

# 3

## NATURE OF THE CHALLENGE





# VOLUME 3

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# UNDERSTANDING ISLAND ECONOMIES

## Market Dynamics

The Caribbean is a diverse set of countries and territories with economies based in service, tourism, finance, and commodity exports. Each island in the region has a distinct market and consequent approach to business, but what connects the islands are their small economies, openness to international trade, and vulnerability to natural disasters and economic shocks.<sup>1</sup>

Caribbean island economies face a unique risk of marginalization from the global economy as a result of their small size, distance from large markets, and vulnerability to economic and natural shocks. Additionally, these islands are highly susceptible to global-induced phenomena, such as sea level rise. Several common challenges that highlight the vulnerabilities of island economies include:<sup>2</sup>

1. **A narrow range of resources, which forces specialization;**
2. **Dependence on international trade;**

3. **High population density and overuse of resources;**
4. **Small watersheds and fresh water supplies;**
5. **Costly public administration and infrastructure, including transportation and communication;**
6. **Limited domestic markets and high export freight costs;**
7. **Heavy dependence on coastal and marine resources for livelihood and food security;**
8. **Heavy dependence on tourism which can be impacted by climate change and natural disasters;**
9. **Limited land; and**
10. **Poorly developed infrastructure.**

## THE U.S. VIRGIN ISLANDS

### Territorial Status

The U.S. Virgin Islands, formerly the Danish West Indies, were sold to the United States by Denmark in 1917. Today, the islands are considered an insular area and an organized, unincorporated United States Territory.

Citizens are able to vote in local elections for local senators, governor, and delegate to Congress, but do not vote in presidential elections. The U.S. president is the chief of state of the USVI, and the head of government is the governor. The USVI delegate to Congress has the ability to vote in committee but not in floor votes.

The Territory has a mirror-tax system. As a result, federal income taxes paid by residents of the Territory remain in the Territory. There are no county, city, or state taxes.

As a territory, the USVI is eligible for federal assistance from the U.S. government, such as disaster relief efforts through the Federal Emergency Management Agency (FEMA) in the case of natural disasters.

<sup>1</sup> *Caribbean Small States: Challenges of High Debt and Low Growth*. International Monetary Fund, 20 Feb. 2013. <https://www.imf.org/external/np/pp/eng/2013/022013b.pdf>

<sup>2</sup> Boto, Isolina and Biasca, Ronalee. *Small Island Economies: From Vulnerabilities to Opportunities*. Brussels Rural Development Briefings.

Caribbean islands are more vulnerable to economic shocks and natural hazards than most other countries and regions. This results in volatility in GDP growth rates. Islands also rely heavily on trade to drive growth. Island concentration in a few export commodities creates economic vulnerability to changes in demand and commodity prices. Additionally, the cost of importing and exporting goods is further increased because of time required for storing goods due to infrequency of shipping and air transport.

A lack of economic diversity has proven to be a challenge across the Caribbean island economies. As illustrated by the Covid-19 pandemic, the interruption of tourism and related global economic downturn has put pressure on the island economies. According to the International Monetary Fund, tourism accounts for 50 to 90 percent of GDP and employment for most Caribbean countries and territories. The IMF is forecasted a 10.3% contraction for tourism-dependent economies in 2020.<sup>3</sup>

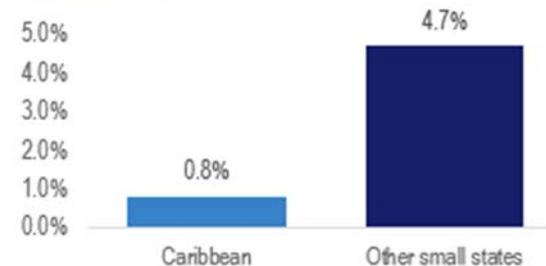
Outside of periodic economic disruptions and natural disasters, the small size of the Caribbean island countries and territories is a challenge in achieving strong growth. Diseconomies of scale in the provision of public goods and services leads to higher average costs for the public sector. Government officials are often responsible for a

wider set of tasks and have lower support services than those in larger economies. Additionally, high fixed costs create a disadvantage for the private sector, where higher trade costs are accentuated by weak infrastructure and market connectivity related to shipping and air.<sup>4</sup>

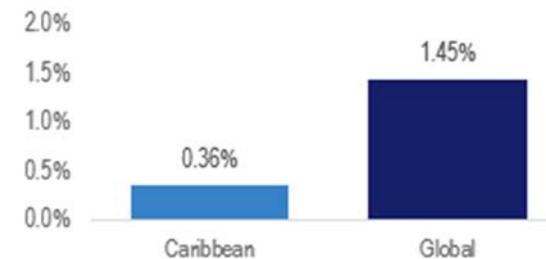
As a result of these challenges, the Caribbean island economies lag the rest of the world in terms of growth, trade, and debt. Average annual GDP growth of Caribbean islands is 0.8%, compared to 4.7% of other non-Caribbean small states. Global export growth has outpaced export growth in the Caribbean, 1.45% to 0.36% from 2011 to 2015. Slow GDP growth and minimal export growth are further exacerbated by a debt-to-GDP ratio that is above 60% in two-thirds of Caribbean Islands.<sup>5</sup>

Low levels of growth have a direct impact on residents of the Caribbean islands, as GDP is directly correlated with poverty levels. As GDP per capita decreases, the population below the poverty line tends to increase. The low-growth, high-poverty cycle, coupled with the additional challenges that Caribbean islands face, creates a market dynamic that is unique to these nations and territories.

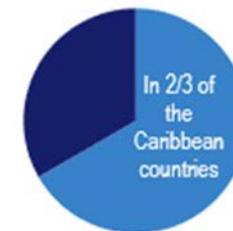
**Annual GDP Growth Average, 2010-2017**



**Merchandise Exports Growth, 2011-2015**



**Debt-to-GDP Ratio is above 60%**



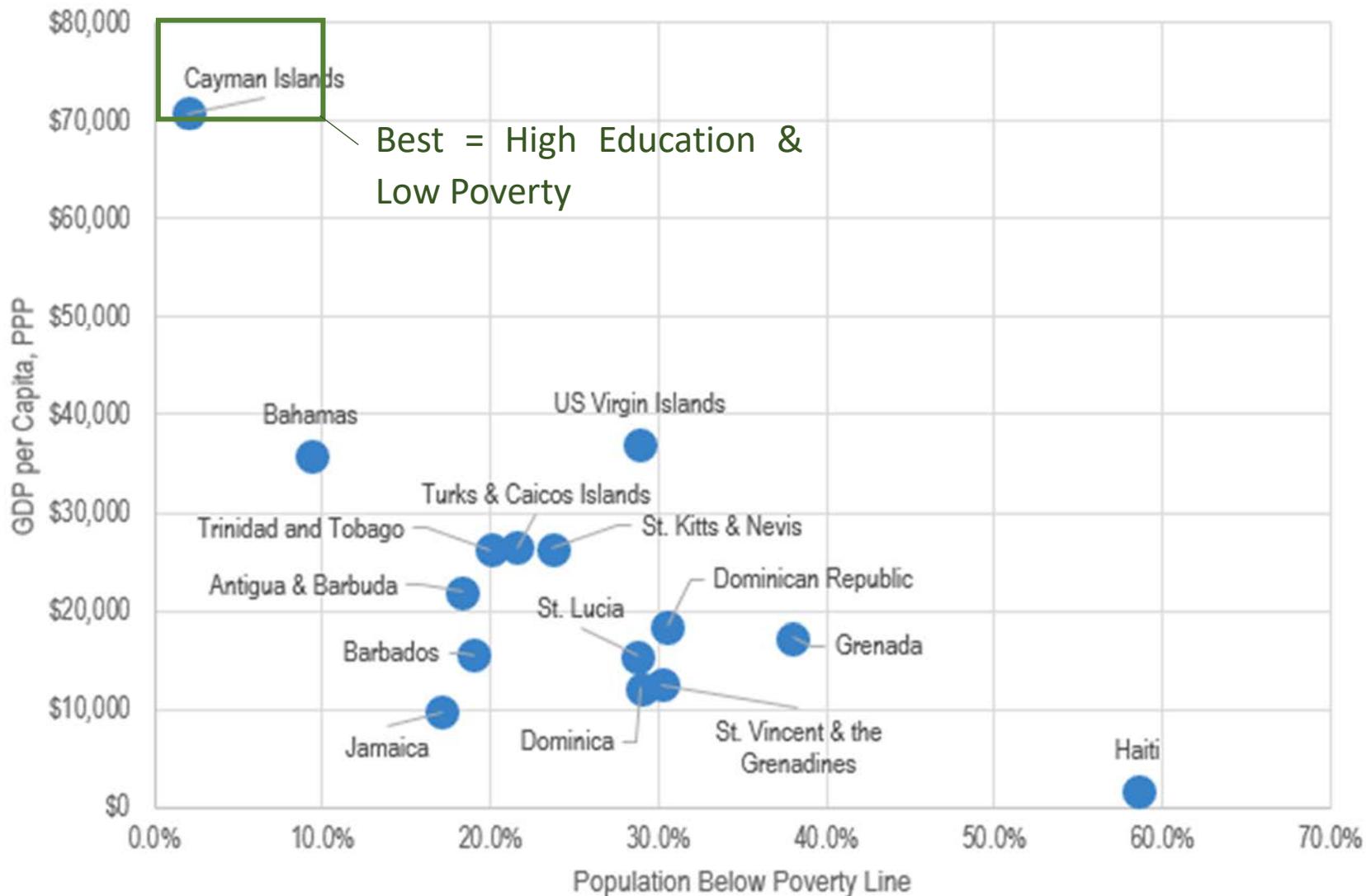
Source: OECD

<sup>3</sup> MacDonald, Scorr. *COVID-19, The Caribbean and What Comes Next*. Global Americans, 2 July 2020. <https://theglobalamericans.org/2020/07/Covid-19-the-caribbean-and-what-comes-next/>

<sup>4</sup> Ruprah, Inderjit. *Does Size Matter? Yes, If You Are Caribbean!* Inter-American Development Bank, Sept. 2013. <https://publications.iadb.org/publications/english/document/Does-Size-Matter-Yes-If-You-are-Caribbean!.pdf>

<sup>5</sup> *Latin American Economic Outlook 2019: Special Feature: The Caribbean Small States*. OECD. <http://www.oecd.org/dev/americas/LEO-2019-Chapter-6.pdf>

### Poverty and GDP, Caribbean Nations



Source: CIA World Factbook and The World Bank

## Caribbean Ecosystem

Within the Caribbean, the U.S. Virgin Islands are unique in that they are a territory of the United States but face the same development challenges of other Caribbean nations. Formal relationships exist between the U.S. Virgin Islands and neighboring Caribbean islands, and are critical links that should be leveraged in advancing territorial development and overcoming regional challenges.

As of April 6, 1984, the U.S. Virgin Islands is an Associate Member of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), which enables its participation in other regional and subregional intergovernmental organizations. In June 1984, the U.S. Virgin Islands was admitted as an Associate Member to ECLAC's Caribbean Development and Cooperation Committee and later became a member of the Caribbean Council for Science and Technology (1991). Though still a member of these organizations, the U.S. Virgin Islands' participation has been less active in recent years.<sup>6</sup>

Links between the U.S. Virgin Islands, the United States, and other Caribbean nations have facilitated collaboration on some of the unique challenges facing island economies. Some of these areas of focus have included:<sup>7</sup>

1. **Education:** Membership in the Association of Universities and Research Institutions of

the Caribbean has allowed the University of the Virgin Islands (UVI) to collaborate in the development of course materials with the Organization of the Eastern Caribbean States. UVI has also facilitated training for university faculty in the Caribbean and has agreements with several two-year colleges in the Caribbean. The U.S. Virgin Islands also maintains ties with Denmark and has cooperation agreements with universities in Copenhagen and Ghana.

2. **Environment:** U.S. efforts in intergovernmental arrangements have benefitted the U.S. Virgin Islands. For example, the UN Environment-Caribbean Environment Programme that emerged out of the Cartagena Convention was established to support protection of the coastal and marine environment of the Caribbean.
3. **Energy:** Facilitated by the relationship with the U.S. government, the U.S. Virgin Islands was selected as a site for an Energy Development in Island Nations project. This was based on the need to reduce the territory's dependence on fossil fuels and reduce its high electricity rate.
4. **Climate Change:** Climate change adaptation efforts have been supported both through linkages with the United

States and with other Caribbean nations. The U.S. government included a focus on the U.S. Virgin Islands in its national climate assessment and the U.S. Environmental Protection Agency recognized the need to collaborate on climate change programming in the territory. Similarly, the U.S. Department of the Interior provided funding for community outreach and adaptation planning. Regional organizations, such as the Caribbean Community Climate Change Center, have also supported climate change activities in the U.S. Virgin Islands.

Given the unique position of the U.S. Virgin Islands as both a territory of the United States and a member of the Caribbean Community, there are a number of resources and organizations available to facilitate collaboration on challenges faced by the territory. When leveraged fully, this interconnected ecosystem of geopolitical organizations has the potential to benefit the economy of the U.S. Virgin Islands by helping to address some of the constraints to economic growth.

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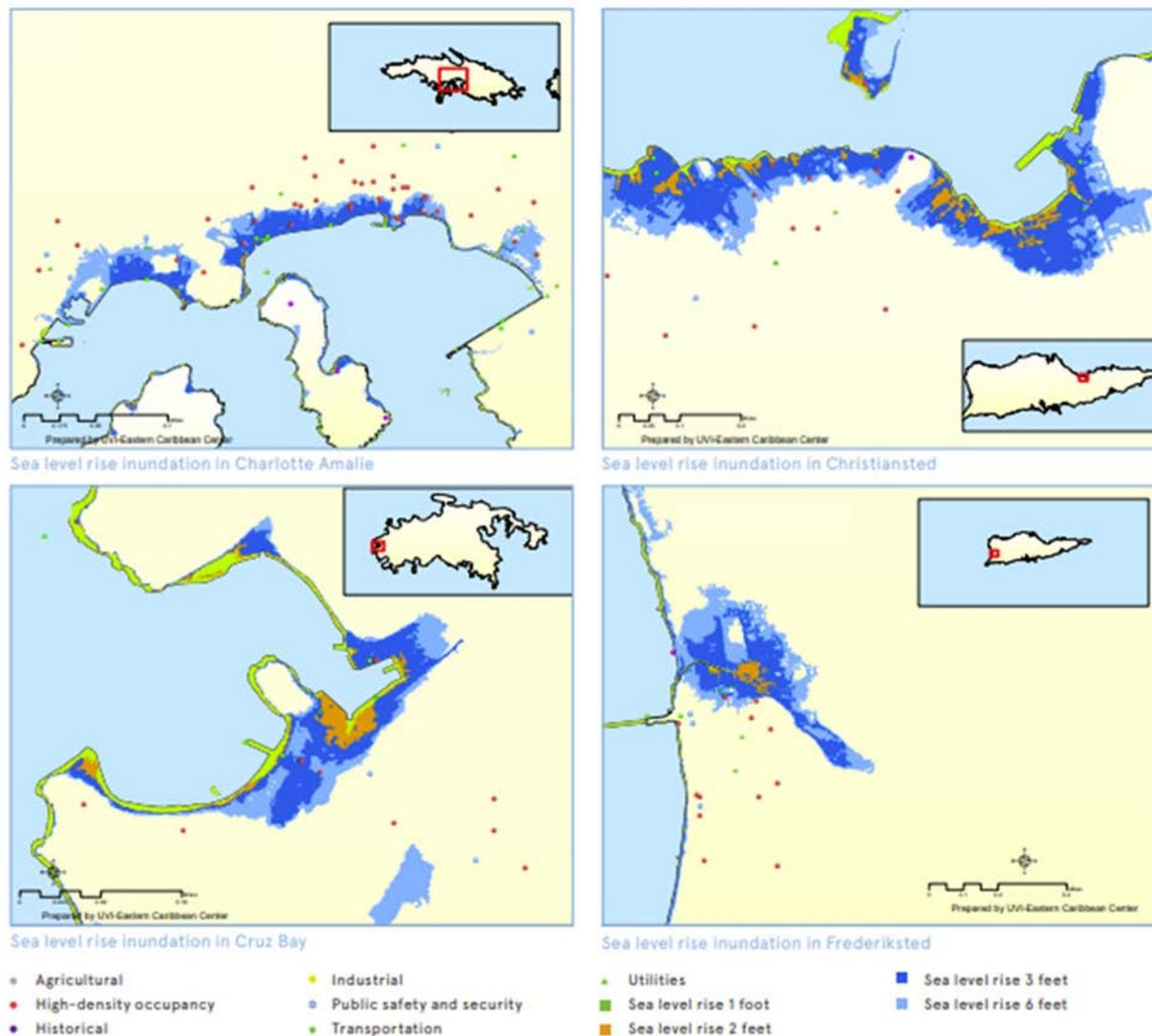
<sup>6</sup> Gardner, Lloyd. *How Physical Space, Historical Ties, and Geopolitics Influence Development in the USVI*. The St. Thomas Source. 8 Jan. 2021.

<sup>7</sup> (Gardner, 2021).

## Climate Change

Climate change is a concern for the Caribbean islands, and U.S. Virgin Islands is not an exception. Given the unique dynamics of island economies, climate change has the potential to significantly impact the territory's economic wellbeing and quality of life. The waters around the U.S. Virgin Islands have warmed by nearly two degrees since 1901, and sea level has been rising about an inch every 10 years. Most of the territory is well above sea level, but the waterfront blocks of Charlotte Amalie, Christiansted, Frederiksted, and Cruz Bay are within three or four feet of sea level. Sea level rise:

1. **Submerges marshes, mangroves, dry land.**
2. **Erodes beaches.**
3. **Exacerbates coastal flooding.**
4. **Causes coral reef loss due to warming and increased acidity of coastal waters.**
5. **Creates water shortages due to longer dry seasons and shorter, but wetter, wet seasons.**
6. **Increases public health problems, including more mosquito-borne diseases like malaria, yellow fever, and dengue fever as well as increased growth of bacteria that can contaminate water and shellfish.**
7. **Has a negative impact on commerce and tourism and adversely impacts commercial fishing, sport fishing, scuba diving, snorkeling, and beaches.**



Sea level rise scenarios. Source: USVI Hurricane Recovery and Resiliency Task Force.

