# Economic Profile of St. John, U.S. Virgin Islands

# Prepared for:

Friends of Virgin Islands National Park

# Prepared by:

Jane Israel
JLI Solutions LLC

FINAL REPORT | JANUARY 23, 2023



# **Table of Contents**

Executive Summary	3
Introduction	5
Economic Contribution of the Virgin Islands National Park	5
Park Visitation	6
Economic Contribution of VINP	8
Park Operations	9
Tourism Trends	10
Population and Demographics	12
Business Establishments	
Employment	
Real Estate, Housing and Construction	
Charter Industry	
Day Charter Businesses	
Term Charter Businesses	
Mooring and Anchoring Information	
Business Outlook – Anecdotal Observations	
General Business Outlook	
Hiring Challenges.	
References	23
List of Tables	
Table 1. Annual Park Visitation	7
Table 2. Average Annual Recreation Visitors	
Table 3. Summary of Commercial Use Authorizations and Concessions in VINP	
. Table 4. Average Expenditure by Visitor by District: 2015	
Table 5. St. John Population	
Table 6. Active Business Licenses on St. John as of November 2022	14
Table 7. Employment by Island and Industry, December 2021	17
Table 8. St. John Home and Land Sales Data	18
Table 9. Long-term Rental Rates on St. John	19

# List of Figures

Figure 1. Map of St. John and Virgin Islands National Park	6
Figure 2. VINP Direct Visitor Spending in 2021	9
Figure 3. Visitor Arrivals St. Thomas/St. John for 2000 and 2008 – 2022	
Figure 4. Number of Business Establishments in USVI 2017-2021	15
Figure 5. USVI and St. Thomas/St. John Unemployment Rates 2021-2022	

# **Executive Summary**

The purpose of this study is to provide an understanding of the current economic conditions on St. John, with a focus on data that are relevant for decision makers interested in supporting a healthy and sustainable economy on the island of St. John. As many of the published economic data cover the whole U.S. Virgin Islands (USVI) territory or the district combining both the islands of St. Thomas and St. John, research was conducted to identify readily available economic statistics and relevant data specific to St. John.

The economy of St. John relies primarily on tourism, largely driven by visitors to the Virgin Islands National Park (VINP). More than 60 percent of St. John is national park land. According to the 2020 U.S. Census, the population of St. John was nearly 3,900, making up less than five percent of the total USVI population. From 2010 to 2020, while the USVI population declined by 18 percent, St. John's population only decreased by seven percent. In 2021, approximately 324,000 visitors to the VINP spent an estimated \$49.3 million in the gateway region (defined as the USVI territory), which supported a total of 565 jobs, \$24.4 million in labor income, \$46.0 million in value added, and had a total cumulative economic output of \$69.6 million (NPS 2022b). In 2022, there were a total of 210 Commercial Use Authorization permit holders and concessionaires operating within the VINP.

Readily available data do not identify the number of visitors to St. John specifically. The tourism indicators published by the V.I. Bureau of Economic Research (VIBER) combine St. Thomas and St. John into one district. While the hurricanes in 2017 resulted in a decrease in visitors to the USVI, the pandemic had a much greater effect on visitation to St. Thomas and St. John in 2020, due to the fact that hotels and rental properties were unable to accept new guests from March 23 through May 31, 2020.¹ Despite an 18-month suspension of cruise ship calls during the COVID-19 pandemic, overall visitation has rebounded with over one million visitors to the St. Thomas/St. John district in the first eight months of 2022, including approximately 497,000 air visitors, and 560,000 cruise visitors. According to a VIBER survey, for the St. Thomas/St. John district, in 2015 on average a cruise visitor spent \$253, while air visitors spent \$1,302 per visitor (VIBER 2015).

Available information indicates there are a total of 1,075 active short-term rental properties on St. John (up from 846 in Q3 2019), 94 percent of which are entire home rentals (Airdna 2022). Given the complete loss of hotel/campground capacity after the 2017 hurricanes, the villa market appears to have grown to meet the demand for overnight accommodations. Anecdotal information suggests that many recent home sales have converted homes from long term residences into short-term rentals.

To supplement available economic data, outreach to St. John businesses was conducted to gain a better understanding of current business conditions on St. John. Because the USVI was one of the few areas open to visitation during the first year of the COVID-19 pandemic, businesses on St. John generally experienced greater sales and numbers of customers than pre-pandemic levels and even levels seen prior to the 2017 hurricanes. However, during the 2020-21 season, many businesses struggled to find enough employees. Owners found themselves having to work many hours to fill the gaps and/or having to scale back operations. The lack of affordable/available housing was reported as the number one challenge to hiring and retaining the optimal number of employees.

-

<sup>&</sup>lt;sup>1</sup> See Governor Bryan's 6<sup>th</sup> Supplemental Executive Order COVID-19, dated April 29, 2020 (<a href="https://www.vi.gov/executive-orders/">https://www.vi.gov/executive-orders/</a>).

Median household income on St. John was \$50,352 in 2020, with 14 percent of families on St. John reporting incomes below the poverty line (U.S. Census Bureau 2022a). In 2021, approximately 45 percent of the 1,770 employed civilian population of St. John was employed in the arts, entertainment, recreation, accommodation, and food services sector, while 15 percent were in the retail trade sector, 10 percent were in real estate, rental and leasing sector, and eight percent were in the construction sector (VIBLS 2023).

The island of St. John has seen significant growth in the real estate and construction industries in recent years. In 2017, only 38 homes were sold, with an average price of \$891,763, while in 2021, a total of 117 homes were sold with an average price of \$1,757,642 (St. John MLS 2023). The cost of housing in the USVI is very high compared to U.S. averages for both renting and building residential properties. St. John has a housing shortage driven in part by conversion of long-term rentals into short-term. In a recent opinion piece about the USVI's housing affordability crisis, Mark Wenner, a USVI economist, noted that a standard financial rule of thumb is that rental expense should not exceed 30 percent of gross monthly income. Based on the 2020 Census median household income of \$50,352, monthly rent of \$1,260 or less would be considered affordable on St. John for a household earning median income levels. Currently, rental rates for a two-bedroom apartment on St. John range from \$2,000 to \$3,500. Also contributing to the housing affordability issue is the cost of new construction, which can cost \$400+ per square foot for masonry construction on St. John (Holiday Homes 2023) compared to typical building costs between \$100 to \$200 per square foot for the U.S. mainland (Wenner 2022).

For the current season (2022-23), business is expected to continue to be good, but also to slow somewhat as other destinations have reopened after pandemic-related closures. Lodging businesses also cited increased airfares as a factor leading to lower occupancy expectations. Businesses expect a return to something more like pre-pandemic levels, with a pattern of seasonal highs and lows. Employment issues have eased somewhat, with the businesses who responded to the questionnaire indicating that they would be able to fill most positions. While the pandemic persists, there is economic uncertainty, but St. John appears to be well positioned to continue to thrive, given recent investments in the development of short-term rental villas and marine charter businesses that draw tourists to the island to enjoy the national park.

