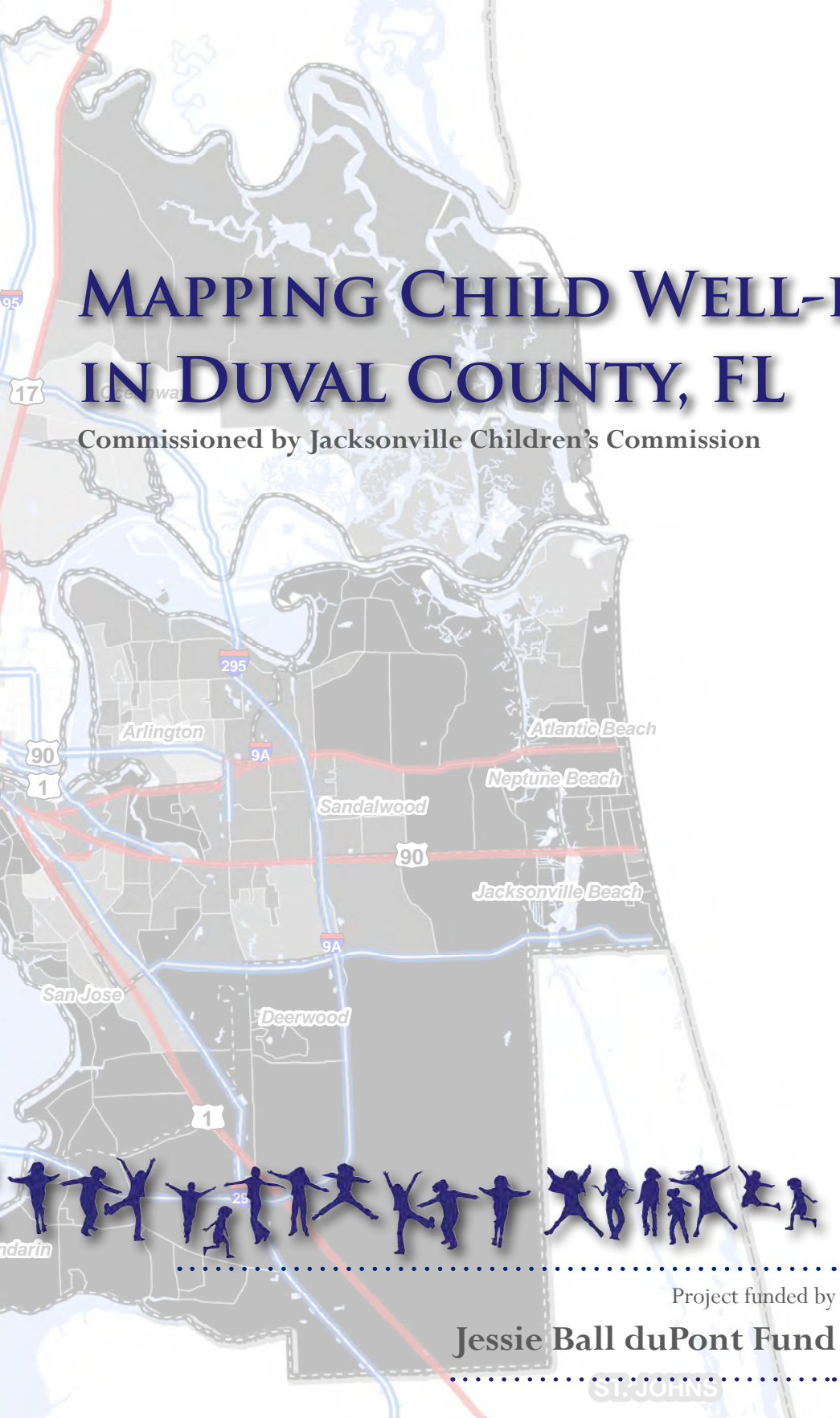


MAPPING CHILD WELL-BEING IN DUVAL COUNTY, FL

Commissioned by Jacksonville Children's Commission



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Jessie Ball duPont Fund

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I. Executive Summary

The Kirwan Institute was commissioned and funded by the Jessie Ball duPont Fund to assist the Jacksonville Children’s Commission in understanding child well-being in Duval County, Florida through opportunity mapping and analysis. The project consists of three main components: a) mapping the distribution of comprehensive opportunity for children in Duval County, defined as a combination of neighborhood, educational, and health/environmental opportunity; b) an examination of the impacts of opportunity distribution on health and education outcomes; and c) a local application of opportunity mapping by analyzing demographic data of children served by the Children’s Commission and neighborhood conditions of the New Town Success Zone.

