Home Value: Social & Economic Analysis of Black Wealth in Florida.

By

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September 6, 2019

Abstract

Homeownership is a depository of wealth for most households. Home values have been mostly appreciating in Nassau County, Florida, a historically-majority Gullah/Geechee settlement. Black wealth in homeownership continuously suffers from market devaluation and institutional exploitation, leading to unquantifiable economic and cultural losses. The biggest threats to these losses include enforcement of the eminent domain clause, partition and tax sales, institutional failures, limited legal support, as well as extreme weather and climate change impacts. In this study, we conduct a financial cost-benefit analysis (CBA) of black homeownership using a scenario-based approach for either maintaining one's home or transferring one's wealth by selling the property. Our CBA results suggest that homeowners in all of the four selected cities in Nassau County are financially better off by keeping their properties relative to undertaking any of the four possible alternative scenarios. We find an average wealth of US$1 million for a black homeowner who decides to stay and adequately maintain their property in Nassau County over the next 30 years. In terms of aggregation, our results show that Fernandina Beach has the most considerable accumulation of black wealth in homeownership, followed by Yulee, Hilliard, and Callahan in descending order. Overall, for the entire County, total black wealth in homeownership is estimated at US$1.2 billion by 2050. Finally, we recommend both macro-and-micro-level interventions to eradicate the root causes of land dispossession, racial injustice, black oppression, and subjugation in America.

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1. Introduction

Land and homeownership losses, including attributes of climate and socioeconomic hardships, continue to force Gullah/Geechee residents from their historical settlements. Gullah/Geechee are descendants of enslaved Africans (Gullah Geechee Global, 2019). What distinguished them from other black/African Americans is their ability to maintain and persevere both tangible cultural assets and intangible values handed down from their ancestral lineage over the past 400 years. The names "Gullah" and "Geechee" are similar cultural identities either used when identifying people of the same cultural lineage, born inside Nation boundaries, who have retained aspects of the culture to varying degrees." For example, a person may be referred to as "Geechee" because they are a descendant of the culture who does not speak Gullah but who retained some form of the dialect referred to as Geechee. The names Gullah/Geechee will be used together or separately in this paper. The Gullah/Geechee residents are known for their industriousness, a strong inclination to cultural and spiritual values, land possession, environmentalism, agricultural, and Sea Island experiences (Davis, 2005). As alluded by Queen Quet, Chieftess of the Gullah/Geechee Nation, Gullah/Geechee people are not 'isolated' but rather 'insulated' in the Low Country areas of the US, stretching from the coastlines of North Carolina down to Florida.

Today, connection to the Gullah cultural ecosystem is what defines a typical Gullah identity than an identity ascribed from birth. For instance, a black American born from a Gullah/Geechee parent, but not culturally mainstreamed and physically integrated into practicing the Gullah culture, can only be identified as a Gullah/Geechee descendant, but not a Gullah/Geechee resident (for distinction between Gullah connection to land vs. connection to culture, read Campbell, 2011). In other words, being a Gullah/Geechee means either living in Low Country areas or living elsewhere but practicing the traditions, culture, and language of the Gullah Nation. The majority of black/African Americans living in Lowcountry, especially in historically Gullah inhabitants, are identified as Gullah/Geechee residents. The Gullah-speaking population is estimated to be over 700,000 (Heyward Ellis, 2013). We have not found records on the actual counts of Gullah/Geechee residents in Florida. Therefore, for this analysis, black/African American population in Nassau County is used as a fitting proxy for the Gullah/Geechee residents. Hence, black/African American, as a pronoun, will be used interchangeably with Gullah/Geechee residents in this paper.

Black/African American population in Florida is shrinking into a much smaller minority group. Black/African Americans account for 16% (>3 million) of the total state population (>20 million). Majority of Floridians, 76%, identified as white alone across the state while in Nassau County, that number stands at 90%. Only 6% of 78,435 people in the County, identified as black/African Americans. In terms of household counts, there are nearly 30,500 units in Nassau County, of which black families occur only 6.5%. Among 1,991 black family housing units in the County, 57% are owner-occupied. The rest of the black households are paying rent ranging from $876 for a single bedroom to $1,784 for a five-bedroom apartment.

Overall, climate and socioeconomic hardships disproportionately affect black households more in comparison to their white counterparts. For instance, according to data from the American Community Survey (ACS), the median household income for a white family ($66,064) doubles that of their black counterparts ($33,721) at the County level (Social Explorer-ACS, 2013-2017). The data shows that 21% of black income falls below the US poverty level in the County. The black unemployment rate stands at 12% compared to a national average of 3.7%. In terms of higher education, only 8% of blacks in Nassau County had completed a bachelor's degree compared to 14% of whites. Besides, the County's population is relatively older. The median age among blacks

is ten years older in the County compared to the state-level estimate for blacks. The majority of the youthful population are reported to have out-migrated into metropolitan areas in search of better economic conditions, including gainful employment opportunities to survive in a capitalist economy. The rapid out-migration contributes to the absenteeism of husbands as well as the presence of several single-occupied housing units among black/Gullah families in the County. ACS data indicates that over 25% of black households live in single-occupied housing units. Besides, an additional 28% of black households reported the absence of a husband in Nassau County (Social Explorer-ACS, 2013-2017).

Black wealth in land and homeownership in Nassau County has been suffering from what we describe as 'the systematic overexploitation of an economically-covert but culturally-overt resource (i.e., land).' Black wealth in homeownership is economically in financial terms covert or hidden because the Geechee residents often do not perceive or account for the monetary value of their land, using economic metrics. Instead, for many Gullah families, land value is extremely cultural and spiritual, which makes its valuation highly complicated in monetary terms. Black wealth (i.e., land) is overexploited because of the constant devaluation, and under-compensation owners receive when transacting their properties in a capitalist market structure.

In some cases, black households lose a considerable chunk of money when forced to sell their properties through tax and partition sales. Heirs with a legal entitlement to a share of the land can issue a petition for selling the property. Today, heirs' properties are highly vulnerable to land dispossession, especially in many traditional black inhabitants (Davis, 2005; Dyer, Bailey, & Tran, 2009; Hardy, Milligan, & Heynen, 2017).

Heir's property means the informal transfer of land from one generation to another. Heir's property is owned collectively. Joint ownership has limitations, but it symbolizes unity, social cohesion, and co-existence within the black family. Dyer et al., (2009) underscore that heir's property "can serve as a refuge, a place to call home and live among members of an extended family." This type of ownership is "estimated to make up more than a third of southern black-owned land — 3.5 million acres, valued more than $28 billion" (A. Perry, Rothwell, & Harshbarger, 2018).

Property values are increasingly appreciating in Nassau County relative to many other places. In Nassau County, the estimated median home value was $203,500 in 2017 compared to $178,700 and $193,700, respectively, in Florida and the US. It is our view, based on this analysis, that appreciation of property values is not necessarily a blessing for most black families in Nassau County. Perhaps, it's more of a curse than a benefit because property appreciation has been contributing to the gentrification of historically black insulated neighborhoods.

Studies have maintained a detailed historical account of how the Gullah people suffered from oppression, institutional racism, gentrification, and land loss over the past centuries (Smith, 1991: National Park Service, 2005; Dyer et al., 2009; Hardy, Milligan, & Heynen, 2017; Snyder & Kilgore, 2018; Presser, 2019; Swift et al., 2019;). While it is a known fact that these wicked problems have resulted in a severe loss of wealth in Gullah communities, the economic value of Gullah properties in monetary terms is somewhat unknown. Such information, when available, can serve as a guide for community members' in their decision-making processes.

Given that property values are increasing alongside with property taxes while socioeconomic hardships and racial inequalities are expanding: "how could one convince Gullah homeowners that it would be better to keep their property to pass it down to the next generation or lease their

property rather than accepting a lump sum payment today?" Mrs. Glenda Simmons-Jenkins, Representative of the Gullah/Geechee community in Nassau County, asked. She further elaborated, "what does the data say a homeowner will gain, say over 10-20 years, compared to what they would have lost had they rented or paid a mortgage?" In an attempt to answer Rep. Jenkins' questions, we conducted a financial cost-benefit analysis with five different scenarios (see method section).