\_\_\_

<sup>&</sup>lt;sup>2</sup> To determine poverty status, the Census Bureau uses thresholds (income cutoffs) that vary by family size and the number of family members under 18 years old. For example, the 2020 poverty threshold for a four-person family with two children under 18 is \$26,246 (U.S. Census Bureau 2020).

<sup>&</sup>lt;sup>3</sup> Affordable housing is generally defined as housing on which the occupant is paying no more than 30 percent of gross income for housing costs, including utilities (HUD 2023).

<sup>&</sup>lt;sup>4</sup> Based on 2020 Census median household income of \$50,352 for St. John, this equates to a monthly income of \$4,196. Thirty percent of this monthly income would equal a monthly rent of approximately \$1,260.

# Introduction

The purpose of this study is to provide an understanding of the current economic conditions on St. John, with a focus on data that are relevant for decision makers interested in supporting a healthy and sustainable economy on the island of St. John. As many of the published economic data cover the whole U.S. Virgin Islands (USVI) territory or the district combining both the islands of St. Thomas and St. John, research was conducted to identify readily available economic statistics and relevant data specific to St. John. The available data are summarized in this report, in order to provide context for decision makers and the public, and to foster an understanding of current economic conditions on the island. The goal of this study is to gather relevant available information into one place, to identify where St. John specific information is <u>not</u> available, and to fill those gaps using anecdotal evidence from local business owners and operators.

Desktop research was initially conducted to identify data readily available on the internet from federal and USVI government agencies including the U.S. Census Bureau, the National Park Service (NPS), Virgin Islands Bureau of Economic Research (VIBER), USVI Department of Planning and Natural Resources (DPNR), USVI Bureau of Labor Statistics (VIBLS), and the USVI Department of Licensing and Consumer Affairs (DCLA). Where data were not available online, additional outreach was conducted in the form of phone calls and emails to various agencies and other relevant organizations (e.g., Virgin Islands Professional Charter Association).

The report is divided into sections providing information related to various aspects of the St. John economy, as follows:

- Economic Contribution of the Virgin Islands National Park (VINP)
- Tourism Trends
- Population and Demographics
- Business Establishments
- Employment
- Real Estate, Housing and Construction
- Charter Industry
- Business Outlook Anecdotal Observations

# **Economic Contribution of the Virgin Islands National Park**

With more than 60 percent of the island of St. John comprised of Virgin Islands National Park (VINP) land, the island economy is heavily reliant on spending by visitors to the national park. A map of St. John and the VINP is shown in Figure 1. Trip-related spending on lodging, meals and transportation generates and supports substantial economic activity on St. John. This section presents information from the NPS regarding the number of visitors to the VINP, the effects of VINP visitor spending on the regional economy, as well as information on VINP employment, and the number of businesses operating in the park.

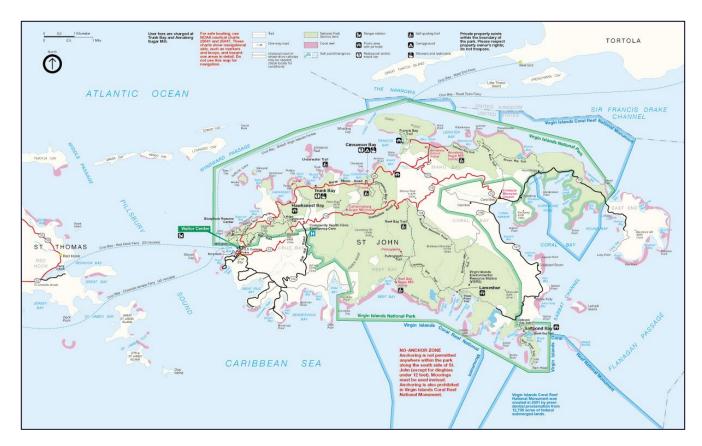


Figure 1. Map of St. John and Virgin Islands National Park

Source: NPS 2023.

#### Park Visitation

For the five years prior to the 2017 hurricanes (2012 -2016), the average of annual recreation visits was approximately 440,000. While still much lower than historical and pre-hurricane visitation levels, VINP visitation nearly doubled from 168,000 in 2020 to 324,000 annual recreation visits in 2021 (see Table 1). It is important to note that current NPS visitation figures appear to be based on a methodology for counting visitors that has not been updated since January 2003 (NPS 2003). Given the changes affecting the park since that time (closure of Maho Bay Campground and Caneel Bay Resort, and the effects of the 2017 hurricanes and the COVID-19 pandemic), this method is outdated and the accuracy of these figures is uncertain. Based on a review of the methodology, current estimates likely undercount visitors to the VINP; however, the magnitude of this discrepancy is unknown.<sup>5</sup>

\_

<sup>&</sup>lt;sup>5</sup> For example, the instructions for determining the number of recreation visitors by boat include "dividing the number of boats counted (from ranger logs) by the number of counts made. The average number of boats per count is multiplied by the number of days in the reporting month. The estimated number of boats is increased by 25 percent to account for boats missed (before and after hours). The total boat count is multiplied by the PPB [persons per boat] multiplier of five. Ninety percent of these visitors are recreation use" (NPS 2003). It is not clear how often ranger counts are occurring, or whether the assumption of five persons per boat remains a reasonable assumption.

Table 1. Annual Park Visitation

Year	Total Annual Recreation Visitors	Difference from prior year	Percent change from prior year
2012	483,341		
2013	438,601	-44,740	-9%
2014	426,930	-11,671	-3%
2015	438,372	11,442	3%
2016	411,343	-27,029	-6%
2017	304,408	-106,935	-26%
2018	112,287	-192,121	-63%
2019	133,398	21,111	19%
2020	167,540	34,142	26%
2021	323,999	156,459	93%
10-Year Total	3,240,219		
10-Year Average	324,022		
Pre-Storm Average (2012-2016)	439,717		
Post-Storm Average (2018-2021)	184,306		

Source: NPS 2022a.

Note: NPS visitation figures are based on a reporting methodology that has not been updated since January 2003 (See: VINP Visitor Use Reporting and Counting Procedures at <a href="https://irma.nps.gov/STATS/FileDownload/32869">https://irma.nps.gov/STATS/FileDownload/32869</a>). Given the changes affecting the park since that time (closure of Maho Bay Campground, Caneel Bay Resort, and effects of the 2017 hurricanes and the COVID-19 pandemic), the accuracy of these figures is uncertain, and the figures likely understate visitation.

For further historical context, visitation by decade is presented in Table 2. Visitation in prior decades has been much higher than in the most recent decade, with 10-year average visitation above 600,000 in the 1980s, 1990s and 2000s, as compared to an average of 368,000 in the 2010 decade. This drop in visitation likely reflects the effects of recession caused by the financial crisis in 2008, and the hurricanes which hit the island in 2017.

Table 2. Average Annual Recreation Visitors

	Average Annual
Decade	<b>Recreation Visitors</b>
1980s	688,509
1990s	617,650
2000s	662,675
2010s	368,457
Source: NPS 2022a.	