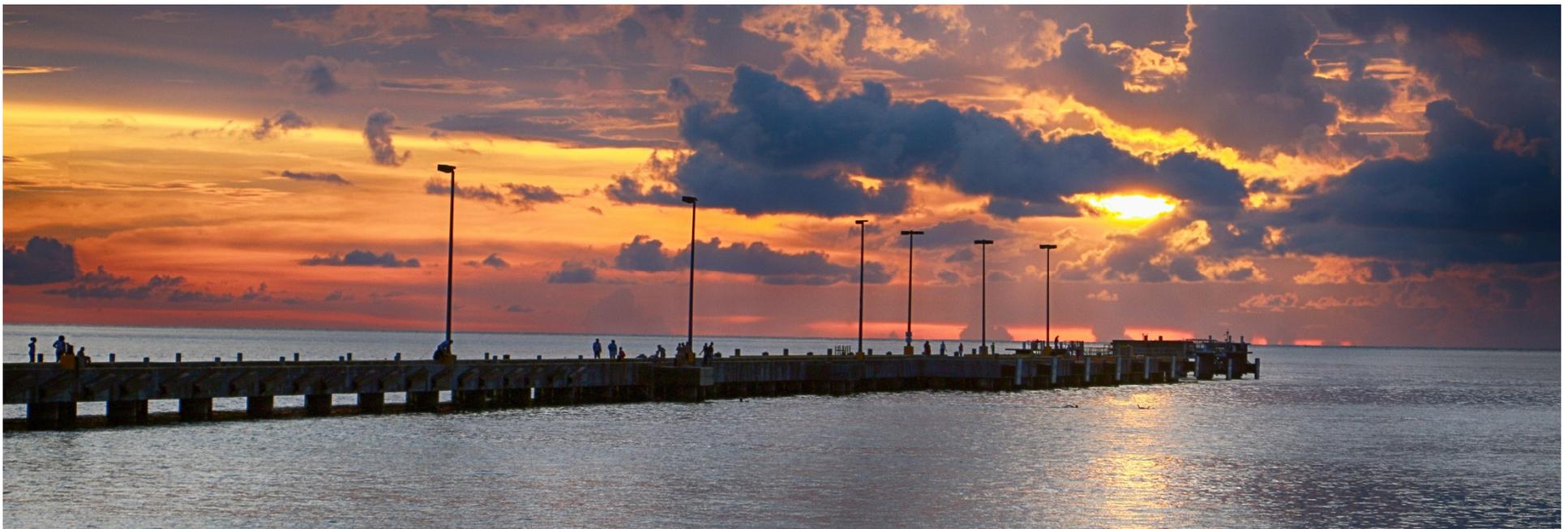
Over the last decade the U.S. Virgin Islands has undertaken efforts to combat the risks related to climate change that the territory faces. In June 2013 for example, The Nature Conservancy convened a USVI Climate Change Ecosystem-based Adaptation (EBA) workshop for community leaders, researchers, resources managers, and climate change adaptation practitioners. As a result of this workshop, the ten coastal areas in the territory most vulnerable to climate change were identified, so that solutions could begin to be explored.<sup>8</sup> In 2015, the territory's climate change adaptation program was launched via executive order. This resulted in the establishment of the U.S. Virgin Islands Climate

Change Council and several local initiatives including vulnerability and risk assessments and workshops pertaining to sea level rise and adaptation strategies.

Climate change is a challenge that is not of the U.S. Virgin Islands' making, but it is one that is not going away. Moving forward, climate change adaptation strategies will be critical for the U.S. Virgin Islands' economic security. Such techniques may include, but are not limited to:

- 1. The application of new technologies to preserve freshwater supplies.**

- 2. Building resilience of marine organisms, such as corals, through efforts including coral farming.**
- 3. Implementing and supporting adaptive planning, nature-based development and stabilization, and green and blue infrastructure.**
- 4. Collaborative partnerships, data collection, and decision-making connected to climate-related events and natural disasters.**



*Photo Source: U.S. Virgin Islands Department of Tourism*

<sup>8</sup> The Nature Conservancy's Coastal Resilience Program.

# REVIEW OF THE USVI ECONOMY

## Economic History and Current Condition

Historically a strategic location for the production of sugar and other tropical agricultural products, the U.S. Virgin Islands were well positioned to further European economic and defense interests, such as shipping and the extension of naval forces. Once the United States acquired the U.S. Virgin Islands shortly before World War I, they effectively ceased to have major strategic importance. Moreover, at that time the U.S. Virgin Islands' sugar-based economy had been in decline for decades.<sup>9</sup>

While efforts of mainland and local policymakers eventually created a robust manufacturing sector after World War II, manufacturing in the U.S. Virgin Islands has struggled in the 21st century. In particular, the 2012 closing of the Hovensa refinery operated by Hess Oil resulted in the loss of some 2,000 jobs and left the local economy highly dependent on tourism and related services.<sup>10</sup>

The territorial government, facing persistent economic challenges, covered some budget deficits with borrowed funds, which has raised concerns over levels of public debt and unfunded pension

liabilities. Local policymakers have proposed tax increases and austerity measures to bolster public finances, which currently operate with restricted liquidity. The Government Accountability Office (GAO) expressed doubts that those fiscal measures would restore access to capital markets or address shortfalls in the funding of public pensions.

Damage caused by two powerful Category 5 hurricanes—Irma and Maria—that hit the USVI in September 2017 created additional economic and social challenges. Public revenues, according to estimates based on USVI fiscal data, were halved after the two hurricanes. The USVI economy has relied heavily on tourism and related business activity, which made it more vulnerable to the effects of hurricanes than jurisdictions with more diverse economies.<sup>11</sup>

Construction activity in the USVI has accelerated since 2017 as the islands work to rebuild their infrastructure, and in turn their economies, from the hurricanes. 2020 dealt another blow, however, to the territory's economy in the form of Covid-19. With the associated shutdown of the tourism and local economy due to stay-at-home orders, the USVI experienced severe economic impacts. As of May 2020, the USVI Office of Management and Budget estimated a budget decline of \$150 million for fiscal year 2020. Further projections for fiscal year 2021 estimated a decline in local revenue sources such as Personal Income Tax (-16.2%), Corporate Income

Tax (-18.7%), Real Property Tax (-30.3%), and Gross Receipts Tax (-28.8%).<sup>12</sup>

As with the 2017 hurricanes, tourism-related industries have been particularly affected by the economic shutdown. The leisure and hospitality industry experienced a reduction in labor force of 26.7% between March and April 2020 alone.<sup>13</sup>

Today the impacts of Covid19 continue to be felt in the USVI and worldwide. In the USVI, the recent economic disruptions caused by both the pandemic and the 2017 hurricanes have disproportionately impacted the tourism sector. Together, these disruptions have highlighted the imperative need for economic diversification within the territory. Diversification will support recovery from these recent disruptions and will make the USVI more resilient toward inevitable future disruptions.

This volume and the pages to follow describe in detail the trends that have affected the economy of the U.S. Virgin Islands.

<sup>9</sup> *Economic and Fiscal Conditions in the U.S. Virgin Islands*. Congressional Research Service. 13 Feb. 2020.

<sup>10</sup> (Congressional Research Service, 2020)

<sup>11</sup> (Congressional Research Service, 2020)

<sup>12</sup> *USVI COVID-19 Economic Impact Report*. Island Analytics and Marketing, LLC. 2020.

<sup>13</sup> (Island Analytics and marketing, LLC., 2020).

## Demographic and Socioeconomic Profile

### POPULATION AND HOUSEHOLDS

The population of the US Virgin Islands is shrinking. According to the US Virgin Islands Bureau of Economic Research, as of 2019 the population is estimated to be 95,668, 10.1% lower than it was in 2010. This is compared to population growth of 6.1% in the United States over the same time period. Recent declines in school enrollment and local observation suggest actual population may be considerably less than this estimate. While current population estimates vary, the next official count will be available with the release of 2020 Census results. The available data indicates that 48% of households are on St. Thomas, 48% are on St. Croix, and 4% are on St. John.

### Population by Age

The average age in the U.S. Virgin Islands is 40.0. With a median age of 38.6, St. Croix is the youngest of the islands and closest in age to the United States. The Virgin Islands, however, have an overall lack of young adults age 15-24 compared to the US. This is indicative of young adults leaving the Virgin Islands for education, work, and other opportunities.

Overall, the population of the islands is similarly distributed by age. St. John, however, has a much higher proportion of its population in the age 35 to 44 cohort, and a somewhat higher percentage of its population in the age 55 to 69 age range. As a result,

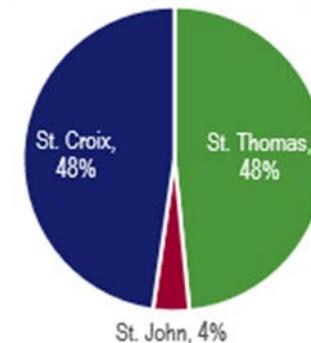
St. John has fewer young adults and children than the other islands, specifically lagging the other islands in the proportion of its population under age 30.

**Population Change, 2010-2019**



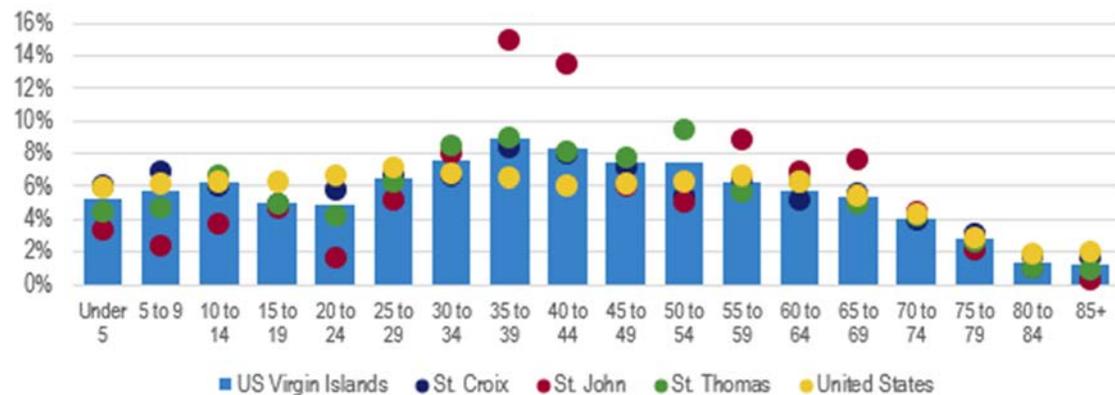
Source: US Virgin Islands Division of Economic Research, US Census Bureau American Community Survey.

**Population Distribution by Island**



Source: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands.

**Population Distribution by Age, 2013**



Source: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands.

## LANGUAGE AND RACE

### Language

Across the U.S. Virgin Islands, 72% of residents speak only English. Spanish is the next most common primary language (spoken by 17% of the population), followed by French, Patois, and Creole (collectively 9%), with other languages making up the remaining 2%. Of the 28% who speak a different primary language, the majority also speak English to a level categorized as very well or well. Therefore, 97% of U.S. Virgin Island residents are considered to be fluent in English. This is consistent across the islands, with St. John being slightly less, at 93%. This level of English fluency is slightly higher than in the United States, where 96% of residents either speak only English or speak English very well/well.

### Race

In terms of race, most of the U.S. Virgin Islands population is Black (78%). 10% of the population is White, and the remaining 12% is comprised of other races. Other races include Asian, Pacific Islander, American Indian or Alaska Native, and any other race category not previously described. Among the islands, St. Croix and St. Thomas have a similar racial makeup, with St. John having a higher proportion of White residents (30%) and a smaller proportion of Black residents (63%) than the others.

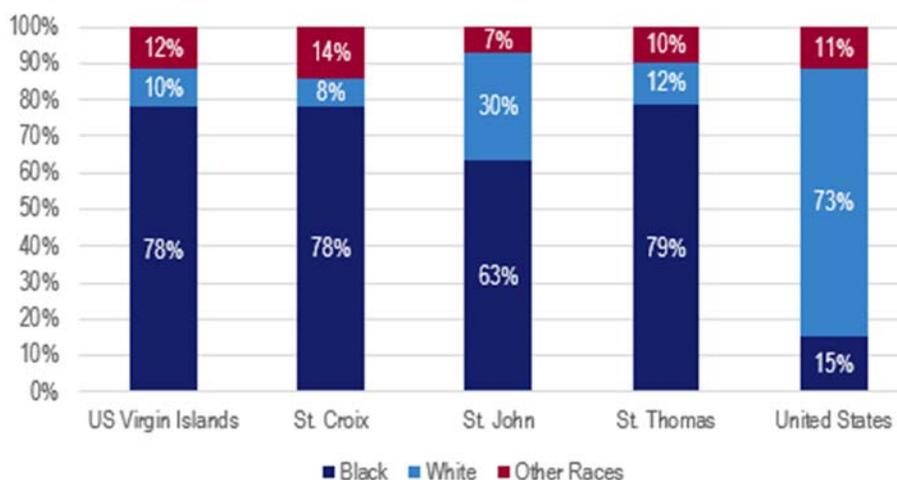
This breakdown is contrasted with the larger United States, where only 15% of the population is Black, 73% is White, and 11% is comprised of other races.

### English Fluency, 2013

	US Virgin Islands	St. Croix	St. John	St. Thomas	United States
<b>Speaks only English</b>	72%	69%	75%	75%	79%
<b>Speaks English Very Well/Well</b>	25%	29%	18%	23%	17%
<b>ENGLISH FLUENT POPULATION</b>	97%	97%	93%	97%	96%

Source: Virgin Islands: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands; United States: Esri

### Population by Race, 2013



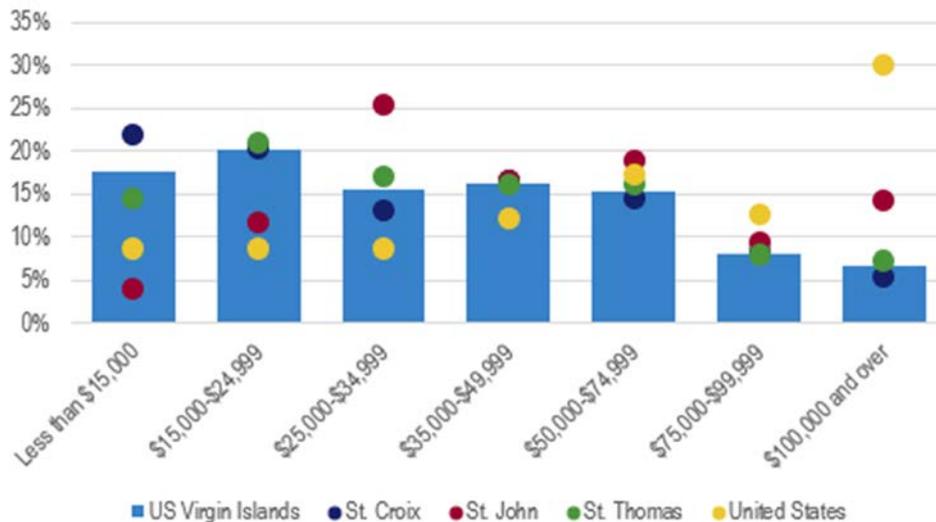
Source: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands.

## INCOME

Incomes in the U.S. Virgin Islands are considerably lower than in the United States. As of 2013, median household income across the U.S. Virgin Islands was \$31,015 compared to \$62,203 in the United States. The highest median household income was \$43,000 in St. John and the lowest was \$29,024 in St. Croix.

Twenty percent (20%) of U.S. Virgin Island households fall into the \$15,000-\$24,999 income bracket. This is followed by 18% of households earning less than \$15,000, 16% of households earning between \$25,000-\$34,999, and 16% of households earning between \$35,000-\$49,999.

### Household Income Distribution, 2013



\*United States data is for 2020. Due to differences in data reporting, some categories are unavailable for the United States. United States data for "\$10,000-\$14,999" represents "Less than \$15,000." Source: US Virgin Islands: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands; United States: Esri

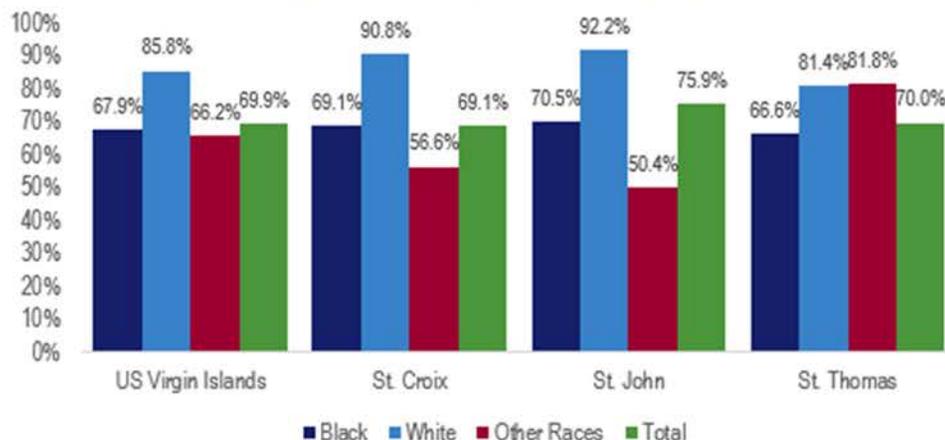
### Households by Income, 2013

Income	US Virgin Islands	St. Croix	St. John	St. Thomas	United States
Less than \$15,000	8,324	4,797	70	3,457	13,017,162
\$15,000-\$24,999	9,596	4,433	205	4,958	11,075,245
\$25,000-\$34,999	7,374	2,855	448	4,071	10,966,334
\$35,000-\$49,999	7,731	3,603	294	3,834	15,355,728
\$50,000-\$74,999	7,276	3,141	333	3,803	21,754,456
\$75,000-\$99,999	3,876	1,812	164	1,900	15,916,453
\$100,000 and over	3,142	1,159	254	1,729	37,996,838
<b>Median</b>	<b>\$31,015</b>	<b>\$29,024</b>	<b>\$43,000</b>	<b>\$31,789</b>	<b>\$62,203</b>

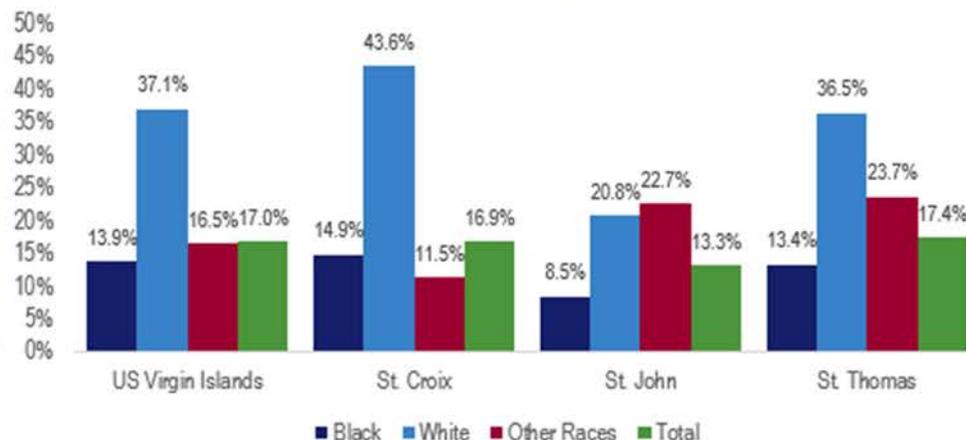
\*United States data is for 2020. Due to differences in data reporting, some categories are unavailable for the United States. United States data for "\$10,000-\$14,999" represents "Less than \$15,000." "-" indicates a value of 0. "NA" indicates data is not available.