1. Study Area: Nassau County, Florida

1.1. Geographic Landscape

Nassau County is located in the northeast corner of Florida. It is mostly bordered with Duval County on the south, the state of Georgia on the north, and by the Atlantic Ocean on the east (see Figure 1). The County has a total land area of 423,596 acres (662 square miles) (AYRES Associates, 2008). As a coastal settlement, the County accommodates Amelia Island on which its administrative seat, Fernandina Beach, is located. Amelia Island is considered a part of the Sea Islands, a more significant part of which is known as the Low Country region of the US. The majority of the Gullah communities reside in these areas.

Figure 1. Map of Nassau County, Florida (Source: World Atlas (2019)

1.2. Climatic Landscape

Nassau County has a humid subtropical climate. The average maximum summer temperature is 90 degrees Fahrenheit. In the winter session, the County experiences freezing temperatures from 3 to 10 times (AYRES Associates, 2008). The most significant environmental threats facing Low Country areas are rising sea levels and extreme weather events (Hardy et al., 2017). Since the 1980s, the state of Florida, including Nassau County, has been widely devastated by hurricanes and extreme precipitation events. The environmental and economic costs of such climate-induced damage are relatively massive in Florida compared to many other states in the US (NOAA, 2019).

1.3. Political Landscape

Nassau County, as a political subdivision, created by the state of Florida, is governed by a Board of County Commissioners, who are elected into office by the five County districts every four years. The Board oversees the functions of several County mandated bodies undertaking different but sometimes complementary duties. These include Clerk of the Courts, Property Appraiser, Tax Collector, County Sheriff, Elections Supervisor, and other support services as well as boards, commissions, and committees (Nassau County Official Website, 2019). Mrs. Glenda Simmons-Jenkins is one of the representatives of the Gullah/Geechee Nation in Nassau County. Representative Simmons-Jenkins directly reports to Queen Quet Marquetta L. Goodwine, Chieftess, and Head-of-State for the Gullah/Geechee Nation. Queen Quet was elected "by her

people to be the first Queen Mother, "head pun de bodee," and the official spokesperson for the Gullah/Geechee Nation" at various high-level bodies, including at the US Department of the Interior and the United Nations agencies and platforms (Queen Quet Website, 2019).

1.4. Demographic Landscape

The population of Nassau County used to be over 50% black around the 1920s (Hendricks, 2019). In less than a century, the black community has dropped to 6% (4,913 blacks) while their white counterpart population has increased by nearly twofold. Fernandina Beach has the highest concentration of black people across the County. As a share of the total city population, 12% of residents in Fernandina Beach (1,371) identified as blacks compared to 10% in Callahan (131), 9% in Hilliard (275), and 6% in Yulee (746). Household size averages to 2 people across the County but smallest in Fernandina Beach and Callahan at least relative to Yulee and Hilliard (Social Explorer-ACS, 2013-2017).

The arrival of new migrants in Nassau County varies across the cities. Comparatively, Fernandina Beach attracts more in-migrants. About 44% of residents in Fernandina Beach had in-migrated (not born in the city) compared to 38% in both Yulee and Hilliard (Social Explorer 2015-2019). Among these four cities, Yulee accommodates the most significant number of foreign-born immigrants (7%), followed by Fernandina Beach (5%). In terms of total geographic mobility within a fiscal year (2016-17), the internal County movement was higher in Yulee while out-of-state in-migration from within the US was larger in Fernandina Beach compared to Callahan and Hilliard (see table 1 below).

1.5. Socio-economic Landscape

Analysis of ACS data (2013-2017) on the Gullah residents shows that poverty and unemployment rates are higher in three out of the four cities in Nassau County compared to black residents at the state and national levels. In comparison, poverty rates among black residents stand at 46% in Yulee, 39% in Hilliard, 36% in Fernandina Beach, and 14% in Callahan. Similarly, black unemployment rates follow almost the same trend across these four cities. In fact, in Yulee black unemployment rate is nearly two times more compared to black unemployment rates at the state and national levels (see table 1 for details).

In addition to income, social and government welfare benefits can support families in building their resilient and resourceful capacities. These may range from family-level support systems, including support from spouse and grandparents, to the county, state, and federal welfare programs. For instance, among the four selected cities, support for caregiving to children under 18 years by their grandparents is least happening in Fernandina Beach, followed by Yulee. Amongst grandparents present in these two cities, 73% and 41%, respectively, indicated that they were not responsible for giving care to their grandchildren. In contrast, grandparents' support in caregiving is stronger in Callahan and Hilliard (Social Explorer-ACS, 2013-2017).

Likewise, single-occupied housing units are most common in Fernandina Beach (30%) and least found in Callahan (8%). Also, married-couple families living together is equally least popular in Fernandina Beach (25% married) and most popular in Hilliard (47% married). Given that the Gullah communities historically are socially cohesive and supportive, this line of evidence culturally concerns many residents (see discussion section).

In terms of government welfare benefits such as food stamps, only 20% of black households were food stamp recipients across the County, compared to 29% amongst black families in the state of

Florida. At the city level, among black householders in both Fernandina Beach and Hilliard, 36% had received food stamps between 2016 and 2017, compared to only 7 and 15%, respectively, for Yulee and Callahan. Therefore, evidence suggests that the Gullah residents, especially in Fernandina and in Yulee, are economically stressed and socially isolated (Social Explorer-ACS, 2013-2017).

1.6. Historical Landscape

The Gullah/Geechee Nation and identity emerged from the amalgamation of cultural and traditional practices and beliefs of tribes originating from various colonized countries, mainly in West Africa: Gambia, Senegal, Gold Coast, and Sierra Leone and other African countries (e.g., Angola, Congo, and Mozambique). Nearly 20% of the Gullah ancestors came from the Senegambia region. These cultural elements range from skilled applications in crafting, weaving, singing, dancing, and storytelling to the performance of cultural and spiritual ceremonies, including healing and praying for one's ancestors. For detail accounts of the Gullah/Geechee history, read (National Park Services, 2005).

After the abolition of slavery as enshrined in the 13th Amendment ratified by the US Congress on December 6, 1865, many black families managed to work for their former slave masters in exchange for financial or land compensations. Because of their cultural attachment to the land, many Gullah families succeeded in buying hundreds of acres of land for settlement and sustenance. For instance, the Gullah families, such as the Morrison family, the Mason family, the Holmes family, and the Mobley family, used to own hundreds of acres of farmland in Nassau County (Swift et al., 2019). The Gullah landownership is not limited to people in Florida; it stretches up to North Carolina. For example, meet Billy Freeman, whose family "once owned thousands of acres of land along the coast of North Carolina" (Presser, 2019b).

Table 1. Demographic and Socioeconomic Characteristics of black/African Americans in Nassau County

Variable Name	Callahan town, Florida		Fernandina Beach city, Florida		Hilliard town, Florida		Yulee CDP, Florida		Nassau County, Florida		Florida		United States	
Tenure (Black or African American Alone Householder)														
	Estimate		Estimate		Estimate		Estimate		Estimate		Estimate		Estimate	
Total:	39		647		86		266		1,991		1,029,505		14,501,052	
Owner Occupied	19	48.7%	211	32.6%	31	36.1%	121	45.5%	1,142	57.4%	457,035	44.4%	6,081,769	41.9%
Renter Occupied	20	51.3%	436	67.4%	55	64.0%	145	54.5%	849	42.6%	572,470	55.6%	8,419,283	58.1%
Median House Value for All Owner-Occupied Housing Units														
Median Value	$147,300		$299,600		$105,600		$167,200		$203,500		$178,700		$193,500	
Unemployment Rate for the Population 16 Years and Over (Black or African American Alone)														
Black or African American 16 Years Old in Civilian Labor Force:	52		780		152		214		2,327		1,563,821		19,490,161	
Employed	52	100.0%	631	80.9%	144	94.7%	150	70.1%	2,055	88.3%	1,379,100	88.2%	17,177,727	88.1%
Unemployed	0	0.0%	149	19.1%	8	5.3%	64	29.9%	272	11.7%	184,721	11.8%	2,312,434	11.9%
Per Capita Income (In 2017 Inflation Adjusted Dollars) (Black or African American Alone)														
Per Capita Income (In 2017 Inflation Adjusted Dollars)	$12,782		$14,827		$15,881		$13,926		$23,941		$17,901		$21,117	
Poverty Status in the Past 12 Months (Black or African American Alone)														
Black or African American Alone Population for Whom Poverty Status Is Determined:	131		1,364		261		713		4,790		3,149,614		38,930,998	
Income Below Poverty Level	18	13.7%	494	36.2%	102	39.1%	327	45.9%	1,007	21.0%	781,928	24.8%	9,807,009	25.2%
Income At or Above Poverty Level	113	86.3%	870	63.8%	159	60.9%	386	54.1%	3,783	79.0%	2,367,686	75.2%	29,123,989	74.8%
Place of Birth (Black or African American Alone) in the US														
	Estimate		Estimate		Estimate		Estimate		Estimate		Estimate		Estimate	