#### **Economic Contribution of VINP**

A recent study by the NPS (Cullinane Thomas et al. 2022) looked at the economic contribution of park visitors to the regional economy in 2021. For purposes of this analysis the region is defined as the entire territory of the USVI. Economic contributions are estimated by multiplying total visitor spending by regional economic multipliers. Total visitor spending includes spending by both local visitors and non-local visitors who travel to VINP from outside the region. In 2021, approximately 324,000 visitors spent an estimated \$49.3 million in the gateway region, which supported a total of 565 jobs, \$24.4 million in labor income, \$46.0 million in value added, and had a total cumulative economic output of \$69.6 million (see text box for explanation of each of these categories) (NPS 2022b).

Economic contributions of the Virgin Islands National Park include the following regional economic effects in 2021:

- 565 Jobs. Measured as annualized full and part time jobs (e.g., total full-time equivalent jobs per year) supported by NPS visitor spending.
- \$24.4 million in Labor Income. Includes employee wages, salaries and payroll benefits, as well as the incomes of proprietors that are supported by NPS visitor spending.
- \$46.0 million in Value Added. Measured as the contribution of NPS visitor spending to the Gross Domestic Product of a regional economy. Value added is equal to the difference between the amount an industry sells a product for and the production cost of the product.
- \$69.6 million in Economic Output. Measured as the total estimated value of the production of goods and services supported by NPS visitor spending. Economic output is the sum of all intermediate sales (business to business) and final demand (sales to consumers and exports).

(Source: Cullinane Thomas et al. 2022 and NPS 2022b)

As illustrated in Figure 2, in 2021 the lodging sector had the highest direct visitor spending, with \$14.6 million directly contributed to this sector in the region, followed by the restaurant sector with \$12.2 million, then the transportation sector with \$7.5 million and the retail sector with \$6.5 million.

-

<sup>&</sup>lt;sup>6</sup> For purposes of the analysis, due to data limitations, the island economy of the State of Hawaii is used as a surrogate economic region for the USVI for determining economic multipliers.

<sup>&</sup>lt;sup>7</sup> Visitor spending estimates and patterns are based on a study conducted in the VINP in March 2004; spending figures have been inflated to 2020 dollars. Surveys were conducted at nine locations in the park, including Trunk Bay, Annaberg Sugar Mill, Boats on moorings, Cruz Bay Visitor Center, Hawksnest Bay, Cinnamon Bay, Maho Bay, Salt Pond Bay, and Francis Bay. See Israel (2004) for more detail on the visitor spending survey effort.

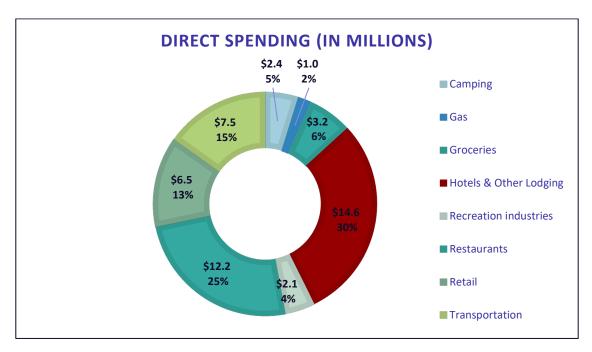


Figure 2. VINP Direct Visitor Spending in 2021

Source: NPS 2022b.

#### Park Operations

In addition to visitor spending, park employment, operations and construction contribute to the regional economy. For fiscal year (FY) 2021, the NPS reports a total of 35 full time equivalent employees and a budget of \$5.3 million; the FY2023 budget request is \$6.3 million (NPS 2022c).

In 2022, there were a total of 210 Commercial Use Authorization (CUA) permit holders and concessionaires operating within the VINP (see Table 3). These CUA permits represent businesses that are supported by the existence of the VINP. For many CUA permit holders, operations in the park may make up a significant portion of their business. NPS polices do not allow for disclosure of CUA permit holder's revenues, and information on the number of clients served by CUA permit holders is not available from NPS.

Table 3. Summary of Commercial Use Authorizations and Concessions in VINP

Type of Business	Number of Operators			
Day Sail Excursions	111			
Wedding/Event Planners	9			
Photography	7			
Guided Excursions	11			
Taxi/Tours	70			
Trunk Bay Watersports Rentals	1			
Concessions Operations at				
Cinnamon/Trunk Areas	1			
Total	210			
<b>Source</b> : Email Communication from VINP Staff, October 14, 2022.				

At the time of writing, the VINP had not provided requested information on the number, use and fees collected from the moorings in the VINP.

#### **Tourism Trends**

Readily available data do not identify the number of visitors to St. John specifically. The annual and monthly tourism indicators published by the VIBER combine St. Thomas and St. John into one district as the airport and the cruise ship docks serving both islands are all located on St. Thomas. As shown in the graph in Figure 3, while the hurricanes in 2017 resulted in a decrease in visitors, the pandemic has had a much greater effect on visitation to St. Thomas/St. John in 2020, due to the fact that hotels and rental properties were unable to accept new guests from March 23 through May 31, 2020.8 In addition, cruise ship calls were halted for 18

months (March 2020 through August 2021) during the COVID-19 pandemic, and are not expected to return to pre-pandemic level until 2024 according to the USVI Tourism Commissioner Joseph Boshulte (Major 2022). In 2021, visitation rebounded substantially, with a total of 866,113 visitors to St. Thomas/St. John, three-quarters of which arrived by air. Visitation in 2022 is poised to surpass these numbers, with over a million visitors to St. Thomas/St. John year-to-date through August 2022. Air visitation has increased over the past two years, while cruise ship calls and visitation decreased from 2020 to 2021, due to a halt in cruise ship visits. Hotel occupancy for the St. Thomas/St. John district also improved in 2022, increasing from 65.6 percent in 2021 to 71.8 percent in 2022 year-to date through August 2022 (VIBER 2022).

"We [the USVI] received roughly 12 to 15 percent of our normal cruise capacity in 2021 and this year we're at somewhere between 25 and 30 percent of where we normally are,' said Joseph Boschulte, the U.S. Virgin Islands' tourism commissioner.... Boschulte predicts major cruise lines will sail at 60 percent of capacity by the end of this year and through 2023. 'So 2024 is when we expect to be back to where we were pre-COVID'.... Meanwhile, Boschulte said that the U.S. Virgin Islands has rebounded strongly in terms of air service. 'Our airlift into the territory throughout the pandemic has been historic,' he said. 'In 2021 we actually set the record for the most airlift passengers to come into the territory. So we're doing extremely well."" - TravelPulse website April 2022 (Major 2022)

St. John has a thriving villa rental market. Available information indicate there are a total of 1,075 active shortterm rental properties (up from 846 in Q3 2019), 94 percent of which are entire home rentals. Approximately one-third of these are 1-bedroom homes or studios, 29 percent are two-bedroom and 37 percent are three or more bedrooms (Airdna 2022). Given the loss of hotel/campground capacity after the 2017 hurricanes, the villa market appears to have grown to meet to demand.