Source: US Virgin Islands: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands; United States: Esri

**% of Adults With High School Diploma or Higher, 2013**



**% of Adults With Bachelor Degree or Higher, 2013**



Source: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands.

**EDUCATION**

Nearly seventy percent (69.9%) of adults in the U.S. Virgin Islands hold at least a high school diploma and 17.0% of adults possess a bachelor’s degree or higher. This is compared to 88.7% of adults in the United States with at least a high school diploma and 33.1% with a bachelor’s degree or higher. Within the U.S. Virgin Islands, St. John has the highest level of high school educational attainment, with 75.9% of adults holding at least a high school diploma. St. Thomas has the highest level of post-secondary educational attainment, with 17.4% of adults holding at least a bachelor’s degree.

Across all of the islands, there is a disparity in educational attainment by race. A higher proportion of White residents have obtained a high school diploma or higher than Black residents or residents of other races. The disparity is more pronounced in the proportion of adults with a bachelor’s degree or

higher. Thirty seven percent (37.1%) of White Virgin Islands residents have obtained at least a bachelor’s degree, compared to 13.9% of Black adults.

**Educational Attainment of Adult Population, 2013**

Education	US Virgin Islands	St. Croix	St. John	St. Thomas	United States
Less than HS	23,021	10,810	818	11,393	25,985,262
High School graduate or GED	26,589	11,935	1,074	13,580	61,230,113
Some college, no degree	9,736	4,524	439	4,772	46,130,644
Associate degree	4,032	1,797	604	1,632	19,913,968
Bachelor degree	9,511	4,056	259	5,197	46,391,500
Advanced degree	3,487	1,871	193	1,423	29,533,959
<b>% HIGH SCHOOL OR ABOVE</b>	69.9%	69.1%	75.9%	70.0%	88.7%
<b>% BACHELOR DEGREE OR ABOVE</b>	17.0%	16.9%	13.3%	17.4%	33.1%

\*United States data is for 2020. Due to differences in data reporting, some categories are unavailable for the United States. United States data for "9th or 10th grade" represents "9-12th grade/no diploma." "-" indicates a value of 0, "NA" indicates data is not available.

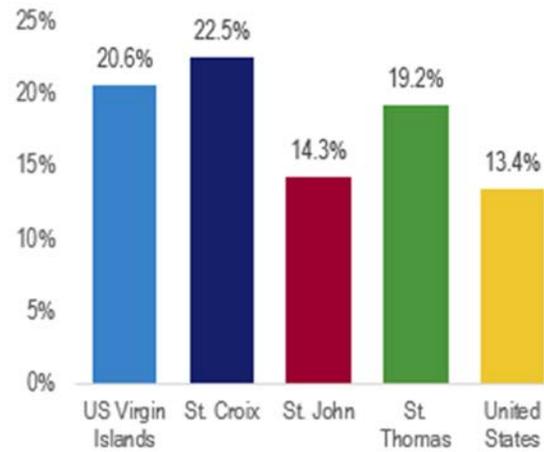
Source: US Virgin Islands: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands; United States: Esri

## UNEMPLOYMENT AND POVERTY

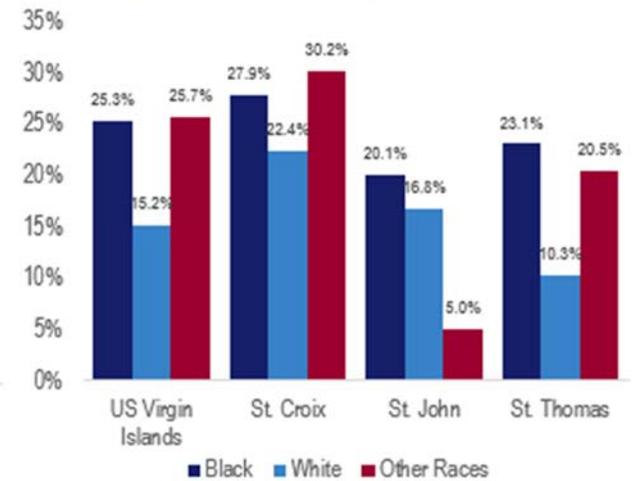
Since 2012, unemployment in the U.S. Virgin Islands has trended higher than in the United States. Unemployment rates in the U.S. Virgin Islands were at their lowest levels since 2010 in 2019 (5.2%). However, the unemployment rate has increased to 11.2% as a result of Covid-19 economic disruptions (as of August 2020). This is still below peak employment of 13.9% that resulted from the 2017 hurricanes.

More households are below the poverty level in the U.S. Virgin Islands than in the United States (20.6% vs. 13.4%). Within the U.S. Virgin Islands, household poverty rates are highest in St. Croix and lowest in St. John. In looking at the percentage of people below the poverty level in the U.S. Virgin Islands, Whites fare better than Blacks and people of other races; overall, 15.2% of White residents are below the poverty level while over 25.3% of Black residents and 25.7% of residents of other races are below the poverty level.

### Households Below Poverty Level

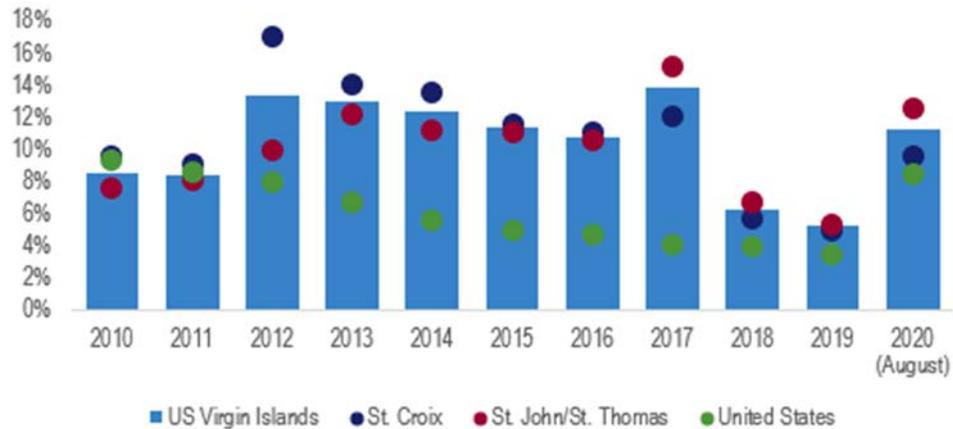


### % of People Below Poverty Level



Source: Virgin Islands: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands; United States: Esri (2018)

### Unemployment Rate



Source: Virgin Islands Department of Labor, U.S. Bureau of Labor Statistics

## MIGRATION PATTERNS

As of 2013, half of U.S. Virgin Islands residents were born in the U.S. Virgin Islands and half migrated from elsewhere.

With respect to reason for migration, 17% of residents migrated to the U.S. Virgin Islands for employment, followed by 11% who were the dependent of the employed person and 9% who were family members of employed residents. At 73% of total residents, St. John has the highest proportion of residents born outside of the U.S. Virgin Islands. St. Croix has the highest percentage of residents born in the U.S. Virgin Islands (57%).

## Migration Patterns, 2013

	US Virgin Islands		St. Croix		St. John		St. Thomas	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Born in VI</b>	52,637	50%	28,582	57%	1,070	27%	22,986	45%
<b>Born outside VI</b>	52,123	50%	21,407	43%	2,957	73%	27,759	55%
<b>Reason for Migration</b>								
<b>Employment</b>	17,676	17%	5,393	11%	1,083	27%	11,200	22%
<b>Spouse of employed person</b>	3,835	4%	1,809	4%	287	7%	1,739	3%
<b>Dependent of employed person</b>	11,416	11%	4,255	9%	626	16%	6,536	13%
<b>Family member of employed resident</b>	9,699	9%	4,935	10%	263	7%	4,501	9%
<b>Student attending college</b>	661	1%	410	1%	68	2%	184	0%
<b>Missionary work</b>	248	0%	46	0%	-	0%	201	0%
<b>Medical reasons</b>	147	0%	107	0%	-	0%	39	0%
<b>Visiting/vacation</b>	5,898	6%	3,262	7%	337	8%	2,299	5%
<b>Other</b>	2,543	2%	190	0%	293	7%	1,060	2%
<b>Total</b>	104,760	100%	49,989	100%	4,027	100%	50,745	100%

Source: 2013 Virgin Islands Community Survey, Eastern Caribbean Center, University of the Virgin Islands



## Macroeconomic Indicators

### GROSS DOMESTIC PRODUCT (GDP)

Between 2002 and 2018, the real GDP of the U.S. Virgin Islands has shrunk by 19% while that of the United States has increased by 38%. As real GDP started to decrease beginning in 2010, the unemployment rate began to increase.

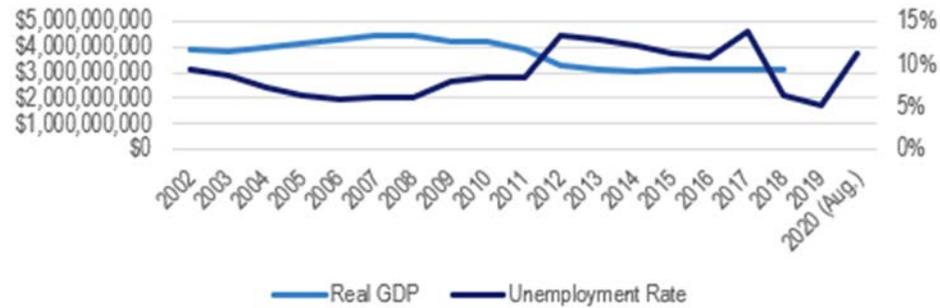
#### Gross Domestic Product (GDP)

measures the value and makeup of the region's output, the types of income generated, and how that income is used. It is the total value of goods and services produced.

### GDP Components

Like in the United States, personal consumption expenditures—particularly on services—make up the largest portion of the U.S. Virgin Islands' GDP. Additionally, the U.S. Virgin Islands import a significant amount of goods, resulting in a negative net export figure.

Real GDP vs. Unemployment Rate, US Virgin Islands



Historical GDP (\$1,000)

Year	US Virgin Islands	United States
	Chained 2009 Dollars	Chained 2012 Dollars
2002	\$3,891,000	\$10,936,400,000
2003	\$3,878,000	\$11,458,200,000
2004	\$3,992,000	\$12,213,700,000
2005	\$4,137,000	\$13,036,600,000
2006	\$4,287,000	\$13,814,600,000
2007	\$4,460,000	\$14,451,900,000
2008	\$4,502,000	\$14,712,800,000
2009	\$4,203,000	\$14,448,900,000
2010	\$4,241,000	\$14,992,100,000
2011	\$3,895,000	\$15,542,600,000
2012	\$3,310,000	\$16,197,000,000
2013	\$3,117,000	\$16,784,900,000
2014	\$3,090,000	\$17,527,300,000
2015	\$3,098,000	\$18,238,300,000
2016	\$3,133,000	\$18,745,100,000
2017	\$3,114,000	\$19,543,000,000
2018	\$3,161,000	\$20,611,900,000
<b>% CHANGE</b>	<b>-19%</b>	<b>88%</b>

Source: Bureau of Economic Analysis

### 2018 GDP, US Virgin Islands

Category	US Virgin Islands - 2018		United States - 2019	
	Value	% of Total	Value	% of Total
<b>Personal consumption expenditures</b>	\$2,739,000,000	69%	\$14,544,600,000,000	68%
Goods	\$1,211,000,000	30%	\$4,512,200,000,000	21%
Durable goods	\$683,000,000	17%	\$1,534,400,000,000	7%
Nondurable goods	\$528,000,000	13%	\$2,977,900,000,000	14%
Foods, feeds, and beverages	\$358,000,000	9%	NA	NA
Other nondurable goods	\$170,000,000	4%	NA	NA
Services	\$2,417,000,000	61%	\$10,032,400,000,000	47%
Housing and utilities	\$877,000,000	22%	NA	NA
Health care	\$263,000,000	7%	NA	NA
Food services and accommodations	\$424,000,000	11%	NA	NA
Other services	\$853,000,000	21%	NA	NA
Net foreign travel	-\$888,000,000	-22%	NA	NA
<b>Private fixed investment</b>	\$483,000,000	12%	\$3,702,100,000,000	17%
<b>Change in private inventories</b>	\$962,000,000	24%	\$49,100,000,000	0%
<b>Net exports of goods and services</b>	-\$1,903,000,000	-48%	-\$610,500,000,000	-3%
Exports	\$2,140,000,000	54%	\$2,514,800,000,000	12%
Goods	\$1,242,000,000	31%	\$1,636,700,000,000	8%
Services	\$898,000,000	23%	\$878,000,000,000	4%
Imports	\$4,043,000,000	101%	\$3,125,200,000,000	15%
Goods	\$3,707,000,000	93%	\$2,525,600,000,000	12%
Services	\$336,000,000	8%	\$599,600,000,000	3%
<b>Government consumption expenditures and gross investment</b>	\$1,703,000,000	43%	\$3,747,900,000,000	17%
Federal	\$275,000,000	7%	\$1,419,200,000,000	7%
Territorial	\$1,428,000,000	36%	\$2,328,700,000,000	11%
<b>Total</b>	<b>\$3,984,000,000</b>	<b>100%</b>	<b>\$21,433,200,000,000</b>	<b>100%</b>

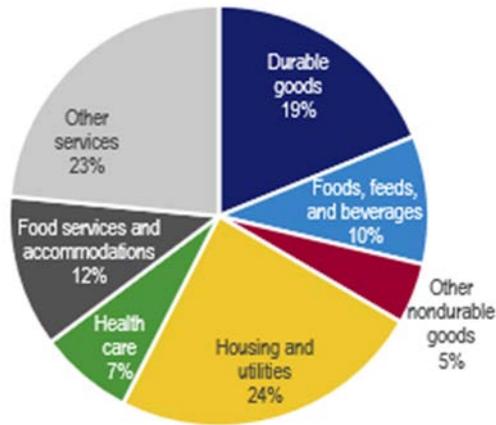
\*Current dollars. A more extensive list of goods and services personal consumption expenditures is available for the United States. For the purposes of this analysis, the top level totals are shown to ensure alignment with the US Virgin Islands data.

Source: Bureau of Economic Analysis

### Personal Consumption Expenditures

Spending on housing and utilities represents the highest proportion of personal consumption expenditures (24%). This is followed by spending on other services (23%), durable goods (19%), and food services and accommodations (12%). Health care represents one of the smallest portions of the major expenditure categories (i.e. not including anything that falls under other services).

**2018 GDP: Personal Consumption Expenditures, US Virgin Islands**



Source: Bureau of Economic Analysis

### Services

Tourism-related services have become an increasingly important contributor to the U.S. Virgin Islands' GDP. The accommodation and food services value added has increased from 8% of GDP in 2002 to 13% in 2017. Wholesale and retail trade as well as other services have shown some fluctuation over this period but have remained relatively flat in their value added.

**Value Added by Service Industry as a Percentage of GDP, US Virgin Islands**

	Wholesale and Retail Trade	Accommodation and Food Services	Other Services, except Government
2002	11%	8%	41%
2003	10%	8%	41%
2004	10%	8%	38%
2005	9%	7%	35%
2006	9%	7%	34%
2007	9%	8%	35%
2008	10%	10%	37%
2009	10%	10%	36%
2010	10%	10%	37%
2011	10%	10%	37%
2012	10%	11%	40%
2013	11%	12%	41%
2014	11%	14%	40%
2015	10%	14%	41%
2016	10%	14%	42%
2017	9%	13%	43%

Source: Bureau of Economic Analysis

## INTERNATIONAL TRADE

### Net Exports

With the exception of 2015 that showed a nominal positive net export figure, the U.S. Virgin Islands' imports have exceeded exports since 2010, resulting in a negative net export figure. Between 2016 and 2018 the gap between imports and exports has steadily increased. As of 2018, imports exceeded exports by \$989 million.

### Historical Trade, US Virgin Islands



\*Chained 2009 dollars.

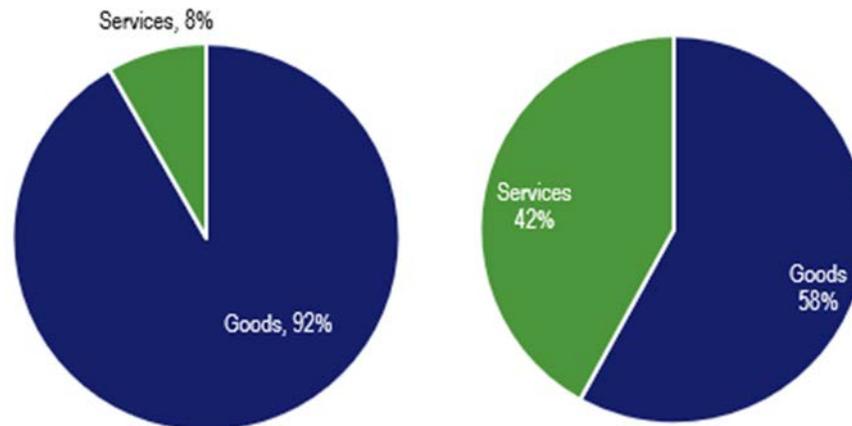
Source: Bureau of Economic Analysis

### Goods and Services

As of 2018, the majority of imports to the U.S. Virgin Islands were goods. Ninety-two percent (92%) of imports were goods and 8% were services.

Exports are more evenly split. As of 2018, 58% of exports were goods and 42% were services.

### 2018 Imports, US Virgin Islands    2018 Exports, US Virgin Islands



Source: Bureau of Economic Analysis

### Commodities

The U.S. Census Bureau provides data on trade originating from the U.S. Virgin Islands by NAICS commodity. This data considers only foreign imports and exports and not domestic trade with the continental United States. This differs from the aforementioned trade data from the Bureau of Economic Analysis which measures the total value of trade between the U.S. Virgin Islands and the rest of the world, for the calculation of GDP. Trade with the U.S. mainland accounts for 57% of exports and 61% of imports.

