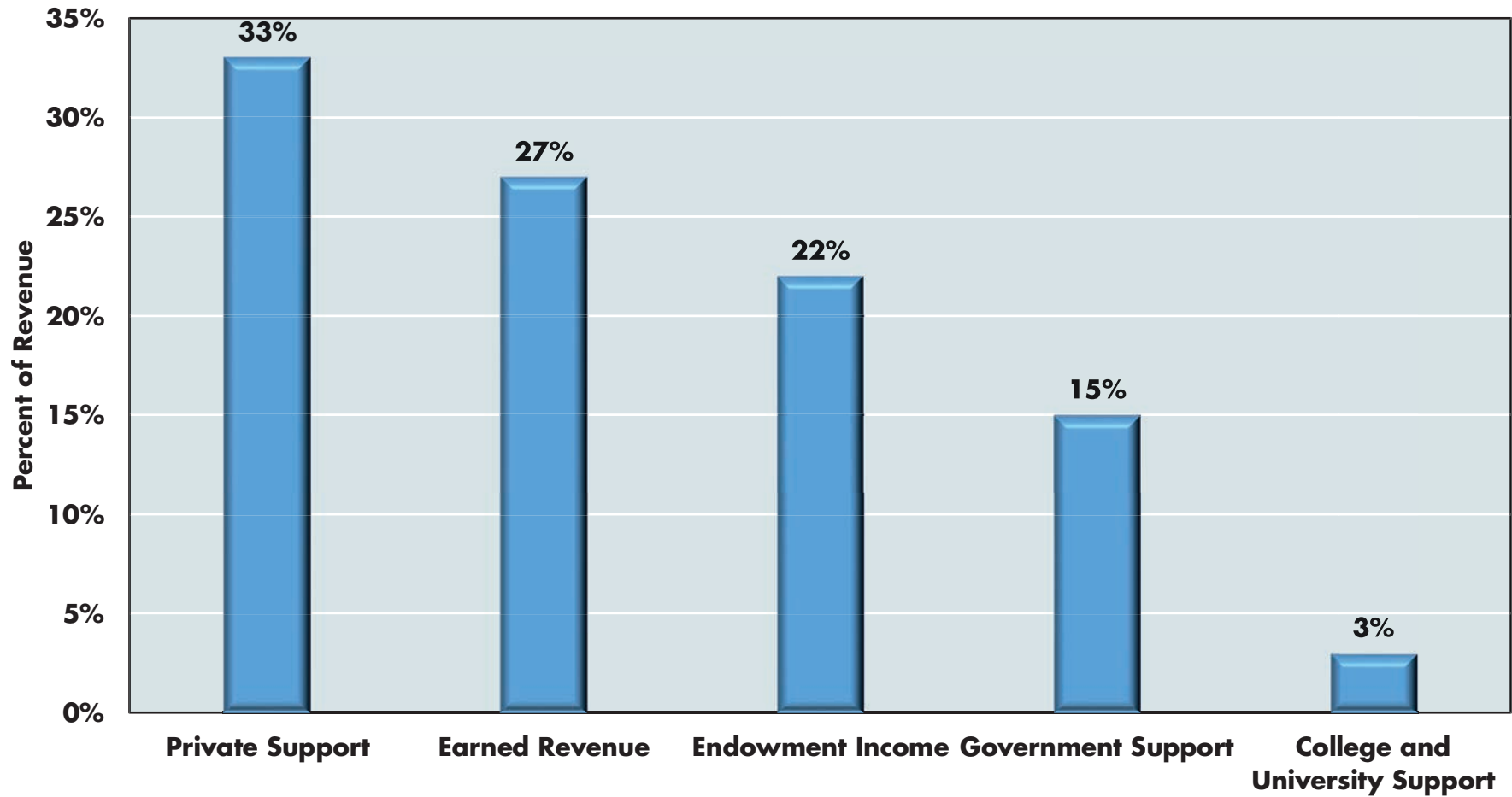
**REVENUE FOR MUSEUMS, HISTORICAL SITES, AND SIMILAR INSTITUTIONS, UNITED STATES 2012-2022
BILLIONS OF NOMINAL DOLLARS**



Source: "Industry Revenue of Heritage Institutions in the U.S. from 2012 to 2023 (in Billion U.S. Dollars)." NAICS Code: 712, Statista - The Statistics Portal, Statista. November 2022. *Forecasted revenue.

GRAPH 2

SOURCES OF REVENUE FOR ART MUSEUMS IN THE UNITED STATES, 2017



Source: Art Museums by the Numbers, Association of Art Museum Directors, 2018.

The Museum Environment in Hampton Roads

The economy of Hampton Roads rests on three pillars: national defense, the Port of Virginia, and tourism. The hospitality and tourism sectors not only draw numerous visitors, but have, in part, fueled the recovery of the regional economy. Nominal hotel revenues are likely to exceed \$1 billion in 2022, and the hospitality and tourism industry employs approximately 1 in 11 workers in the region. In a recent survey of tourists asking why they chose to visit Hampton Roads, visits to historical sites and museums were popular activities, rivaling beach trips and fine dining (see Graph 3). The museums in Hampton Roads straddle these pillars, adding not only to the economy but to the cultural fabric of the region as well.

Hampton Roads offers a comprehensive assortment of offerings to those desiring to visit a museum, historic location, or similar institution. From broad to specific, museums and historical sites such as the Virginia Aquarium, Virginia Zoo, the Virginia Living Museum, the Virginia Air and Space Museum, and the Virginia Sports Hall of Fame provide a wide range of exhibit programming. The museums in Virginia's Historic Triangle focus on the experience of the American Revolution and colonial-era Virginia and include Colonial Williamsburg, The American Revolution Museum, the Yorktown Victory Center Museum, and the Jamestown Settlement.

Additionally, the great variety of historic homes complement the more traditional museums in Hampton Roads. Historic homes contain exhibits on an individual or family, typically from the 1719 to 1931 period, and include Lee Hall Mansion, home to affluent planter Richard Decatur Lee and one of the last remaining antebellum homes on the Virginia Peninsula; the Moses Myers House, built by an early entrepreneur; and Riddick's Folly, which was occupied by Mills Riddick, a prominent Revolutionary. Aberdeen Gardens Historic Homes is of note as it portrays the homes built in 1935 for African American workers as part of the New Deal program. Historic houses not only reflect

the architecture of the time, but also offer visitors a glimpse of the previous occupants' lifestyle of and a view into the everyday life of famous (and not-so-famous) Americans. Given the region's strong connection to the military, it should be no surprise that several museums focus on military history. Of particular interest to military aficionados are the Military Aviation Museum in Virginia Beach, the Virginia War Museum and the U.S. Army Transportation Museum in Newport News, and the American Revolution Museum at Yorktown.

A measure of the span and depth of the arts community is Southern Methodist University's Arts Vibrancy Index.⁵ The Arts Vibrancy Index estimates the relative rank of a county by weighting measures of (1) Arts Providers, (2) Arts Dollars, (3) Government Support, (4) Socio-economic characteristics, and (5) Other Leisure activities. The higher the reported index values for these dimensions, the more "vibrant" the arts community in the county or region. More than 3,100 counties are ranked in the most recent edition of the Arts Vibrancy Index.

Table 2 highlights the 2022 index values for selected cities and counties in the Hampton Roads region. Williamsburg, with a score of 95, and Virginia Beach, with a score of 94 for the Arts Providers category, ranked ahead of more than 2,900 counties across the United States.⁶ Norfolk (88), Chesapeake (87), Portsmouth (84), and Hampton (80) were not far behind Virginia Beach and Williamsburg. Another positive signal for support for the arts is how the localities in Hampton Roads fare with regards to Arts Dollars.⁷ Each of the selected localities again performs well relative to the national average with regards to revenue (earned and donated) and expenses (including employee compensation). In other words, the selected localities in Hampton Roads "earn" more and "spend" more on arts and culture on a per capita basis than many of their counterparts across the nation.

