


Integrating Environmental, Cultural & Economic Perspectives into the Development of Local Brownfield Redevelopment Policies Adjacent to a Superfund Site.



University of North Carolina Wilmington
Masters of Coastal & Ocean Policy
Masters of Public Administration

Gullah/Geechee Cultural Heritage Corridor

South Carolina - Georgia - North Carolina - Florida

National Park Service
U.S. Department of the Interior



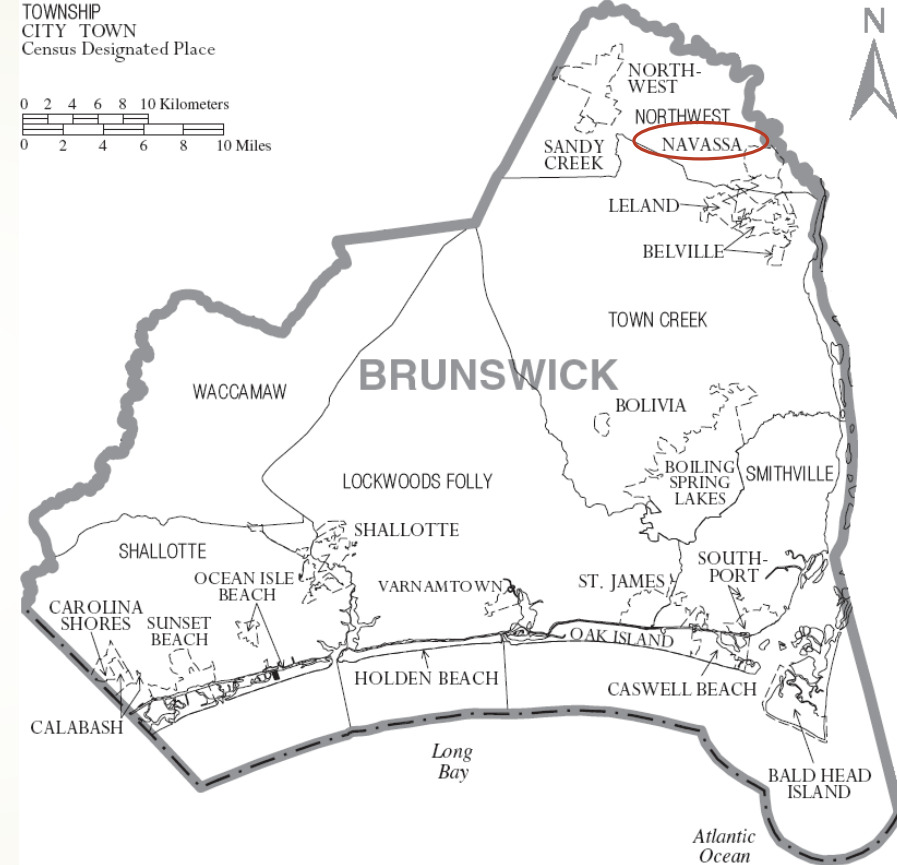
Legend

- Cities - Population
 - 8000 - 45000
 - 45001 - 245000
 - 245001 - 750000
- Counties
- States
- City Limits
- Gullah/Geechee Cultural Heritage Corridor
- Proposed Gullah/Geechee Cultural Heritage Corridor

