The Setting:

Hampton Roads area consists of ten cities and six counties in the Southeastern region of Virginia. It is ranked as the 33rd largest MSA in the United States, the 8th largest metro area in the Southeast region, and the 2nd largest between Atlanta and Washington, DC.

The jurisdictions of Hampton Roads are the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, and the counties of Gloucester, Isle of Wright, James City, Mathews, Southampton, and York.

The population of the Hampton Roads MSA has been growing over the last decade with an estimated population of approximately 1.7 million in 2020, a 3% increase from 2010. This region accounts for a large percentage – about 20% - of Virginia’s state population.

Each jurisdiction in Hampton Roads has a separate municipal government, unlike some other metro areas. While there are consultations on regional issues, there are more than 20 elected independent municipal governing bodies. As such, it is imperative for our project to examine not only differences with the Virginia population but also within the localities of Hampton Roads.

Given its location, Hampton Roads has one of the world’s greatest natural harbors, with the ability to accommodate the largest cargo ships on the planet. It is also known for its large military presence, shipping piers, and miles of waterfront property and beaches. Moreover, due to the diversity of the localities, Hampton Roads have a diverse set of natural resources assets ranging from 26 miles of Atlantic Ocean and Chesapeake Bay beaches, numerous state parks, wildlife refuges, Lake Drummond, and various rivers and waterways.

Project Background:

The Black Business Research Analytics Networking and Development (Black BRAND) is a non-profit organization operating in the Hampton Roads region. One goal of Black Brand, which was established in 2016, is to improve the values of the Black families and community within the region.

Despite the overall economic growth in the United States, there is a significant Black-white wealth gap. In 2019, the median white household held $188,200 in wealth – *7.8 times* that of the typical Black household ($24,100). As such, Black BRAND wants to investigate the economic well-being of the Black community in Hampton Roads. Moreover, given the recent increase in support for black businesses, it is important to determine whether this has resulted in any economic improvement for the Black community.

Guided by our meetings with the Black BRAND stakeholders and Claud Anderson's PowerNomics model, there are five main pillars to measure the overall economic and social progress of the Black community in Hampton Roads

\* Insert pictures

The focus of our project is on the first two pillars: **Education and Economics**.

Project Goals

Our team aims to create a dashboard that shows the state of the Black community in the Hampton Roads region. This will enable stakeholders to understand the myriad of past and current factors that affect the economic and social progress of Black households in Hampton. As such, data-driven recommendations can be made to improve the well-being of residents of the region.

We identified, acquired, and used publicly available data to provide our stakeholders, Black BRAND, with a dashboard that shows a combined view of multiple indicators for the two pillars: Education and Economics.

For the Education pillar, we utilized indicators across three main areas:

* Educators
* Educational Attainment
* Suspension

Under the Economics pillar, we collected indicators for four distinct issues:

* Income/Wealth
* Labor Market
* Homeownership
* Health
* Household Wellbeing

We conducted a cross-comparison analysis with our indicators across the counties and cities in Hampton Roads. Our project also compares the Black population against general population in Hampton Roads to determine whether racial differences exist within each locality. Moreover, we also present information for the general population in Virginia.

The dashboard compiles our findings and allows our stakeholders, and other interested users to explore the information dynamically.

Methodology

We explore two main pillars to examine the economic and social well-being of the Black community in Hampton Roads

Education: We examine the disparities education by examining data surrounding educational attainment (high-school and college), educators by racial group, and suspension rate.

\*Insert Graphics

Economics: We examine the wealth/income gap including homeownership, labor market characteristics, health behavior and the well-being of households (including number of female-headed household and the number of welfare recipients).

\*Insert Graphics

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**Hampton Roads Region**

Hampton Roads Localities

There are six cities and 10 counties that make up Hampton Roads

\*Fix Isle of Wight County

**Sociodemographic**

~~Heading: Who make up Hampton Roads?~~

~~We used the American Community Census data (ACS) to better understand the population in Hampton Roads and Virginia. The ACS is a yearly survey conducted by the U.S. Census Bureau provides detailed demographic information about American household. We collected the 5-year estimates over the period 2010-2019 to compute the % of Hampton Roads residents in each locality by race and age. This information is presented for the state of Virginia also.~~

~~The black population accounts for about 30% of the total population in Hampton Roads. This is significantly greater than Virginia’s, which is about 19%.~~