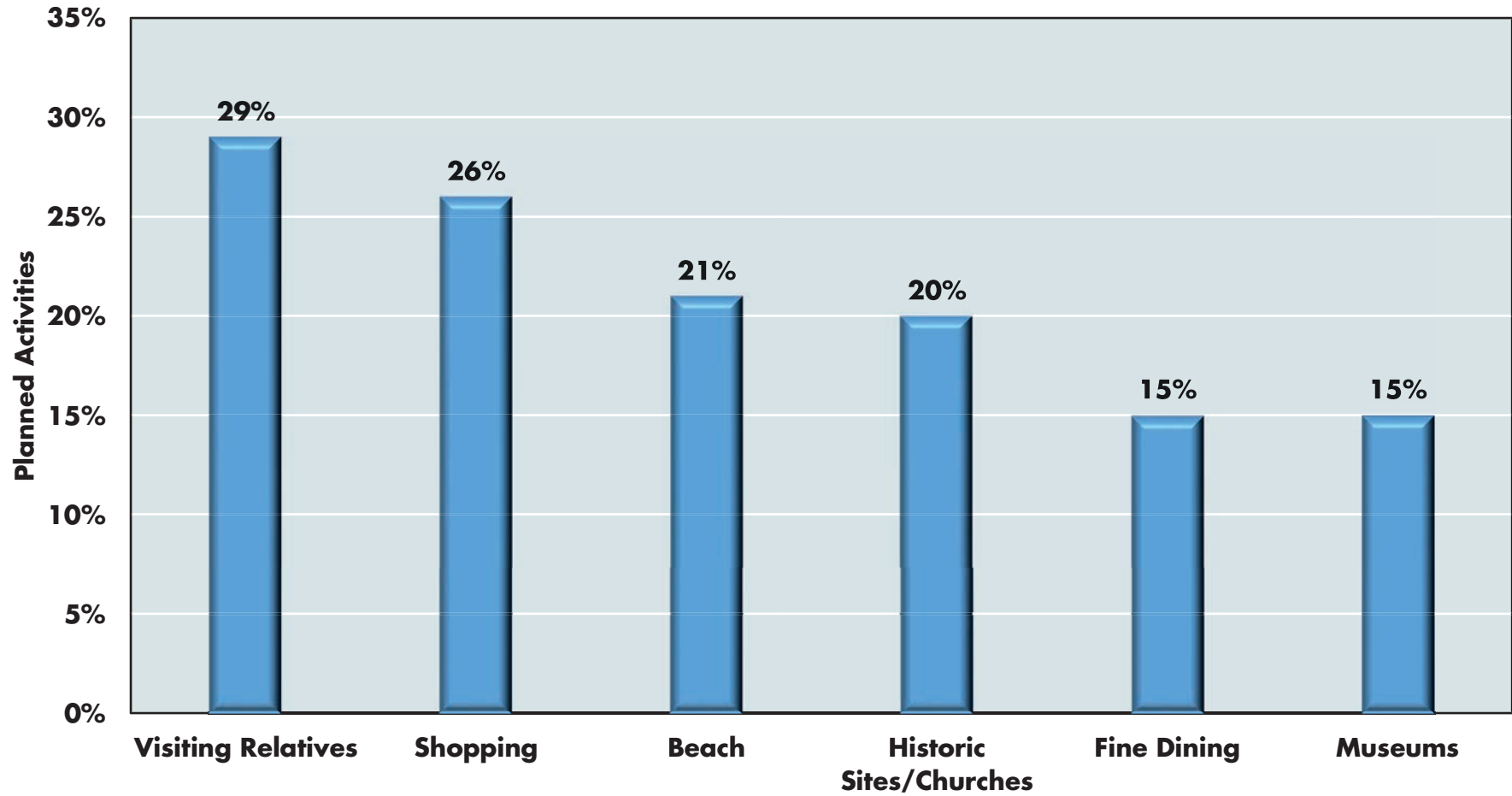
5 <https://dataarts.smu.edu/ArtsVibrancyMap/>

6 The Arts Providers category measures the number of artists, arts and culture employees, arts and cultural organizations, and arts, culture and entertainment firms in a geographic area. For more information, see <https://culturaldata.org/arts-vibrancy-2022/methodology>.

7 The Arts Dollars category measures program revenue, contributed revenue, total expenses, and total compensation of employees. For more information, see <https://culturaldata.org/arts-vibrancy-2022/methodology>.

GRAPH 3

TOP ACTIVITIES OF VISITORS TO COASTAL VIRGINIA – HAMPTON ROADS, 2020-2025



Source: Virginia Tourism Corporation, 2020-2025 Strategic Tourism Plan, Regional Plan: Coastal VA – Hampton Roads.

TABLE 2
2022 ARTS VIBRANCY SCORES OF SELECTED LOCALITIES
IN HAMPTON ROADS

Location	Arts Providers	Arts Dollars	Government Support	Socio-Economic	Other Leisure
Chesapeake	87	78	81	92	81
Hampton	80	91	91	76	80
Newport News	78	89	81	80	77
Norfolk	88	95	96	76	73
Portsmouth	84	95	96	73	70
Suffolk	68	82	89	79	60
Virginia Beach	94	83	80	93	93
Williamsburg	95	94	97	97	98

Source: Southern Methodist University, Arts Vibrancy Index (2022).

When it comes to federal and state government support, the SMU index suggests that the region receives an above average amount of federal and state dollars.⁸ Here, Williamsburg (97), Norfolk (96), and Portsmouth (96) rank the highest among the selected localities, however, we note that each of the larger cities in the region ranks well above the national average with regards to state and federal arts and culture dollars. The data suggest a vibrant environment for arts and culture in Hampton Roads. The challenge for the region is to build upon these local success stories to develop a cohesive and regional arts and culture environment to attract even more visitors (and their dollars) to Hampton Roads.



⁸ The Government Support category measures state art dollars, state art grants, federal art dollars, and federal arts grants. We note that the Government Support category does not include local arts and culture expenditures.

The Museum Economic Environment in Hampton Roads

From an economic perspective, in 2017, (the most recent estimates available) museums, historical sites, and similar institutions produced approximately \$0.1 billion of regional GDP. The average annual growth in economic activity for this sector in Hampton Roads over the previous decade was 1.1%, 2.8 percentage points below that of the nation. The slower pace of economic growth was reflected in output per worker, which was \$97,000 in the most recent data, about \$47,000 less than similar institutions across the nation.⁹

In 2019, museums, historical sites, and similar institutions in Hampton Roads employed, on average, 1,784 individuals (Graph 4). As with museums across the nation, the COVID-19 pandemic adversely impacted museum attendance and revenues. Museums in the region reduced employment in the face of declining revenues. In 2021, average employment by private museums in Hampton Roads declined to 1,545 individuals. There is a modicum of good news in that average employment increased to 1,645 in 2022, but this is still below the pre-pandemic level of employment.

Graph 5 illustrates the relative performance of employment in the museum, historical sites, and similar institutions industry for Hampton Roads, Virginia, and the United States from 2002 to 2022. From 2002 to 2019, private employment increased nationally by 47.6% but declined by 1.9% in Virginia and 23.4% in Hampton Roads. The employment data prior to the onset of the COVID-19 pandemic do not portray Hampton Roads in a good light, especially when compared to the growth of the industry nationally.