0 25 50 100 Miles


TOWNSHIP
CITY TOWN
Census Designated Place

0 2 4 6 8 10 Kilometers
0 2 4 6 8 10 Miles

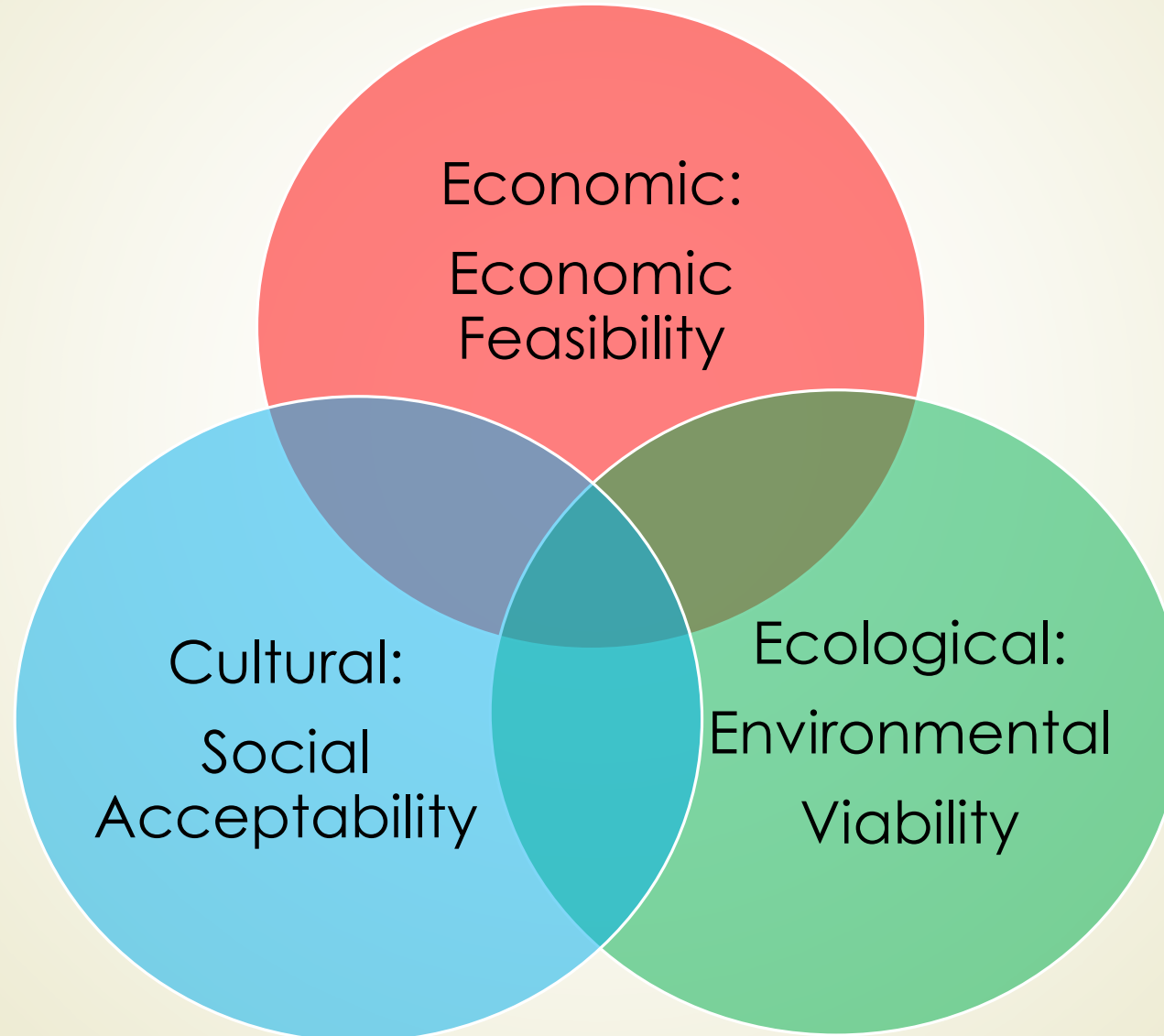




UNCW-Town of Navassa Partnership

- ▶ Graduate students are working with the town of Navassa to develop an evaluative framework to analyze the merit and feasibility of planning and policy alternatives.
 - ▶ This is part of a long-term community-based research project to enhance the quality of life for town residents.
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Integrating Perspectives into an Evaluative Framework





Integrated Goal

- ▶ Restoration and development of the Kerr-McGee Superfund site must provide a means of maintaining ecosystems services, generating economic growth for the Town of Navassa while preserving Gullah Geechee heritage.