	G1		G2		G3		G4		G5		G6		G7	
Total:	131		1,371		275		746		4,913		3,270,863		40,610,815	
Born in State of Residence	104	79.4%	765	55.8%	170	61.8%	460	61.7%	3,098	63.1%	1,844,308	56.4%	26,437,819	65.1%
Born in Other State in the US	27	20.6%	524	38.2%	105	38.2%	231	31.0%	1,657	33.7%	682,811	20.9%	9,923,265	24.4%
Native; Born Outside the US	0	0.0%	12	0.9%	0	0.0%	0	0.0%	12	0.2%	64,035	2.0%	417,372	1.0%
Foreign Born	0	0.0%	70	5.1%	0	0.0%	55	7.4%	146	3.0%	679,709	20.8%	3,832,359	9.4%
Geographical Mobility in the Past Year (Black or African American Alone) for Current Residence in the US														
	Estimate		Estimate		Estimate		Estimate		Estimate		Estimate		Estimate	
Total:	131		1,371		275		691		4,858		3,227,245		40,101,542	
Same House 1 Year Ago	131	100.0%	1,169	85.3%	254	92.4%	518	75.0%	4,061	83.6%	2,655,174	82.3%	33,170,369	82.7%
Moved Within Same County	0	0.0%	61	4.5%	14	5.1%	94	13.6%	510	10.5%	375,491	11.6%	4,377,962	10.9%
Moved From Different County Within Same State	0	0.0%	16	1.2%	0	0.0%	43	6.2%	119	2.5%	112,415	3.5%	1,457,358	3.6%
Moved From Different State	0	0.0%	125	9.1%	7	2.6%	0	0.0%	132	2.7%	59,221	1.8%	890,133	2.2%
Moved From Abroad	0	0.0%	0	0.0%	0	0.0%	36	5.2%	36	0.7%	24,944	0.8%	205,720	0.5%
Median Household Income in the Past 12 Months (In 2017 Inflation-Adjusted Dollars) (Black or African American Alone Householder)														
	Estimate		Estimate		Estimate		Estimate		Estimate		Estimate		Estimate	
Median Household Income in the Past 12 Months (In 2017 Inflation-Adjusted Dollars)			$21,406		$27,500		$34,091		$33,721		$37,280		$38,183	
Median Gross Rent by Bedrooms														
Median Gross Rent:	$714		$1,229		$887		$1,159		$1,084		$1,077		$982	
No Bedroom											$812		$803	
1 Bedroom	$425		$623		$685		$1,095		$735		$876		$836	
2 Bedrooms	$677		$1,126		$713		$761		$900		$1,060		$964	
3 Bedrooms	$1,176		$1,380		$1,026		$1,311		$1,227		$1,245		$1,133	
4 Bedrooms			$1,600		$1,339		$1,597		$1,471		$1,542		$1,411	
5 or More Bedrooms											$1,784		$1,509	

Data Source: (Social Explorer-ACS, 2013- 2017)

2.0. Methods

The study used a financial cost-benefit analysis (CBA) method to investigate whether a homeowner is financially better off by keeping their property today (Scenario I) relative to each of the four possible scenarios. Scenario II is to lease the property and pay rent. Scenario III is to sell the property and start a new mortgage. Scenario IV is to sell the property, invest 50% of the sale's profit, and pay rent. Scenario V is similar to scenario IV except that there no financial investment involved. In each of the four selected cities in Nassau County, we subtract the costs of taking any of these scenarios from the corresponding economic benefits in 30 years. The difference between the total discounted cost and benefit provides the net present value (NPV). In simple terms, NPV is the net gain or total profits a homeowner accrued in monetary terms by 2050.

2.1. Data

Several databases were explored to generate data points used in the analysis. These include American Community Survey (ACS), Zillow, County Property Appraiser and Tax Collector's websites (Drew, 2019; Nassau County Property Appraiser, 2019; Social Explorer-ACS, 2017; Zillow, 2019). We also administer a public opinion survey on land and homeownership in Nassau County. A total of 21 responses were received. During our field visit to the County, 13 questionnaires were collected from respondents at a community meeting held on July 15, 2019. The remaining responses were received from community members who were later invited to take the same survey, using the online version, developed in Qualtrics UMN. We also conduct a review of journal and newspaper articles on the topic. It is important to note that home values data used in this analysis were derived from ACS data (2013-2017) instead of 2019 Zillow data on home values. The rationale was that Zillow home values might be a little higher, given that many Gullah properties are not listed. Therefore, our estimation is a bit conservative. As an example, we present costs and benefits used in calculating the net present value of wealth in black homeownership for Yulee in annexes 1 and 2).

2.2. Rates and Metrics Used

We use two different discount rates (2.8% and 3.3%). Discounting calculates the present value of future cash flow. Using two different discount rates is to account for financial market volatilities. We also assume property values will appreciate by 5% annually. Historical trends of property value increments in Nassau County informs this assumption (Home Value LISTED, 2019). See annex 3 for details on other rates used in the analysis.

Furthermore, we find little or no evidence suggesting that climate change or extreme weather impacts have significantly affected property values so far. However, we inflate the current flood insurance premium payment by 100% from the current county average to account for the costs of damage caused by climate-induced and extreme weather events. We assume that flood insurance premiums will continue to accelerate at a much faster rate considering the County's high level of risk and vulnerability to climate change impacts such as rising sea levels and extreme hurricane events. The analysis does not control for unobservable potential confounders and other exogenous factors that could affect increasing trends in property values. These may include housing market crashes or changes in policy, investment, and development decisions.

2.3. Estimating the NPV for Possible Scenarios

We calculate the NPV for each of the scenarios, including Scenario I (i.e., keeping the property). To predict homeowners' behavior in the next 30 years, we use the 40 to 60% rule. The rule suggests that homeowners would be divided into two main categories. 40% are projected to keep their

homes, of which 20% may consider leasing the property (Scenario II). The remaining 60% are likely to sell their properties if current challenges remain unchanged. 60% of potential sellers are assumed to be subdivided into three categories: sell and pay a mortgage (Scenario III), sell, invest, pay rent (Scenario IV), and sell, fail to invest, and pay rent (Scenario V). These three alternatives differ in their NPVs (see section 3.2). Since racial inequality and socioeconomic challenges make it extremely difficult for black residents to maintain keeping their homes, the Gullah/Geechee leadership could present these alternative solutions for current homeowners to consider when making decisions. Hence, the reasoning behind this scenario-based analysis.

2.4. Estimating Black Wealth in Homeownership

We attempt to determine the aggregate expected black wealth in homeownership across Nassau County. For each of the four main cities: Fernandina Beach, Yulee, Callahan, and Hilliard, we conduct a separate CBA analysis. In determining the accumulated city wealth, we multiply the NPV of a single home by the total number of owner-occupied homes for black residents thereat. We further calculate the expected average wealth to be gained in home value from across the four selected cities to serve as the County average. For the aggregation of total black wealth in homeownership at the County level, we multiply the estimated average NPV by the total number of owner-occupied homes for black residents (see table 2, section 3.3).

2.5. Estimating Wealth Loss in Black Homeownership

Black homeowners are highly susceptible to either voluntarily selling their homes for a lumpsum payment today or forcefully compel to sell their properties due to institutional and social pressures (see subsection 4.3). Firstly, to estimate the future cost of selling their properties now, we calculate the expected loss attributed to 60% of sales of all owner-occupied homes by 2050, assuming that there would be no form of financial investment from the sale's proceeds. In the second approach, we calculate the expected wealth loss by subtracting the NPV of Scenario I from each of the four possible scenarios stated above (see annex 4 as an example for Yulee). The results give us the net loss, accorded to each homeowner for undertaking any of the four possible scenarios. We report the absolute differences in wealth loss using these two approaches in section 3.4. Given the absolute differences, we further calculate the average wealth loss for each of the four selected cities. For the aggregation of wealth loss in black homeownership, we multiply the average loss in value by 60% of all owner-occupied homes in the County to get a County estimate (see table 3).