The status of children’s well-being is an important barometer for the health and vitality of our society. Understanding the current status of child well-being, as well as potential racial, geographic, and economic inequalities among children, can help shape policies intended to overcome inequalities and increase the life chances for all children. Measurement of child well-being involves examining physical, cognitive and socio-emotional development, as well as the family, school and neighborhood conditions in which children are situated. The “Human Development Index” used by the United Nations incorporates three dimensions of development – a long and healthy life, access to education, and a decent standard of living.¹ Similarly, our opportunity analysis looks at multiple indicators of child well-being and synthesizes them into a composite measure of opportunity.

The major findings from this project are:

1. The comprehensive opportunity map shows a clear spatial division of opportunity between the eastern and western parts of the county and a very high concentration of opportunity-poor neighborhoods in the Urban Core.
2. A historical comparison of comprehensive opportunity maps for 2009 and 1990 shows an overall opportunity improvement for children in the southeastern areas of the county, a persistent concentration of opportunity-poor communities in the Urban Core, and an opportunity decline in areas in the southwest over the last twenty years.
3. Racial overlay analysis on the comprehensive opportunity map reveals a spatial isolation of children of color concentrated in low-opportunity areas. While only 16.56% of white children live in lower opportunity areas, the percentage for African American children is almost 3.5 times higher, at 59.73%. Not surprisingly, only 25.65% of African American children live in higher opportunity areas while 68.3% of white, 68.28% of Asian, and 61.94% of Hispanic children live in higher opportunity areas.
4. Neighborhood poverty rates and a few poverty-related indicators (child poverty, unemployment rates and households with public assistance) are strong factors affecting all of the health outcomes. Health Zone 1, with the worst neighborhood conditions, has the highest incidence of diabetes, asthma and teen births.
5. Neighborhood conditions affect educational outcomes for children in Duval County. Mapping analyses of non-promotion rates find that minority student concentrations,

school poverty rates, non-white populations, neighborhood poverty, and home ownership rates are all strongly related with non-promotion in elementary schools.

6. A comprehensive opportunity map overlaid with participants in the Children's Commission programs shows that a higher number of children and families from opportunity-poor communities (69%) are participating in the Children's Commission programs, and a very high percentage of them are African American.
7. The New Town analysis confirms the need for attention to the area, as it reveals a very high concentration of non-whites (98-100%) alongside a concentration of poverty and low-income families. Two neighborhood schools have a very high percentage of economically disadvantaged students (more than 80% are eligible for free or reduced lunch) and display poor academic performances on math and reading tests compared to the county average.

The first component of the project, the **child opportunity mapping analysis**, looks at three domains of factors related to comprehensive opportunity for children: neighborhood factors, school-related factors, and health and environmental factors. The resulting opportunity map of Duval County shows a clear spatial division of opportunity between the eastern and western parts of the county and a very high concentration of opportunity-poor neighborhoods in the central region of the county. The comprehensive opportunity map overlaid with the spatial distribution of non-white children in Duval County reveals a clear pattern of racial isolation in low-opportunity communities in the central region of the County where a high concentration of non-white children is noted.

A historical comparison of comprehensive opportunity maps for 2009 and 1990 shows an overall improvement of opportunity for children in the southeastern areas but a decline in the Urban Core and areas in the southwestern part of the county. Also noted is the convergence of opportunity-rich areas into the southeastern part of the county and the persistent concentration of opportunity-poor communities in the central part of the county over the last twenty years.

In the next section of the project, we examine how the neighborhood conditions affect health and educational outcomes of Duval County children, which are the two most important domains of a child's life.