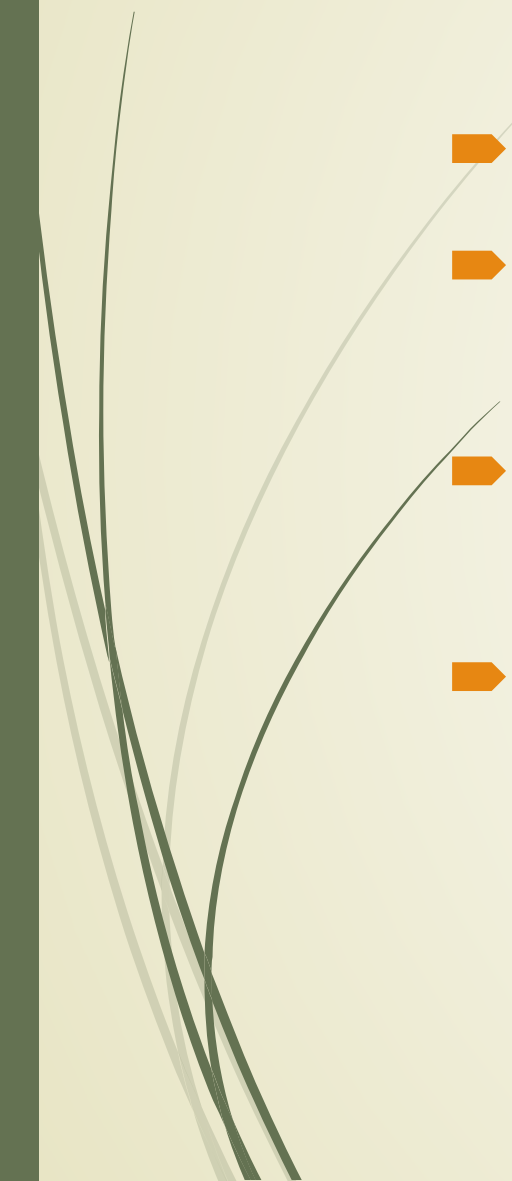
Ecological Perspective



Aerial Picture of Superfund site and Brunswick River
Photo: Genevieve Guerry



Objectives

- ▶ Restore function of wetlands.
 - ▶ Monitor water quality of Brunswick River, Sturgeon Creek, and adjacent wetlands.
 - ▶ Meet standards to restore designated uses of groundwater.
 - ▶ Meet economic needs of citizens through environmental restoration.
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Criteria & Measurements

- ▶ Criteria #1: Environmental Viability
 - ▶ Measurement #1: Environmental standards EPA monitoring
 - ▶ Measurement #2: Ecosystem services (wetland, species, habitat)
- ▶ Criteria # 2: Economic Feasibility
 - ▶ Measurement #1: Storm abatement/protection
 - ▶ Measurement #2: Enhance water quality filtration
 - ▶ Measurement #3: Determine existence/option value
- ▶ Criteria #3: Social Acceptability
 - ▶ Measurement #1: Public health-actual risk
 - ▶ Measurement #2: Perceived risk
 - ▶ Measurement #3: Education between citizens and stake holders