3.0. Findings

Given our study methodology, we present results on; the overall market trends in home values, NPV of owner-occupied homes for each selected city, comparison of NPVs using different discount rates, aggregation of black wealth in homeownership as well as aggregate expected loss of wealth given 60% of all current owner-occupied homes are sold by 2050.

3.1. Home Values Trends

Home values have been mostly appreciating in Nassau County since 1996 (see figure 2). In comparing different settlements, all herein referred to as "cities", home values are nearly two times higher in Fernandina Beach relative to Yulee, Callahan, and Hilliard. According to recent home value estimates from Zillow, a home in Fernandina Beach has an estimated average value of $367,600 compared to an average of $223,100 for Yulee and Callahan as of March 2019. In comparison to 2017 trends, home values were estimated to be less than $300,000 in Fernandina Beach, $167,200 in Yulee, and $147,300 in Callahan (Social Explorer-ACS, 2013-2017). However, the 2008 financial market crisis had a devastating economic impact on property values

across the nation, including properties situated in Nassau County. The adverse financial effect of the housing crisis on home values lasted for nearly four years. Subsequently, home values started to appreciate at the beginning of 2013. Home values may depreciate based on unfavorable market factors. But in general, these types of assets (i.e., land and homes) will eventually appreciate over time. As explicitly stated by Rusk (2001), "whether the value of the family home declines, is stable, or grows, is vital to a family's economic future."

Figure 2. Home Value All Homes in Nassau County
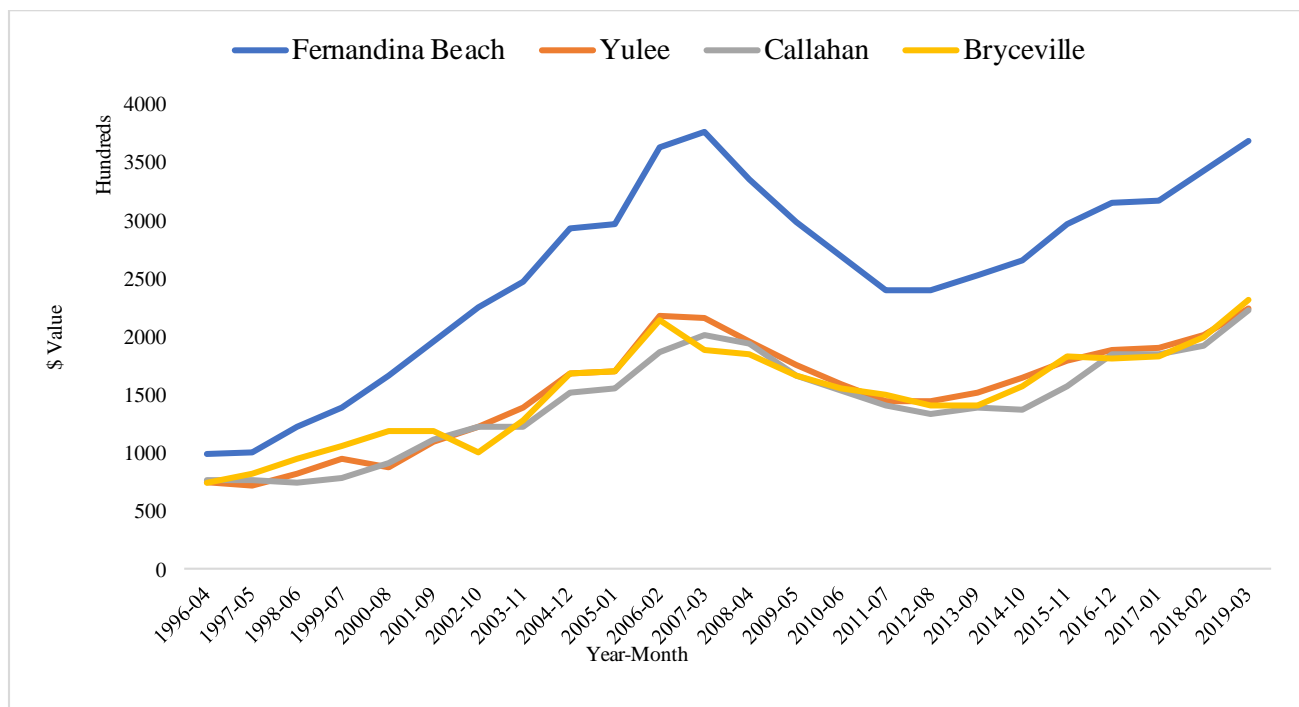
Data Source: (Zillow, 2019)

3.2. NPV Estimates in Homeownership

Overall, our CBA result suggests that homeowners are financially better off keeping their property (Scenario I) relative to; leasing property and paying rent (Scenario II), selling property and starting a new mortgage (Scenario III), selling, renting and investing 50% of sale's profit (Scenario IV), as well as selling and renting without any investment (Scenario V). In summary, all scenarios provide a positive NPV but differ in their financial attractiveness in different cities (see figure 3). We find an average wealth of $1 million for a black homeowner who decides to stay and satisfactorily maintain their property in Nassau County for the next 30 years.

Using a 3.3% discount rate, we find that on average the net benefit/profit of keeping a home is highest in Yulee (est. wealth of $1.4 million) compared to $1 million in Fernandina Beach, $959 thousand in Callahan, and $926 thousand in Hilliard. To compare results using a discount rate of 2.8%, see table 4. Even though property values are significantly higher in Fernandina Beach compared to Yulee, in contrast, black homeowners in Fernandina Beach earn less income and pay higher taxes on a property of the same market value than in Yulee. This comparison is equally accurate for home insurance premium payments. Hence, homeowners in Yulee are expected to

earn higher value in wealth over the next 30years period as per the assumptions made in this analysis.

Table 4. Comparison of Results Using Different Discount Rates

City	Scenario	NPV for 2.8% discount rate	NPV for 3.3% discount rate	Profitability Index (using 3.3% discount rate)	Internal Rate of Return (using 3.3% discount rate)
Yulee	1	1,535,147	1,408,776	4.125	312.55%
	2	1,086,457	986,429	2.106	110.57%
	3	897,448	820,677	2.180	118.04%
	4	566,332	536,215	1.764	76.39%
	5	471,950	448,810	1.639	63.94%
Fernandina Beach	1	1,146,126	1,032,639	2.178	117.82%
	2	686,734	604,679	1.450	44.98%
	3	392,010	346,447	1.301	30.09%
	4	200,296	203,264	1.193	19.34%
	5	31,177	46,646	1.053	5.25%
Callahan	1	1,063,730	958,929	2.421	142.13%
	2	772,254	695,571	1.650	64.96%
	3	622,106	562,258	1.609	60.91%
	4	327,838	312,193	1.353	35.28%
	5	244,690	235,191	1.266	26.58%
Hilliard	1	1,003,117	925,564	2.848	184.76%
	2	671,708	617,289	1.709	70.85%
	3	409,697	395,751	1.584	58.45%
	4	194,142	199,999	1.261	26.08%
	5	134,533	132,237	1.172	17.25%

In general, the monetary value for undertaking any of the five scenarios are more attractive in Yulee. Compared to the other three cities, homeowners in Fernandina Beach are only financially better off if owners try to maintain the properties relative to choosing any of the four possible scenarios. The difficult question to answer is whether the Gullah residents in Fernandina Beach would be able to sustain their homes, given the high rates and costs. Besides Yulee, homeowners in Callahan are expected to accommodate higher monetary value in wealth if they take on any of the possible four scenarios (see figure 3).

Finally, irrespective of the city, homeowners are more financially disadvantaged if they opt for Scenario V. The monetary gains for Scenario V are least lucrative in Fernandina Beach (see figure 3). Although, the primary assumption here is that former homeowners would continue to stay and pay rent in the same city. The cultural attachment to place among the residents is what informs this assumption. If they decide to move outside of that city to either more or less expensive areas, the expected financial gains would either increase or decrease accordingly.