<sup>&</sup>lt;sup>8</sup> See Governor Bryan's 6<sup>th</sup> Supplemental Executive Order COVID-19, dated April 29, 2020 (https://www.vi.gov/executiveorders/).

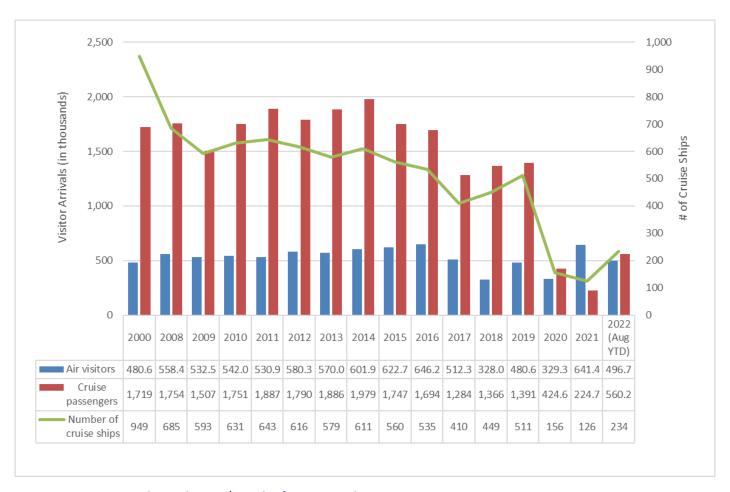


Figure 3. Visitor Arrivals St. Thomas/St. John for 2000 and 2008 – 2022

#### Source: VIBER 2022.

VIBER periodically surveys visitors to determine average visitor spending. The latest survey was conducted in 2015; a new survey is planned for 2023. Table 4 summarizes visitor spending by district for cruise and air passengers. For the St. Thomas/St. John district, in 2015 on average, a cruise visitor spent \$253, while air visitors spent \$1,302 per visitor.

Table 4. Average Expenditure by Visitor by District: 2015

	Cruise Visitors 2015			Δ	Air Visitors 2015	5
Expenditure Items	USVI St. John St. Croix		USVI	St. Thomas/ St. John	St. Croix	
Hotel and Lodging	\$0.00	\$0.00	\$0.00	\$855.38	\$855.02	\$860.17
Meals and Drinks	\$19.68	\$24.59	\$14.37	\$253.13	\$250.75	\$281.41
Taxi/Car Rentals/Tours	\$25.48	\$24.15	\$28.06	\$128.13	\$125.93	\$156.74
Entertainment/Recreation	\$36.74	\$41.24	\$29.98	\$152.96	\$152.19	\$161.90
Shopping Expenditures (1)	\$106.19	\$158.55	\$34.10	\$297.22	\$310.78	\$140.03
Average Total Expenditure	\$251.25	\$252.95	\$219.07	\$1,291.61	\$1,302.23	\$1,152.39

Source: VIBER 2015.

Notes: (1) Shopping expenditures include Souvenirs, Local Arts and Crafts, Jewelry and Watches, Perfume and Cosmetics, Leather Goods, Electronics, Liquor and Clothing; breakout is available from the source.

# **Population and Demographics**

Population and demographics are basic factors to consider in understanding potential limitations for tourism development. According to the 2020 Census, the island of St. John had a resident population of 3,881 in 2020, making up less than five percent of the USVI population. Table 5 provides a breakdown of St. John population by subdistrict, and a comparison of the 2010 and 2020 Census population data.

Table 5. St. John Population

	Popula	ation	Cha (2020 le	•			
Island/District	2010	2020	Number	Percent			
St. John	4,170	3,881	-289	-6.9%			
Central Subdistrict	779	470	-309	-39.7%			
Coral Bay Subdistrict	634	724	90	14.2%			
Cruz Bay Subdistrict	2,706	2,652	-54	-2.0%			
East End Subdistrict	51	35	-16	-31.4%			
St. Thomas	51,634	42,261	-9,373	-18.2%			
St. Croix	50,601	41,004	-9,597	-19.0%			
USVI Total	106,405	87,146	-19,259	-18.1%			
Source: U.S. Census Bureau 2022a.							

While the USVI population declined by 18 percent from 2010 to 2020, St. John's population only decreased by seven percent. Based on 2020 Census data, the Cruz Bay subdistrict represents just over two-thirds of the

It has been suggested that the 2020 census was an undercount of USVI population due to difficulties of obtaining accurate information during the COVID-19 pandemic; however, information is not available to make any adjustments. For example, the island area census did not count residents residing in group facilities during the 2020 Census. Census data

island's population (68%), while the Coral Bay area accounts for nearly one-fifth (19%). In 2020, St. John had 488 school age children (Age 5 to 19); more recent information indicates that there are approximately 500 children enrolled in three schools on St. John. 10 In both St. John and the USVI overall, approximately 20 percent of the population was over 65 years of age in 2020; this is slightly higher than the U.S. average of 16.9 percent. According to the 2020 Census, approximately 58 percent of the St. John population identify as Black or African American (alone or in combination with other races) and 14 percent identify as Hispanic or Latino (of any race).

Based on the households captured in the 2020 Census, St. John has the highest median household income of the three islands at \$50,352, as compared to \$40,408 for the territory as a whole. Similarly, per capita income for St. John is \$31,329, substantially higher than the USVI which has per capita income of \$26,897. The 2020 Census indicates that 14 percent of St. John households have incomes below the poverty level, as compared to 19 percent for the USVI (U.S. Census Bureau 2022a). 11

#### **Business Establishments**

To understand the number of businesses operating on St. John, information was obtained from the VI Department of Licensing and Consumer Affairs (DLCA) on the number of business licenses issued on St. John. These data indicate that there are a total of 1,041 businesses holding a total of 1,733 active licenses as of November 7, 2022. For purposes of this study, over 200 license categories have been combined and assigned into 29 condensed categories (see Table 6). The category with the most business licenses on St. John is Short-Term Rental, followed by Food and Liquor related licenses and Retail.

For additional context, the annual average number of employers territory wide has ranged from 3,350 to 3,598 during the period from 2017 to 2021 based on data from the USVI Bureau of Labor Statistics (VIBLS 2022); these data were not available for specific islands. However, employment data are available by Island and are presented in the next section. Figure 4 provides a breakdown of these employers by sector type. As shown in Figure 4, in 2021, 96 percent of employers in the USVI were in the private sector.

counts people at the residence where they live and sleep most of the time. If they cannot determine a place where they live most of the time, then they are counted where they are staying on Census Day. (US Census Bureau 2022b).

<sup>&</sup>lt;sup>10</sup> Personal communication from Friends of VINP, January 11, 2023.

<sup>&</sup>lt;sup>11</sup> To determine poverty status, the Census Bureau uses thresholds (income cutoffs) that vary by family size and the number of family members under 18 years old. For example, the 2020 poverty threshold for a four-person family with two children under 18 is \$26,246 (U.S. Census Bureau 2020).