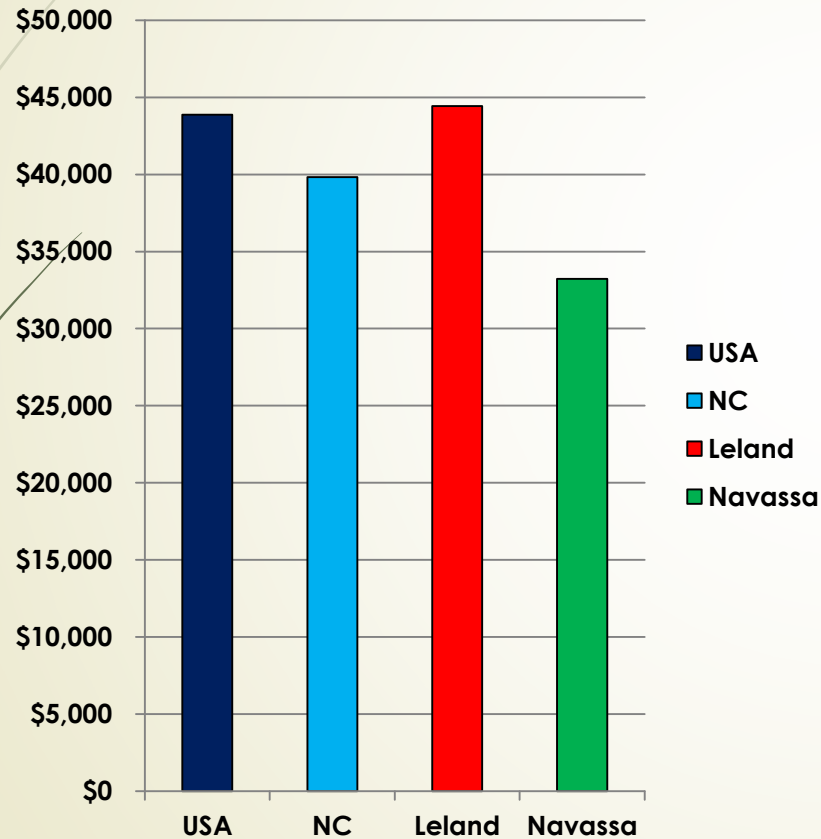
Economic Perspectives



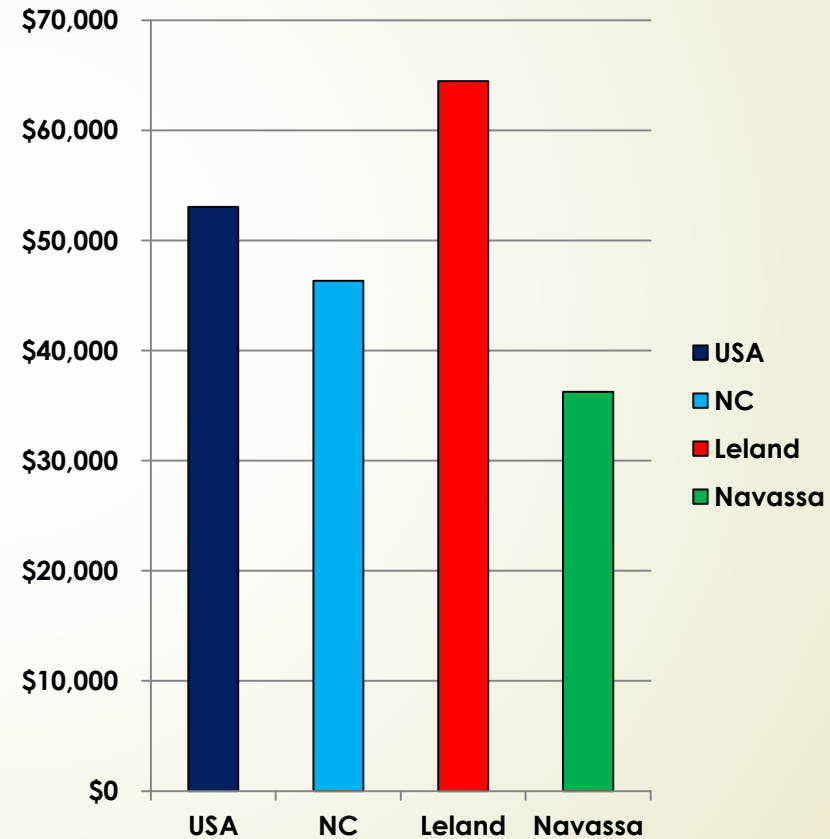
Former Superfund site in Clayton, New York along edge of St. Lawrence River
Photo: 1000islandsharborhotel.com