Figure 3. Net Present Value for Cities in Nassau County, Florida (30yrs. Valuation Period)
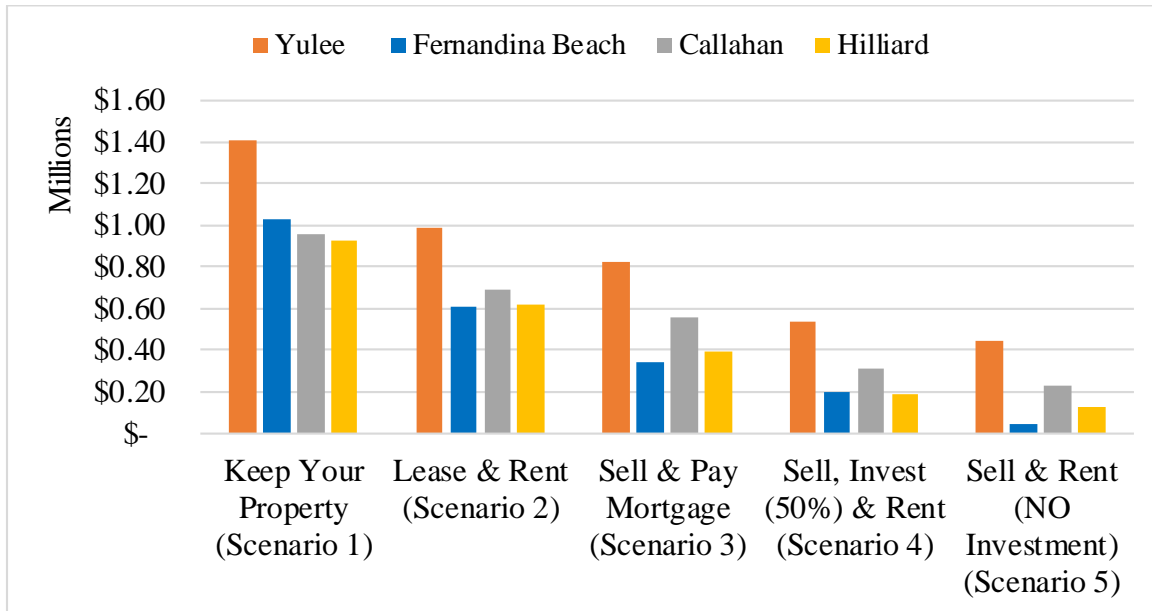
3.3. Aggregation of Black Wealth in Homeownership

As earlier stated above, we calculate black wealth in homeownership using a CBA approach (see section 2 for details on methods). Our results show that Fernandina Beach has the most considerable accumulation of black wealth in homeownership in aggregate terms. Black wealth in homeownership is estimated to be around $217 million in Fernandina Beach compared to $170 million in Yulee, $18 million in Callahan, and $29 million in Hilliard (see figure 4). Overall, for the entire County, the total black wealth in homeownership is estimated at $1.2 billion by 2050 (see table 5).

Figure 4. Black Wealth in Homeownership for Selected Cities
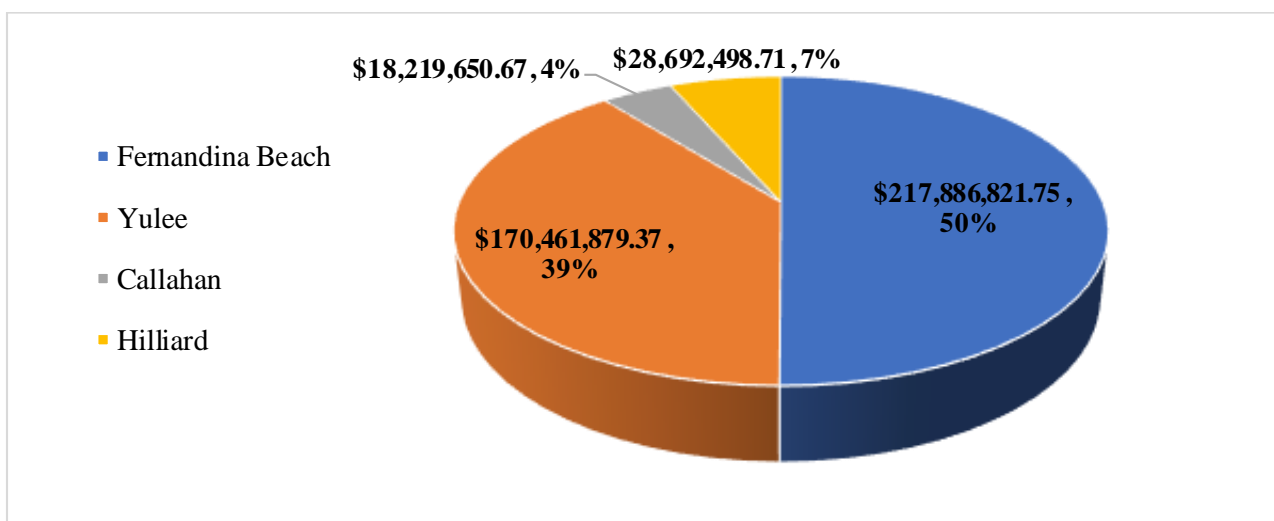
Table 5. Aggregation of Wealth Expected if all owner-occupied homes are maintained
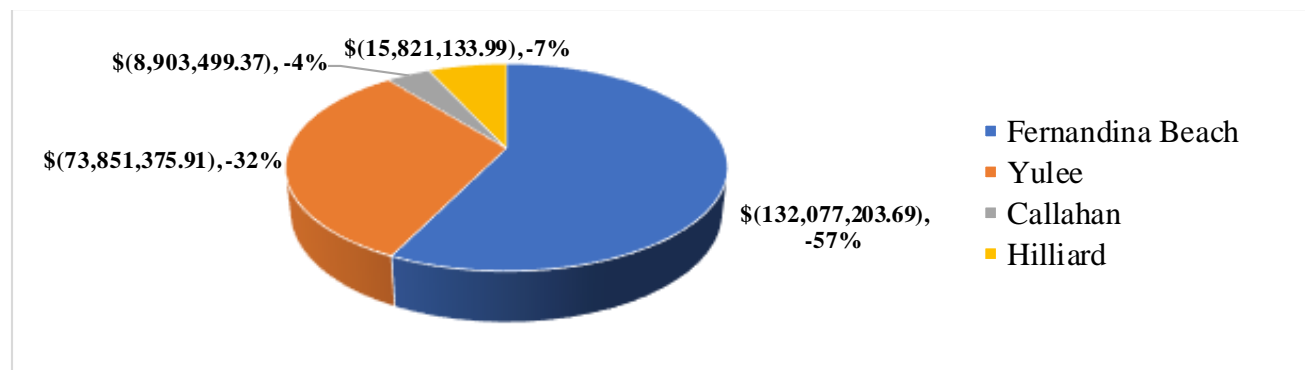
City	Total No. of Households	Owner-occupied homes	NPV for a single-occupied home in US$	Total Wealth Expected in US$
Fernandina Beach	647	211	1,032,638	217,886,821
Yulee	266	121	1,408,775	170,461,879
Callahan	39	19	958,928	18,219,650
Hilliard	86	31	925,564	28,692,498
Subtotals	1038	382		435,260,850
County Totals	1991	1,142		
Average NPV			1,081,477.07	
Expected Wealth in Homeownership for Nassau County				1,235,046,815

3.4. Aggregation of Wealth Loss in Homeownership

Our results indicate that black homeowners will incur a loss if they failed to stay and maintain their homes, vis-à-vis the assumptions made in this analysis. We find an expected average loss of $923,000 for a former homeowner who was unable to invest any of the proceeds received from selling their home. Given our scenarios stated above, remember that we calculate the expected monetary loss in black homeownership value using two different approaches (see methods section 2.5). Our findings reveal that wealth loss associated with the 60% sales of all current owner-occupied homes, without investment (first approach), is higher compared to wealth loss estimated as the absolute difference between Scenario I and each of the four other scenarios (second approach) (see table 6).

For aggregation concerning the sale of 60% of all owner-occupied homes by 2050, our results estimate a total wealth loss of nearly $132 million in Fernandina Beach compared to $74 million in Yulee, $9 million in Callahan, and $16 million in Hilliard (see figure 5). Overall, across the entire County, we project an estimated wealth loss of $632 million in black homeownership, again given that 60% of all current owner-occupied homes are sold (see table 6).