Table 6. Active Business Licenses on St. John as of November 2022

Assigned Category	Number of Licenses
Short-Term Rental	285
Food and Liquor	227
Retail	175
Property Services	122
Real Estate Related	104
Importer	103
Business Related	74
Building/Construction	72
Arts, Entertainment and Recreation	69
Boat Charter/Rental	56
Misc. Services	53
Apartment Rental	51
Rental Business	51
Auto Related	47
Mail/Trucking/Cargo Services	44
Beauty & Health Related	30
Car Rental	27
Manufacturing	18
Advertising	17
Commercial Boat, Freight or Pass.(per boat)	17
Photography Related	14
Telecom	13
Fishing	12
Hotel/Guest House	12
Education	11
Health Care/Social Work	9
Marine	8
Wholesaler Other than Liquor	7
Farming	5
Grand Total	1,733
Course DICA 2022	

Source: DLCA 2022.

#### Notes:

Current data as of November 7, 2022. The 1,733 active licenses represent 1,041 individual Business Names; many businesses hold more than one license. A total of 225 expired licenses are not included in these counts. Categories have been assigned to combine license types for purposes of this report; DCLA reported 225 different license types.



Figure 4. Number of Business Establishments in USVI 2017-2021

Source: VI Bureau of Labor Statistics, Quarterly Census of Employment & Wages Program (VIBLS 2022)

# **Employment**

During the COVID-19 pandemic, the unemployment rate in the USVI and the United States grew to extraordinarily high levels; the United States peaked at 14.9 percent in April 2020, while the USVI reached 13.6 percent in May 2020. While the United States has rebounded more quickly than the territory, the St. Thomas/St. John district has rebounded better than the territory as a whole. In the first 11 months of 2022 the unemployment rate for St. Thomas/St. John declined from 7.0 percent to 3.9 percent; during this same period, the USVI territory wide unemployment fell from 8.4 to 4.6 percent. The unemployment rate in the territory has remained higher than the U.S. unemployment rate which ranged from 4.0 percent in January 2022 to 3.6 percent in November 2022. Figure 5 illustrates unemployment rates over the past two years on St. Thomas/St. John as compared to USVI and the United States in 2022.



Figure 5. USVI and St. Thomas/St. John Unemployment Rates 2021-2022

Source: VIBER 2023a, USBLS 2023.

In testimony to the USVI legislature in June 2022, the Director of the U.S. Virgin Islands Office of Management and Budget, Jennifer O'Neal, predicted that employment growth would grow in 2022; but she also noted that

"[d]espite the improvement in the labor market, however, the territory had about 3,000 fewer jobs in April 2022 than it had in February 2020 before the pandemic" (Straker 2022).

As shown in Table 7, as of December 2021, the private sector accounted for 96 percent of employment on St. John, followed by three percent Federal jobs and less than one percent from the USVI Government. This differs substantially from the rest of the territory, with both St. Thomas and St. Croix having closer to 70 percent private and 30 percent USVI government employment.

"The OMB lead said employment growth should continue in 2022 but at a slower rate. 'This, in addition to the loss of approximately 20,000 residents per the 2020 Census, is indicative of the difficulties being faced in recruiting that the GVI (Government of the Virgin Islands] and other entities are enduring,' she said."

- VI Consortium website (Straker 2022)

In 2021, approximately 45 percent of the 1,770 employed civilian population of St. John was employed in the arts, entertainment, recreation, accommodation, and food services sector, while 15 percent were in the retail trade sector, 10 percent were in real estate, rental and leasing sector, and eight percent were in the construction sector (VIBLS 2023).

Table 7. Employment by Island and Industry, December 2021

Employment Count								
	St. John St. Thomas St. Croix USVI Total							
PRIVATE SECTOR								
Accommodation & Food Services	781	3,198	1,592	5,571				
Retail Trade	257	2,785	1,649	4,691				
Real Estate, Rental & Leasing	169	404	326	899				
Construction	135	746	1,066	1947				
Transportation & Communication	81	732	418	1231				
Admin. Support & Waste Mgt. &								
Remediation Serv.	80	1,028	644	1,752				
Other Services	69	420	914	1403				
Prof., Sci., & Technical Services	65	579	549	1193				
Education Services	65	331	219	615				
Manufacturing	27	136	413	576				
Health Care & Welfare Services	14	804	913	1731				
Arts, Entertainment & Recreation	11	480	254	745				
Information	9	270	207	486				
Finance & Insurance	7	532	382	921				
All Other Private	0	376	388	764				
PRIVATE SECTOR TOTAL	1,770	12,799	9,937	24,506				
GOVERNMENT SECTOR TOTAL	6	5,210	4,378	9,594				
FEDERAL SECTOR TOTAL	60	577	307	944				
GRAND TOTAL	1,836	18,854	14,622	35,044				
Source: VIBLS 2023.								

# Real Estate, Housing and Construction

The island of St. John has seen significant growth in the real estate and construction industries in recent years. An August 2022 real estate newsletter noted "[t]he US Virgin Islands housing market is heating up, buoyed by strong demand and improving economic conditions, as the world eases pandemic-related travel restrictions" (Delmendo 2022). In 2017, only 38 homes were sold on St. John, with an average price of \$891,763, while in 2021, there were a total of 117 home sales with an average price of \$1,757,642 (see Table 8). This is significantly higher than average prices on the other U.S. Virgin Islands; average home sales price in 2021 was \$861,503 for St. Thomas and \$618,943 for St. Croix (Delmendo 2022). While many factors influence property values, the existence of the VINP may impact property values on St. John. The park constrains the amount of privately available property on St. John, and may also affect demand for property on St. John, which in turn increases price. The most expensive private home for sale on St. John (in January 2023) is a four-bedroom waterfront home listed for \$12 million; of the 60 homes currently listed, 48 are priced at over \$1 million (St. John MLS 2023).

Table 8. St. John Home and Land Sales Data

MLS Sales Data – St. John, U.S. Virgin Islands								
	2022	2021	2020	2019	2018	2017		
HOME SALES*								
Average Sales Price	\$1,562,905	\$1,757,624	\$1,216,419	\$1,169,878	\$1,049,483	\$891,763		
Average Days on Market	340	378	450	436	534	426		
Number of Transactions	80	117	51	45	60	38		
LAND SALES								
Average Sales Price	\$450,974	\$435,208	\$296,847	\$248,815	\$280,547	\$203,053		
Average Days on Market	652	766	517	433	394	566		
Number of Transactions	70	53	31	36	31	19		
Source: St. John	n MLS 2023.							

<sup>\*</sup> Note: Home sales do not include condos.

According to the 2020 Census, median housing value on St. John is \$591,160 (as compared to \$290,558 for the USVI). Median gross rent for all renter-occupied housing units is \$1,233 on St. John versus \$926 for USVI total; on St. John 68 percent of renters pay \$1,000 or more (as compared to 38 percent for USVI total) (U.S. Census Bureau 2022a).