The Health Zone analysis maps the rates of children with diabetes, asthma and cancer, low birth weight babies and teen births in relation to neighborhood, and health and environmental factors. Neighborhood poverty rates and a few poverty-related indicators (child poverty, unemployment rates and households with public assistance) are found to be strong contributors for all health outcomes examined in this analysis. Also noted is the extremely vulnerable neighborhood and demographic conditions in Health Zone 1, which has the highest poverty and child poverty rates, the highest unemployment rate, the highest percentage of households with public assistance and the lowest adult educational attainment. Access to healthcare is closely related with rates of diabetes, asthma and cancer; access to good quality

food is an important factor affecting the number of children with diabetes; and parental education is affecting incidence of diabetes, asthma and teen births.

The student non-promotion rate analysis examines effects of school-based and neighborhood-based indicators on students' retention rates and finds that the rates of student minority population, school poverty, non-white population in the neighborhood, poverty, and home ownership are all strongly related with non-promotion rates in Duval County elementary schools. This result is in line with existing grade retention studies that find race and socioeconomic indicators closely related with grade retention.

The last analysis component of this project is a local application of opportunity mapping by analyzing demographic data of children served by the Children's Commission and neighborhood conditions of New Town Success Zone.

The comprehensive opportunity map is overlaid with demographic data of children and families participating in several programs monitored and/or funded by the Jacksonville Children's Commission (afterschool, Healthy Families, mentoring, special needs programs and so forth) to visualize the spatial distribution of opportunities for these children. The result shows that a higher number of children and families from opportunity-poor communities are participating in the Children's Commission programs and a very high percentage of them are African American, which is a very positive indication that the Children's Commission is succeeding in reaching out to families who need the most support and attending to their needs with various programs.

The New Town analysis confirms the need for attention to the area, as it reveals a very high concentration of non-whites alongside a concentration of poverty and low-income families. Two neighborhood schools have a very high percentage of economically disadvantaged students (higher than 80% eligible for free or reduced lunch) and display poor academic performance in math and reading tests compared to the county average.

Based on the results from these analyses, we offer the following recommendations for improving the opportunity of children in Duval County:

School-based community revitalization: Building on the interdependence of school quality and neighborhood quality, we recommend that efforts should be made to improve both school and neighborhood conditions because they are equally crucial for children's well-being. Core elements in this approach include: improving at least one school in the neighborhood; developing safe and affordable housing; child care and early childhood education programs; affordable health services for children; and workforce and economic development programs.

Health interventions in the neighborhood context: Strategic efforts targeting areas of attention found in the health analysis – access to healthcare facilities, and access to healthy food – would be useful in improving child health. Interventions aimed at improving these conditions will call for social, institutional and physical (environmental) strategies.

Making informed decisions and prioritizing investments for improving children's opportunities: Comprehensive opportunity maps identify areas of inequity between low and high opportunity communities, and the result of this comparative analysis can be used to target investments accordingly. In case of afterschool programs, opportunity maps can offer policy insights as to where the most needy children are and where to focus in order to optimize investment return. Building upon the comprehensive opportunity mapping analysis, qualitative evaluations of existing Children's Commission programs will help policymakers make more informed and targeted decisions and improve opportunities for children in Duval County.

The challenges facing Jacksonville's marginalized communities and marginalized children are complex and multi-faceted. The most disadvantaged of Jacksonville's children face a number of obstacles, and many live in communities which lack the resources and the critical pathways to opportunity needed to thrive and survive in our society. Despite the depth of these challenges, strategic interventions to affirmatively connect marginalized children to opportunity can produce transformative change in the lives and future of Jacksonville's children. The strategies discussed in this report are a starting point, but these solutions alone are not effective without an organized and engaged community to implement them. Political and public will, collaboration, strategically used resources and extensive civic engagement are a critical foundation to implementing strategies to expand opportunity for Jacksonville's marginalized communities and children. By providing the necessary support services and pathways to opportunity for marginalized kids living in poverty, the Jacksonville community provides an environment where all kids can flourish and reach their full potential.

II. Introduction

The Kirwan Institute, with its expertise in opportunity mapping and research on the geographic distribution of opportunity in metropolitan areas, was commissioned and funded by the Jessie Ball duPont Fund to assist the Jacksonville Children’s Commission in understanding child well-being in Duval County through opportunity mapping and analysis.