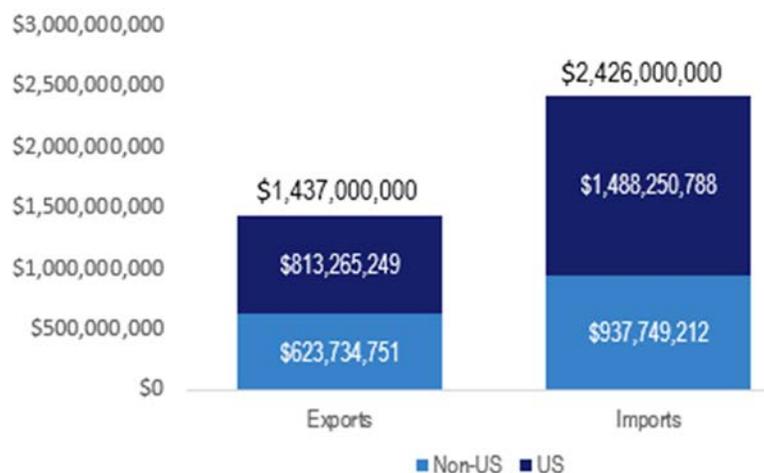
U.S. Virgin Islands trade is dominated by petroleum as a result of the prevalence of petroleum transshipment and storage in the region. This makes up just over 84% of foreign (non-U.S. mainland) imports and nearly 96% of foreign (non-U.S. mainland) exports. Petroleum is imported and stored from countries such as Algeria, India, South Korea, and Argentina, and is exported to countries such as Malaysia, Martinique, Guadeloupe, and Barbados.

Other top foreign imports include oil and gas (8.9%), plastics and rubber products (1.7%), and beverages and tobacco products (1.6%). Specific imported products include tubes and hoses, jewelry, beer, molasses, wood furniture, aluminum, rubber tires, wine, whiskey, vodka, and rum.

Very little is exported internationally outside of petroleum products. Specific exported products include jewelry, motorboats, electronic circuits, watch parts, and stones for concrete.

According to the Office of Management and Budget Bureau of Economic Research's 2020 report, *Review of the USVI Territorial Economy 2019*, rum accounts for 41% of total exports when mainland US and foreign exports are considered collectively. Cruzan Rum and Diageo are key players in U.S. Virgin Islands' production of rum, which is a major export from the region to the mainland United States.

### US Virgin Islands Trade



Source: Bureau of Economic Analysis and US Census Bureau

**US Virgin Islands Trade by NAICS Commodity, 2019**

NAICS	Description	Exports		Imports	
		Value	% of Total	Value	% of Total
111	Agricultural Products	\$368,977	0.1%	\$33,052	0.0%
112	Livestock & Livestock Products	\$0	0.0%	\$435,324	0.0%
113	Forestry Products	\$33,859	0.0%	\$8,421	0.0%
114	Fish, Fresh/chilled/frozen & Other Marine Products	\$129,000	0.0%	\$64,623	0.0%
211	Oil & Gas	\$0	0.0%	\$83,409,775	8.9%
212	Minerals	\$606,639	0.1%	\$261,551	0.0%
311	Food & Kindred Products	\$88,011	0.0%	\$5,022,559	0.5%
312	Beverages & Tobacco Products	\$365,270	0.1%	\$14,738,426	1.6%
313	Textiles & Fabrics	\$0	0.0%	\$74,441	0.0%
314	Textile Mill Products	\$7,000	0.0%	\$265,401	0.0%
315	Apparel & Accessories	\$0	0.0%	\$1,049,722	0.1%
316	Leather & Allied Products	\$18,602	0.0%	\$197,391	0.0%
321	Wood Products	\$41,979	0.0%	\$337,211	0.0%
322	Paper	\$164,856	0.0%	\$166,647	0.0%
323	Printed Matter and Related Products	\$4,469	0.0%	\$298,789	0.0%
324	Petroleum & Coal Products	\$597,961,462	95.9%	\$788,618,818	84.1%
325	Chemicals	\$603,967	0.1%	\$193,330	0.0%
326	Plastics & Rubber Products	\$59,651	0.0%	\$15,757,741	1.7%
327	Nonmetallic Mineral Products	\$302,617	0.0%	\$560,644	0.1%
331	Primary Metal Mfg	\$676,883	0.1%	\$2,265,800	0.2%
332	Fabricated Metal Products	\$177,380	0.0%	\$2,639,278	0.3%
333	Machinery, Except Electrical	\$657,135	0.1%	\$511,991	0.1%
334	Computer & Electronic Products	\$5,089,336	0.8%	\$5,588,962	0.6%
335	Electrical Equipment, Appliances & Components	\$473,025	0.1%	\$1,145,895	0.1%
336	Transportation Equipment	\$4,092,921	0.7%	\$412,790	0.0%
337	Furniture & Fixtures	\$33,879	0.0%	\$2,404,165	0.3%
339	Misc. Manufactured Commodities	\$11,466,633	1.8%	\$10,428,343	1.1%
Other		\$311,200	\$0	\$858,122	\$0
<b>TOTAL</b>		<b>\$623,734,751</b>	<b>100%</b>	<b>\$937,749,212</b>	<b>100%</b>

\*United States trade originating from the US Virgin Islands. 'Other' includes newspapers, books & other published material; published printed music and music manuscript; waste and scrap; used second-hand merchandise; goods returned; and other special classification

Source: US Census Bureau

## Economic Base Analysis

### SUMMARY

#### Virgin Islands

Outside of the public sector, accommodation and food services and retail trade are top job contributors to the U.S. Virgin Islands economy. These, along with professional, scientific, and technical services comprise the majority of businesses in the region.

Professional, scientific, and technical services jobs are also the most well-paying, with average annual gross pay of nearly \$71,000.

Though representing only 3% of jobs, the finance and insurance sector accounts for 20% of total sales in the U.S. Virgin Islands.

Industries are defined by the standard North American Industry Classification System (NAICS). NAICS codes range from broad 2-digit sectors, to specific 6-digit industries.

#### Industry Summary, US Virgin Islands, 2017

NAICS	Description	Percent of Total:			Avg. Gross Pay
		Jobs	Sales	Businesses	
11	Agriculture, Forestry, Fishing and Hunting	0%	NA	0%	\$22,932
21	Mining, quarrying, and oil and gas extraction	0%	0%	0%	\$64,962
22	Utilities	2%	NA	0%	\$66,809
23	Construction	3%	2%	6%	\$54,858
31-33	Manufacturing	1%	3%	2%	\$46,438
42	Wholesale trade	2%	9%	3%	\$40,587
44-45	Retail trade	15%	21%	20%	\$24,289
48-49	Transportation and warehousing	6%	6%	5%	\$33,624
51	Information	2%	2%	2%	\$48,305
52	Finance and insurance	3%	20%	5%	\$63,234
53	Real estate and rental and leasing	3%	3%	8%	\$38,510
54	Professional, scientific, and technical services	3%	4%	11%	\$70,813
55	Management of companies and enterprises	0%	1%	0%	\$51,295
56	Administrative and support and waste management and remediation services	5%	4%	7%	\$29,880
61	Educational services	0%	0%	1%	\$30,134
62	Health care and social assistance	8%	7%	9%	\$37,094
71	Arts, entertainment, and recreation	2%	2%	2%	\$26,323
72	Accommodation and food services	17%	9%	13%	\$28,359
81	Other services (except public administration)	3%	2%	7%	\$30,120
90	Government	24%	NA	NA	\$53,625

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

### St. Croix

The distribution of jobs and businesses by sector in St. Croix mirrors that of the overall U.S. Virgin Islands. Retail trade and accommodation and food services are the top contributors to the private sector. Retail trade contributes 13% of jobs, 18% of businesses, and 19% of sales while accommodation and food services contributes 11% of jobs and 5% of sales to St. Croix's economy.

Health care and social assistance also comprises a notable portion of St. Croix's economy, at 10% of jobs, 12% of businesses, and 10% of sales.

### Industry Summary, St. Croix, 2017

NAICS	Description	Percent of Total:			Avg. Gross Pay
		Jobs	Sales	Businesses	
11	Agriculture, Forestry, Fishing and Hunting	0%	NA	NA	\$23,805
21	Mining, quarrying, and oil and gas extraction	0%	0%	0%	\$64,962
22	Utilities	0%	0%	0%	\$77,019
23	Construction	4%	3%	6%	\$59,022
31-33	Manufacturing	2%	7%	4%	\$50,236
42	Wholesale trade	3%	15%	2%	\$36,299
44-45	Retail trade	13%	19%	18%	\$21,740
48-49	Transportation and warehousing	6%	6%	4%	\$33,732
51	Information	1%	1%	2%	\$56,318
52	Finance and insurance	3%	16%	5%	\$72,412
53	Real estate and rental and leasing	2%	3%	6%	\$34,076
54	Professional, scientific, and technical services	3%	7%	12%	\$65,560
55	Management of companies and enterprises	0%	0%	0%	\$30,864
56	Administrative and support and waste management and remediation services	5%	3%	6%	\$33,678
61	Educational services	0%	0%	1%	\$26,959
62	Health care and social assistance	10%	10%	12%	\$32,776
71	Arts, entertainment, and recreation	2%	2%	2%	\$27,457
72	Accommodation and food services	11%	5%	11%	\$20,222
81	Other services (except public administration)	4%	3%	8%	\$29,560
90	Government	30%	NA	NA	\$50,039

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

### St. John

The economy of St. John is less diverse than the other islands. Accommodation and food services is much more critical to the economy of St. John, as this sector accounts for 46% of all jobs, 20% of businesses, and 26% of sales.

Retail trade is also important to the St. John economy, making up 18% of jobs, 19% of businesses, and 26% of sales.

### Industry Summary, St. John, 2017

NAICS	Description	Percent of Total:			Avg. Gross Pay
		Jobs	Sales	Businesses	
11	Agriculture, Forestry, Fishing and Hunting	0%	NA	NA	\$0
21	Mining, quarrying, and oil and gas extraction	0%	0%	0%	\$0
22	Utilities	0%	0%	0%	\$0
23	Construction	5%	5%	7%	\$49,747
31-33	Manufacturing	1%	1%	1%	\$33,765
42	Wholesale trade	0%	0%	0%	\$0
44-45	Retail trade	18%	26%	19%	\$30,020
48-49	Transportation and warehousing	6%	7%	5%	\$27,931
51	Information	0%	0%	0%	\$37,430
52	Finance and insurance	1%	13%	3%	\$35,312
53	Real estate and rental and leasing	8%	10%	21%	\$34,544
54	Professional, scientific, and technical services	3%	2%	7%	\$41,441
55	Management of companies and enterprises	0%	0%	0%	\$0
56	Administrative and support and waste management and remediation services	3%	2%	6%	\$37,110
61	Educational services	0%	0%	1%	\$36,485
62	Health care and social assistance	1%	2%	3%	\$23,744
71	Arts, entertainment, and recreation	3%	3%	2%	\$39,175
72	Accommodation and food services	46%	26%	20%	\$36,067
81	Other services (except public administration)	2%	2%	5%	\$33,762
90	Government	0%	NA	NA	\$50,395

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

### St. Thomas

The industry composition of St. Thomas most closely resembles that of St. Croix, with retail trade and accommodation and food services continuing to be of high importance to the island's economy.

Construction, manufacturing, and wholesale trade make up a slightly smaller portion of jobs on St. Thomas than on St. Croix, while information, real estate and rental and leasing, and administrative support make up a slightly larger portion of the jobs on St. Thomas than on St. Croix.

### Industry Summary, St. Thomas, 2017

NAICS	Description	Percent of Total:			Avg. Gross Pay
		Jobs	Sales	Businesses	
11	Agriculture, Forestry, Fishing and Hunting	0%	NA	NA	\$15,080
21	Mining, quarrying, and oil and gas extraction	0%	0%	0%	\$0
22	Utilities	3%	NA	0%	\$61,209
23	Construction	2%	2%	5%	\$47,986
31-33	Manufacturing	1%	1%	1%	\$41,204
42	Wholesale trade	2%	6%	3%	\$43,897
44-45	Retail trade	16%	21%	22%	\$25,149
48-49	Transportation and warehousing	6%	6%	5%	\$34,568
51	Information	3%	3%	2%	\$44,519
52	Finance and insurance	3%	23%	5%	\$57,731
53	Real estate and rental and leasing	3%	3%	7%	\$42,481
54	Professional, scientific, and technical services	2%	3%	11%	\$78,386
55	Management of companies and enterprises	1%	1%	1%	\$57,862
56	Administrative and support and waste management and remediation services	6%	5%	7%	\$26,925
61	Educational services	0%	0%	0%	\$31,451
62	Health care and social assistance	7%	6%	9%	\$41,931
71	Arts, entertainment, and recreation	2%	2%	2%	\$24,175
72	Accommodation and food services	18%	10%	12%	\$29,215
81	Other services (except public administration)	2%	2%	6%	\$30,261
90	Government	23%	NA	NA	\$34,954

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

## EMPLOYMENT

### Employment by Sector

Over the five-year period from 2012 to 2017, the total number of jobs in the U.S. Virgin Islands decreased by 6%. The biggest loss led by Hovensa's refinery closure, was in the manufacturing sector, with a reduction of 1,383 jobs. In contrast, transportation and warehousing and health care and social assistance realized the biggest job gains over this period. Employment in transportation and warehousing is driven by support activities for transportation, water transportation, and truck transportation.

Manufacturing job losses occurred in St. Croix, and contributed to the island's 18% decrease in non-government jobs. St. John, on the other hand, added jobs in tourism-based industries (retail trade and accommodation and food services), and grew non-government employment by 22%. Non-government employment in St. Thomas remained flat, with losses and gains dispersed among a variety of sectors. Health care and social assistance added over 500 jobs in St. Thomas: a 50% change from 2012.

### Virgin Islands Employment by Sector

NAICS	Description	2012 Jobs	2017 Jobs	2012-2017 Change	2012-2017 % Change
11	Agriculture, Forestry, Fishing and Hunting	9	8	(1)	-11%
21	Mining, quarrying, and oil and gas extraction	<20	-	NA	NA
22	Utilities	807	651	(156)	-19%
23	Construction	1,729	1,298	(431)	-25%
31-33	Manufacturing	1,984	601	(1,383)	-70%
42	Wholesale trade	686	872	186	27%
44-45	Retail trade	6,596	6,118	(478)	-7%
48-49	Transportation and warehousing	1,682	2,366	684	41%
51	Information	918	870	(48)	-5%
52	Finance and insurance	1,156	1,078	(78)	-7%
53	Real estate and rental and leasing	961	1,112	151	16%
54	Professional, scientific, and technical services	2,108	1,134	(974)	-46%
55	Management of companies and enterprises	68	128	60	88%
56	Administrative and support and waste management and remediation services	1,904	2,108	204	11%
61	Educational services	65	50	(15)	-23%
62	Health care and social assistance	2,639	3,262	623	24%
71	Arts, entertainment, and recreation	743	936	193	26%
72	Accommodation and food services	6,864	6,737	(127)	-2%
81	Other services (except public administration)	1,539	1,193	(346)	-22%
<b>Total Non-Government</b>		<b>32,474</b>	<b>30,514</b>	<b>(1,960)</b>	<b>-6%</b>
<b>Government</b>		<b>10,311</b>	<b>9,676</b>	<b>(635)</b>	<b>-6%</b>
<b>TOTAL</b>		<b>42,785</b>	<b>40,190</b>	<b>(2,595)</b>	<b>-6%</b>

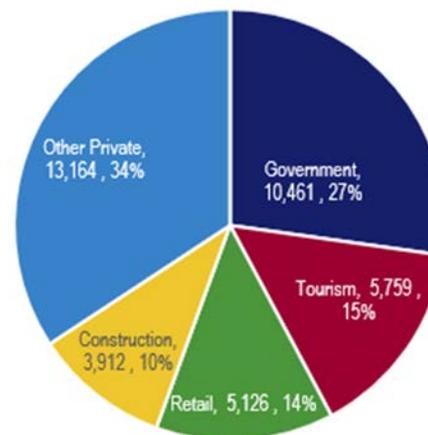
\* "-" indicates a value of 0. "NA" indicates data is not available or can't be calculated.

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

More recent data from the U.S. Virgin Islands Department of Labor shows that as of 2019, the government, tourism,<sup>14</sup> retail, and construction sectors are the biggest job contributors to the U.S. Virgin Islands. According to this data, government accounts for 27% of jobs, tourism for 15%, retail for 14% and construction for 10%.

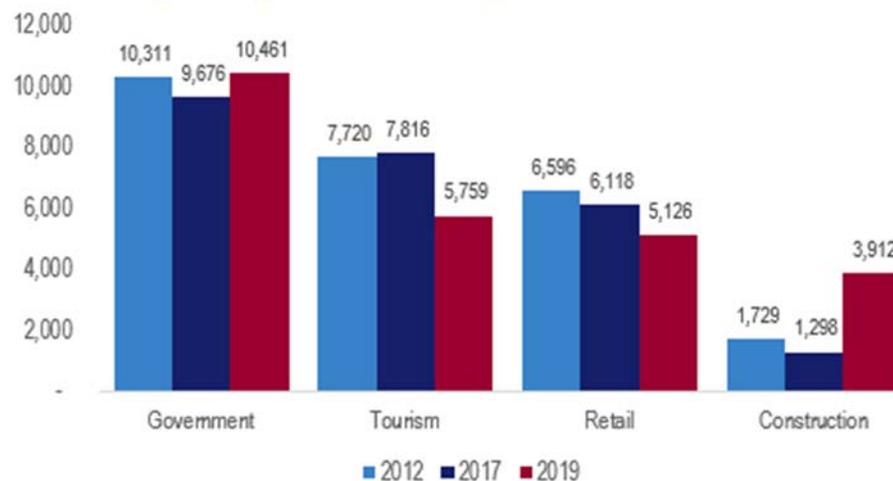
Of these sectors, construction has experienced the biggest job increase. This sector has increased from 1,729 jobs in 2012 to 3,912 jobs in 2019. Job creation in this sector is occurring as a result of federal disaster assistance prompting reconstruction, infrastructure repair, and hazard mitigation activities. Demand for construction workers for federally financed infrastructure projects is projected to continue in the coming years.

**Top Job Producing Sectors, 2019**



Source: Virgin Islands Department of Labor.