At the end of 2022, employment in the museum, historical sites, and similar institutions remained below pre-COVID levels. Nationally, employment in 2022 was 10.8% lower than 2019 while it was 9.2% lower in the Commonwealth and only 7.8% lower in Hampton Roads. If there is a sliver of good news, it is that employment in Hampton Roads has recovered more rapidly post-COVID than the state or nation. However, drawing back, we can also observe that, from a jobs basis, the industry has fared worse in Hampton Roads over the last two decades.

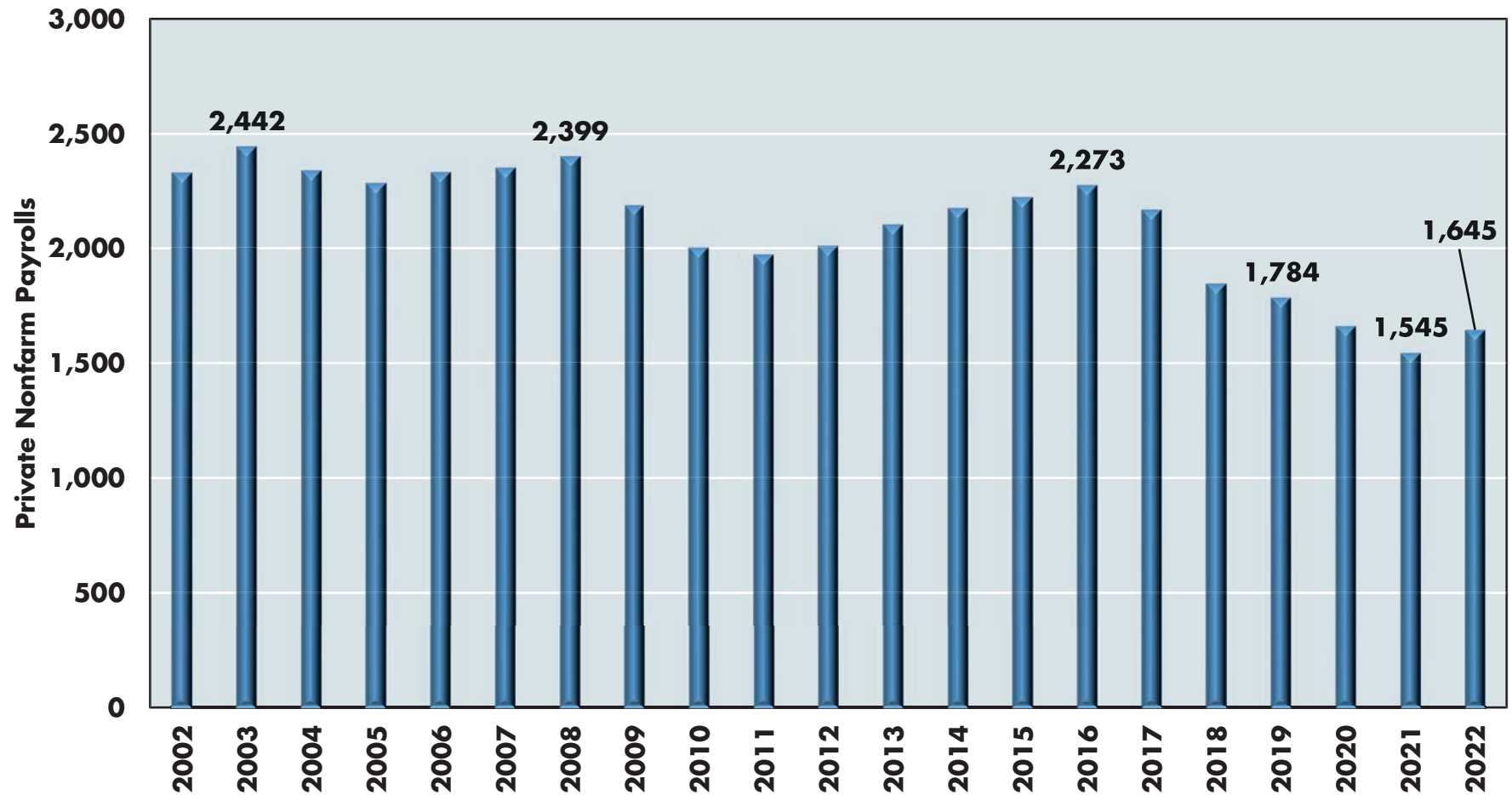
These estimates do not include the numerous volunteers who selflessly dedicated their time and energy to support the area's museums. Using data gathered at some of the largest museums in Hampton Roads, we estimate that there were approximately 7,000 volunteers in 2016, with a 7 volunteer to 1 paid employee ratio.¹⁰ Extrapolating from this estimate suggests that over 10,000 people (and likely closer to 15,000) volunteered their time in support of museums, historical sites, zoos, and parks in the region pre-pandemic. The value of this labor is not trivial. Assuming 10 hours of volunteer work a week by 10,000 residents of Hampton Roads yields an annual contribution of approximately \$15.4 million in labor to museums in the region. Time has value, and Hampton Roads residents provided a valuable contribution by volunteering at local museums and other cultural institutions.

⁹ Industry spotlight, Chmura Economics, Museums, Historical Sites, and Similar Institutions, Virginia Beach – Norfolk – Newport News Metropolitan Statistical Area, 2019.

¹⁰ Estimated using publicly available sources (IRS Form 990s)

GRAPH 4

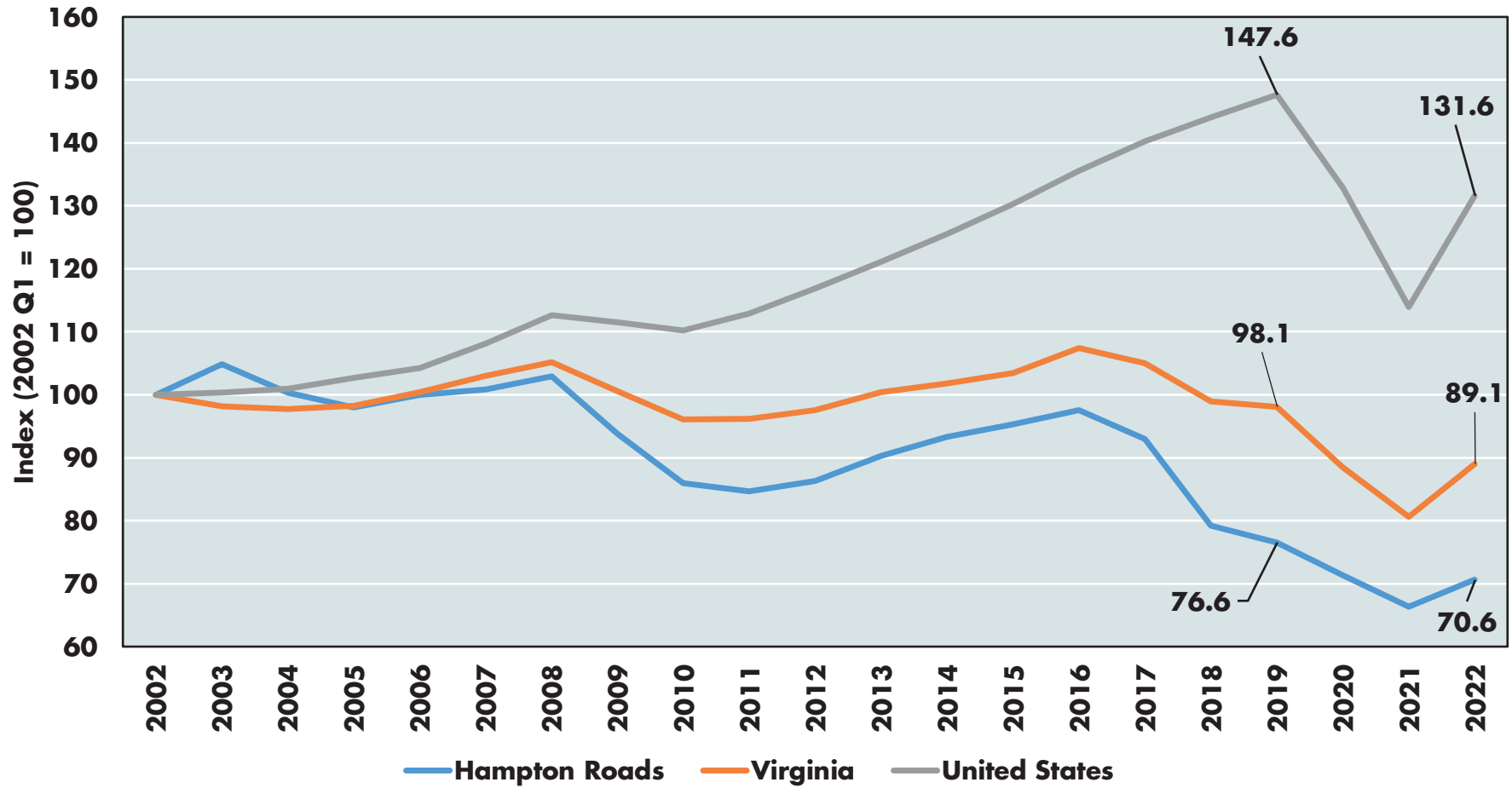
**PRIVATE NONFARM EMPLOYMENT
MUSEUMS, HISTORICAL SITES, AND SIMILAR INSTITUTIONS
HAMPTON ROADS, 2002-2022**