Income Indicators

Median Earnings Per Worker

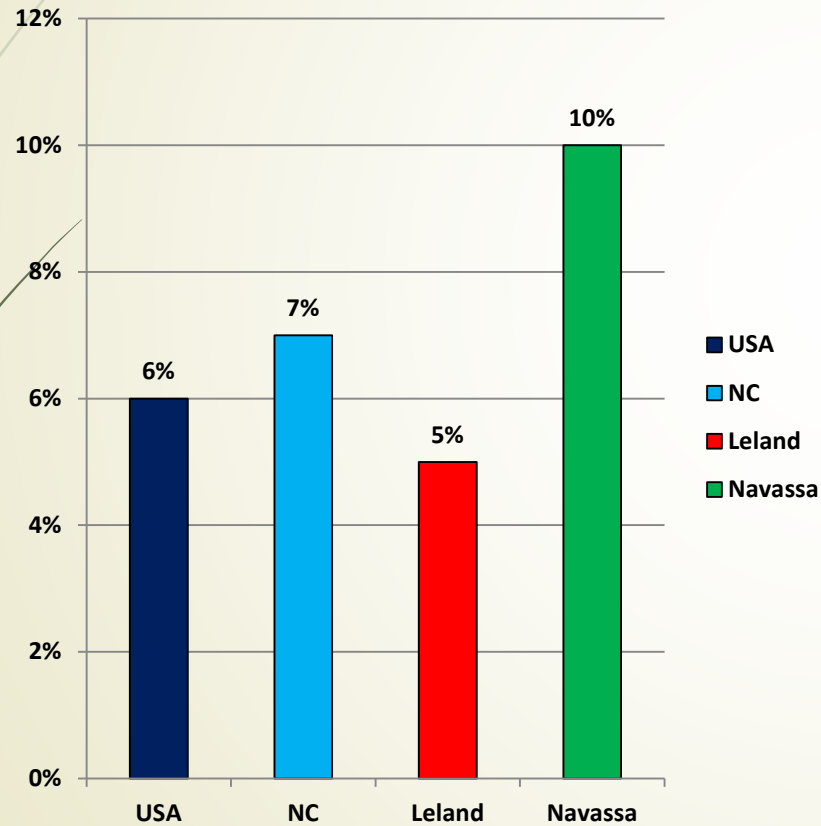


Median Household Income

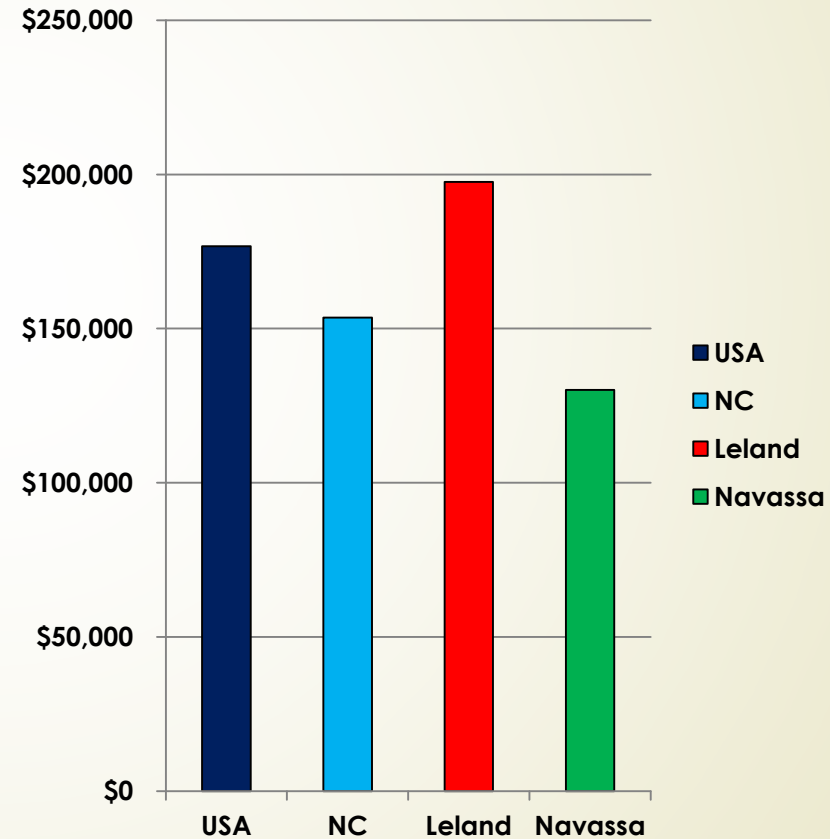


Economic Indicators

Unemployment Rate

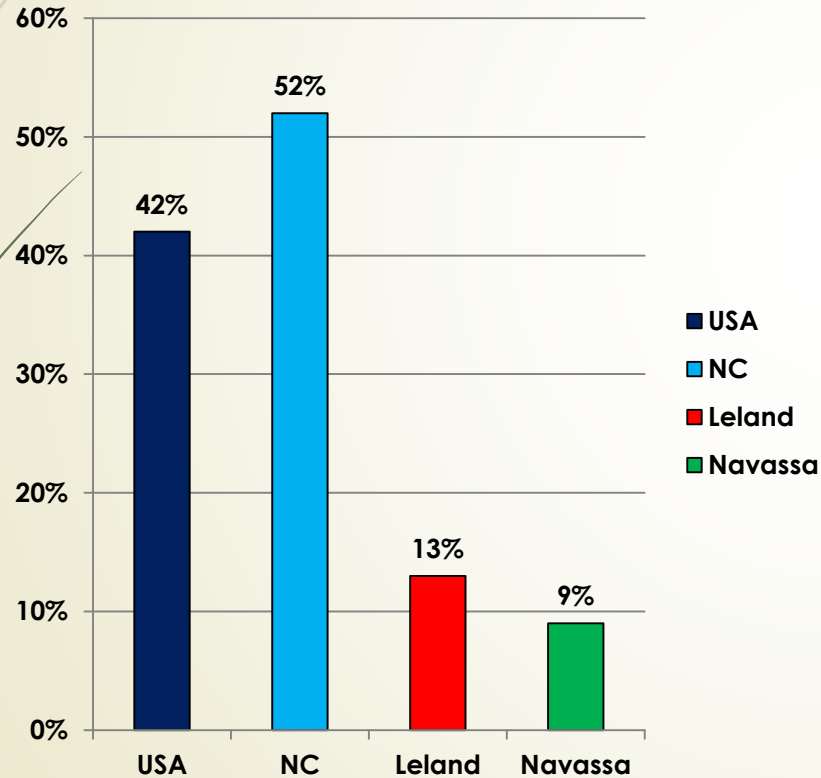


Median Home Values

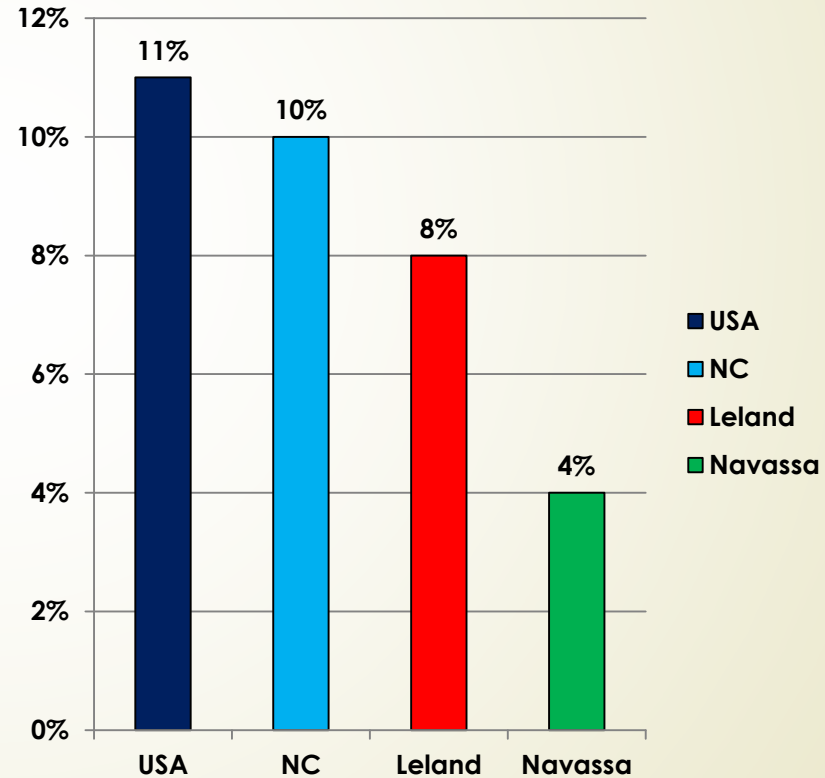


Societal Indicators

People who Work and Live in the Same City

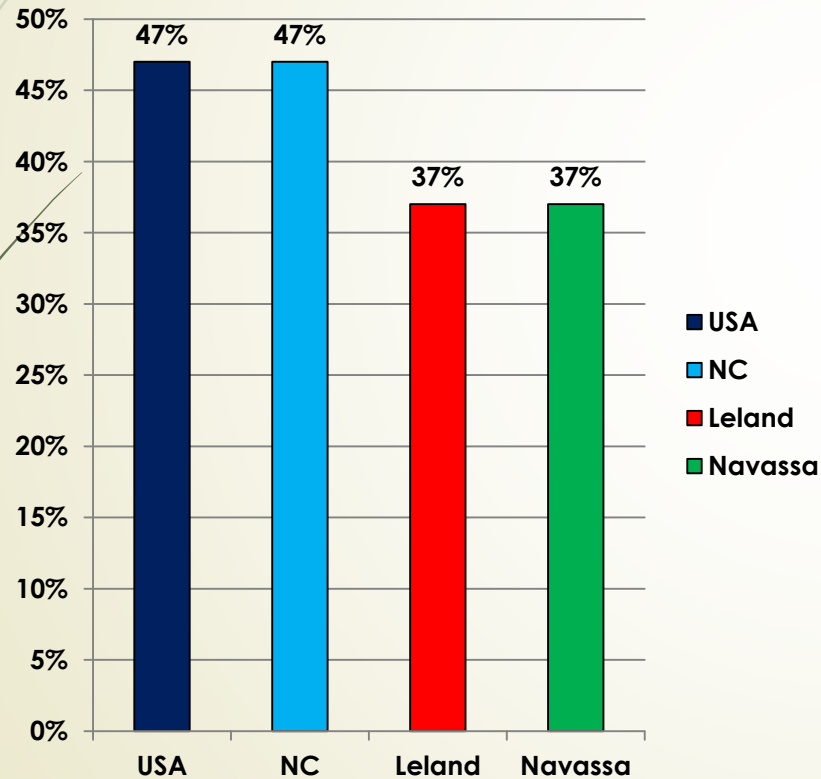