**Job Change in Top Sectors, US Virgin Islands**

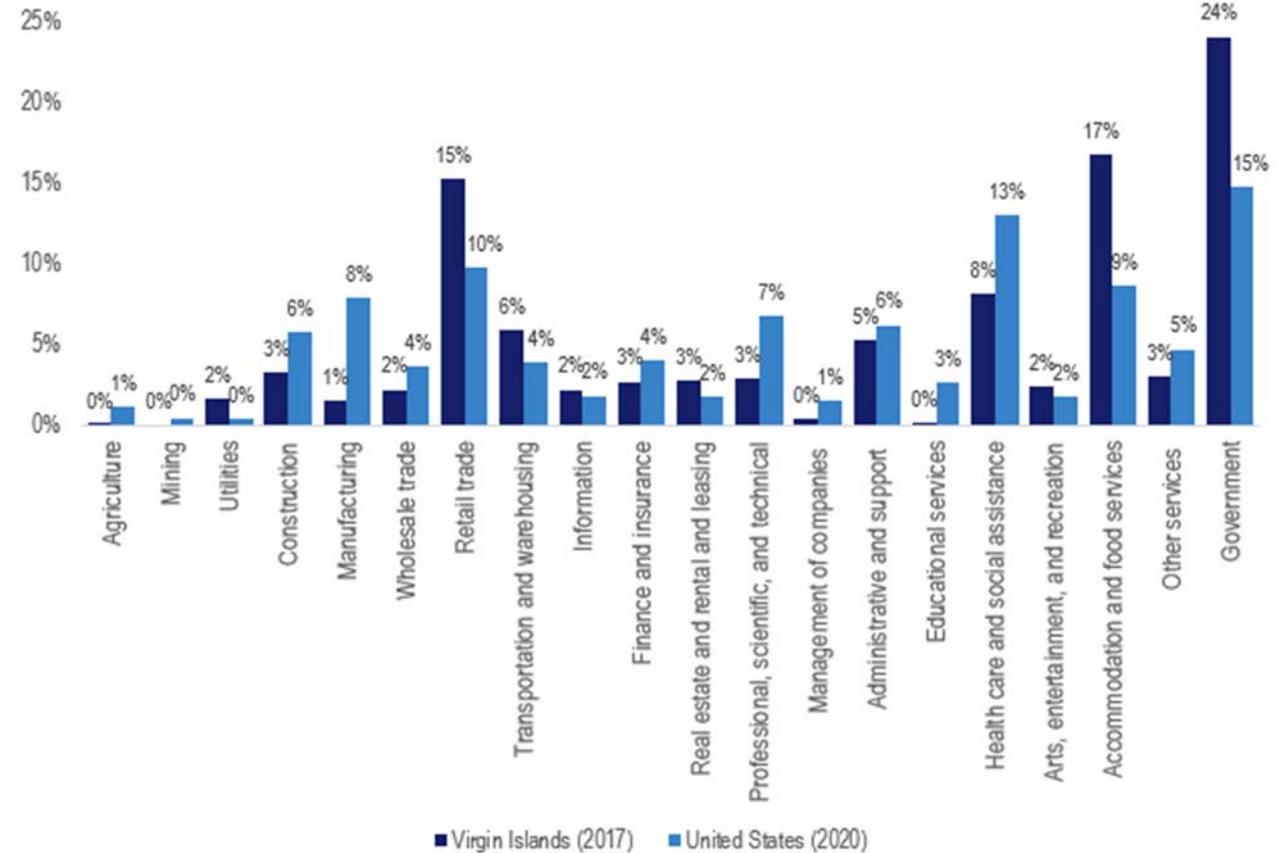


Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Virgin Islands Department of Labor.

<sup>14</sup> The tourism sector is defined to include accommodation and food services; arts, entertainment, and recreation; and sightseeing transportation.

Compared to the United States, a higher portion of the U.S. Virgin Islands' jobs is dependent on tourism-based industries of retail trade and accommodation and food services. Government jobs also account for a much larger portion of U.S. Virgin Islands jobs than United States mainland jobs.

### Sector Share of Total Jobs



Source: Virgin Islands: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; United States: Emsi

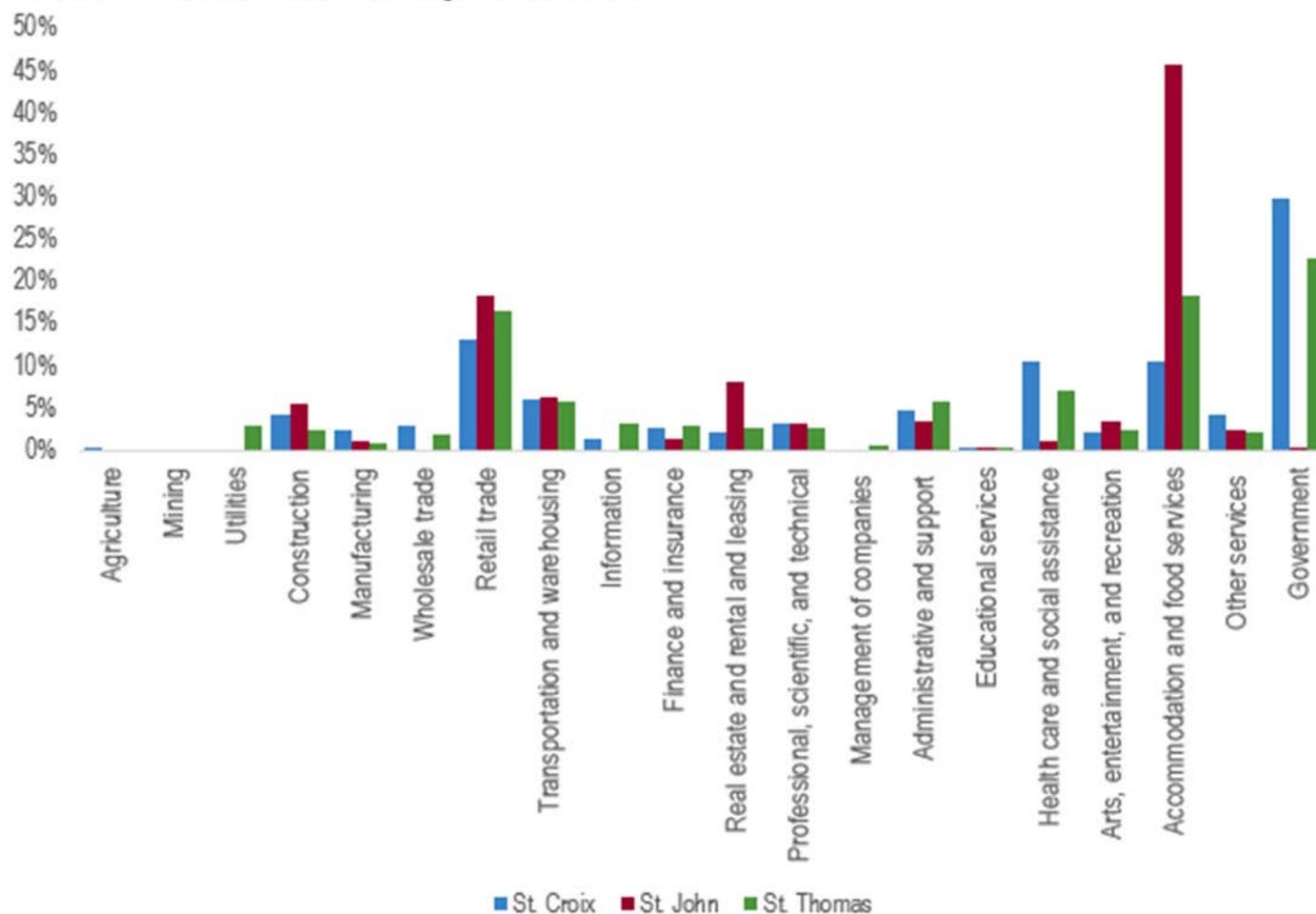
The economies of St. Croix and St. Thomas are more diverse than St. John. While accommodation and food services is a top jobs contributor across all three islands, jobs in this sector account for a much

higher percentage of jobs on St. John than on the other islands.

Government accounts for a large portion of jobs on St. Croix and St. Thomas, while St. John can attribute

a larger portion of its jobs to real estate and rental and leasing than the other islands.

### Sector Share of Total Jobs by Island, 2017



Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017.

### Employment by Industry

Using NAICS data available from the U.S. Virgin Islands Department of Labor,<sup>15</sup> the food services and drinking places industry is the top jobs contributor to the U.S. Virgin Islands. This is followed by administrative and support services, heavy and civil engineering construction, and accommodation. Of the top industries, heavy and civil engineering construction and professional and technical services are the highest paying.

The top industries on St. Croix are similar, with heavy and civil engineering construction contributing the most jobs, followed by administrative and support services and food services and drinking places. Four of the top eight industries on St. Croix have average weekly wages greater than \$1,000.

### Virgin Islands Employment in Top Industries, 2019

NAICS	Description	Jobs	Establishments	Avg. Weekly Wage
722	Food Services and Drinking Places	2,770	298	\$399
561	Administrative and Support Services	2,110	220	\$941
237	Heavy and Civil Engineering Construction	1,680	22	\$2,189
721	Accommodation	1,633	59	\$723
541	Professional and Technical Services	1,407	382	\$1,679
445	Food and Beverage Stores	1,306	64	\$498
236	Construction of Buildings	1,272	128	\$958
621	Ambulatory Health Care Services	1,051	162	\$874

Source: US Virgin Islands Department of Labor

### St. Croix Employment in Top Industries, 2019

NAICS	Description	Jobs	Establishments	Avg. Weekly Wage
237	Heavy and Civil Engineering Construction	1,608	12	\$2,161
561	Administrative and Support Services	1,131	78	\$1,292
722	Food Services and Drinking Places	985	108	\$379
811	Repair and Maintenance	857	40	\$1,701
236	Construction of Buildings	639	55	\$799
541	Professional and Technical Services	643	179	\$1,617
621	Ambulatory Health Care Services	523	67	\$743
445	Food and Beverage Stores	542	24	\$490

Source: US Virgin Islands Department of Labor

<sup>15</sup> Data on certain industries is designated as confidential and is not available.

Within St. John, the top industries are heavily tourism focused, with food services and drinking places being the top jobs contributor. Accommodation and a number of retail industries (clothing, food and beverage, general merchandise) are also some of the top industries.

Of the industries for which data is available, accommodation and food services and drinking places are top job contributors on St. Thomas. Construction of buildings and professional and technical services have the highest average weekly wages.

### Occupations

Office and administrative support occupations are the top occupation in the U.S. Virgin Islands in terms of number of jobs. This is followed by management occupations and food preparation and serving occupations. Not surprisingly, management occupations are the highest paying.

### Virgin Islands Top Occupations, 2019

Occupation	Jobs	Avg. Hourly Wage	Avg. Annual Earnings
Office and Administrative Support	5,460	\$16.62	\$34,570
Management	3,080	\$39.81	\$82,810
Food Preparation and Serving Related	3,040	\$12.67	\$26,350
Sales and Related	3,030	\$15.43	\$32,090
Protective Service	2,280	\$17.00	\$35,350
Transportation and Material Moving	2,170	\$15.68	\$32,610

Source: US Virgin Islands Department of Labor

### St. John Employment in Top Industries, 2019

NAICS	Description	Jobs	Establishments	Avg. Weekly Wage
722	Food Services and Drinking Places	1,590	154	\$396
561	Administrative and Support Services	939	130	\$544
721	Accommodation	898	29	\$772
448	Clothing and Clothing Accessories Stores	785	148	\$676
541	Professional and Technical Services	700	176	\$1,791
445	Food and Beverage Stores	683	35	\$489
452	General Merchandise Stores	605	6	\$377
236	Construction of Buildings	569	65	\$1,110

Source: US Virgin Islands Department of Labor

### St. Thomas Employment in Top Industries, 2019

NAICS	Description	Jobs	Establishments	Avg. Weekly Wage
721	Accommodation	260	9	\$ 812
722	Food Services and Drinking Places	195	36	\$ 504
483	Water Transportation	90	5	\$ 527
531	Real Estate	85	37	\$ 695
445	Food and Beverage Stores	81	5	\$ 629
236	Construction of Buildings	64	8	\$1,033
541	Professional and Technical Services	64	27	\$1,024
532	Rental and Leasing Services	55	17	\$ 597

Source: US Virgin Islands Department of Labor

## BUSINESSES

Though the number of retail businesses in the U.S. Virgin Islands has decreased since 2012, as of 2017 the retail trade sector continued to have the most businesses in the region (489). This is followed by accommodation and food services (304) and professional, scientific, and technical services (254).

Sectors that experienced the most business growth over this five-year period include accommodation

and food services (25); professional, scientific and technical services (22); and transportation and warehousing (19). Most of the transportation and warehousing businesses are located on St. Thomas and according to the U.S. Census Bureau, there were 70 of these businesses on the island in 2017, an increase of 10 since 2012.

### Virgin Islands Number of Businesses by Sector

NAICS	Description	2012	2017	2012-2017 Change	2012-2017 % Change
11	Agriculture	NA	9	NA	NA
21	Mining, quarrying, and oil and gas extraction	2	-	(2)	-100%
22	Utilities	11	6	(5)	-45%
23	Construction	161	137	(24)	-15%
31-33	Manufacturing	57	52	(5)	-9%
42	Wholesale trade	64	62	(2)	-3%
44-45	Retail trade	560	489	(71)	-13%
48-49	Transportation and warehousing	101	120	19	19%
51	Information	46	50	4	9%
52	Finance and insurance	107	122	15	14%
53	Real estate and rental and leasing	180	196	16	9%
54	Professional, scientific, and technical services	232	254	22	9%
55	Management of companies and enterprises	5	9	4	80%
56	Administrative and support and waste management and remediation services	146	162	16	11%
61	Educational services	17	16	(1)	-6%
62	Health care and social assistance	236	228	(8)	-3%
71	Arts, entertainment, and recreation	50	50	-	0%
72	Accommodation and food services	279	304	25	9%
81	Other services (except public administration)	160	160	-	0%
<b>TOTAL</b>		<b>2,414</b>	<b>2,419</b>	<b>5</b>	<b>0%</b>

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017

## TOP EMPLOYERS

According to the U.S. Virgin Islands Department of Labor (Q3, 2019), the largest non-governmental employers in terms of number of employees are (in order from largest):

1. National Industrial Services, LLC
2. K-Mart
3. PSI Tire Supply, LLC
4. INSERV Field Services, USVI, LLC
5. HDVI Holdings Co., Inc.
6. Sun Constructors, Inc.
7. Pinnacle Services, LLC
8. Plaza Extra Supermarket West
9. Virgin Islands Telephone Corporation
10. World Fresh Market, LLC
11. Ritz Carlton Virgin Islands, Inc.
12. Westin Resort
13. Allison Industrial Services, LLC
14. J. Benton Construction
15. Limetree Bay Refining, LLC
16. Plaza Extra Supermarket East
17. Buccaneer Hotel, Inc.
18. WENVI, Inc.
19. Elite Turnaround Specialist, Ltd.
20. Ranger American of the VI, Inc.
21. TOPA Equities VI, Corp.
22. First Bank Virgin Islands
23. R&T Unlimited Security, LLC
24. ESS Worldwide Services
25. Lutheran Social Service of the VI

## Business Licenses

According to the U.S. Virgin Islands Department of Licensing and Consumer Affairs, Importer of Goods is the top current business license held in the U.S. Virgin Islands. This is followed closely by Retail Shop and Store. Apartment House (4 units or less) and Tavernkeeper are the next most common business licenses.

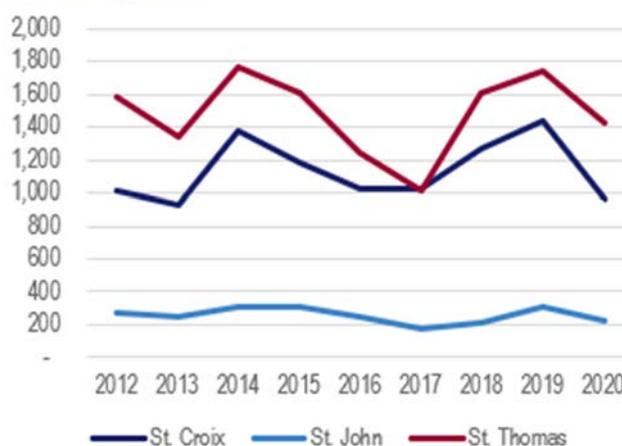
### Virgin Islands Top 20 Current Business License Types (2020)

License Type	#	% of Total
Importer of Goods	1,090	7%
Retail Shop & Store-No Liquor/Beer	1,025	7%
Apartment House D (4 units or less)	583	4%
Tavernkeeper A (Distilled & Fermented)	322	2%
Itinerant Vendor License	301	2%
Business & Management Consulting	297	2%
Tavern	277	2%
Commercial Farming Plants & or Animals	274	2%
Solicitor, Sales & Commission Agt.	255	2%
Trucking, Trans. & Delivery	242	2%
Restaurant A (Seating Capacity 25 or more)	231	2%
Restaurant B (Less than 25)	231	2%
Landscaping, Garden, Maint. Service	229	2%
Real Estate Broker	214	1%
Rental of Equipment	207	1%
Rental of Commercial Space	206	1%
Real Estate Salesman	194	1%
Tobacco Retailer	184	1%
Repair & Main of Misc. Items	174	1%
Carpentry Contractor	172	1%

Source: US Virgin Islands Department of Licensing and Consumer Affairs

Since 2012, St. Thomas issued an average of 1,480 licenses per year, which is the most of the three islands. St. Croix issued an average of 1,132 per year while St. John issued 257. All three islands experienced a dip in licenses issued in 2017 and 2020 as a result of hurricane activity and the Covid-19 pandemic, but have remained relatively consistent in their license issuing activity.

### Number of New Business Licenses Issued by Year



Source: US Virgin Islands Department of Licensing and Consumer Affairs

In comparing the number of business licenses issued by license type in 2010 to those issued in 2020, Commercial Farming Plants and/or Animals and Retail Sales (Internet) experienced the biggest increase in number of licenses issued.