Housing affordability has been identified as a critical issue in the USVI, and a major issue for employers struggling to find employees on the island of St. John (see Business Outlook section below and Wenner 2022). Discussions with Scenic Properties and Islandia Real Estate indicate there is currently a shortage of long-term

rental stock on St. John, and apartments are rented within days when they become available. As shown in Table 9, current apartment rents range from \$1,200 to \$1,600 for a one-bedroom and \$2,000 to \$3,500 for a two-bedroom apartment. In comparison, across the United States, the average monthly rent for a two-bedroom apartment was \$1,295 in February 2022 (Statista 2023). In a recent opinion piece about

"[T]hree measures (construction cost per square foot, residential house price to income ratio, and rent to income) indicate an unaffordability problem in the Territory." - VI Consortium website (Wenner 2022)

the USVI's housing affordability crisis, Mark Wenner, a USVI economist, noted that a standard financial rule of thumb is that rental expense should not exceed 30 percent of gross monthly income. <sup>12</sup> Based on the 2020

<sup>12</sup> Affordable housing is generally defined as housing on which the occupant is paying no more than 30 percent of gross income for housing costs, including utilities (HUD 2023).

Census median household income of \$50,352, monthly rent of \$1,260 or less would be considered affordable on St. John for a household earning median income levels.<sup>13</sup>

Table 9. Long-term Rental Rates on St. John

Long Term Rentals – St. John, U.S. Virgin Islands								
Efficiency 1BR 2BR 3BR								
Apartment Rental Rates <sup>(1)(2)</sup>	\$850- \$1,100	\$1,200-\$1,600	\$2,000-\$\$3,500	\$2,650				
Whole House Rental Rates <sup>(2)(3)</sup>		\$1,000 - \$2,500		\$2,500 - \$7,000				

#### Sources:

- (1) Scenic Properties.
- (2) Islandia Real Estate.
- (3) Delmendo 2022.

Contributing to the housing affordability issue is the cost of new construction, which can cost \$400+ per square foot for masonry construction on St. John (Holiday Homes 2023). This compares to typical building costs starting at \$250 per square foot for St. Thomas and St. Croix (Vlnow.com 2023), between \$100 to \$200 per square foot for the U.S. mainland, and from \$150 to \$180 in Puerto Rico (Wenner 2022).

Despite the high cost, construction has grown recently in the territory, based on the value of construction permits reported by the Department of Planning and Natural Resources (VIBER 2023b). Available data are not broken out for St. John specifically; therefore this section presents data for the St. Thomas/St. John district. The value of all construction permits on St. Thomas/St. John rose from \$116.2 million in 2020 to \$206.7 million in 2021 and \$158.7 million in the first 11 months of 2022. The growth in 2021 was due primarily to public construction (the value of intended Federal or Territory government building construction) on St. Thomas/St. John which increased over one thousand percent from 2020 to 2021, from \$6.6 million in 2020 to \$90.6 million in 2021, likely reflecting an influx of hurricane recovery funding. This value fell to \$24.8 million in the first 11 months of 2022. In the first 11 months of 2022, the value of private residential construction permits on St. Thomas/St. John was \$110.2 million, up from \$97.6 million in 2021 and \$93.7 million in 2020.

# **Charter Industry**

This section presents available information related to the charter business and boating use of waters around St. John. Numerous day charter businesses are based on St. John, as well as boat rental businesses. Term charters (i.e., charter boats doing overnight trips) visiting St. John are typically based in St. Thomas or the British Virgin Islands. In addition to using the moorings in VINP, visiting charter boats anchor in various bays around St. John, often including a visit to the Lime Out floating taco bar in Coral Bay and the shops and

<sup>&</sup>lt;sup>13</sup> Based on 2020 Census median household income of \$50,352 for St. John, this equates to a monthly income of \$4,196. Thirty percent of this monthly income would equal a monthly rent of approximately \$1,260.

<sup>&</sup>lt;sup>14</sup> Value of intended construction of new housekeeping residences as well as additions and alterations to existing residences. Construction relating to hotels and other structures intended for use as transient accommodations are not included. Compiled from Dept. of Planning and Natural Resources approved permits for which estimated value is available.

restaurants in Cruz Bay. The island of St. John is also home to a lively liveaboard boating community, with boats moored in various bays around St. John, including Coral Bay, Great Cruz Bay, and Cruz Bay.

#### Day Charter Businesses

There are several sources of data related to the number of day charter businesses operating in St. John. According to DCLA, there are 51 active business licenses for boat charter (one per boat) and five for boat rental businesses on St. John (DLCA 2022). These data represent only a subset of the charter vessels operating in St. John waters. The VINP indicates that they have issued 111 commercial use authorization permits for day sail excursions to operate in the VINP. The most comprehensive estimate is likely information from the VI Professional Charter Association (VIPCA), which indicates that there are a total of 150 to 200 day charter vessels that regularly use St. John waters (Blake 2022). According to businesses surveyed anecdotally, a gypsy industry has sprung up to provide shuttles back and forth to the Lime Out taco bar in Coral Bay. VIPCA estimates that in 2020-21 season, day charters in the USVI contributed over \$45 million to the economy. The contributed over \$45 million to the economy.

#### Term Charter Businesses

Information from VIPCA indicates that there are a total of 100 to 150 term charter vessels that regularly use St. John waters (Blake 2022). VIPCA estimates that in 2020-21 season, term charters (including bareboat charters)

"Really, the growth started in 2017, and as the deep rich green came back to the island and the undergrowth had the opportunity to grow back in no time at all, the industry really flourished in the same way," Blake said. "We have grown dramatically and rapidly, and have become, partly through work with VIPCA, much more on the map in the world as a destination because of the continued energy invested into understanding the Virgin Islands a destination quite within its own right."

- Oriel Blake, Executive Director of the VI Professional Charter Association (Abbotts 2022, VI Daily News)

in the USVI contributed over \$42 million to the economy. To One term charter business estimates that their guests spend an average of \$500 during a visit to the Lime Out taco bar in Coral Bay, which is a popular stop for every charter as well as spending at least one day in Cruz Bay for shopping and eating out. A VI Daily News article indicates that the USVI charter industry growth started in 2017, and has continued in part due to pandemic protocols put in place in the USVI to help make chartering a safer vacation option (Abbotts 2022). According to Oriel Blake, the Executive Director of VIPCA, "the

Caribbean Charter industry took a big hit from hurricanes Irma and Maria in 2017, but the U.S. Virgin Islands had the benefit of bouncing back quicker than the rest of the Caribbean courtesy of federal funds. Further, since most term charter boats were out of territorial waters during hurricane season, they were undamaged" (Abbotts 2022).

20

-

<sup>&</sup>lt;sup>15</sup> While some of these charter businesses may also provide term charters, it is likely they are primarily operating day charters.

<sup>&</sup>lt;sup>16</sup> Note, these figures include some expenditures which likely would not flow to the USVI economy, including U.S. Coast Guard documentation and VINP fees.

<sup>&</sup>lt;sup>17</sup> Ibid.