Source: JOBSEQ, Chmura Economics (2023). NAICS code 712, quarterly employment estimates. Data for 2022 Q4 are preliminary estimates.

GRAPH 5

INDEX OF PRIVATE NONFARM EMPLOYMENT
MUSEUMS, HISTORICAL SITES, AND SIMILAR INSTITUTIONS
HAMPTON ROADS, VIRGINIA, AND THE UNITED STATES, 2002 Q1 - 2022 Q3



Source: JOBSEQ, Chmura Economics (2023). NAICS code 712, quarterly employment estimates. Data for 2022 Q4 are preliminary estimates.

The Virginia Museum of Contemporary Art

Virginia MOCA is a vibrant cultural jewel that continues to provide the region with remarkable artistic resources and programming. The museum's readily accessible headquarters located at the end of I-264 in Virginia Beach is only six blocks from the oceanfront. Virginia MOCA's most visible activity, as far as the public is concerned, has been its sponsorship/exhibition/participation in the annual Boardwalk Art Show along the Virginia Beach oceanfront. This popular event attracts tens of thousands of individuals to the oceanfront and to the City of Virginia Beach. The 2022 show was held October 21-23, and more than 150 artists exhibited and sold their work.

Though many Hampton Roads residents, especially those located west of Virginia Beach, may only be vaguely aware (or even completely unaware) of Virginia MOCA,¹¹ the museum has assembled an enviable history of hosting notable contemporary art exhibitions and sponsoring enticing artistic activities. These typically include guided tours, interactive sessions with artists, workshops, and themed programs and exhibitions that focus on essential aspects of the human experience or serve a particular clientele, such as children. Representative is the *More Than Shelter* exhibition that found a diverse set of 11 artists addressing the myriad ways human beings satisfy their basic needs for food, water, and shelter and how those activities affect both them and others. In 2023, Virginia MOCA will host a show presenting the works of Kara Walker, a Black artist whose work often focuses on racial- and gender-related topics that are frequently in the news today.

Especially notable, however, was the *Maya Lin: A Study of Water* exhibit that Virginia MOCA hosted between April and September 2022. Maya Lin, who, at age 21, had already won the national design competition for the Vietnam Veterans Memorial in Washington, D.C., is internationally known and respected for her artistic work relating to landscapes and environmental issues. She received the Presidential Medal of Freedom in 2016. By any

standard, it was a coup for Virginia MOCA to attract Maya Lin's work, and not surprisingly, this exhibition was heavily patronized.

Hosting Maya Lin's artistic work underscored the respect with which Virginia MOCA is held in the wider community of artists. Nonetheless, many individuals (including elected officials and community leaders) appear to be substantially uninformed, even completely unaware, of Virginia MOCA's programs and significance. Our conversations revealed that large numbers of individuals in Virginia Beach have never been to any Virginia MOCA-sponsored event at the museum, and their only exposure has been at the annual Virginia Beach Boardwalk Art Show.

Therein resides the crux of the challenge facing Virginia MOCA. It is a major league artistic facility that focuses on exhibitions and does not collect art in the fashion of the Chrysler Museum in Norfolk. It would represent "fiscal suicide" for Virginia MOCA to attempt to develop a collection, one of its strongest supporters asserted. The cost of obtaining and maintaining a permanent collection, from this perspective, would require the museum to aggressively seek out additional sources of revenue and undermine its distinctive character of hosting nationally, if not internationally, renowned exhibitions.

Virginia MOCA's exhibitions place it in the top ten among exhibition-oriented arts facilities nationally, perhaps even in the top half-dozen. However, there was surprisingly little recognition of this status among those we interviewed within Hampton Roads or generally in the City of Virginia Beach. If there is a perceived lack of recognition among those who patronize the arts community in the region, it is not a leap to conclude that awareness of Virginia MOCA among the public is limited. The good news, however, is that raising awareness is a tangible course of action that can be undertaken in the coming years.

The Maya Lin exhibition was a visible demonstration of what is possible. City officials increasingly understand Virginia MOCA's potential to bring guests to Virginia Beach and to make the city a more attractive and enticing milieu

¹¹ We interviewed individuals in public and private positions throughout the region for this section. We thank them for their availability and opinions regarding Virginia MOCA. As is our custom, unless otherwise noted, our interviews are anonymous.

for those individuals considering it as a permanent place to reside. We would observe that no thriving metropolitan area in the United States is without a robust cultural scene and that this is a *sine qua non* for cities on the move upward.

Virginia MOCA's current location at the end of I-264 initially seems ideal but is problematic in that the museum is not readily visible unless one is standing nearby. "It is tucked away behind the trees," commented a supporter. Ideally, Virginia MOCA facilities should be more visible and located in a high vehicular and foot traffic area. Virginia MOCA's recently announced move to a new building on the grounds of Virginia Wesleyan University addresses this concern. This move is a vote of confidence in the work of Virginia MOCA and its impact on the surrounding communities.

Virginia MOCA reported the receipt of \$1.74 million in gifts in 2020.¹² This is nothing to sneeze at but is only a fraction of the \$12.41 million in gifts that went to a somewhat analogous civic treasure, Norfolk's Chrysler Museum.¹³ Virginia MOCA has yet to connect consistently and on a large scale with the major donors who possess the ability to move its programming to another level. But the record shows improvement in this regard, substantially due to the efforts and organization of its Director, Ms. Gary Ryan.

As illustrated in Graph 6, Virginia MOCA has increased gifts by 175.5% from FY 2017 to FY 2022. We note that the museum attracted more gifts after the advent of the COVID-19 pandemic, a positive signal from individual donors about the value of the museum in the midst of a severe economic shock to the arts community. From FY 2017 to FY 2022, approximately 18% of individual gifts were from outside Virginia Beach. In FY 2022, for example, Virginia MOCA attracted \$411,162 in gifts from outside Virginia Beach, resources that would have likely been directed elsewhere if not for its presence in the city.

¹² MOCA's IRS Form 990 for 2020.

¹³ Chrysler Museum's IRS Form 990 for 2020.