Percent of People Self-Employed

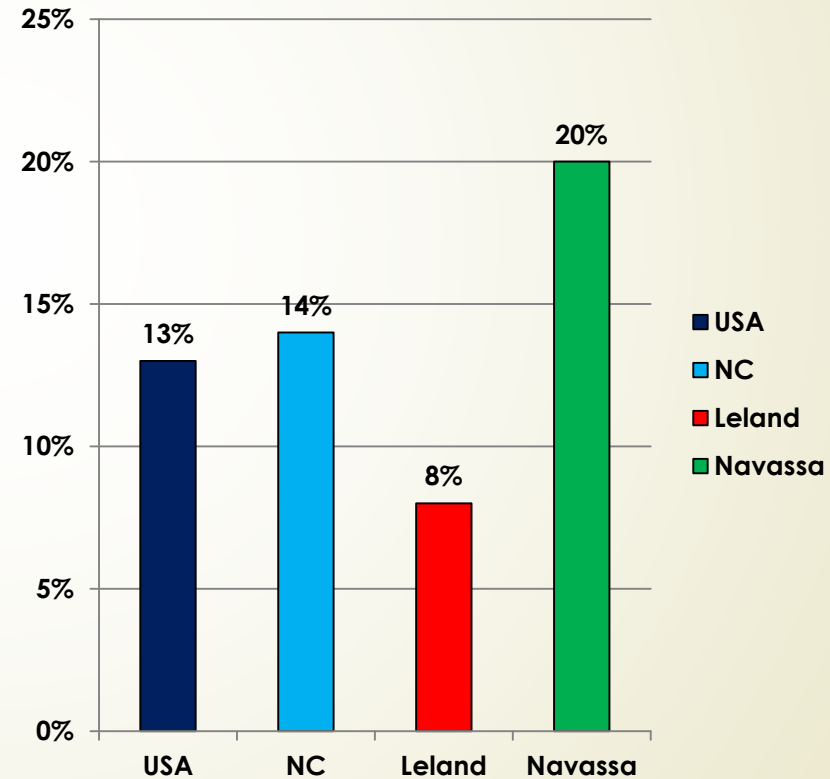


Equity Indicators

Gini Index of Income Inequality




Percent of Households with Public Assistance





Objectives

- ▶ Diversify the local economic base by attracting new retail stores, and manufacturing firms.
 - ▶ Encourage and facilitate the expansion of existing firms in the community.
 - ▶ Optimize the amount of productive/usable acres available after Superfund clean-up and restoration.
 - ▶ Increase the number of locally owned stores and businesses in the community.
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Criteria & Measurements

➤ Criteria #1: Economic Feasibility

- Measurement #1: Median earnings per worker
- Measurement #2: Median household income
- Measurement #3: Unemployment rate
- Measurement #4: Median home values
- Measurement #5: Public revenues