## Mooring and Anchoring Information

For purposes of understanding the use of the waters around St. John, information regarding the number and locations of mooring and anchoring permits issued for marine areas around St. John was requested from DPNR; however, no response was received. Similarly, the VINP did not provide requested information about the number and use of the moorings installed in the waters of VINP and the Coral Reef National Monument.

In order to use the territorial waters around St. John, vessels must obtain mooring, anchoring and/or cruising permits according to the DPNR website (see <a href="https://dpnr.vi.gov/environmental-enforcement/anchoring-mooring/">https://dpnr.vi.gov/environmental-enforcement/anchoring-mooring/</a>):

- Any vessels registered in the territory seeking permanent anchorage to which a vessel may be secured must apply for a mooring permit.
- All recreational vessels seeking to anchor in the waters of the USVI who do not have a mooring permit are required to obtain an anchoring permit.
- Further, vessels seeking overnight anchorage, not registered in the USVI, who are conducting charters are required to obtain a cruising permit for a fee of \$20/foot per month.

Within park waters vessels anchoring or mooring within park waters may not exceed 30 nights in a 12-month period and no more than seven consecutive nights in one bay. Information on use of park waters is explained in the Superintendent's Compendium (NPS 2022d). Vessels 60 feet or less pay \$26/night for overnight mooring use; paid at the applicable fee station (NPS 2022d).

## Business Outlook – Anecdotal Observations

To supplement available economic data, outreach to St. John businesses was conducted to gain a better understanding of current business conditions on St. John. Responses were received from only a small number of businesses, but the messages were consistent across the business sectors, including hotel/lodging, restaurant/retail, and charter/excursion sectors. Key insights are summarized below.

#### General Business Outlook

For the 2021 -22 season, businesses were extremely busy and struggled to find enough staff for all the positions they would ideally have filled to operate their business. Several businesses indicated it was their best year ever financially and that they continued to be busy all year (i.e., there was no 'off' season; shoulder seasons and summer remained busy). With many other destinations (including the British Virgin Islands) still limiting visitation or just emerging from pandemic-related limitations on visitors, the USVI benefitted from pent-up demand for travel. However, a major challenge for many businesses was hiring the optimal number of employees, as discussed further below.

For the current season (2022-23), business is expected to slow somewhat as other destinations have reopened after pandemic related closures. Lodging businesses also cited increased airfares as a factor leading to lower occupancy. While still expecting a good year, businesses expect a return to something more like pre-pandemic levels, with a pattern of seasonal highs and lows. Employment issues have eased, with the businesses who responded to the questionnaire indicating that they be able to fill most positions.

## Hiring Challenges

A major theme of the responses was the difficulty in operating short-staffed during such a busy 2021-22 season. Nearly all the businesses responding noted challenges in hiring enough employees during the 2021-22 season. Some of the respondents noted they had never had hiring issues prior to the COVID-19 pandemic. Housing was reported as the number one challenge to hiring and retaining the optimal number of employees. The lack of available affordable rental units for staff to live in, as well as what seemed to be fewer responsible people looking for work, and a lack of trained/skilled job applicants were identified as issues. Immigration issues have also been a challenge for obtaining term charter crew, leading to a crew shortage at times. Some businesses also mentioned competition with other businesses that are paying higher wages as a barrier to filling positions.

For the current season (2022-23), the small sample of businesses responding indicated they have not had the same challenges in filling positions as last season, with the exception of maintenance workers (for property management businesses) and back of the house positions (e.g., dishwashers for restaurants). While businesses seemed generally hopeful that their dire hiring challenges have improved, one business reported still looking to hire maintenance, plumbing, electrical, and office staff.

For those businesses willing to share information, they reported a mix of percentage of employees are Virgin Islanders (i.e., someone who is born in the Virgin Islands and/or the descendant of someone born in the Virgin Islands). The smaller businesses generally reported few to none, while one larger business reported over 70 percent of their employees are Virgin Islanders.

# References

Abbotts, Lori. Charter Yacht Show makes a splash in V.I. waters. VI Daily News. November 14, 2022.

Airdna. 2022. AIRDNA Market minder website. Accessed December 2, 2022 at https://www.airdna.co/vacation-rental-data/app/us/united-states-virgin-islands/st-john/00830/overview.

Blake, Oriel. Personal Communication September 2022.

- Cullinane Thomas, C., M. Flyr, and L. Koontz. 2022. 2021 national park visitor spending effects: Economic contributions to local communities, states, and the nation. Natural Resource Report NPS/NRSS/EQD/NRR—2022/2395. National Park Service, Fort Collins, Colorado. Accessed November 6, 2022 at https://doi.org/10.36967/nrr-2293346.
- Delmendo, Lalaine C. 2022. "Investment Analysis of US Virgin Island Real Estate Market: USVI's Property Market Gathering Place." Accessed August 24, 2022 at <a href="https://www.globalpropertyguide.com/Caribbean/US-Virgin-Is/Price-History#:~:text=Thomas%2C">https://www.globalpropertyguide.com/Caribbean/US-Virgin-Is/Price-History#:~:text=Thomas%2C</a>.

Email communication from VINP Staff, October 14, 2022.

- Holiday Homes. 2023. Building on St. John. Accessed January 23, 2023 at <a href="https://holidayhomesvi.com/about/building-on-st-john/#:~:text=Building%20costs%20can%20start%20around,for%20average%20(masonry)%20construction.">https://holidayhomesvi.com/about/building-on-st-john/#:~:text=Building%20costs%20can%20start%20around,for%20average%20(masonry)%20construction.</a>
- Israel, Jane. 2004. Impact of Visitor Spending and Park Operations on the Regional Economy: Virgin Islands National Park. Prepared for the Friends of Virgin Islands National Park. October 2004.
- Major, Brian. 2022. US Virgin Islands Eyes 2024 Return to Pre-Pandemic Cruise Levels. TravelPulse. April 28, 2022. Accessed on November 30, 2022 at <a href="https://www.travelpulse.com/news/destinations/us-virgin-islands-eyes-2024-return-to-pre-pandemic-cruise-levels.html">https://www.travelpulse.com/news/destinations/us-virgin-islands-eyes-2024-return-to-pre-pandemic-cruise-levels.html</a>.
- National Park Service (NPS). 2003. VINP Visitor Use Reporting and Counting Procedures. Accessed September 19, 2022 at <a href="https://irma.nps.gov/STATS/FileDownload/32869">https://irma.nps.gov/STATS/FileDownload/32869</a>.
- National Park Service (NPS). 2022a. Visitor Use Statistics. Accessed on September 19, 2022 at <a href="https://irma.nps.gov/STATS/Reports/Park">https://irma.nps.gov/STATS/Reports/Park</a>.
- National Park Service (NPS). 2022b. Visitor Spending Effects Economic Contributions of National Park Visitor Spending Park Economies. Accessed October 5, 2022 at <a href="https://www.nps.gov/subjects/socialscience/vse.htm">https://www.nps.gov/subjects/socialscience/vse.htm</a>.
- National Park Service (NPS). 2022c. FY 2023 Budget Justifications and Performance Information Fiscal Year 2023. Accessed October 5, 2022 at <a href="https://www.nps.gov/aboutus/budget.htm">https://www.nps.gov/aboutus/budget.htm</a>.
- National Park Service (NPS). 2022d. Virgin Islands National Park Superintendent's Compendium. Accessed January 9, 2023 at <a href="https://www.nps.gov/viis/learn/management/compendium.htm">https://www.nps.gov/viis/planyourvisit/virgin-islands-marine-visitor-use-information.htm</a>.