The project consists of three main components:

- a) mapping the distribution of comprehensive opportunity for children in Duval County, defined as a combination of neighborhood, educational and health/environmental opportunity;
- b) an examination of the impacts of opportunity distribution on children’s health and education outcomes; and
- c) a local application of opportunity mapping by analyzing demographic data of children served by the Children’s Commission and neighborhood conditions of the New Town Success Zone.

The overall goal of this initiative is to understand the current state of child well-being in Duval County in general, and in New Town in particular, and to provide an opportunity mapping framework to help the Children’s Commission target low-opportunity areas with strategic programs and policies such as developing a ‘Children’s Plan’ for the region.

This project was a result of close collaboration among various parties and organizations. We are greatly indebted to Jacksonville Children’s Commission for their support, guidance, and coordination throughout the entire project process. The vast amount of data used in this project necessitated the active engagement of people with various data sources, to whom we would like to express our gratitude. This includes Duval County Health Department, Jacksonville Sheriff’s Office, Duval County Public Schools, Florida Department of Education, and City of Jacksonville’s Planning and Development Department. Other sources of publicly available data include U.S. Census Bureau, Environmental Systems Research Institute, U.S. Department of Health and Human Services, and Environmental Protection Agency.

The remainder of this document is divided into the following sections:

- III. Child Opportunity Mapping
- IV. Impacts on Health and Education
- V. Child Well-being in Duval County through Opportunity Lens
- VI. Strategies to Improve Outcomes for Children

In **Section III**, a comprehensive opportunity map displays a spatial distribution of opportunity for children in Duval County, followed by an overlay analysis of demographic data and a historical comparison of opportunity distribution in 2009 and 1990. **Section IV** offers an examination of the impacts of opportunity distribution on health and education outcomes for

Duval County children, which are the two most important domains in children's well-being. Health Zone analysis and Student non-promotion analysis show a spatial pattern of health outcomes and elementary school non-promotion rates and their relationship with various neighborhood conditions. In **Section V**, we offer a local application of opportunity mapping by analyzing demographic data of children participating in the Children's Commission programs as a way to examine current efforts in the region. This section also has mapping analyses of New Town Success Zone in terms of various demographic and neighborhood conditions. **Section VI** offers suggestions of strategies for improving opportunities for children in the region in light of the mapping analysis results.

III. Child Opportunity Mapping

Children, Place and Opportunity

An extensive body of research has established that neighborhood conditions and proximity to opportunities such as high-performing schools or sustainable employment have a critical impact on quality of life and self-advancement. Access to opportunity structures is as vital for children as for adults. Racially isolated and economically poor neighborhoods restrict employment options for young people, contribute to poor health, expose children to extremely high rates of crime and violence, and house some of the least-performing schools. Children who do not see neighbors leaving for work, who are unchallenged in school, who are afraid to go to their local park, and who can't find healthy food in their community² are exposed to cumulative disadvantages that can be hard to overcome.³ New studies are showing that living in a severely disadvantaged neighborhood is equivalent to missing an entire year of school.⁴ High-poverty communities can negatively impact children's educational outcomes indirectly as well. Nationwide, children in high-poverty, urban communities have levels of lead in their blood that are nine times above the average, a condition linked to attention deficit disorder and irreversible loss of cognitive functioning.⁵ Six million children have lost an average of 7 IQ points as a result.⁶

Children growing up in very poor families with low social status can also experience unhealthy levels of stress hormones, which impair neural development.⁷ Health problems can deplete a student's attention span or cause the student to miss school and fall behind.⁸ The impact of health status on school achievement is so important that an estimated 25% of the achievement gap in education is attributable to differences in child and maternal health.⁹ Those who have access to early education and positive, encouraging role models can thrive in spite of depressed material circumstances. Impoverished students do better in school if they live in middle-class neighborhoods or attend more affluent schools.¹⁰ Children who move to lower-poverty areas see reductions in obesity, positive increases in mental health, and improved safety.¹¹ In general, students who learn in integrated environments fare better than their segregated peers.¹² In short, neighborhood context and access to opportunity – from preventative health care to high-performing schools – can deeply affect children's health and safety and their opportunities to learn and grow.