¹⁴ IRS Form 990 for both entities.

Even so, Virginia MOCA is far more financially dependent upon its donors than is the Chrysler Museum. In 2020, 88% of Virginia MOCA's income came from donors, whereas the comparable figure was only 65% at the Chrysler.¹⁴ While this is an unfair comparison in many ways, given the comparative maturity and backgrounds of these two artistic venues, it underlines the extent to which Virginia MOCA must mature financially and politically if it is to increase its impact on the region. The Chrysler, for example, recently used the City of Norfolk as a vehicle to acquire additional property and appears to knowledgeable outsiders to be more closely connected to that city than Virginia MOCA is to the City of Virginia Beach.

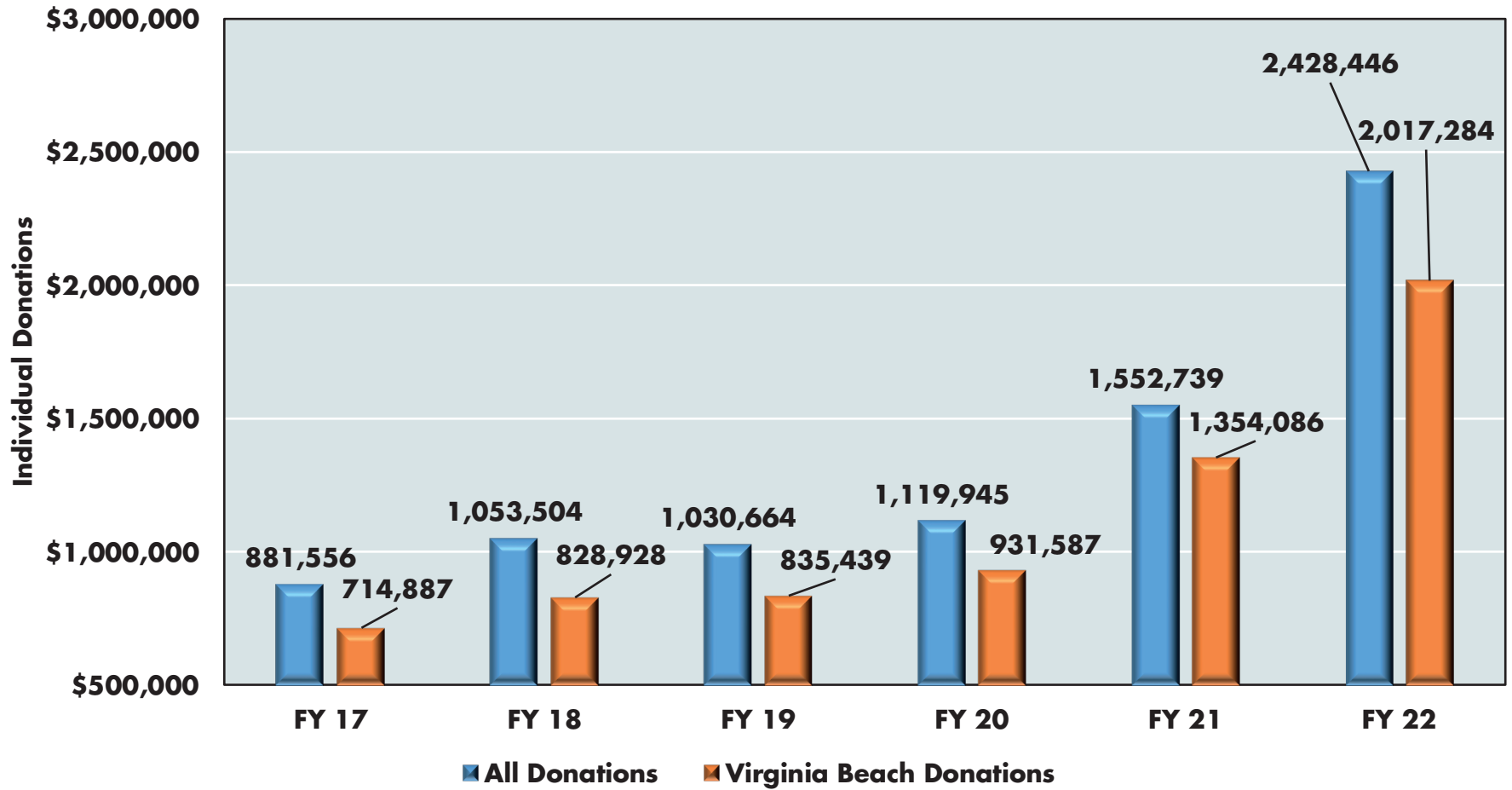
Our conversations with informed individuals in Hampton Roads revealed that some donors prefer to make financial gifts to artistic venues (such as the Chrysler Museum) that house permanent collections of art as opposed to Virginia MOCA, which has no collection and sponsors exhibitions. There is a sense among some that financial gifts to Virginia MOCA, while good, have a limited permanent, multi-generational impact. This is not to say that Virginia MOCA should attempt to develop its own permanent art collection, because it simply does not have the financial means to do so. But it is a recognition that the fundraising milieu surrounding Virginia MOCA is not comparable to the art museums such as the Chrysler.

A variety of knowledgeable individuals with whom we spoke were advocates of increased cooperation with the Chrysler Museum and even the Virginia Museum of Fine Arts in Richmond, which historically has regarded itself as the Commonwealth's major art museum. This perception, however, appears to be contrary to facts on the ground as Virginia MOCA has worked with other arts institutions in Hampton Roads and Virginia in the past. Most recently, for example, Virginia MOCA recently embarked on a long term sculpture program with the VMFA. Improving awareness of these efforts would benefit all the institutions in the long-term.



GRAPH 6

NOMINAL GIVING TO VIRGINIA MOCA
FISCAL 2017-FISCAL 2022



Source: Virginia MOCA (2022)

A Brief Review of Estimating Economic Impacts

Spending by Virginia MOCA and its visitors ripples throughout Hampton Roads, increasing economic output and employment in the region. In this section, we quantify the economic impact of Virginia MOCA's spending and the visitors it attracts to the region on the Hampton Roads economy.

Our analysis consists of two components. The first component examines the economic impact of Virginia MOCA's cumulative direct expenditures from fiscal year 2016 to 2021. The second component of our analysis focuses on the impact of spending by visitors from outside of the region who attended one of the museum's exhibitions held between November 2021 and July 2022.

To understand our approach, it is helpful to imagine a pebble dropped in a puddle. The direct impact on employment, sales, and employee compensation ripples through the rest of the economy like the waves moving outward through the puddle. These ripples represent the indirect and induced impacts realized through the interconnectedness of the local economy. The indirect impact comes from economic activity at companies frequented by museum employees and companies that provide services to the museum. The induced impact comes via additional spending due to increases in income generated by companies directly and indirectly affected by museum employment or spending.

These spillovers create a total economic impact that is larger than the direct impact. The notion of an economic multiplier summarizes the total economic impact of a change in economic activity. If a firm invests \$1 million (direct impact) that in turn generates \$300,000 in indirect economic impacts and \$200,000 in induced economic impacts, then the economic impact multiplier effect is $(\$1,000,000 + \$300,000 + \$200,000) / \$1,000,000 = 1.5$.

There are two important considerations when evaluating economic multipliers. First, the size of the multiplier inherently depends on how much of the economic activity continues to recycle within the region. If a firm obtains most of its materials from outside the region (a "leakage"), then the actual multiplier effect will necessarily be smaller. Second, the multiplier effect, where spending spills over to a variety of other sectors, is great when the direct impact is positive; however, it is equally painful when there is a reduction in direct economic activity.

To ensure a common framework for interpretation, we define commonly used terms from the economic impact literature below.