### Biggest Increase in Licenses Issued (2010 vs. 2020)

License Type	#
Commercial Farming Plants & or Animals	102
Retail Sales-Internet	84
General Business License	40
Tavern	37
Apartment House D (4 units or less)	36
Temporary Real Estate Salesperson Permit.(6 month)	32
Janitorial Service & Supply	31
Business & Management Consulting	30
Engineer (Civil)	29
Motor Vehicle Dealer (Used Only-Home Based)	29
Engineering Services	26
General Construction Co.	24
Consultant - Business & Management	24
Project Coordinator/Consultant	24
Office of Real Estate Agents and Brokers	24
Hemp Products Retailer	22
Installation of Equipment	20
Personal Affairs Mgt	20
Real Estate Salesman	19
Boat Charter Service (per boat)	16

Source: US Virgin Islands Department of Licensing and Consumer Affairs

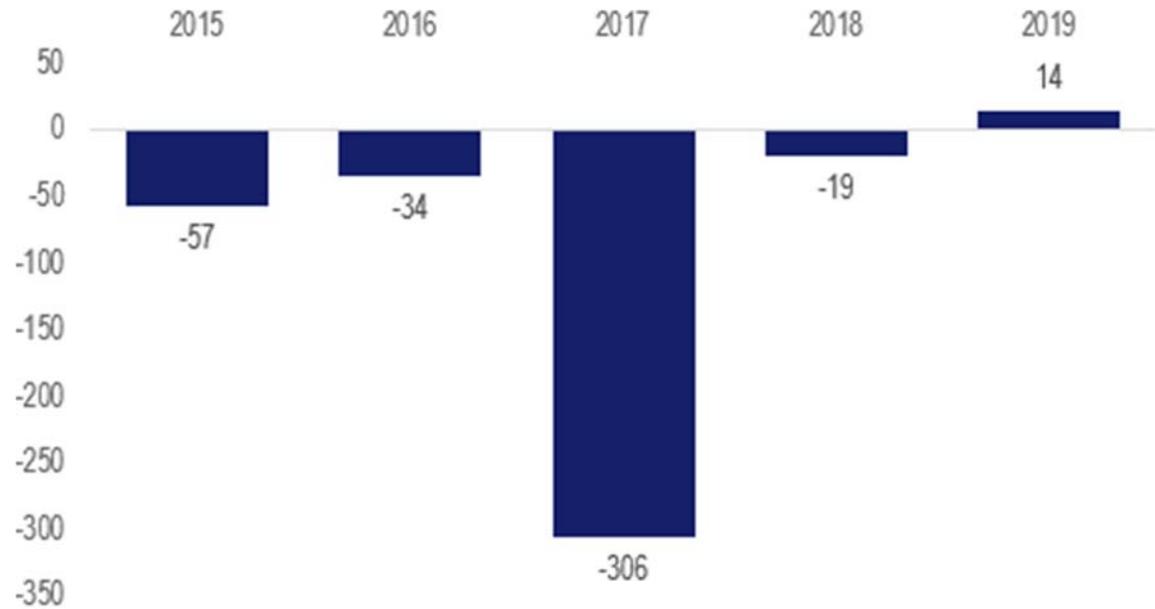
### Business Growth

Although new business licenses are being issued, the total net change in companies between 2015 and 2019 was -80 for the U.S. Virgin Islands. This means that the number of closing establishments outweighs the number of opening establishments on the islands.

The annual net change in jobs was negative for each year between 2015 and 2018, with 2017's data reflective of a high number of business closures and a low number of business openings as a result of the hurricanes.

The trajectory shows some promise, as the net change in businesses rebounded from -306 in 2017 to -19 in 2018, and shifted into a positive 14 in 2019. Though 2020 data is not yet available from the Bureau of Labor Statistics, it is expected that the Covid-19 pandemic stalled this momentum.

### Virgin Islands Annual Net Change in Businesses



Source: US Bureau of Labor Statistics Business Employment Dynamics Survey

## EARNINGS

Average annual gross pay in the U.S. Virgin Islands for non-government sector jobs has decreased slightly since 2012. As of 2017, average annual gross pay in non-government jobs was \$35,495 compared to \$53,625 for government sector jobs.

### Average Annual Gross Pay, Non-Government



Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017.

The drop in average annual pay can be attributed to St. Croix, where earnings per job for manufacturing decreased significantly following the closure of the Hovensa refinery.

## Virgin Islands Average Annual Gross Pay

NAICS	Description	2012	2017	2012-2017 Change	2012-2017 % Change
11	Agriculture, Forestry, Fishing and Hunting	\$16,719	\$22,932	\$6,213	37%
21	Mining, quarrying, and oil and gas extraction	\$47,484	\$64,962	NA	NA
22	Utilities	\$57,307	\$66,809	NA	NA
23	Construction	\$39,383	\$54,858	\$15,475	39%
31-33	Manufacturing	\$124,153	\$46,438	-\$77,715	-63%
42	Wholesale trade	\$41,434	\$40,587	-\$847	-2%
44-45	Retail trade	\$23,488	\$24,289	\$801	3%
48-49	Transportation and warehousing	\$32,615	\$33,624	\$1,009	3%
51	Information	\$53,195	\$48,305	-\$4,890	-9%
52	Finance and insurance	\$51,687	\$63,234	\$11,547	22%
53	Real estate and rental and leasing	\$35,386	\$38,510	\$3,124	9%
54	Professional, scientific, and technical services	\$52,797	\$70,813	\$18,016	34%
55	Management of companies and enterprises	\$65,011	\$51,295	-\$13,716	-21%
56	Administrative and support and waste management and remediation services	\$29,544	\$29,880	\$336	1%
61	Educational services	\$26,947	\$30,134	\$3,187	12%
62	Health care and social assistance	\$33,345	\$37,094	\$3,749	11%
71	Arts, entertainment, and recreation	\$23,745	\$26,323	\$2,578	11%
72	Accommodation and food services	\$24,481	\$28,359	\$3,878	16%
81	Other services (except public administration)	\$46,291	\$30,120	-\$16,171	-35%
<b>TOTAL NON GOVERNMENT</b>		\$36,284	\$35,495	-\$789	-2%
<b>GOVERNMENT</b>		\$45,379	\$53,625	\$8,246	18%

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; Agriculture and Government figures sourced from US Virgin Islands Department of Labor.

## SALES

Total sales in the U.S. Virgin Islands decreased by approximately 15% between 2012 and 2017. A drop in manufacturing sales is the largest contributor to this loss.

This loss can be attributed to a decrease in manufacturing sales in St. Croix, again due to the closure of the Hovensa refinery. St. John and St. Thomas experienced slight upticks in sales over this period.



Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017.

## Virgin Islands Total Sales by Sector (\$1,000)

NAICS	Description	2012	2017	2012-2017 Change	2012-2017 % Change
21	Mining, quarrying, and oil and gas extraction	NA	-	NA	NA
22	Utilities	366,880	NA	NA	NA
23	Construction	237,929	145,688	(92,241)	-39%
31-33	Manufacturing	1,962,639	175,294	(1,787,345)	-91%
42	Wholesale trade	221,006	527,485	306,479	139%
44-45	Retail trade	1,318,244	1,205,381	(112,863)	-9%
48-49	Transportation and warehousing	333,476	348,008	14,532	4%
51	Information	155,438	123,087	(32,351)	-21%
52	Finance and insurance	492,552	1,153,834	661,282	134%
53	Real estate and rental and leasing	168,337	180,052	11,715	7%
54	Professional, scientific, and technical services	306,886	239,734	(67,152)	-22%
55	Management of companies and enterprises	4,725	38,305	33,580	711%
56	Administrative and support and waste management and remediation services	174,834	236,349	61,515	35%
61	Educational services	3,611	3,704	93	3%
62	Health care and social assistance	313,883	411,635	97,752	31%
71	Arts, entertainment, and recreation	76,348	113,312	36,964	48%
72	Accommodation and food services	539,442	520,417	(19,025)	-4%
81	Other services (except public administration)	152,599	129,364	(23,235)	-15%
<b>TOTAL</b>		<b>6,830,529</b>	<b>5,835,853</b>	<b>(994,676)</b>	<b>-15%</b>

\* "-" indicates a value of 0. "NA" indicates data is not available or can't be calculated. Data is unavailable for Agriculture and Government.

Source: US Census Bureau, Economic Census of Island Areas, 2012 and 2017

## SECTOR CONCENTRATION

The concentration of industries was analyzed for each island and the Territory as a whole. When an industry is concentrated it means there is a relatively high proportion of workers employed in the sector and often indicates a strength or competitive advantage.

The analysis calculated Location Quotient (LQ) for each industry and island. LQ is a measure of industry concentration, indicating how concentrated a certain sector is in a given area of study, relative to the nation. It can reveal what makes a region “unique” in comparison with the national average. A location quotient greater than 1 indicates that sector employment in the Territory is more concentrated than it is at the mainland U.S. level. A location quotient of 1 indicates that employment in the Territory’s industry sector is equally concentrated as the mainland U.S. as a whole. The table on the following page provides an overview of the location quotient analysis.

**Location Quotient (LQ) is a measure of industry concentration, indicating how concentrated a certain sector is in a given area of study, relative to the nation. It can reveal what makes a region “unique” in comparison with the national average. A location quotient greater than 1 indicates that sector employment in the Territory is more concentrated than it is at the mainland U.S. level.**

Within the U.S. Virgin Islands, the utilities sector is the most concentrated and driven on St. Thomas. Concentration in utilities can be attributed to the government-run Water and Power Authority (WAPA). It should be noted that due to the way industry data is tabulated, all utility employment in the Territory is captured on St. Thomas.

The other top concentrated sectors in the U.S. Virgin Islands include accommodation and food services (1.94), real estate and rental and leasing (1.62), and retail trade (1.57). These results illustrate the dominance of the tourism industry in the Territory, which has resulted in a large proportion of jobs in sectors that are closely linked with visitation, including arts, entertainment and recreation with a relatively high LQ of 1.32.

Aside from tourism-related sectors and utilities, only the information industry (1.20) and transportation and warehousing (1.53) have a greater concentration than the U.S. overall.

Notable sectors with relatively low concentration in the Territory include finance and insurance (0.67), professional, scientific, and technical services (0.42), healthcare and social assistance (0.63), and manufacturing (0.19). These results illustrate the lack of diversity of the Territory’s economy and indicate the potential need to grow these sectors to create a diversified and resilient economy.

### St. Croix

The most concentrated sectors in St. Croix are transportation and warehousing (1.55), retail trade (1.35), and accommodation and food services (1.22).

While St. Croix is not regarded as having the level of tourism activity as St. John and St. Thomas, the data indicates that industry sectors closely related to tourism are important to the local economy in St. Croix.

### St. John

St. John is highly concentrated in accommodation and food services (5.30) and real estate and rental and leasing (4.76) reflecting its status as a tourism destination with a generally undiversified local economy.

### St. Thomas

In addition to utilities, St. Thomas is most concentrated in accommodation and food services (2.10), retail trade (1.69), and information (1.67). The results also indicate a strong tourism-oriented local economy with a relative lack of job concentration in other industry sectors.

### Sector Concentration (Location Quotient)

NAICS	Description	Virgin			
		Islands	St. Croix	St. John	St. Thomas
11	Agriculture, Forestry, Fishing and Hunting	0.02	0.04	0.00	0.00
21	Mining, quarrying, and oil and gas extraction	0.00	0.00	0.00	0.00
22	Utilities	4.84	0.00	0.00	8.53
23	Construction	0.56	0.72	0.95	0.41
31-33	Manufacturing	0.19	0.31	0.12	0.11
42	Wholesale trade	0.60	0.83	0.00	0.50
44-45	Retail trade	1.57	1.35	1.89	1.69
48-49	Transportation and warehousing	1.53	1.55	1.65	1.49
51	Information	1.20	0.72	0.00	1.67
52	Finance and insurance	0.67	0.65	0.32	0.72
53	Real estate and rental and leasing	1.62	1.19	4.76	1.59
54	Professional, scientific, and technical services	0.42	0.48	0.47	0.37
55	Management of companies and enterprises	0.22	0.00	0.00	0.36
56	Administrative and support and waste management and remediation services	0.85	0.77	0.54	0.93
61	Educational services	0.05	0.09	0.07	0.02
62	Health care and social assistance	0.63	0.80	0.08	0.55
71	Arts, entertainment, and recreation	1.32	1.14	1.93	1.38
72	Accommodation and food services	1.94	1.22	5.30	2.10
81	Other services (except public administration)	0.63	0.91	0.51	0.44

Source: Virgin Islands: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; United States: Emsi

## SECTOR COMPETITIVENESS

Shift-share analysis examines how much regional job growth or decline can be attributed to local, national, and industry factors. This assessment is used to determine how much of the employment change is based on the competitiveness of a region versus how much is based on national economic and/or industry trends.

The shift-share analysis for the U.S. Virgin Islands shows that the region is competitive in the wholesale trade and health care and social assistance. Overall, the region has been performing worse compared to the national average and shows negative competitive effects in all other sectors.

### Shift Share Analysis, US Virgin Islands

NAICS	Description	Industrial Mix	National Growth	Expected Change	Competitive Effect
11	Agriculture, Forestry, Fishing and Hunting	-	-	-	-
21	Mining, quarrying, and oil and gas extraction	-	-	-	-
22	Utilities	(42)	10	(32)	(132)
23	Construction	134	239	373	(804)
31-33	Manufacturing	(24)	25	1	(1,384)
42	Wholesale trade	(38)	33	(4)	190
44-45	Retail trade	(122)	377	255	(733)
48-49	Transportation and warehousing	270	462	732	(48)
51	Information	(27)	44	18	(66)
52	Finance and insurance	(22)	66	43	(121)
53	Real estate and rental and leasing	44	135	179	(28)
54	Professional, scientific, and technical services	55	147	202	(1,176)
55	Management of companies and enterprises	7	18	25	35
56	Administrative and support and waste management and remediation services	87	259	346	(142)
61	Educational services	0	4	4	(19)
62	Health care and social assistance	111	377	488	135
71	Arts, entertainment, and recreation	61	137	197	(4)
72	Accommodation and food services	488	1,037	1,525	(1,652)
81	Other services (except public administration)	(106)	(9)	(115)	(231)

Source: Virgin Islands: US Census Bureau, Economic Census of Island Areas, 2012 and 2017; United States: Emsi

## SHIFT SHARE Factors

**Industrial Mix Effect:** Represents the share of regional industry growth explained by growth of the specific industry at the national level.

**National Growth Effect:** Explains how much of the regional industry's growth is explained by the overall growth of the national economy. Therefore, if the nation's whole economy is growing, you would generally expect to see some positive change in each industry in your local region.

**Expected Change:** The rate of growth of the industry at the national level. Algebraically, the expected change is the sum of the industrial mix and the national growth effects.

**Regional Competitive Effect:** The most telling of the indicators, this explains how much of the change in a selected industry is due to some unique competitive advantage that the region possesses, because growth cannot be explained by national trends in that industry or the economy as a whole. This is calculated by taking the total regional growth of an industry and subtracting national growth for that same industry. This can be positive even as regional employment declines, thereby indicating regional decline is less than national decline.

## Significant Industries

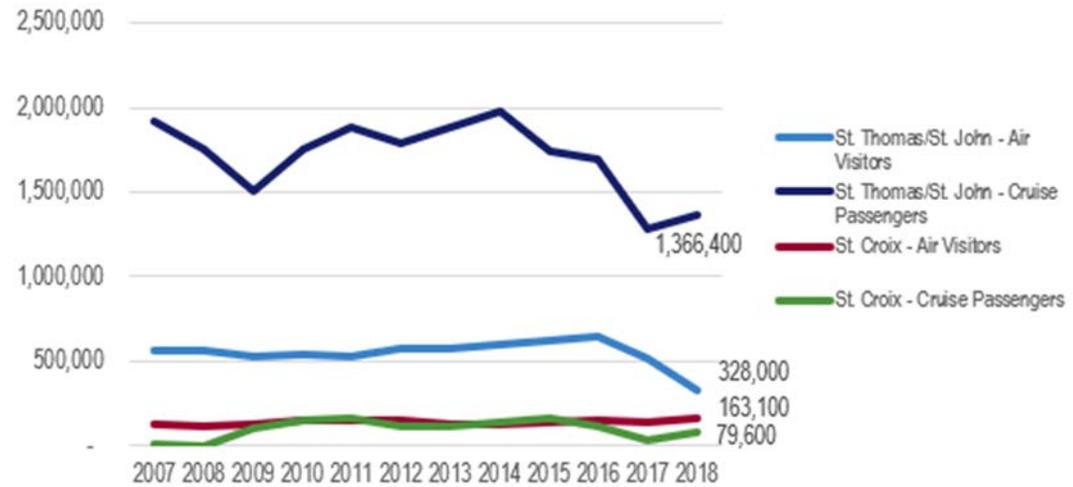
### TOURISM

Tourism has been a key driver of the U.S. Virgin Islands' economy. Between 2007 and 2018, the U.S. Virgin Islands averaged nearly 2.5 million visitors annually bringing over \$1.2 billion in visitor spending to the Territory.<sup>16</sup>

Most visitors to the U.S. Virgin Islands visit St. Thomas by way of cruise ship. In 2018, nearly 1.4 million cruise passengers visited St. Thomas, over four times the amount of air visitors to the island (328,000). In the same year, 163,100 air visitors and 79,600 cruise passengers visited St. Croix.

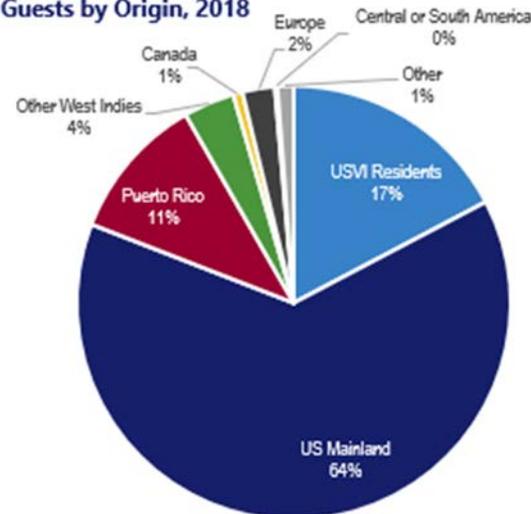
Most hotel guests are from the U.S. mainland (64%). This is followed by 17% of guests who are residents of the U.S. Virgin Islands. Eleven (11%) of guests are from Puerto Rico and 4% of guests are from other Caribbean island locations. A small amount of guests are from Canada, Europe, and other locations.