- National Park Service (NPS). 2023. Virgin Islands National Park map. Accessed January 11, 2023 at <a href="https://www.nps.gov/viis/planyourvisit/maps.htm">https://www.nps.gov/viis/planyourvisit/maps.htm</a>.
- Personal communication with Friends of VINP. January 11, 2023.
- Straker, Linda. 2022. USVI Experiencing Strong Rebound, OMB Says, Even with 3,000 Fewer Jobs in April 2022 compared to Feb. 202; Tourism is a Major Bright Spot. June 14, 2022. Accessed January 12, 2023 at: <a href="https://viconsortium.com/vi-economy/virgin-islands-usvi-economy-experiencing-strong-rebound-omb-says-even-with-3000-fewer-jobs-in-april-2022-compared-to-feb-2020-tourism-is-major-bright-spot.">https://viconsortium.com/vi-economy/virgin-islands-usvi-economy-experiencing-strong-rebound-omb-says-even-with-3000-fewer-jobs-in-april-2022-compared-to-feb-2020-tourism-is-major-bright-spot.</a>
- Statista. 2023. Average monthly apartment rent in the United States from January 2017 to February 2022, by apartment size. Accessed on January 9, 2021 at <a href="https://www.statista.com/statistics/1063502/average-monthly-apartment-rent-usa/">https://www.statista.com/statistics/1063502/average-monthly-apartment-rent-usa/</a>.
- St. John MLS. 2023. Accessed on January 12, 2023 at <a href="https://www.americanparadise.com/st-john-homes-for-sale-on-the-mls/">https://www.americanparadise.com/st-john-homes-for-sale-on-the-mls/</a>.
- U.S. Bureau of Labor Statistics. 2023. Labor Force Statistics from the Current Population Survey.

  Unemployment Rate. Accessed January 9, 2023 at <a href="https://data.bls.gov/timeseries/LNS14000000">https://data.bls.gov/timeseries/LNS14000000</a>.
- U.S. Census Bureau. 2020. Poverty Thresholds for 2020 by Size of Family and Number of Related Children Under 18 Years. Accessed January 17, 2023 at <a href="https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html">https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html</a>.
- U.S. Census Bureau. 2022a. 2010 Census of the U.S. Virgin Islands and 2020 Census of the U.S. Virgin Islands. Accessed February 9, 2022 at <a href="https://www.census.gov/data/tables/2020/dec/2020-us-virgin-islands.html">https://www.census.gov/data/tables/2020/dec/2020-us-virgin-islands.html</a>.
- U.S. Census Bureau. 2022b. 2020 Island Areas Censuses (IAC) Demographic Profile Summary File, 2020 Island Areas Census of Population and Housing. Technical Documentation. Issued October 2022. SFIAC/20-03. Accessed January 6, 2023 at <a href="https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/island-areas-tech-docs/demographic\_profile/2020-iac-dpsf-technical-documentation.pdf">https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/island-areas-tech-docs/demographic\_profile/2020-iac-dpsf-technical-documentation.pdf</a>.
- U.S. Department of Housing and Urban Development (HUD). 2023. Archives: Glossary of Terms to Affordable Housing. Accessed January 19, 2023 at <a href="https://archives.hud.gov/local/nv/goodstories/2006-04-06glos.cfm#:~:text=Affordable%20Housing%3A%20Affordable%20housing%20is,Reference%3A%20www.hud.gov">https://archives.hud.gov/local/nv/goodstories/2006-04-06glos.cfm#:~:text=Affordable%20Housing%3A%20Affordable%20housing%20is,Reference%3A%20www.hud.gov</a>.
- USVI Bureau of Economic Research (VIBER). 2015. Visitor expenditure data from 2015, select tables provided via email.
- USVI Bureau of Economic Research (VIBER). 2022. Monthly reports and Publications. Accessed November 30, 2022 at <a href="https://usviber.org/">https://usviber.org/</a>.

- USVI Bureau of Economic Research (VIBER). 2023a. Unemployment Rates U.S. Virgin Islands Monthly Totals, Year to Date, Quarterly and Annual Averages. January 2021 to November 2022. Accessed January 9, 2023 at https://usviber.org/wp-content/uploads/2022/12/UN22-NOV.pdf.
- USVI Bureau of Economic Research (VIBER). 2023b. Total Construction Permit Value January 2021 to November 2022. Accessed January 9, 2023 at <a href="https://usviber.org/wp-content/uploads/2023/01/BP22-NOV.pdf">https://usviber.org/wp-content/uploads/2023/01/BP22-NOV.pdf</a>.
- USVI Bureau of Labor Statistics (VIBLS). 2022. Quarterly Census of Employment and Wages Program. US Virgin Islands Labor Market Basket. Number of Establishments CY 2017-2021 Virgin Islands. Accessed on November 30, 2022 at <a href="https://www.vidolviews.org/admin/gsipub/htmlarea/uploads/Number%20of%20Establishments%20C">https://www.vidolviews.org/admin/gsipub/htmlarea/uploads/Number%20of%20Establishments%20C</a> Y%202017-2021.pdf.
- USVI Bureau of Labor Statistics (VIBLS). 2023. Quarterly Census of Employment and Wages Program. December 2021 Employment by Island and Industry. Accessed January 9, 2023 at <a href="https://www.vidolviews.org/admin/gsipub/htmlarea/uploads/Number%20of%20Establishments%20C">https://www.vidolviews.org/admin/gsipub/htmlarea/uploads/Number%20of%20Establishments%20C</a> Y%202017-2021.pdf.
- USVI Department of Licensing and Consumer Affairs (DLCA). 2022. FY2022 Business License data for the island of St. John, provided via email.
- Vinow.com. 2023. Vlnow The US Virgin Islands Best Guide. Accessed January 12, 2023 at <a href="https://www.vinow.com/stthomas/realestate/">https://www.vinow.com/stthomas/realestate/</a> and <a href="https://www.vinow.com/stcroix/realestate/">https://www.vinow.com/stcroix/realestate/</a>.
- Wenner, Mark. 2022. The VI Has a Housing Affordability Crisis: What Should We Do? VI Consortium: Opinion. Published August 15, 2022. Accessed on November 1, 2022 at <a href="https://viconsortium.com/vi-opinion/virgin-islands-the-vi-has-a-housing-affordability-crisis-what-should-we-do">https://viconsortium.com/vi-opinion/virgin-islands-the-vi-has-a-housing-affordability-crisis-what-should-we-do</a>.