- **Compensation** – the total payroll cost of employees, including wages, salaries, and all benefits.
- **Employment** – the annual average of full-time, part-time, and seasonal employment in an industry or region.
- **Output** – the measure of the total value of goods produced in an industry. However, output from one industry utilizes output from other industries, so the measure overstates the contribution of an industry to GDP.
- **Value Added** – the total market value of all final goods and services produced in a region in each period. Value added is the measure of the increase or decrease in GDP.

The Economic Impact of Virginia MOCA Expenditures in Hampton Roads

To estimate the total economic impact of Virginia MOCA's operations in Hampton Roads from 2016 to 2021, we first aggregate annual expenditures into two broad categories: administrative (salaries, advertising, etc.) and operations and maintenance (exhibition programs, utilities, and so on). We use the Consumer Price Index (CPI) from the Bureau of Labor Statistics (BLS), adjusted to reflect a base year of 2021, to estimate real (inflation-adjusted) expenditures in 2021 dollars. To account for the time value of money, we compute the present value of real spending by Virginia MOCA in 2021 dollars.¹⁵

Table 3 presents estimates of the value of Virginia MOCA's expenditures over the period of analysis. We estimate the real present value of Virginia MOCA's spending from FY 2016 to FY 2021 is approximately \$16.5 million. In other words, the historical spending by Virginia MOCA over this period would be the equivalent of spending \$16.5 million in 2021.

We use the Bureau of Economic Analysis (BEA) Regional Input-Output Modeling System (RIMS-II) to generate estimates of indirect and induced economic impacts resulting from direct expenditures. We remind the reader that our estimates are in real discounted (inflation-adjusted) 2021 dollars. Table 4 presents the economic impact of cumulative direct spending by Virginia MOCA from FY 2016 to FY 2021. For this period, the real present value of direct expenditures was \$16.4 million. These direct expenditures created approximately \$31.5 million in economic output and lifted Hampton Roads real GDP by about \$18 million. We estimate direct spending by Virginia MOCA over the six-year period lifted employment in Hampton Roads by 222 jobs.

¹⁵ We use a real discount rate to discount constant-dollar expenditures. We assume a 7% discount rate following OMB Circular A-94, which notes constant-dollar cost-benefit analyses of proposed investments should utilize a real discount rate of 7% (Office of Management and Budget, 2012). The Present Value of expenditures in 2016, for example, is equal to the real value of expenditures * (1+0.07)⁻⁵.

Fiscal Year	Real Undiscounted Total Expenditures	Real Present Value of Total Expenditures
2016	\$2,294,499	\$3,218,153
2017	\$2,228,215	\$2,920,736
2018	\$2,402,034	\$2,942,594
2019	\$2,191,044	\$2,508,527
2020	\$2,071,049	\$2,216,022
2021	\$2,662,933	\$2,662,933
Total	\$13,849,774	\$16,468,965

Source: Dragas Center for Economic Analysis and Policy. Expenditure data provided by Virginia MOCA for fiscal years 2016 to 2021. Fiscal year refers to July to June. Real spending adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index for all Urban Consumers (CPI-U).

Direct Spending	Total Output	Value-Added	Compensation	Jobs
\$16.4	\$31.5	\$18.0	\$12.1	222

Source: Dragas Center for Economic Analysis and Policy.

The Economic Impact of Virginia MOCA Visitor Spending in Hampton Roads

Virginia MOCA exhibitions have attracted visitors from across the country, and in some cases from across the globe, to the Hampton Roads region. Spending by out-of-town visitors to the museum on lodging, meals, entertainment, and other activities during their stay in the region ripples through the Hampton Roads economy.

Graph 7 illustrates reports admissions to Virginia MOCA from FY 2010 to FY 2022. Before discussing Graph 7, however, we must make one important caveat: data prior to FY 21 represent all admissions, regardless of purpose, while data for FY 2021 and FY 2022 only represent exhibition admissions. We thus discuss these data separately as data prior to FY 2021 overstates the number of exhibition-only attendances. From FY 2010 to FY 2020, average admissions (for any reason) were 10,727.¹⁶

Focusing on the most recent data for FY 2021 and FY 2022, the COVID-19 pandemic shock and subsequent recovery is obvious. In FY 2021, only 8,678 individuals attended an exhibition at Virginia MOCA. Attendance rebounded sharply by FY 2022, increasing to 17,068, a 49.2% increase from FY 2021. Regardless of who was counted as attending an event at Virginia MOCA, FY 2022 sets a record. The ability of Virginia MOCA to respond nimbly to the pandemic and its continued ability to attract exhibitions of international import provided the foundation for the recovery in admissions.

Turning to the question of the economic impact of visitors to Virginia MOCA, we use individual-level data on admissions to estimate total direct visitor spending of nonresident attendees to one of the museum's exhibition programs, *Maya Lin: A Study of Water and Shaping Memories/Made in Virginia*, between November 2021 to September 2022.¹⁷ As shown in Table 5, approximately 18,050 individuals attended Virginia MOCA exhibitions during this period. To account for displacement, we exclude spending by attendees who reside within the region. From an economic impact perspective, spending by residents visiting the museum can be considered "old" money that is simply "redistributed" from existing spending in a region.

To conservatively estimate Virginia MOCA's impact, we only consider the impact of spending by visitors who reside outside of Hampton Roads, that is, "new" money injected into the region. This approach is conservative in that it assumes that residents inside the region fully shift expenditures from one source of entertainment to spending associated with Virginia MOCA. Without specific data on consumer spending, we argue that a conservative and transparent approach will produce a more robust set of estimates. We thus caution the reader that our estimates are biased downward and provide a floor, rather than a ceiling, for the estimated impact of visitor spending.

Of the 18,050 visitors to the museum, approximately 36.1% (6,518) were from outside of Hampton Roads. This number of visitors underscores the argument that Virginia MOCA is attracting visitors to Virginia Beach. To estimate the economic impact of nonresident visitor spending directly attributable to Virginia MOCA, we must first consider how many nonresident attendees travelled to the region specifically to visit the museum. We provide a conservative estimate that approximately 10% of nonresident attendees travelled to the region specifically to visit the museum.¹⁸ As illustrated in Table 6, we estimate real direct spending by visitors who travelled to Hampton Roads specifically to visit Virginia MOCA to be approximately \$150,442.