### Visitor Breakdown



Source: US Virgin Islands Bureau of Economic Research

### Hotel Guests by Origin, 2018



Source: US Virgin Islands Bureau of Economic Research

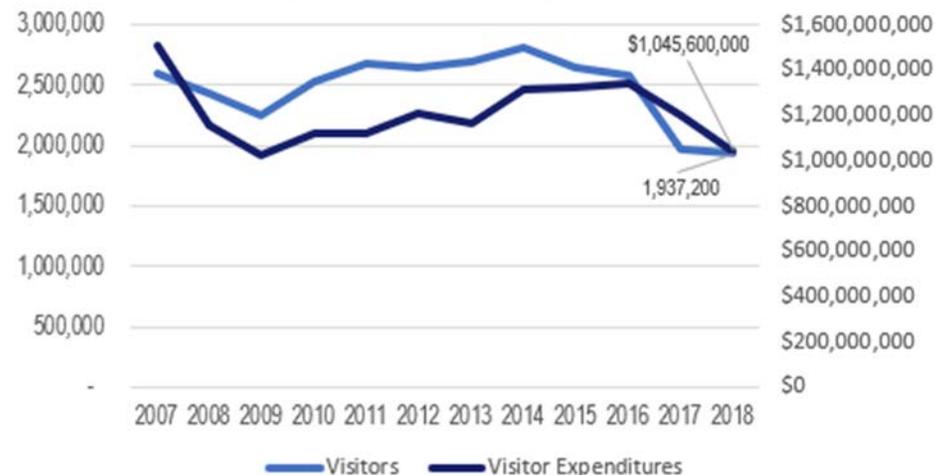
<sup>16</sup> Source: US Virgin Islands Bureau of Economic Research.

### Industry Challenges

Following the 2008/2009 recession, the number of visitors to the U.S. Virgin Islands and accompanying expenditures trended upward. While the number of visitors to the region began decreasing slightly in 2015, there has been a more substantial decrease in visitors and spending following the 2017 hurricanes. This is likely to be further exacerbated by global trends resulting from the Covid-19 pandemic and reduced travel worldwide.

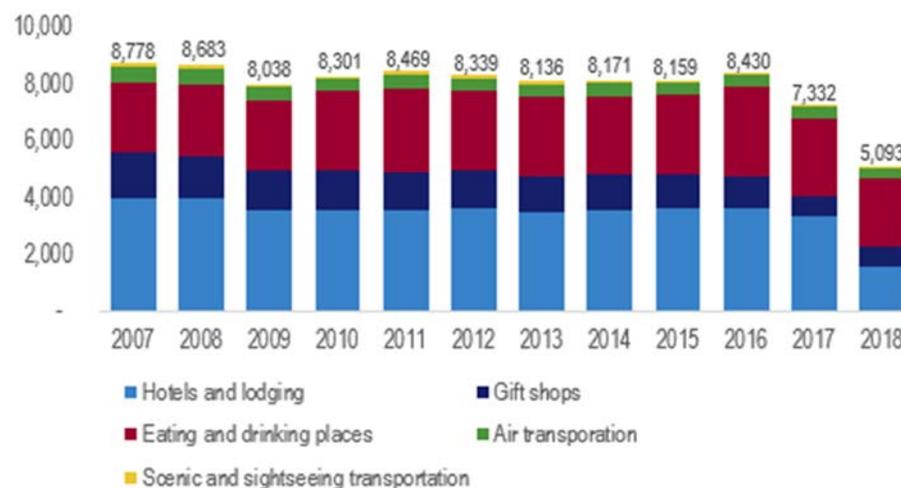
As a result of less tourism activity, industry employment has suffered. Since 2007, tourism-related employment in the U.S. Virgin Islands has decreased by 42% from 8,778 jobs to 5,093 jobs (in 2018). The bulk of industry employment is at hotels and lodging and eating and drinking places, with hotels and lodging experiencing the biggest percent decrease in employment since 2007 (54%).

### Total Visitors and Expenditures, US Virgin Islands



Source: US Virgin Islands Bureau of Economic Research

### Tourism Related Employment, US Virgin Islands



Source: US Virgin Islands Bureau of Economic Research

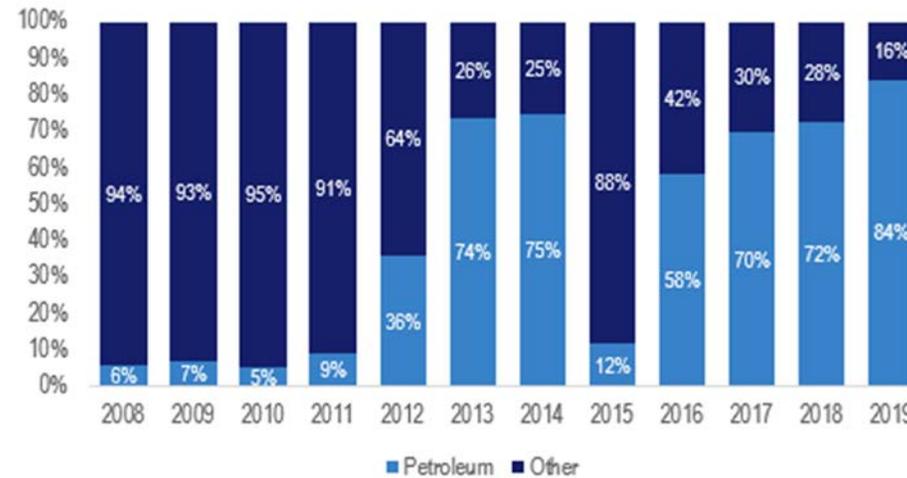
## PETROLEUM

The storing and shipping of petroleum products is a critical economic activity for the U.S. Virgin Islands. Petroleum products accounted for 42% of total good exports in 2018. However, this is largely a reexport business, and little value is added in the territory. The Limetree Refinery restarted operations in February 2020 and it is expected that much more value-added output will occur, and the value of exports will increase. Assuming this occurs, the facility would meet demand for low-sulfur fuels from Latin American and Caribbean markets.

According to the U.S. Census Bureau, over \$788.6 million in petroleum imports made up 84.1% of the U.S. Virgin Islands' 2019 imports and nearly \$598.0 million in petroleum exports made up 95.9% of total exports.

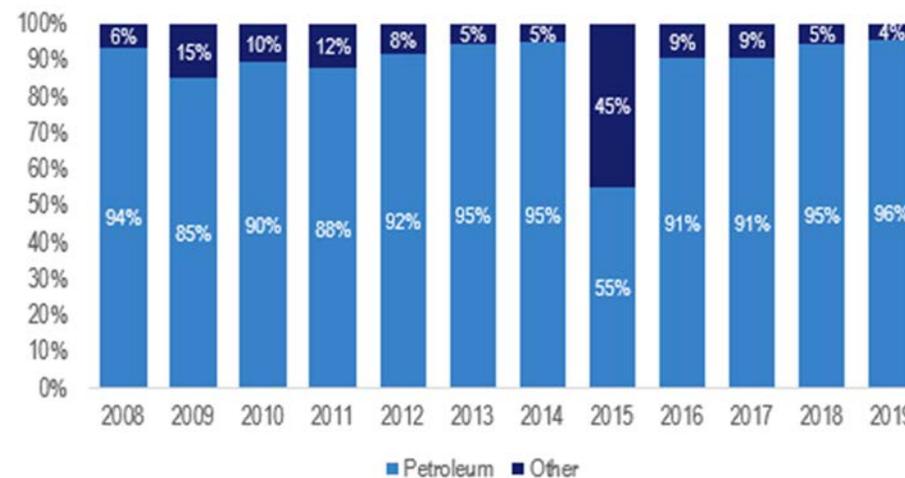
Petroleum exports have been a substantial portion of U.S. Virgin Islands international trade for many years. Imports on the other hand started to become increasingly important in 2012 and became a significant portion of the region's imports in 2013.

**Petroleum Share of US Virgin Island Imports**



Source: US Census Bureau

**Petroleum Share of US Virgin Island Exports**



Source: US Census Bureau

## RUM

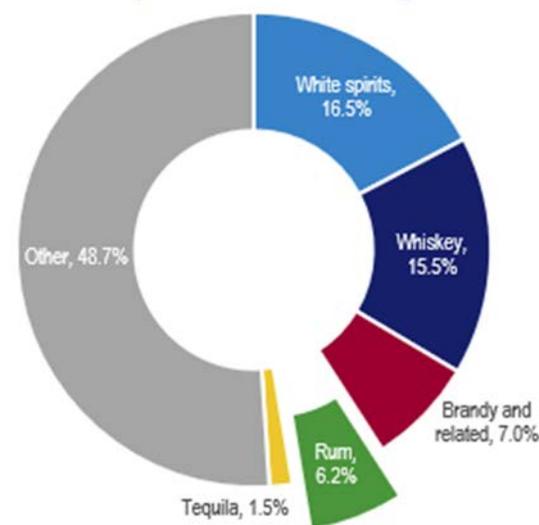
Globally, rum production generates 6.2% of revenue for the distilled spirits manufacturing industry. Over the last five years, rum's share of the global market has increased as new spice blends have become increasingly popular across the world.<sup>17</sup>

Within the U.S. Virgin Islands, there were 210 jobs and 16 establishments in the beverage and tobacco product manufacturing industry in 2019. Jobs are concentrated in St. Croix where Captain Morgan, one of the most popular rums in the world, has a distillery. Other brands, including Cruzan in St. Croix and Bones in St. Thomas, also produce rum in the U.S. Virgin Islands.

Diageo, which produces Captain Morgan, is one of the world's largest spirits manufacturers. The company manages six of the world's top 20 spirits brands, services 180 countries around the world, and boasts a nearly 18% market share in the spirits industry.

Both the U.S. Virgin Islands and Puerto Rico benefit from rum "cover-over" payments from the US federal government, which transfer US excise tax collections on rum to each territory based on the amount of rum produced.<sup>18</sup> These cover-over payments are a significant revenue source for the U.S. Virgin Islands. Both territories have used a portion of their cover-over proceeds to incentivize distillers, resulting in what has amounted to a bidding war.

Share of Global Spirits Manufacturing Revenue, 2019



Source: IBISWorld.

Beverage/Tobacco Manufacturing Jobs, US Virgin Islands, 2019

	Jobs	Establishments	Total Wage
<b>St. Croix</b>	175	9	\$3,799,035
<b>St. John</b>	35	6	\$364,227
<b>St. Thomas</b>	Confidential	1	Confidential
<b>US VIRGIN ISLANDS</b>	210	16	\$4,163,262

\*Data is for NAICS 312: Beverage & Tobacco Product Manufacturing

Source: US Virgin Islands Department of Labor

<sup>17</sup> IBISWorld.

<sup>18</sup> Molasses, the key ingredient to rum, must be imported from outside the U.S. Virgin Islands.

## AGRICULTURE/AQUACULTURE

In 2018, the U.S. Virgin Islands had 565 farms accounting for 9,324 acres of farmland. This is an increase in number of farms by 158% and in acres of farmland by 59% since 2007. Over the same time period farms became smaller; the average farm size decreased from 26.9 acres in 2007 to 16.5 acres in 2018.

### Farms and Farmland, US Virgin Islands

	2007	2018	Change	% Change
<b>Number of Farms</b>	219	565	346	158%
<b>Land in Farm Size (acres)</b>	5,881	9,324	3,443	59%
<b>Average Farm Size (acres)</b>	27	17	(10)	-39%

Source: USDA 2018 Census of Agriculture

Across most farm size groups, the number of farms increased significantly. Small farms with less than 3 acres increased by 212% (182 farms) and represented the largest change.

### Farm Counts by Size, US Virgin Islands

	2007	2018	Change	% Change
<b>&gt;3 acres</b>	86	268	182	212%
<b>3-9 acres</b>	63	139	76	121%
<b>10-19 acres</b>	35	77	42	120%
<b>20-49 acres</b>	15	44	29	193%
<b>50-99 acres</b>	12	23	11	92%
<b>100+ acres</b>	8	14	6	75%

Source: USDA 2018 Census of Agriculture

Vegetables account for 34% of total sales and have experienced the largest increase in dollar sales since 2007. The largest vegetable crops (as considered by the USDA) by pounds produced are cucumbers, tomatoes, and squash. By the same measure, the largest fruit commodity is bananas.

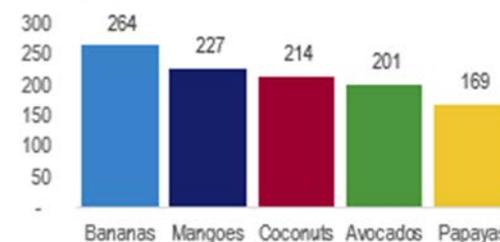
### Commodity Group by Value of Sales, US Virgin Islands

	2007	2018	Change	% Change
<b>Vegetables</b>	\$366,195	\$1,130,809	\$764,614	209%
<b>Nursery Crops</b>	\$946,636	\$725,125	-\$221,511	-23%
<b>Fruit and nuts</b>	\$216,877	\$544,305	\$327,428	151%
<b>Other livestock</b>	\$190,190	\$465,247	\$275,057	145%
<b>Field and forage crops</b>	\$49,104	\$128,692	\$79,588	162%
<b>Poultry</b>	\$4,620	\$109,662	\$105,042	2274%
<b>Cattle and calves</b>	\$165,150	\$100,349	-\$64,801	-39%
<b>Hogs and pigs</b>	\$107,200	\$83,590	-\$23,610	-22%
<b>Chicken eggs</b>	NA	\$35,503	NA	NA
<b>Fish</b>	NA	NA	NA	NA
<b>Total</b>	\$2,045,972	\$3,323,282	\$1,277,310	62%

Source: USDA 2018 Census of Agriculture

Bananas are produced by the highest number of farms. This is followed by mangoes, coconuts, avocados, and papayas.

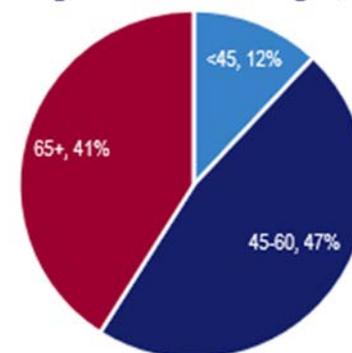
### Top Commodities by Number of Farms, 2018



Source: USDA 2018 Census of Agriculture

Farmers are aging. Only 12% of farmers in the U.S. Virgin Islands are younger than 45. 47% are age 45-64 and 41% are 65 or older.

### US Virgin Island Farmer Ages, 2018



Source: USDA 2018 Census of Agriculture

Of these farmers, 65% have spent over 10 years working on a farm. For 63% of farmers, farming is their primary occupation while 37% of farmers have another primary occupation. Thirty-six percent (36%) of farmers worked exclusively on their farm, while 33% of farmers spent 1-199 days working off the farm, and 31% spent 200 or more days working off the farm.

## Entrepreneurship

### BUSINESSES AND JOBS

According to the U.S. Small Business Administration (SBA), there are 2,514 small establishments in the U.S. Virgin Islands.<sup>19</sup>

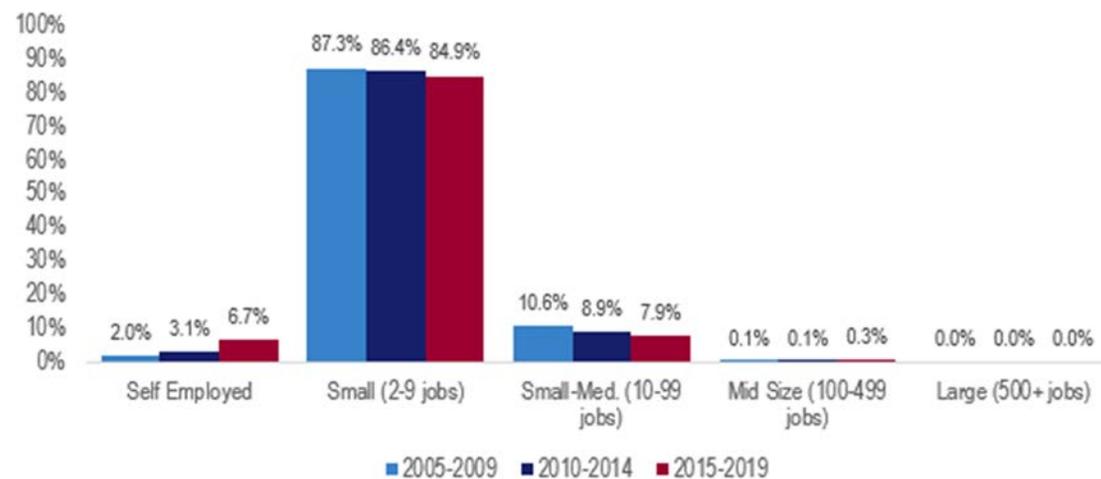
The SBA determines business “size standards,” which are usually stated in number of employees or average annual receipts. These represent the largest size that a business may be to remain classified as a small business for SBA programs. The definition of “small” varies by industry.

Since 2005, a number of “small” establishments have made up a decreasing portion of the region’s companies and jobs. The proportion of small-sized establishments in the U.S. Virgin Islands has decreased from 87.3% in the 2005-2009 period to 84.9% in the most recent 2015-2019 timeframe. At the same time, the percentage of the U.S. Virgin Islands’ total jobs at small companies has decreased from 63.2% to 56.5%. Self-employed and mid-size companies (100-499 employees) make up an increasingly larger portion of the economy.

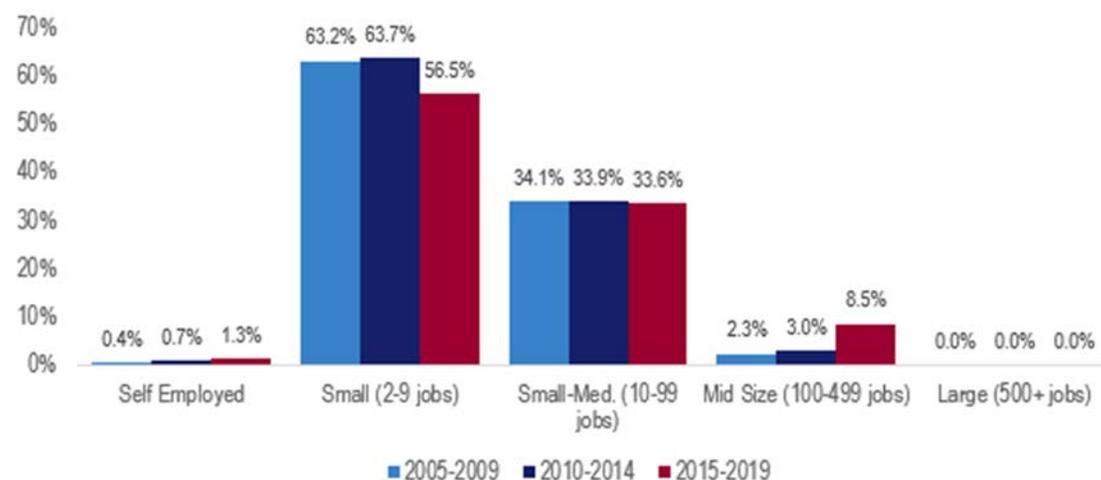
### Job Changes

Most new jobs in the U.S. Virgin Islands are created either through the expansion of existing businesses (76.9% of new jobs) or new business starts (22.8%). Few new jobs can be attributed to companies that

**Virgin Islands Establishment Size - % Total Establishments**



**Virgin Islands Establishment Size - % Total Jobs**



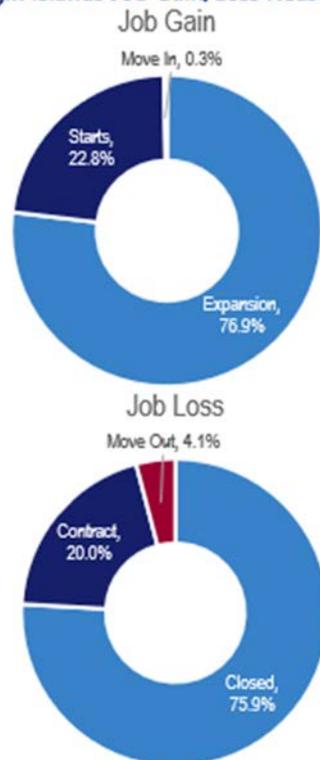
Source: YourEconomy

<sup>19</sup>2020 Small Business Profile: US Virgin Islands. U.S. Small Business Administration Office of Advocacy.

move their entire operation into the U.S. Virgin Islands from elsewhere (0.3%).