~~The age composition for the Hampton Roads region appears to be representative of Virginia's population. However, there are variations by localities. For example, there exists a large population of young adults (ages 18 to 29) in Southampton County, whereas Portsmouth has a larger population of seniors - individuals 65 years and older. This data suggests that such ages difference may play a role in the differences in economic or education indicators across localities.~~

~~\*Race Demographic~~

~~\* Remove Hampton Roads Population by Race~~

~~\*Remove Heading Virginia~~

~~Age~~

~~\*Rename Hampton Roads Age Breakdown – Hampton Roads~~

~~\*Rename Virginia Age Breakdown - Virginia~~

~~\*Remove Hampton Roads~~

~~\*Remove Virginia~~

~~Hampton Roads’ Counties and Cities~~

~~\*Remove Hampton Roads Counties and Cities’ Age Breakdown~~

~~Data and Methodology~~

~~Text

Description automatically generated with medium confidence~~

~~The American Community Survey (ACS) is an ongoing annual survey conducted by the U.S. Census Bureau. The ACS samples households to compile a 1-year and 5-year datasets providing information on households sociodemographic and socioeconomic characteristics. We used almost a decade (2010-2019) 5- year estimates to obtain county and city level characteristics to explore the population of Hampton Roads.~~

~~A picture containing icon

Description automatically generated~~

~~The Virginia Department of Education (VDOE) collects a variety of information from all school divisions in Virginia including the total number of educators and graduation rates. This allowed us to report demographic information for educators across the Hampton Roads region along with the on-time graduation rate.~~

~~~~

~~Kids Count, is a project of the Annie E. Casey foundation, produces an annual report that assess child well-being in the United States. We use this data source to present information on short-term suspension by race for the counties and cities in the Hampton Roads region.~~

Methodology

Who are the Educators in Hampton Roads?

~~\*Replace with code~~

Graphs

~~\*Note: A missing bar reflects 0 teacher for the particular racial/ethnic group~~

\* ~~Change Educator Demographics bars to one color~~

~~\* Make all of them two decimal places.~~

~~\* Poverty Rates in Counties and Cities in Hampton Roads~~

~~\* Check slider for Homeownership in Hampton Roads~~

~~\* Two industries with the highest employment counts~~

~~\* Unemployment Trends instead of Unemployment over time~~

~~\* Unemployment Rate red line – average unemployment rate of the state of Virginia~~

~~\*Put slider above notes~~

\*~~Note: Data missing for the Black unemployment rate in Mathews and Poquoson~~

~~\* Rename Health Uninsured Rate in Hampton Roads for title~~

\* Note: Data started 2012 - Missing counties/cities in Health insurance graph 2010 and 2011 (if so, say in Notes)

\*Missing data should have Notes at the end of graph

\* No slider (play) button in Health insurance

\*Move Veteran Status to Hampton Region under Sociodemographic

\*Veteran Status slider is not working

\* Title Black Veteran Status in Hampton Roads

\*Educators Tab – Put space in last paragraph – communities. A future project.

\*Labor Market Change Industry Employment Heading

\*Can we bold some areas in Household Well-Being Characteristics?

~~Educational Attainment~~

~~A college degree is not only a “requirement” for most jobs, but leads to higher wages, financial security, and improvement in standard of living. In the U.S., there is an increasing trend of college attainment over the last decade. The ACS reports a similar trend for Virginia residents. In 2010, 33.8% of Virginia residents aged 25 years or older had earned a bachelor’s degree or higher. This rate improved to 38.8% by 2019.~~

~~There are substantial differences in attainment rate for Black residents across the localities in Hampton Roads. In 2019, four-year college degree rates ranged from a low of 9.8% (Poquoson) to a high of 34.8% (York). Additionally, the differential rates between the general population and Black residents vary widely across localities by year and across years. Some of the largest gaps are found in 2019 in Williamsburg (39.6 percentage point difference) and Poquoson (33 percentage points). The shortest gap at the end of the decade was in Hampton at 1.2 percentage points.~~

~~\*Paste code for Educational Attainment~~

~~Suspension~~

~~\*Paste written code for Suspension write up~~

~~\*Rename column tab Suspension Rate to Suspension~~

~~\* Rename title of graph from Suspension to Short-Term Suspension Rate~~

~~\*Graphs – Suspension Rate by Race – Replace y-axis with % for 2018-2010~~

~~\*Change color of Suspension Rate to the same color scheme for Suspension Rate by Race~~

~~\*Note: Missing data for Mathews and Poquoson for at least three years. Missing data for Franklin for White student rates.~~