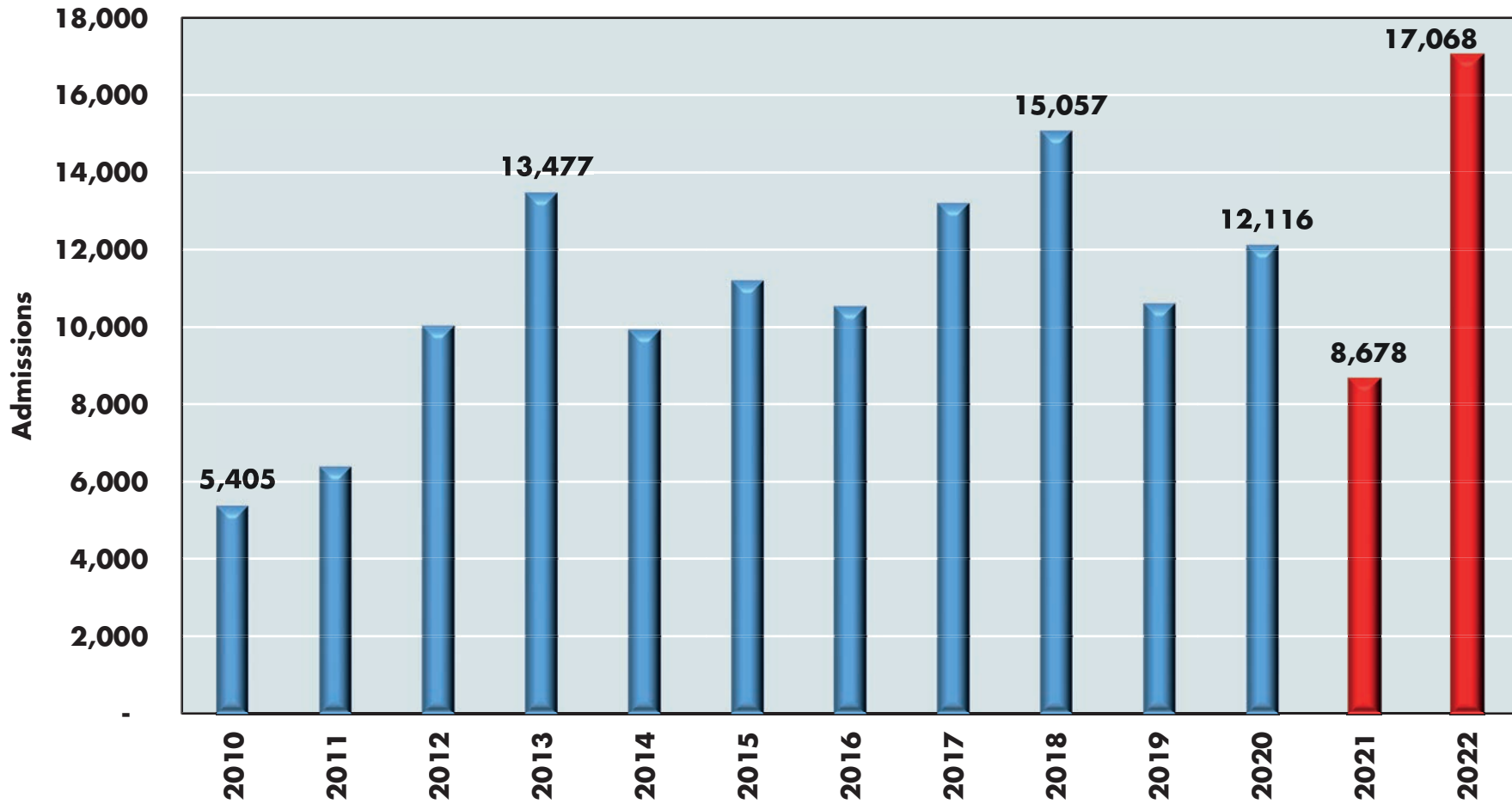
¹⁶ The Michael Kagan/Charged/Echard Wheeler exhibition cycle ended on February 16, 2020. The new exhibition cycle consisting of Shifting Gaze, New Waves, and Hampton Boyer was virtual from March 21, 2020 and transitioned to in-person attendance on July 11, 2020.

¹⁷ We note that the data in Table 4 cross two fiscal years and are not directly comparable with the fiscal year data in the preceding admissions graph.

¹⁸ Lawton and Rowe (2009) found 20% of visitors reported the museum as the main reason for their visit. Our data reflects attendance at exhibitions of well-known artists, not daily attendance for the entire museum. We can therefore assume our estimates are conservative and represent a lower bound.

GRAPH 7

ADMISSIONS TO VIRGINIA MOCA, FISCAL YEAR 2010-FISCAL YEAR 2022



Source: Virginia MOCA (2022). Data prior to FY 2021 represent aggregated admissions while data for FY 2021 and FY 2022 are reported individual admissions, including information about the number of tickets and the zip code of the individual requesting tickets for admission.

TABLE 5

**VIRGINIA MOCA ATTENDANCE
MAYA LIN AND SHAPING MEMORIES/MADE IN VIRGINIA
EXHIBITION CYCLES
NOVEMBER 2021-SEPTEMBER 2022**

Exhibition Cycle	Total Attendees	Hampton Roads Nonresidents	Share of Hampton Roads Nonresidents
Maya Lin: A Study of Water	13,428	5,121	38.1%
Shaping Memories/Made in Virginia	4,622	1,397	30.2%
Total Attendance	18,050	6,518	36.1%

Sources: Virginia MOCA and the Dragas Center for Economic Analysis and Policy. Excludes 208 attendees who did not report address information.

TABLE 6

**VIRGINIA MOCA EXHIBITIONS DIRECT VISITOR SPENDING
HAMPTON ROADS, 2021
VISITORS TRAVELING TO MOCA**

	Unit	Visitor Spending (In 2021 dollars)
Nonresidents	652	
Average Time in Hampton Roads	3 days	
Daily Spending	\$32.88 ¹⁹	
Total Daily Spending		\$64,294
Average Nights in Hampton Roads	2 nights	
Average Daily Room Rate (ADR)	\$132.17/night ²⁰	
Total Lodging Sales		\$86,148
Total Direct Visitor Spending		\$150,442

Source: Dragas Center for Economic Analysis and Policy and Stevens, 2018. Daily spending and the ADR of hotel rooms in Virginia Beach converted to 2021 dollars. To estimate total lodging sales, we assume an average visitor party of two individuals who share one hotel room for two nights.

¹⁹ Arts & Economic Prosperity 5: The Economic Impact of Nonprofit Arts and Cultural Organizations and Their Audiences in the City of Virginia Beach.

²⁰ STR Hotel Trend Reports November 2021 to July 2022. Estimated average ADR over the study period for the Virginia Beach submarket.

We can also estimate the direct visitor spending attributable to Virginia MOCA for the remaining 90% of nonresidents who attended the art exhibition during their visit to Hampton Roads (Table 7). We assume the visit to Virginia MOCA accounted for 10% of their total time in the region, representing 10% of total direct visitor spending. We estimate approximately \$135,398 in direct visitor spending by nonresident attendees who made visiting Virginia MOCA part of their trip.

Graph 8 shows the economic impact of direct visitor spending attributed to Virginia MOCA. We estimate total direct visitor spending by nonresident visitors to be approximately \$285,840. Accounting for the total economic impact, visitor spending lifted Hampton Roads' GDP by \$492,788 over the 11-month study period. These estimates provide evidence of Virginia MOCA's impact and how, by attracting visitors and increasing visitor spending, it has an economic impact larger than its direct spending.

On an annualized basis (and based on conservative assumptions), visitors to Virginia MOCA lift economic output in Hampton Roads by at least \$537,000 annually. Unless there is another significant economic shock akin to the onset of the COVID-19 pandemic, we are confident that average attendance at Virginia MOCA's exhibitions will rise relative to the pre-pandemic average. As Virginia MOCA attracts more visitors to the city of Virginia Beach and Hampton Roads, the impact of visitor spending will continue to increase in the near-term. We also note that as more data on attendance at the Boardwalk Art Show becomes available, the estimates of visitor economic impact will likely rise significantly in the future.