Job losses are similarly distributed. The majority of job losses were the result of business closures (75.9%). Contracts ending represented 20.0% of losses, and companies leaving the U.S. Virgin Islands accounted for 4.1%.

**US Virgin Islands Job Gain/Loss Reasons, 2019**



Source: YourEconomy

### Small Business Programming

The U.S. Virgin Islands' Small Business Development Center (SBDC) is intended to grow the territory's economy by providing the tools, training, and guidance that small businesses need to succeed. With locations on all three islands, the SBDC offers workshops, tools, and advising to businesses across the U.S. Virgin Islands. In response to Covid-19, the SBDC has hosted 2-3 virtual events per week and has continued to provide coaching to small businesses, including a four-part series on how to use Quickbooks.

Small business development in the U.S. Virgin Islands is also aided by the Virgin Islands Economic Development Authority (USVIEDA or VIEDA). Notably, VIEDA supports a Small Business Incubator, which surrounds new and existing entrepreneurs with the necessary support services to foster sustainable economic growth and to advance the region's entrepreneurial endeavors.

According to USVIEDA, the Small Business Incubator promotes resource collaborations between the local university, research organizations, government and other community institutions. Additionally, it mentors entrepreneurs through the process of launching a new or expanding an existing business.

Other initiatives supported by the USVIEDA include the Made in the USVI initiative, which helps to promote small-scale manufacturing and artisans.

## INCUBATOR

### USVIEDA Client Success Stories

**NEARix, LLC** has worked with the University of the Virgin Islands to provide internships and to produce the first student Hackathon.

**Island Services Group, LLC** completed the Spanish Town Solar Farm project. The company is currently working on a solar project at the new Margaritaville Hotel in St. Thomas.

**Neighborhood Pharmacy, LLC** is a pharmacy in Frederiksted that opened in August 2015. They have hired four full-time employees and one part-time employee.

**Netwave Unlimited Services** is a Fiber Optic Technician/Installer training program provider. The company has been extremely successful on St. Croix, particularly in job placement after graduation. As a result of this success, they began offering classes in St. Thomas and have been approached to bring their training program to Massachusetts and Dubai.

## INNOVATION AND ENTREPRENEURSHIP

### Entrepreneurship Programming

The University of the Virgin Islands (UVI) offers formal education programs to support entrepreneurship. UVI offers both a minor, which is open to all UVI students, and a certificate in entrepreneurship, which is open to students and anyone else in the community.

The entrepreneurship minor is designed to provide students with the tools and experiences necessary to explore the role of new venture creation within their primary discipline. The certificate program will provide anyone interested in pursuing entrepreneurship with skills that may be utilized to expand current career possibilities or maximize a current business venture.

In addition to these degree programs, UVI provides access to other entrepreneurship and innovation resources. In 2016, UVI launched Innovation Centers as places for students to gather and discuss ideas. These spaces include equipment such as computers, a 3D imaging camera, and white boards that can be leveraged by students to create prototypes of new ideas. These centers have been established at both campuses of the school.

Programming such as the 13D Entrepreneurship Competition, in which students pitch business plans for a chance of winning seed money; Hackfest, where students work together to find technology-based solutions to real-world problems; and Health Design Slam, in which students design and build health-promoting apps and devices, round out UVI's entrepreneurship offering.

Additional entrepreneurship programming is offered in the U.S. Virgin Islands outside of UVI. RTPark, for example, was created in 2002 by UVI leaders working closely with members of the legislature and the private sector in an attempt to diversify the territory's economy and to stimulate growth. The park offers tax incentives and services for businesses and aims to attract companies in financial technology, health and medicine, energy research, and business process outsourcing. Through its structured three-month pre-accelerator program, early-stage companies have an opportunity to grow and scale their businesses in the U.S. Virgin Islands. For more detailed descriptions of entrepreneurship and small business resources see Volume 5.

### Patents

The number of patents issued is indicative of the amount of innovation occurring within a region. Between 2000 and 2015, 46 patents were issued to inventors residing in the U.S. Virgin Islands. 22 of these were in St. Thomas, 19 in St. Croix, and 5 in St. John. Though the number of patents issued is small, the number of patents issued annually has been trending upward over this period.

### Number of Patents Granted

Year	US Virgin				United States
	Islands	St. Croix	St. John	St. Thomas	
2000	3	2	-	1	85,068
2001	3	3	-	-	87,600
2002	1	-	-	1	86,969
2003	2	-	-	2	87,891
2004	2	1	-	1	84,256
2005	4	2	-	2	74,632
2006	1	1	-	-	89,814
2007	2	2	-	-	79,522
2008	2	2	-	-	77,500
2009	1	-	-	1	82,379
2010	2	-	-	2	107,788
2011	3	-	2	1	108,614
2012	3	-	-	3	121,013
2013	6	1	1	4	133,582
2014	4	4	-	-	144,610
2015	7	1	2	4	140,928
<b>Total</b>	<b>46</b>	<b>19</b>	<b>5</b>	<b>22</b>	<b>1,592,166</b>

\*Represents count of utility patents originating from each geography; patents are distributed by year of patent grant. 2015 is the most recent year for which data is available.

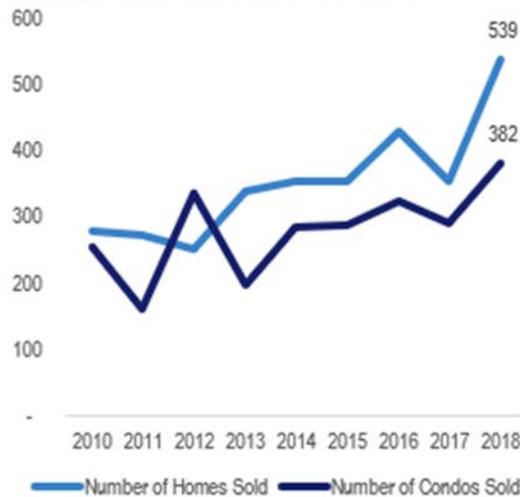
Source: US Patent and Trade Office

## Real Estate

### RESIDENTIAL MARKET

The number of residential homes and condos sold annually has been trending upward in the U.S. Virgin Islands since 2010. In 2018, 539 homes were sold and 382 condos were sold.

#### US Virgin Islands Residential Sales



Source: US Virgin Islands Bureau of Economic Research

The combined St. Thomas/St. John residential real estate market has been slightly more active than St. Croix, with more total homes and condos sold over the 2010-2018 time period.

#### Number of Homes Sold

	US Virgin Islands	St. Croix	St. Thomas/St. John
2010	278	158	120
2011	272	134	138
2012	252	106	146
2013	340	146	194
2014	355	161	194
2015	355	175	180
2016	431	205	226
2017	353	191	162
2018	539	266	273
<b>Total</b>	<b>3,175</b>	<b>1,542</b>	<b>1,633</b>

Source: US Virgin Islands Bureau of Economic Research

#### Number of Condos Sold

	US Virgin Islands	St. Croix	St. Thomas/St. John
2010	253	63	190
2011	162	63	99
2012	336	39	297
2013	196	80	116
2014	286	140	146
2015	289	123	166
2016	325	138	187
2017	290	135	155
2018	382	221	161
<b>Total</b>	<b>2,519</b>	<b>1,002</b>	<b>1,517</b>

Source: US Virgin Islands Bureau of Economic Research

Sale prices of residential units, both homes and condos, have remained relatively flat over this period. The average sale price of homes has decreased slightly since 2014, as has the sale price of condos since 2017 (in 2020 they began to rise).

#### Average Home Sale Price

	US Virgin Islands	St. Croix	St. Thomas/St. John
2010	\$474,728	\$388,536	\$588,214
2011	\$533,862	\$379,024	\$684,213
2012	\$440,808	\$391,310	\$476,745
2013	\$538,369	\$306,083	\$713,183
2014	\$568,295	\$321,910	\$772,770
2015	\$508,811	\$368,789	\$644,945
2016	\$500,791	\$336,215	\$650,076
2017	\$491,574	\$350,495	\$646,118
2018	\$455,350	\$318,495	\$588,727

Source: US Virgin Islands Bureau of Economic Research

#### Average Condo Sale Price

	US Virgin Islands	St. Croix	St. Thomas/St. John
2010	\$227,708	\$178,533	\$244,013
2011	\$202,852	\$210,361	\$198,075
2012	\$247,630	\$154,485	\$259,862
2013	\$208,205	\$147,438	\$250,114
2014	\$201,990	\$148,059	\$253,705
2015	\$215,142	\$174,096	\$245,557
2016	\$223,237	\$183,861	\$252,291
2017	\$225,480	\$160,923	\$281,708
2018	\$203,622	\$179,265	\$237,057

Source: US Virgin Islands Bureau of Economic Research

## COMMERCIAL MARKET

### Retail and Small Office

Within the U.S. Virgin Islands there is an adequate supply of available sites for retail and small office/service operations. At the time of this writing, Seaglass Properties, a real estate brokerage, shows 103 commercial property listings across the three islands, of which the vast majority were for investment residential, retail, or small service/office uses.<sup>20</sup> Sixty-three (63) of these listings are in St. Croix, 33 in St. Thomas, and 7 in St. John. It is anticipated that there will be an increase in availability in this category, particularly in St. Thomas, as more businesses close due to Covid-19's impact on tourism and the lack of cruise ship arrivals.

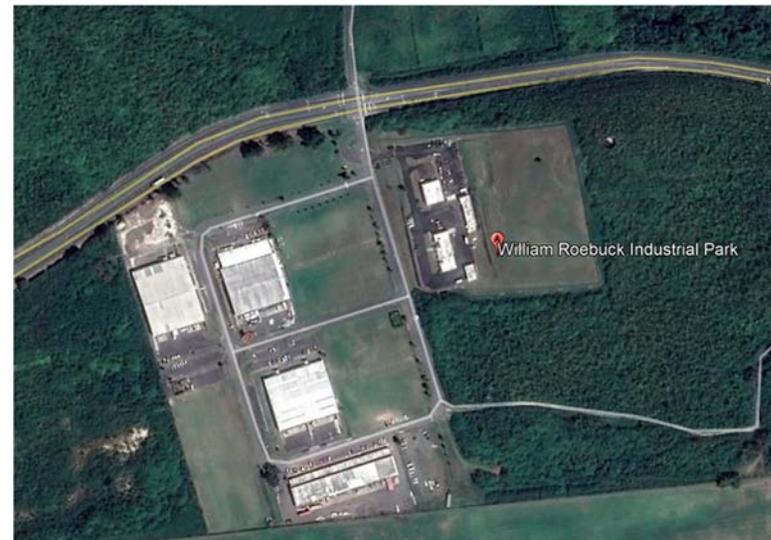
### Large Commercial Properties

There are many fewer opportunities for larger commercial uses. Of the 103 commercial property listings, only 27 were of 5,000 square feet or more. Many of these are residential investment properties and two are hotels. Seven are listed as "Under Contract" at the time of this writing, further reducing the supply.

### Industrial

There are a few industrial property availabilities within the territory. Two industrial parks, the 158,700-square-foot William D. Roebuck Industrial Park on St. Croix and the 20,000-square-foot Virgin Islands Industrial Park on St. Thomas, are operated by USVIEDA: both are reported to be fully occupied

as of January 2021. The William D. Roebuck Industrial Park appears to have land for additional development, but information on this is not available. It was reported that ELAXiMA TechStyles, Inc., which plans to grow and process hemp, is seeking to lease seven acres of raw land at the park at \$10,000 per acre for a term of 25 years, with the option to renew for another 25 years to erect a manufacturing plant that would employ 300 to 400 people. This is still in negotiation.<sup>21</sup>



William Roebuck Industrial Park, St. Croix. Source: Google Earth



Virgin Islands Industrial Park, St. Thomas. Source: Google Earth

<sup>20</sup> Source: <http://www.seaglassvi.com/commercial/>

<sup>21</sup> St. Thomas Source, 9 Dec. 2020.

There are additional industrial parks beyond those operated by USVIEDA, including the UVI Research and Technology Parks. The RTPark has a 20,000-square-foot headquarters adjacent to the UVI campus on St. Croix; it was substantially damaged during the 2017 hurricanes and is only now being reoccupied. As of January 2021, Peter Chapman, the RTPark director reported that the repaired building currently has space for one to three new occupants, but that this would be filled quickly. The RTPark’s proposed Virgin Islands Tech Village in Estate Lower Love on St. Croix (across the street from the UVI campus) will include 10,500 square feet of commercial space focused on developing sustainable agriculture. The RTPark’s St. Thomas location does not have any available space, and many of the park’s client companies are located elsewhere on the island.

Beyond industrial parks, there is some publicly owned land that is suitable for industrial development. For example, the Virgin Islands Port Authority owns 74.8 acres in Estate Lindbergh Bay (parcel 68) on St. Thomas in close proximity to the UVI campus. This area is quite hilly however and is adjacent to a residential neighborhood to the east. This site would be more suitable for multistory office buildings with smaller footprints than for industrial operations.

Some portion of the approximately 1,244-acre Renaissance Industrial Park is available for future development. Not all of the land in this park is developable, including the approximately 215 acres of water which is the port and turn basin, 149-acre cooling pond, and the 22.5-acre Diageo Captain

Morgan rum distillery. Nonetheless, this tract of land is the largest currently available for future business development.

### Renaissance Park Property Breakdown

Lot	Lot Name	Acreage
1	Northeast	92.1
2	Diageo	22.5
3	The Hill	20.2
4	Limestone Borrow Area 1	31.1
5	Limestone Borrow Area 2	25.9
6	Limestone Borrow Area 3	5.4
7	Energy Island East	26.8
8	Energy Island North	23.9
9	Energy Island West	33.5
10	Area A Mound	80.8
11	Area A Units	87.4
12	Area B	91.7
13	Central	9.8
14	Turning Basin West	14.2
15	Port Renaissance	201.6
16	Southeast	211.7
17	Lower Cooling Pond	149.3
18	Lower Cooling Pond Fringe	62.3
19	Seawater Intake	10.6
20	West Access	2.9
21	Road Association	40.5
<b>Total</b>		<b>1,244.2</b>

Source: Renaissance Industrial Park

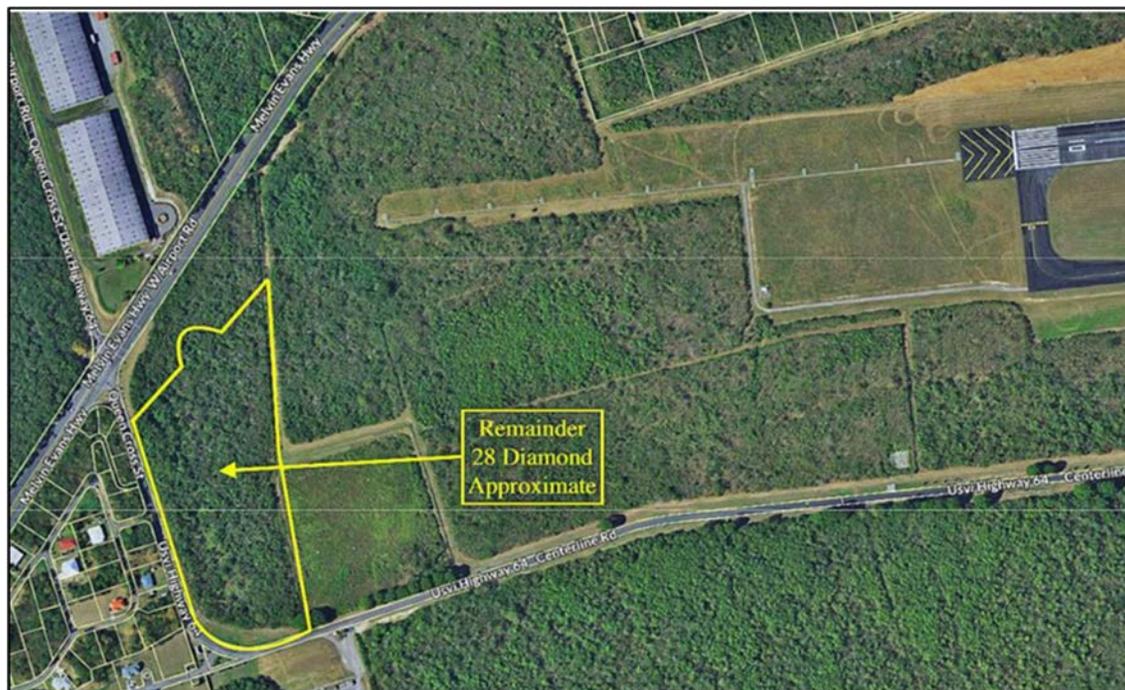


Renaissance Park Conceptual Plan. Source: St. Croix Renaissance Group

An additional site of 12.27 acres at the west end of St. Croix airport is zoned for commercial use, but would be suitable for industrial development given its location close to the flight path of arriving aircraft.

### Agricultural

In 2018 there were 9,324 acres of agricultural land in the Territory, but this inventory has been declining. While there were once 2,000 acres of designated agricultural land on St. Croix, this inventory has been reduced to about 800 acres as the land was used for other purposes. There are, however, other large tracts of land, much of which is owned by the government, that could be put into agricultural use.



12.27 Acre Site at West End of St. Croix Airport. Source: Google Earth

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