What is Opportunity Mapping?

Opportunity mapping is a way to quantify, map and visualize the opportunities which exist throughout neighborhoods, cities, regions and states. A central premise of opportunity mapping is that residents of a metropolitan area are situated within an interconnected web of opportunities that shapes their quality of life.¹³ This methodology helps visually explore which communities have the structures and pathways to opportunity needed for residents to excel and thrive in our society by providing an analytical framework to measure opportunity comprehensively. The Kirwan Institute is a national leader on issues of race, poverty and social

justice, and is a leader in using state-of-the-art Geographic Information Systems (GIS) to identify spatial patterns to support social justice interventions. The Kirwan Institute engages in a number of significant projects, research and collaborations to promote community development, fair housing and social justice through the “Communities of Opportunity” model and its signature work, “opportunity mapping.”¹⁴

Opportunity mapping is unique in that it can provide information to policymakers, community leaders and advocates that is comprehensive, visually compelling and easy to understand. Opportunity mapping also provides a comprehensive view of opportunity, looking at multiple indicators of community health simultaneously, thereby painting a more inclusive picture of neighborhood conditions. Opportunity mapping provides an essential base of information to aid planning and empower community members with information to ensure that their communities are sustainable, opportunity-rich areas. Opportunity mapping is dynamic and can be continuously updated to reflect the changing conditions in the area. Additionally, opportunity maps provide a base of information to attempt to project the potential impact of proposed policies on the region.

For children, accessing opportunity includes living in a family environment conducive to psychological, emotional, and social development; receiving a quality education to fulfill their intellectual development; and living in a neighborhood that promotes their health and physical development – a neighborhood with access to healthcare facilities, fresh and healthy foods, parks and open spaces and free from environmental hazards. This is in line with the research in the field of child well-being over the last few decades. Among numerous indicators of child well-being, researchers generally agree on a few critical domains of child well-being: health and safety, educational and cognitive attainment, and socio-emotional adjustment and behavior. Influencing these domains are indicators of social contexts (family, school, neighborhood or community).¹⁵ Opportunity mapping for children provides a framework to determine which factors are limiting opportunity for children in a community and can assist in identifying which measures are needed to remedy these impediments to opportunity.

Indicators and Methods

Mapping opportunity for children was done by creating a composite map of layers of advantage or disadvantage for children in Duval County. This requires selecting variables that are indicative of high and low opportunity. For example, high opportunity indicators include the availability of high performing schools, a safe environment, access to libraries, availability of grocery stores, engaging afterschool programs and stable neighborhoods. These multiple indicators of opportunity are assessed in a comprehensive manner at the same geographic scale, thus enabling the production of a comprehensive “opportunity map” for the region. Based on a review of the literature on child well-being and relative factors, the following set of indicators have been identified as indicators contributing to child well-being in three important domains – neighborhood and family conditions, school and educational conditions, and health and environmental conditions. Definitions and supporting literature for each indicator is listed in Appendix A.

Neighborhood indicators	Education and school related indicators	Health and environmental indicators
Neighborhood poverty rate	Free and reduced price lunch students	Children with diabetes, asthma, cancer
Population on public assistance	Teacher qualification	Low birth weight babies
Unemployment rate	Teacher experience	Teen births
Share of households headed by single parent	Student/Teacher ratio	Access to healthcare facilities
Home ownership rate	Test results (Math and Reading)	Availability of healthcare professional
Housing vacancy rates	Non-promotion rate	Access to affordable food
Foreclosure rate		Exposure to toxic waste
Adult educational attainment		Access to parks and open spaces
Crime rates		

Table 1: Indicators used in Opportunity Mapping analysis

Data for this analysis has been collected from various sources – U.S. Census, Florida Department of Education, Environmental Systems Research Institute (ESRI), U.S. Department of Housing and Urban Development, Jacksonville Sheriff's Office, Duval County Health Department (DCHD), HRSA (Health Resources and Services Administration) Bureau of Health Professions (BHPR), Environmental Protection Agency (EPA), and the Jacksonville Children's Commission. The opportunity mapping analysis for children in Duval County, FL used a census block group, which is smaller than a census tract,¹⁶ as the unit of analysis for a more focused understanding of opportunity distribution. Indicators in each of the three domains were first collected separately to calculate opportunity index and produce an opportunity map for each domain separately. A comprehensive opportunity index was then calculated by averaging the three opportunity indices, and this was used to produce a comprehensive opportunity map for children in Duval County, FL. A more detailed discussion of opportunity index calculation is in Appendix B and the resulting maps are in Appendix C.