TABLE 7
VIRGINIA MOCA EXHIBITIONS DIRECT VISITOR SPENDING IN HAMPTON ROADS IN 2021 DOLLARS VISITORS WHO MADE VISITING VIRGINIA MOCA PART OF THEIR STAY

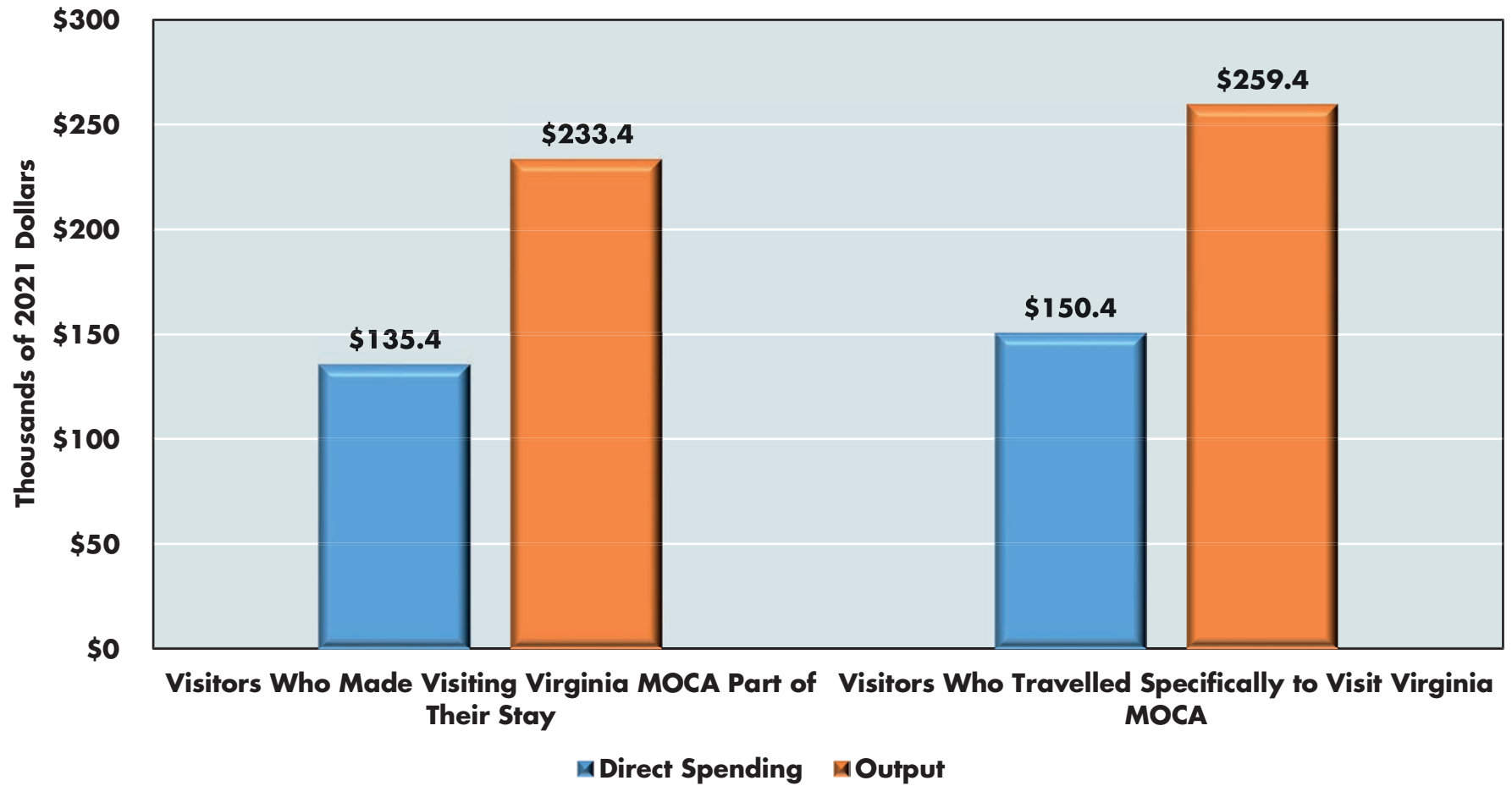
	Unit	Visitor Spending (In 2021 dollars)
Nonresidents	5,866	
Average Time in Hampton Roads	3 days	
Daily Spending	\$32.88 ²¹	
Total Daily Spending		\$578,642
Average Nights in Hampton Roads	2 nights	
Average Daily Room Rate (ADR)	\$132.17/night ²²	
Total Lodging Sales		\$775,336
Total Direct Visitor Spending (10% of Total)		\$135,398

Source: Dragas Center for Economic Analysis and Policy and Stevens, 2018. Daily spending and the ADR of hotel rooms in Virginia Beach converted to 2021 dollars. To estimate total lodging sales, we assume an average visitor party of two individuals who share one hotel room for two nights. We assume 10% of total direct visitor spending of nonresidents is attributed to expenditures made while visiting Virginia MOCA's Exhibition.

²¹ Arts & Economic Prosperity 5: The Economic Impact of Nonprofit Arts and Cultural Organizations and Their Audiences in the City of Virginia Beach.
²² STR Hotel Trend Reports November 2021 to July 2022. Estimated average ADR over the study period for the Virginia Beach submarket.

GRAPH 8

**VIRGINIA MOCA VISITOR SPENDING
REAL DIRECT SPENDING AND ECONOMIC OUTPUT IN 2021 DOLLARS
NOVEMBER 2021-SEPTEMBER 2022**



Source: Dragas Center for Economic Analysis and Policy. These estimates are based on our assumptions on the composition of visitors to Virginia MOCA and draw upon the literature.

Final Thoughts

Museums provide valuable services to the residents of Hampton Roads and are an integral part of our societal fabric. As Winston Churchill once said, “The farther backward you can look, the farther forward you are likely to see.” A vibrant museum sector is not only good for local communities, but it also provides a distinct economic benefit, drawing tourists from outside the region. The challenge, much like that facing the Hampton Roads economy, is how to grow the museum community to lessen its dependence on public resources. Reaching out to underserved communities, improving education and outreach, and making sound investments in collections adapted to the demographics of Hampton Roads are all wise courses of action.

Direct spending by Virginia MOCA lifted annual economic output and regional GDP by approximately \$5.2 million and \$3.0 million in 2021 dollars, respectively, from FY 2016 to FY 2021. Using the attendance data from two major recent exhibitions, we estimate that museum visitors contributed at least \$537,000 in economic output and \$322,116 to regional GDP annually. Our conservative estimates suggest that a lower bound for the economic impact of Virginia MOCA is approximately \$5.7 million annually, and its average annual contribution to regional GDP is about \$3.3 million a year. Virginia MOCA “punches above its weight” relative to other museums in the region in attracting internationally renowned exhibitions and for its effective use of public and private funds.

However, our research also suggests that there is work to be done. Virginia MOCA is not as well-known as other museums in the region. Improving visibility, ensuring Virginia MOCA’s contributions to the region are understood by policy makers, cultivating a wider donor base, and continuing to capitalize on the Boardwalk Art Show are wise courses of action. Continuing to gather attendance data and collect digital engagement statistics are key to understanding the composition of those who attend and support exhibitions and what contribution these visitors make to the local economy.

Each year when the Virginia General Assembly meets, the budget the two houses agree upon contains hundreds of effectively earmarked appropriations for organizations around the Commonwealth. These appropriations vary in size from \$25,000 to several million dollars. It is plausible that Virginia MOCA, the Virginia Museum of Fine Arts, and the Chrysler Museum might unite behind a financial earmark request to the General Assembly to support the arts in Virginia. A vital key to this strategy is to find politically powerful legislative sponsors for the earmark request. If worthy agencies such as the United Way of Southwest Virginia, the Carilion Clinic, and the Virginia Early Childhood Foundation can receive earmarks, then so also can Virginia’s arts community.

A broader examination of the Boardwalk Art Show, which will require survey data from vendors and visitors, should also be considered to develop estimates of the economic impact of this annual event. Given that 150 artists and tens of thousands of visitors attend this event (some estimates suggest up to 250,000 visitors), the contributions to the local economy are likely in the millions of dollars. We caution that previous estimates were pre-pandemic and should be carefully examined in the future. Lastly, because volunteers are a critical part of any museum’s operations, Virginia MOCA should capture volunteer hours and include these non-compensated hours in future estimates of economic impact. These efforts will take time but will certainly illuminate the other important impacts of Virginia MOCA on the economy of Virginia Beach, the region, and the Commonwealth of Virginia.