~~\*Insert : fluidRow(style = "margin: 6px;",~~

\*{Why this indicators matter.

Implicit bias may influence educators’ perceptions of student behavior, even with the best intentions. As a result, some students are more likely to be disciplined than others, even for the same transgression.  
  
African-American students are more likely to get suspended in Virginia than their White peers. There may be several reasons for why this is true, but it is likely that systems-level influences (such as school or division policies) impact discipline procedures, and individual student behavior of any one race does not drive suspensions alone. }

Fix Economics Tab

\* ~~Rename Median Income – Income~~

\* ~~Rename Homeownership Map – Homeownership~~

~~\*Rename Labor Market Characteristics – Labor Market~~

~~\* Rename Poverty Rates – Poverty~~

~~\*Rename Uninsured Rates – Uninsured~~

~~Median Income~~

~~Household’s Economic Status in Hampton Roads~~

~~\*Insert blurb from code~~

~~\*Remove Median Income from 2010 to 2019~~

~~In 2019, the Black community had a median annual income of $52,596, which is less than the median income of $67,387 of Hampton Road’s general population. This gap is consistent with the state trend, although it is larger at the state level, where the Black and general households earn $51,654 and $74,222, respectively.~~

~~While there are racial differences in median income, the gap between the Black community and the general population has been closing over the last decade. In 2010, the racial median income gap in Hampton Roads was $17,121, whereas it was $14,791 in 2019. This suggests that despite the lower median income, the Black community's economic status has slightly improved over the last decade.~~

Homeownership

~~Labor Market~~

~~\*Insert blurb~~

~~We examine the economic health of the labor market for the Black communities in Hampton Roads. First, we look at the top two industries that explain the highest number of workers in the region. This allows us to understand the employment landscape of the region, which may provide insights into vulnerable areas. We then analyze unemployment to understand the economic hardship that households in the Hampton Region face.~~

~~Industries that employed the largest number of workers~~

~~Majority of the residents in the Hampton region were employed in the Educational Services, health care, and social services sector. Among each locality in Hampton Roads, educational services, health care, and social services was one of the top two industries that employ the highest number of workers. However, for the other top employable industry, there are some slight variations across localities and time. For example, in 2012, eight of the 16 localities top two sector was in retail trade. However, only two areas had retail trade in the top two industries indicating more economic diversity among the localities over time.~~

~~Are there differences in the unemployment rate across localities?~~

~~The unemployment rate for the Black population in Hampton Roads tends to be greater than the average rate in Virginia, regardless of time period. For example, in 2019, Franklin-which had the highest unemployment rate in the region- the unemployment rate for the black community was 14.9 % compared with Virginia’s average of 4.6%. Moreover, regardless of localities, the Black community is more likely to be unemployed than the other residents. In 2019, the Black population had a higher unemployment rate than their counterparts in very county and city in the Hampton Roads region, even in areas that were below the state’s average (Gloucester).~~

~~While for some counties there has been a decline in unemployment rates across the decade (2010-2019) for Black households, there still exists some significant disparity for most counties/cities. One such example is Williamsburg County that in 2010 had a similar unemployment rate for both Blacks and the region residents, 6.0% and 6.1%, respectively. But by 2019, that gap widen significantly by 4.6 percentage points (the Black unemployment rate was 10.4% and the total population 5.8%)~~

Graphs

~~\*Put Source below graph~~

~~\*Shouldn’t this be on maps?~~

~~\*The color scheme changes over time – let it remain consistent – for example, Educational Services, health care, and social services sector was dark green in 2019 for Chesapeake but is dark blue in 2017.~~

\*~~Need to fix size of graphs~~

\*Change Name out of gif

~~Poverty Rates~~

~~How does poverty rate in Hampton Roads compare to all of Virginia?~~

~~It is clear that regardless of location the Black population has borne a higher rate of poverty than other races by about 7-8 percentage points between 2012-2019. Still, Hampton Roads has endured somewhat higher rates over the years. In 2019, 11.3% of people in Hampton Roads were in poverty, 0.7 percentage points higher than in Virginia overall. And among the Black population, the gap (1.2 percentage points) was even wider. In 2012, the gaps were smaller, but since then has gotten wider, indicating a deterioration in economic circumstances, especially for the Black population.~~