Results

Opportunity Maps

On the opportunity maps presented in Appendix C, the darkest areas represent the highest-opportunity communities, and the lightest-colored areas represent the lowest-opportunity communities. First discussed is the comprehensive opportunity map, which is a composite of three opportunity maps representing comprehensive opportunity for children in Duval County, FL – neighborhood, education, and health and environment – followed by a discussion of opportunity maps in the three domain areas.

In the **comprehensive opportunity map** (Map A-1), the opportunity distribution in Duval County shows a divide between the east and west, along the St. Johns River. Southeastern parts of the county – Atlantic Beach, Neptune Beach, Jacksonville Beach, Deerwood, and Mandarin – are found to be very high opportunity areas while the central areas of the county, including the

Urban Core and parts of the north central region, have low to very low opportunity. Because the comprehensive opportunity map is a composite of three opportunity maps, children in lower opportunity areas are more likely to live in areas with poorer neighborhood, health, or environmental conditions, and/or to attend schools which are under-performing. The central region of the county has the most very low opportunity areas in all three opportunity maps, and the north central region of the county shows the lowest opportunity for both educational opportunity and health and environmental opportunity.

In the **neighborhood opportunity map** (Map A-3), areas in the east display relatively higher opportunity than those in the western region of the county. Also apparent is that very low opportunity communities are highly concentrated in the Urban Core and central area of the county, while very high opportunities are found in the east, spanning north and south. A closer examination of areas with very low opportunity reveals that high rates of poverty, unemployment and crime are major factors impacting the opportunity index negatively.

Educational opportunity is also relatively higher in the eastern region of the county (Map A-4). Areas with very low educational opportunity are noted in the Urban Core, in the southwest, and in the north, which has mostly rural areas. Areas in the southwest, south of US-90 and west of US-17, deserve attention as they display particularly low levels of educational opportunity with respect to neighborhood and comprehensive measures (Maps A-1 and A-3). We attribute this finding to the relatively higher non-promotion rates and other school related factors in the area, including neighborhoods along the 103rd Street corridor.

In the **health and environmental opportunity map** (Map A-5), a very clear divide is evident between the upper left (northwest) and lower right (southeast) regions of the county. While most areas in the southern and eastern parts of the county have high to very high opportunity, the bulk of the northern and western parts of the county show very low opportunity, attributed mostly to the lowest level of food access and very high rates of children with cancer. Other common factors for lower opportunity areas included proximity to toxic sites and amount of exposure to toxic release. Conversely, these factors are not as apparent in the regions with very high opportunity areas.

Race Overlay Analysis

One of the strengths of opportunity mapping analysis is in its use with overlay data. By overlaying demographic data on opportunity maps, it can display a spatial distribution of people with certain demographic characteristics against opportunity distribution. In this project, a comprehensive opportunity map is analyzed with race overlay for children in Duval County, which will offer a picture of where non-white children live with respect to opportunity.

Looking at the entire population of children (ages < 18) in Duval County, 53% are white and 47% are non-white, and about two thirds (35%) of non-white children are African American (Chart 1).