Figure 5. Loss expected from 60% sales of owner-occupied Homes by City

$(8,903,499.37), -4%
$(15,821,133.99), -7%
$(73,851,375.91), -32%
$(132,077,203.69), -57%

Legend:
- Fernandina Beach
- Yulee
- Callahan
- Hilliard

Table 6. Aggregation of Wealth Loss expected from 60% sales of all Homes

City	Total no. of owner-occupied homes	60% of all owner-occupied homes	The loss of selling a **single-home** (*No Investment*) in US$	Wealth Loss based on 60% sales of owner-occupied homes (*No Investment*) in US$	**Wealth loss based on the difference between Scenario I and others in US$**
Fernandina Beach	211	126.6	(1,043,263)	(132,077,203)	(130,876,235)
Yulee	121	72.6	(1,017,236)	(73,851,375)	(72,957,784)
Callahan	19	11.4	(781,008)	(8,903,499)	(8,368,798)
Hilliard	31	18.6	(850,598)	(15,821,133)	(15,756,392)
Totals	**382**	**229.2**		**(230,653,212)**	**(227,959,211)**
Expected Average Loss			**(923,026)**		
Aggregate Totals (all Homes in Nassau County)	**1,142**	**685.2**		**(632,458,058)**	

4.0. Discussions

This section focuses on the social, economic, political, and environmental factors that inform and could either directly or indirectly affect the outcome of this analysis. Other studies and survey data from Nassau County are the primary sources of evidence supporting this discussion.

4.1. Economic Value and Challenges in Homeownership

Homeownership is a depository of wealth for most households. According to the National Bureau of Economic Research, the value in homeownership accounts for over 54% of black household wealth (MSNBC, 2018). Approximately over 90% of household wealth is in black homeownership in Nassau County. On average, the present value of a home in Nassau County is roughly $200,000. Given market trends in property values, on average, the economic benefit in homeownership can increase to nearly $1 million worth of wealth by 2050. Black wealth in homeownership should be either preserved or transferred into other tangible assets with economic values. This study presents five possible scenarios for either maintaining or moving wealth in homeownership. For instance, homeowners who cannot sustain current ownership costs in Fernandina Beach may consider leasing the property and finding affordable rent fees outside of the island. Alternatively, they could also sell their properties in Fernandina Beach and start a new mortgage in other cities such as Yulee, Callahan, or Hilliard, where the cost of homeownership is relatively cheaper. The worst-case scenario among all possible wealth accumulation alternatives is to sell the property and failed to deposit any of the proceeds into a financial investment portfolio.

Due to current socioeconomic hardships, racial inequalities, and institutional challenges, many Gullah residents in Nassau County find it extremely difficult if not impossible, to withstand the capitalist market forces and rival institutional powers. Income and unemployment rates are higher among the Geechee residents relative to other races. For instance, the median household income for blacks in Fernandina Beach is twice less in comparison to their white counterparts (Social Explorer-ACS, 2013-2017). Considering the systematic racial injustice and inequality affecting

black households, the increasing cost of maintaining a home in Nassau County becomes an improbable question to answer. Hence, many Gullah homeowners are confined to either voluntarily selling their properties to estate developers or forcefully auctioning their homes through tax and partition sales. Also, irrespective of the option taken, on average, black assets suffer from constant devaluation compared to properties belonging to their white counterparts, holding socioeconomic disparities constant (Rusk, 2001). A recent study found that a home in Jacksonville Metro Area (Nassau County included) is "worth 47.2% less in the majority (>50%) black neighborhoods compared to neighborhoods with less than 1% of black residents" (A. Perry et al., 2018). Such devaluation of black properties is not limited to Nassau County but highly prevalent across the Gullah 'insulated' neighborhoods across the country.

4.2. Social Value and Challenges in Valuation

Our connection to the land as people is valuable but even more valuable for communities who directly obtain their livelihoods from land use. The Gullah/Geechee Nation can be identified by their spiritual, historical, cultural, and extended family connections to ancestral land. According to Representative Simmons-Jenkins of the Gullah community in Nassau County, 'land' is considered a 'family member.' The notion that 'land is family' originates from the words of Queen Quet, Chieftess of the Gullah/Geechee Nation.

Given its cultural and spiritual significance, the social value of land and homeownership cannot be in totality economically monetized. Proxies for conducting such estimation would have to account for the costs involved in not only losing a place called home, but also the total costs associated with the destruction of a culture, a language, and traditions of a nation of people that existed for over a century in America. Because of the complexity and lack of adequate justification involved in placing a dollar metric, accounting for the social value of homeownership loss, we use a qualitative approach to provide insight into the social and cultural significance of homeownership in the Gullah/Geechee Nation. To better express these thoughts and feelings directly, hear from the Gullah/Geechee residents themselves:

> "Land is family" (Queen Quet, Chieftess of the Gullah/Geechee Nation)

> "I will betray a spiritual value in selling my family land" (Rep. Glenda Simmons-Jenkins).

> "Land ownership defines who I am as a Gullah/Geechee. If I no longer own land, my identity as a Gullah/Geechee changes because the land is where we carry out the traditions that give us the ability to exercise our rights to self-determination." (anonymous survey respondent)

> "Our grandparents farmed the land and made sure that the land would and could sustain us no matter what happened. There were always fields, animals, and harvests from the farm were put away in a store for later use. We had a sense of family. Everyone looked out for each other, and now sadly, that is no more." (anonymous survey respondent)

> "I am proud of my Gullah heritage. But without help to establish our own economics and save the land, the Gullah connection will become extinct because we will have lost everything, as we are doing now, and won't be around." Gloria Potts (Davis, 2005)

> "In order for us to sustain the Gullah culture, we've got to start with land. I think we're a land-based culture. We're a land-based culture" Emory Campbell (Davis, 2005)

These quotations succinctly manifest the spiritual, cultural, and socioeconomic values embedded in land ownership for the Gullah/Geechee residents. Arguably, the culture of land transfer as in heirs property has legal vulnerabilities in this day and age, but this form of land transfer has fostered the "creation of intergenerational communities with strong social ties" (Brabec and

Chilton, 2015). With such a robust cultural attachment to their land, the fundamental question to ask is, what is forcing the Gullah community members to sell their homes and continue losing a 'family member'? (see subsection 4.3)

It is a known fact that thousands of Gullah residents from Nassau County have been historically deprived and systematically forced to migrate due to loss of land and homes. Land dispossession is contributing to shifting the demographic distribution of the Gullah/Geechee families (Hardy et al., 2017). In less than a century, the black population in Nassau County has significantly declined from 50% to 6% today. In Sapelo Island, a historically Gullah settlement in Georgia, Hardy et al., (2017) reported a similar declining trend in the black population. Subsequently, these challenges contribute to the growing rate of homelessness, especially among low-income groups across the US. In Nassau County, we do not know the total number of homeless people and demographic breakdowns. But, it is a fact that across the US, Florida has the third-highest share of the homeless population, 32,190 people, corresponding to nearly 6% of the total national homeless population (Henry, Watt, Rosenthal, and Shivji, 2017). The majority of homeless people emerged from historically-disadvantaged groups, including African Americans and Indian Natives. The Center on Budget and Policy Priorities (2019) reported that five in ten low-income people in Florida are either homeless or pay over half of their income for rent.

Land dispossession in Nassau County also means the Gullah ancestral burial grounds and churches will continue to disappear. The disappearance of burial grounds poses a severe threat to maintaining the Gullah heritage (Davis, 2005). Many Gullah cemeteries have gone missing because of development initiatives (National Park Service, 2005). These include the construction of interstate highways, resort areas, and real estate apartment complexes. For instance, a recent newspaper article reports that over 120 coffins, buried beneath the Tampa apartment complex, were discovered by ground-penetrating radar, a remote sensing technology (Tampa Bay Times, 2019). This apartment complex is built on an old burial site called Zion Cemetery. The land area was probably sold-out by a black household to the estate developer, who either cares less about preserving black burial grounds or did not discover their presence.

4.3. Means of Land Loss

Several studies provide detailed accounts responsible for land and homeownership loss in the Gullah/Geechee insulated neighborhoods across the country. These include; partition sales through heir's property entitlements, tax sales, eminent domain, institutional failure, lack of financial credit opportunities, and limited access to legal support (Campbell, 2011; Davis, 2005; Dyer et al., 2009; Hardy et al., 2017; Happel, 2018; Perry et al., 2018; Snyder & Kilgore, 2018; Presser, 2019). These challenges, if not redressed, will continue to have significant impacts on land loss and force the displacement of the Gullah residents from their communities.