~~Is poverty more prevalent in some counties or cities in Hampton Roads than others?~~

~~It appears that, even at the county or city level, the Black population is always more likely to be in poverty than other residents. The disparity has been pronounced and persistent for most counties/cities. Most notably, Mathews has experienced a poverty gap that has grown from about 6 percentage points in 2012 to 30 percentage points in 2019. On the other hand, some counties/cities have enjoyed a significant decline in poverty rates and gaps over time, notably Franklin City. The city had a poverty rate of roughly 36% among Blacks compared to 23% in its entire population in 2012. But by 2019, the rate decreased markedly for both groups to 22% and 15% respectively, – cutting the poverty gap by half over the 8-year period.~~

~~Who are the uninsured?~~

~~Health insurance is critical for preventative and emergency care and is considered a key component of financial security. Since the Patient Protection and Affordable Care Act (ACA) passed in 2010, uninsured rates have fallen across the country. Similarly, the percentage rate for Virginias dropped from 12.3% in 2010 to 8.6% in 2019. The rates for Black Virginians were higher - in 2012, 15.4% were uninsured, whereas, in 2019, it was 10.1%.~~

~~The Black population of Hampton Roads showed similar trajectories to the national and state trends, with most localities showing a fairly linear falling trend. The most dramatic change occurred in the later years, particularly in 2018 and 2019, when several localities almost or more than halved their Black uninsured rate. Most dramatically, in Franklin City, more than a quarter of the Black population (25.8%) was uninsured in 2012. By 2019, 7.3% were uninsured, a difference of 18.5 percentage points.~~

~~While almost all localities showed declines, many rates remained higher than the state average. Norfolk consistently remained above the state average (20.7% uninsured in 2012 to 13.8% in 2019) despite a decreasing trend. On the other hand, Chesapeake and Virginia Beach consistently had lower rates than state averages. York had by far the lowest rates over time for an area with proportional Black representation.~~

~~Several exceptions to the general pattern also emerged. Mathews showed an increasing trend of Black residents uninsured, ranging from a relative low of 18.7% in 2013 to the highest level in 2019 at 32.4%. In stark contrast, all Black residents of Poquoson were consistently insured across the decade. Such differences may be due to the areas' small Black population.~~

~~Several important policy changes, as well as economic improvement following the Great Recession, may explain some of the patterns. Full implementation of the ACA started in 2014, and in 2018 Virginia expanded Medicaid under the ACA. Thus, there may be further improvements in future data.~~

**Veteran status**

Hampton Roads is rich in military bases and establishments.  All branches of the U.S. military have bases or substantial presence, with Naval Station Norfolk being the largest naval station in the United States if not the world [1].  Starting in the 1960s, Black Americans have been overrepresented in the United States Armed Services relative to their proportion of the population [2].  Among other benefits, many view the military as an economically-cost effective means to gain training and educational advancement.

We report rates of Black veteran status as a percentage of the total Black population by locality.  We derived the percentages by dividing the Black veteran population by the total Black population for each locality.  The radio buttons at the top right of the map allows the user to view military bases across Hampton Roads.

Roughly 6 to 20 percent of the Black population were veterans in 2019.  Perhaps not surprisingly, the highest rates were found in localities directly on the coast.  York had the highest rate, at 20.4%, followed by Virginia Beach and Hampton at approximately 18%.  Matthews had the lowest rate at 5.6%.

1. Hampton Roads Chamber of Commerce, 2021. Retrieved from <https://www.hrchamber.com/page/our-military/>

2. Ferguson, P. (2021).  U.S. Army. Retrieved from: [https://www.army.mil/article/243604/african\_american\_service\_and\_racial\_integration\_in\_the\_u\_s\_military](https://www.army.mil/article/243604/african_american_service_and_racial_integration_in_the_u_s_military" \t "_blank)

VT DPSG

\*Reduce Avi Picture, Put Undergraduate Interns before Faculty Advisors.

\* Put Virginia Tech in brackets for all interns

\* Put Stakeholder picture before name keep consistency.