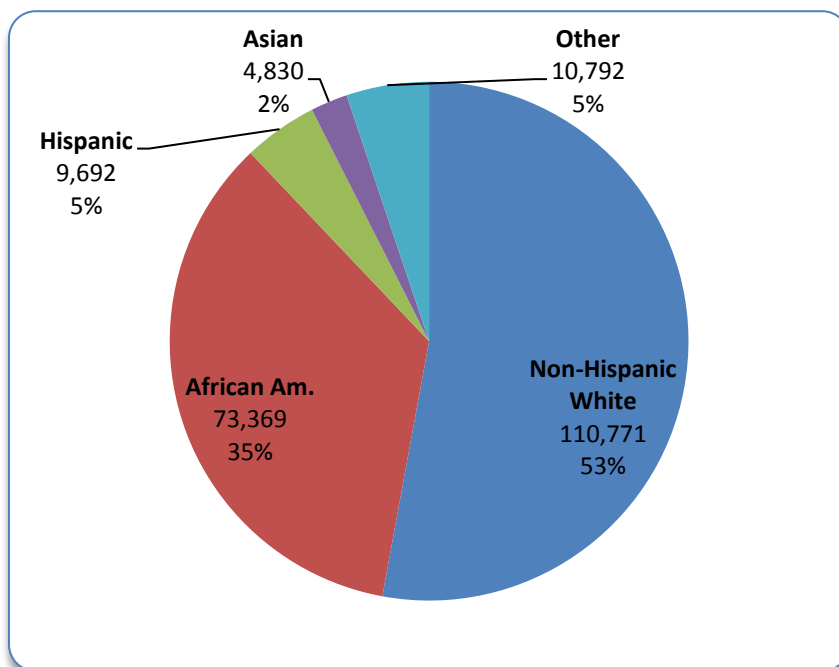


Chart 1: Racial distribution of Duval County children

In Map A-2, a comprehensive opportunity map of Duval County children is overlaid with the spatial distribution of non-white children under the age of 18. There is a clear pattern of racial isolation in low-opportunity communities in the central region of the County where a high concentration of non-white children is noted.

To get an even more detailed analysis of racial distribution against opportunity distribution, the opportunity distribution by race is analyzed in the following chart and table.