The majority of the Gullah land ownership is through the heir's property rights. Heir's property is the legal entitlement to a share of land by all heirs "whether they live on the land, pay... taxes, or have ever set foot on the land" (McDaniel, 2016). This form of property ownership has become a primary cause of land loss in the south's demographically-defined black belt, due to legal gaps associated with missing title deeds (Gilbert et al. 2002; Kelley 1985; Thomas et al. 2004; Zabawa 1991, cited in Dyer et al., 2009: Happel, 2018; Snyder & Kilgore, 2018). With rising property values, heirs have been pursued by real estate developers to sell their share, leading to "partition sales" described as one of the biggest threats to land and homeownership loss within the Gullah nation (Dyer et al., 2009).

Second, tax sales are increasing. Tax sales arise when a homeowner defaults in paying their property taxes. Hence, they are forced to auction their properties to bidders for a lesser market price. Even though poverty rates are higher among blacks than whites, property taxes and home insurance premiums are increasing equally for both groups in the same city. Estate developers take advantage of some of these socio-economic challenges by offering cash to black homeowners to sell their properties. Estate development contributes to the gentrification of the Gullah neighborhoods, leading to their displacement and replacement with wealthy and middle-class white residents. These key drivers of gentrification are associated with ongoing infrastructure and coastal development projects as well as changing job markets, which undoubtedly contributed to the forced migration of the Gullah residents, especially from the island of Fernandina Beach. The same trend is observed in other Gullah communities around the nation.

Third, the enforcement of eminent domain as per the 5th Amendment of the US constitution also contributes to land loss, especially in majority-black communities. Eminent domain (i.e., the Takings Clause) calls for claiming private property for public use with just compensation. This clause largely victimizes black families who often receive the assessed instead of the 'just' or market value, as a form of a financial return in exchange for their properties. According to the U.S. Department of Commerce (1913), black farmers had owned more than 15 million acres of farmland in 1910. As of 2007, they had lost over 11.5 million acres of farmland, representing 77% lost in land area (cited in Dyer et al., 2009). In Nassau County, many families, including the Mobley family, had lost land through the enforcement of the Takings Clause.

Finally, access to legal support poses another substantial strain for heirs' property owners, hence, contributing to land and homeownership losses. In many litigation cases, Gullah homeowners struggle to find legal counsels who can defend their interests at a minimum cost. The cost implications make legal efforts very painstaking and cumbersome for low-income Gullah families. In some states, heirs to the property are first allowed to buy shares from their family members before outsiders are allowed. However, in many cases, this procedure is not followed and defended. For instance, according to Dyer et al., (2009), in five of twelve cases, heirs' properties were sold to people outside the family in Macon County, Alabama. When competing in partition sales, outsiders overbid family members who live on the land and disagree with the purchase (Brooks 1979; Thomas et al. 2004 in Dyer et al., 2009). For example, in a sale's transaction, defendants (those against the deal) individually received an average of $2,800, while plaintiffs received an average of $4,300. Besides, in states such as Alabama, heirs' property shareholders have a legal right to physically partitioned their shares from the total land area and separately sold to developers. Without the consent of other family defendants, "most courts order the sale of the entire property on the assumption that sale as a unit will bring a higher price than the sum of the subdivided interests (Mitchell 2001)"(Dyer et al., 2009).

4.4. Climate and Environment Challenges

Given the vulnerability level of coastal communities in the state of Florida, this analysis explicitly intends to discuss Gullah communities' high level of risk and vulnerability to climate change and extreme weather events such as sea-level rise (SLR) and frequent and intense hurricane events. Climate change impacts will not only exacerbate the socioeconomic challenges facing the Gullah residents, but will also contribute to land loss, forced migration, and racial inequality and injustice (Hunter, 2005; Perch-Nielsen, Bättig, & Imboden, 2008; Tacoli, 2009; Hardy et al., 2017; Rigaud et al., 2018). Climate migration is not only evident in coastal communities in developing nations but also developed countries like the US. Several studies indicated that SLR would continue to

threaten and forcefully displace coastal communities (Maldonado et al., 2013; Sabella, 2016b; Shearer, 2012a, all cited in Hardy et al., 2017). For example, Hauer et al., (2016) projected that almost "13.1 million US residents could be affected by the year 2100 with 1.8m of SLR" (Hardy et al., 2017).

Besides, hurricanes: Andrew (1992), Katrina (2005), Sandy (2012), Harvey (2017), Irma (2017), Maria (2017), Michael (2018), and now Dorian (2019) have led to the evacuation of millions of Floridians. The assessed economic damage associated with these events is in billions of dollars. Across all states in the US, Florida bears the maximum burden of hurricane-induced losses. Florida had so far registered nearly 13% of all catastrophic hurricane losses from 1986 to 2015 (NOAA, 2019). Such colossal damage is equivalent to roughly $70 billion. According to NOAA, these hurricanes have claimed hundreds of lives, forcefully displaced thousands of people, and caused billions worth of damage in Florida. Consequently, climate-induced disasters do not only contribute to land dispossession and homelessness but also result in mental health problems such as post-traumatic stress disorder (PTSD). Low-income, minority, historically-marginalized, and culturally-distinct communities with less resilience and resourceful capacities have been and will continue to be at higher risk relative to their high-income counterparts in Nassau County.

Also, climate change and extreme weather impacts would continue to threaten black wealth in homeownership. Our study's financial account of containing the economic damage associated with climate change impacts could be an underestimation due to the increased frequencies and severities of these events in low-lying coastal communities. Although, property values along the US eastern coastline are still growing irrespective of the climate change threats. Notwithstanding, Gullah land and homeowners living in these vulnerable climate risk zones in Nassau County (e.g., Fernandina Beach) should be aware of the dangers and pursue adaptation solutions for building their resilient and resourceful capacities. Read Mackinnon & Derickson (2012) for more understanding of the concept of resourcefulness.

5.0. Recommendations
This study provides both macro-level policy and micro-level community-oriented actions for improving the socio-economic, institutional, and environmental challenges disproportionately affecting the Gullah community in Nassau County, Florida. Addressing the root causes of some of these wicked problems will ultimately enhance the protection, preservation, and sustainability of black wealth, especially from land and homeownership.

5.1. Macro-level policy actions
Property taxes are skyrocketing due to the increasing market values of homes in Nassau County. With socioeconomic hardships and racial inequalities, many Gullah families are struggling to make ends meet. Therefore, property tax exception programs should be expanded to include historically disadvantaged communities who continue to be negatively impacted by strong institutional forces with higher power, wealth, and influence.

Second, from Federal, State to County levels, economic empowerment programs should be co-designed with the Gullah and other beneficiary communities to eradicate endemic poverty in Nassau County and Low Country areas of the US. Such programs should focus on creating employment opportunities and fostering attractive retirement benefits for older citizens. Economic opportunities will boost the median black household income and provide a sustainable solution for the exorbitant costs of maintaining their properties.

Besides economic empowerment initiatives, macro-level policies may also look into providing social development and cultural promotion projects for the benefits of minority and historically-underprivileged communities. Cultural tourism (e.g., marketing of Gullah history and culture) should be encouraged and promoted at institutional levels. For instance, the state of Florida, in partnership with the Gullah/Geechee Nation, can organize an annual roots homecoming festivals for all Gullah/Geechee descendants. These types of events can attract millions of people from around to world to visit Florida and pay homage to the Gullah Nation and her Geechee residents.

Finally, environmental and climate change adaptation programs should be co-designed and jointly implemented and evaluated by all critical stakeholders, including the Gullah Nation. Climate adaptation plans should prioritize the needs of the most vulnerable communities. The plan should include disaster risk reduction strategies for mitigating the debilitating impacts of SLR and extreme weather events. For instance, they may consider both hard engineering (e.g., building seawalls) and ecosystem-based adaptation solutions (e.g., planting of trees, sand nourishment, etc.). Federal and State programs may also include opportunities for registering one's land into easement programs as well as tax incentive-based programs for promoting conservation, restoration, and environmental sustainability.