➤ Criteria #2: Social Acceptability

- Measurement #1: Percent of citizens who work/live in same city
- Measurement #2: Percent of locally owned businesses (self-employed)
- Measurement #3: Gini index of income inequality
- Measurement #4: Percent of citizens with public assistance

➤ Criteria #3: Environmental Viability

- Measurement #1: Rating (environmental) on firms that move to Navassa
- Measurement #2: Number of productive/usable acres after restoration

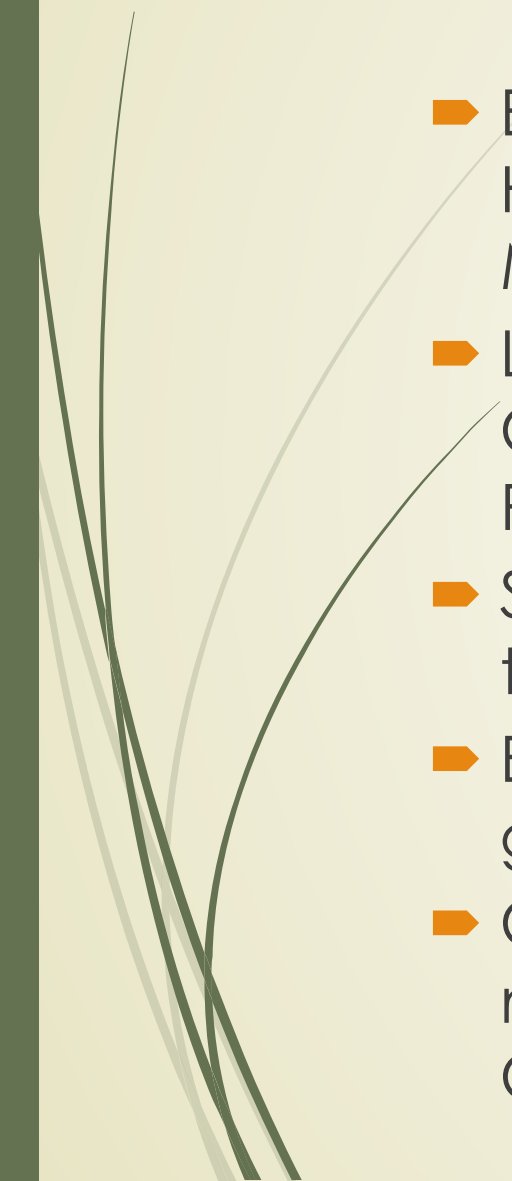
Cultural Perspective



Gullah Geechee Nation International Music & Movement Festival from Gullah Geechee
Photo: Gullahgeecheenation.com



Cultural Objectives

- ▶ Establish relationships with Gullah Geechee Cultural Heritage Corridor stakeholders and Queen Quet Marquette L. Goodwine- the Gullah Geechee Queen.
 - ▶ Locate a site for the Gullah Geechee Cultural Education Center within necessary time frame required by Z. Reynolds Foundation grant.
 - ▶ Secure additional funding for the construction costs of the Gullah Geechee Cultural Education Center.
 - ▶ Enhance the quality of life for current and future generations.
 - ▶ Connect regional efforts to encourage interest of those not directly involved with the Gullah Geechee Heritage Corridor.
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Criteria and Measurements

- Criteria # 1: Social Acceptability
 - Measurement # 1: Gauge responsiveness of Navassa community that identifies with Gullah Geechee heritage through surveys.
- Criteria #2: Economic Feasibility
 - Measurement # 1: Revenue obtained from Gullah Geechee Cultural Education Center attendance.
 - Measurement #2: Survey the existence value of Gullah Geechee Culture among residents.
 - Measurement #3: Assess the value of grants and allocation to the town.
- Criteria # 3: Environmental Viability
 - Measurement # 1: The incorporation of rice field preservation and freshwater quality and supply into Cultural Education Center tours to educate public about ecosystem services of Navassa.



Additional Research

- ▶ Current public revenues and expenditures of Navassa
 - ▶ Impact of I-40 connection
 - ▶ Environmental ratings for businesses
 - ▶ Quantitative economic growth and development goals for Navassa
 - ▶ Levels of local fish consumption
 - ▶ Percentage of population identifying as Gullah Geechee
 - ▶ Priorities of Navassa citizens and stakeholders
 - ▶ Funding opportunities
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