5.2. Micro-level Community-Oriented Actions

At the micro-level, community-driven actions could be put in place to complement macro-level interventions. First, the Gullah/Geechee leadership may develop a community-awareness program (CAP) in identifying local-based solutions to address some of the challenges mentioned above. Developing the CAP would not only be an opportunity for the Gullah communities to integrate but will facilitate information sharing among members. Upon creating awareness, the Gullah leadership may prioritize taking joint community-driven actions to address emergent threats and inspire the younger generation to stand up and fight for a strategic pathway to attaining self-determination, socioeconomic prosperity, and environmental sustainability in a competitive capitalist market system.

Also, we recommend that the Gullah/Geechee leadership in Nassau County consider designing community development projects and mobilizing resources to implement them for enhancing the socioeconomic status of their people. Community development projects should address the felt needs to be identified by members of the community. The plans may include developing an ecotourism facility, building a multipurpose cultural development center, establishing beekeeping projects, initiating reforestation projects, providing recreational opportunities as well as opportunities for cultural and community tourism.

Finally, to keep their land and homes, described above as a 'family member', Gullah land and homeowners are encouraged to; write a will, pay property taxes on time, draw a family tree, use affidavit of heirship to claim ownership, buy ownership rights from other heirs who have less interest, and keep records of all property expenses (Presser, 2019a).

6.0. Next Steps

Given the limited time designated for undertaking this study, we recommend the next project team to consider investigating the following issues of great concern to the Gullah/Geechee leadership in Nassau County.

First, assess how the Gullah community can maximize their use of land for generating more wealth. The assessment may consider costs and benefits options, such as registering the property in

conservation easement programs. The team may also look into other state-level programs such as offering tax-based incentives to landowners for promoting conservation efforts.

Second, apply a contingent valuation survey method to assess the Gullah community members' willingness to pay (WTP) for protecting a set of culturally significant assets such as black churches and ancestral burial grounds in Nassau County. A WTP study would contribute to the quantification efforts of loss/damage attributed to land and homeownership losses in Nassau County.

7.0. Conclusions

In a nutshell, our CBA results suggest that homeowners in all of the four selected cities are financially better off keeping their property (Scenario I) relative to Scenarios II, III, IV, and V. Our finding reveals an average wealth of $1 million for a black homeowner who decides to keep and properly maintain their property in Nassau County over the next 30 years. In terms of city comparison, we find that on average, the discounted net benefit/profit of maintaining one's own home is highest in Yulee compared to Fernandina Beach, Callahan, and Hilliard. However, in aggregate terms, our results show that Fernandina Beach has the most considerable accumulation of black wealth in homeownership, followed by Yulee, Hilliard, and Callahan in descending order. Overall, for the entire County, the total black wealth in homeownership is estimated at $1.2 billion by 2050.

However, black wealth in Nassau County, likewise in many other Gullah insulated neighborhoods are in constant risks of devaluation, exploitation, and dispossession. The biggest threats to land and homeownership losses include enforcement of the eminent domain clause, partition and tax sales, institutional failures, lack of credit access, limited legal support as well as climate change impacts and extreme weather events such as rising sea levels and destructive hurricane damage. Consequences of land loss include but not limited to homelessness, loss of power, lack of social capital, lack of individual self-independence, and self-reliance, as well as the disappearance of the Gullah cultural identity and national sovereignty. The indirect effects may include mental health problems, erupting from traumatic stress events, and from living a hopeless life.

We recommend both macro-and-micro-level interventions to drastically eradicate the root causes of land dispossession, black oppression, and subjugation in America. For instance, property tax exemption programs, as a form of affirmative action, if implemented, can redress some level of racial injustice and inequality in Nassau County. Besides, micro-level interventions may include designing community awareness programs, developing ecotourism opportunities, and building a multipurpose cultural development center for promoting the Gullah/Geechee identity, recognizing the people, and sustaining their culture and nation for prosperity.

Finally, if current socioeconomic hardships, institutional failures, and environmental challenges continue to persist, we project that Nassau County could lose an estimated wealth of $632 million in black homeownership, given that 60% of all current owner-occupied homes are lost, without any consideration for putting any of the proceeds into a financial investment portfolio.

8.0. Supplementary Information

Annex 1. Metrics Used in conducting the CBA (for Homeownership Cost Estimation)

Metrics	Scenario I	Scenario II	Scenario III	Scenario IV	Scenario V
	Keep Property	Lease and Rent	Sell and Pay Mortgage	Sell, Invest 50% and Rent	Sell and Rent (No Investment)

COSTS/ EXPENSES

	Scenario I	Scenario II	Scenario III	Scenario IV	Scenario V
Rent Or mortgage payment /yr.		15,732	11,351	15,732	15,732
Repair and maintenance (5% of property value-yr. 0 and every 15yrs)	8,360	8,360	10,000		
Property tax /yr.	3,048	3,048	3,617		
Home insurance /yr.	1,320	1,320	1,391		
Mortgage insurance /yr.			1,182		
Flood insurance (high risk zone=100% more than Jacksonville average)/yr.	1,000	1,000	444		
Cost of moving out + rent down payment		2,000	2,000	2,000	2,000
Utilities and other household operational costs	3,000	3,000	3,000	3,000	3,000
Other household expenses	8,148	8,148	8,148	8,148	8,148

Annex 2. Metrics Used in conducting the CBA (for Homeownership Value/Revenue Estimation)

Metrics	Scenario I Keep Property	Scenario II Lease and Rent	Scenario III Sell and Pay Mortgage	Scenario IV Sell, Invest 50% and Rent	Scenario V Sell and Rent (No Investment)
Revenue / benefits					
Est. Value of property after 30yrs	722,629	722,629	864,388		
Household income /yr. (including gov't benefits e.g. Ss)	34,091	34,091	34,091	34,091	34,091
Annual est. Rent fees saved	15,732	18,000			
Depreciation (50 and 80% of property value /27.5) tax benefit/yr.	1,216	1,216	1,455		
Property tax benefit	500	500	500		
Revenue received from selling the property			167,200		167,200
Amount invested into a retirement acc. (principal)			-	83,600	
Remaining income from selling property				83,600	
Home business child care/yr.	6,000	6,000	6,000		

Annex 3. Rates Used in Calculation of Cost and Benefit Items

Rates Used	Scenario I Keep Property	Scenario II Lease and Rent	Scenario III Sell and Pay Mortgage	Scenario IV Sell, Invest 50% and Rent	Scenario V Sell and Rent (No Investment)
% Increase in home value /yr.	5%	5%	5%		

Discount rate 1	3.3%	3.3%	3.3%	3.3%	3.3%
Discount rate 2	2.8%	2.8%	2.8%	2.8%	2.8%
Interest rate on mortgage /yr.			4%		
Interest rate on retirement investment/yr.				3.5%	
Annual increment (property tax) (can't be more than 3% of the assessed value of the previous yr. Save our homes amendment)	3%	3%	3%		
Annual increment (insurance)	3%	3%	3%		
Annual increment (flood insurance)	3%	3%			
% of sales price invested in a retirement account				50%	
Average annual CPI for all items	1.8%	1.8%	1.8%	1.8%	
Rental home payment increases by 3.7%/yr.		2.5%		2.5%	2.5%
Average annual CPI for household income	2.8%	2.8%	2.8%	2.8%	2.8%
Average annual CPI for utilities (water/sewer, gas, electric, internet) 125/month 0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Annex 4. Aggregation of Loss: Difference in NPV (Keeping the property Vs. Other Scenarios in Yulee

Scenario	Diff. in NPVs (Keeping subtracted from Others) in US$	Total No. of Black homeowners in Yulee	% of Homeowners Projected to Act/be Affected	Homeowners expected to act/ be affected (no.)	Aggregate Loss by Scenario in US$
Lease and Rent	(422,346)	121	20%	24	(10,220,782.39)
Sell and Pay Mortgage	(588,099)		20%	24	(14,231,995.40)
Sell, Invest (50%) and Rent	(872,561)		20%	24	(21,115,964.89)
Sell, Rent and No Investment	(959,966)		20%	24	(23,231,167.10)
Devaluation of Properties for 60% of Homes projected to be sold[2]					
(57,271)			*60%*	*73*	*(4,157,874.60)*
			Total Aggregate Loss in 30yrs		**(72,957,784.38)**

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[2]Devaluation of black homes is added to the expected loss, given the predicted number of sales in the next 30 years. According to a recent study a home in Jacksonville Metro Area (Nassau County included) is worth 47.2% less in majority (>50%) black neighborhoods compared to neighborhoods with less than 1% of black residents (Perry, Rothwell, & Harshbarger, 2018).

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