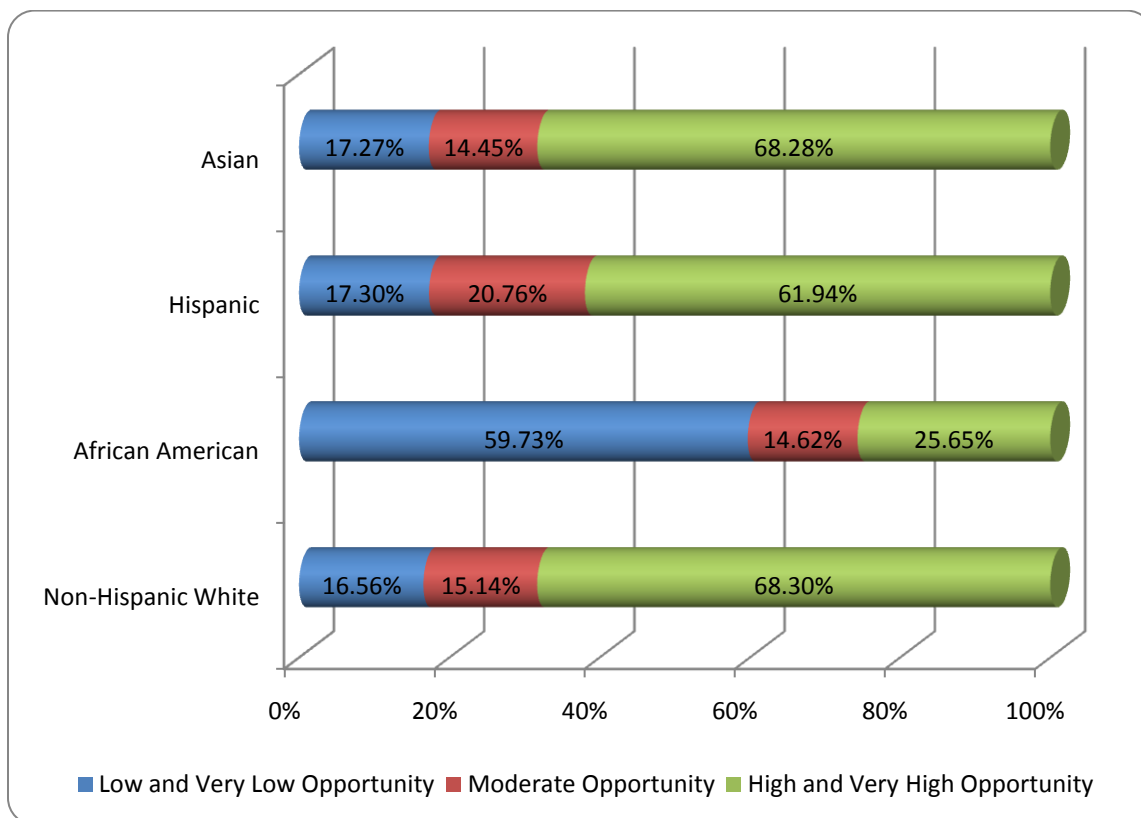


Chart 2: Opportunity distribution of Duval County children by race

Opportunity Level	Non-Hispanic White	African American	Hispanic	Asian
Low and Very Low Opportunity	18,344 (16.56%)	43,824 (59.73%)	1,677 (17.30%)	834 (17.27%)
Moderate Opportunity	16,775 (15.14%)	10,725 (14.62%)	2,012 (20.76%)	698 (14.45%)
High and Very High Opportunity	75,652 (68.30%)	18,820 (25.65%)	6,003 (61.94%)	3,298 (68.38%)

Table 2: Opportunity distribution of Duval County children by race

The chart and table confirm the racial isolation of African American children noted in Map A-2. While the percentage in lower opportunity levels in all other racial groups ranges from 16.56% (non-white Hispanics) to 17.30% (Hispanics), the percentage for African Americans is 59.73%, about 3.5 times higher than other racial groups. On the other hand, the proportion of children in higher opportunity levels is the lowest for African Americans (25.65%) and the highest for whites (68.30%), followed by Asians (68.38%) and Hispanics (61.94%). The comprehensive map with race overlay (Map A-2) and the tabular analysis above combined imply a spatial isolation of children of color concentrated in low opportunity areas, particularly African American children.

Historical Perspectives: Comparing Opportunity Maps, 2009 versus 1990

Access to opportunity is a function of history and policies, both present day and historic, that combines to shape the landscape of opportunity. To shed light on the historical perspective of the changes in opportunity structure for Duval County children, we have produced two comprehensive maps, for 2009 and 1990. Based on the availability of data for 1990, a subset of indicators listed below was used and the resulting maps are Maps A-6 and A-7 (see Appendix C).

Neighborhood indicators	Education and school related indicators	Health and environmental indicators
Neighborhood poverty rate	Free and reduced price lunch students	Proximity to toxic waste sites
Unemployment rate	Student/Teacher ratio	Amount of toxic release
Home ownership rate		
Housing vacancy rates		
Adult educational attainment		

Table 3: Indicators used for comparative opportunity maps (2009 and 1990)

A comparison of comprehensive opportunity maps for 2009 and 1990 shows that over the last twenty years, the overall opportunity for children in Duval County has improved in the southeastern areas of the county, while areas in the Urban Core and in the southwestern part of the county experienced declining opportunity over the last twenty years. Also noted was the convergence of opportunity-rich areas into the southeastern part of the county. Examining the change in the darkest areas in two maps, it is notable that in 1990, opportunity-rich communities were spread throughout the southeast and central areas with some areas neighboring lower opportunity areas. A change in this pattern is visible in 2009 map where the high opportunity areas are clustered with each other mainly in the southeast. On the other hand, many of the lightest colored areas in 1990, mostly in the central part of the county, still show as very low opportunity areas in 2009, with more surrounding areas turning into opportunity-poor communities. This confirms a persistent concentration of opportunity-poor communities in the Urban Core over the last twenty years. It also suggests a decrease in opportunity for many children living on the Westside.

An in-depth historical analysis of local policies and practices in Duval County will reveal more accurately the story of what happened in the areas where opportunity improved or declined. Some of the things worth investigating are trends and changes in housing policies, economic dislocation, neighborhood investments and/or disinvestments, educational policies and health or educational conditions and a search for any racial inequities therein. One useful theoretical lens for this investigation is structural racism/racialization, which refers to a system of social structures that produces cumulative, durable, race-based inequalities. This can be used to examine how historical legacies, individuals, structures, and institutions work interactively to distribute material and symbolic advantages and disadvantages along racial lines.

IV. Impacts on Health and Education

As discussed in the previous section, neighborhood conditions are important social determinants of the quality of children's lives. Indicators of social contexts are also noted as influential on critical domains of children's well-being – health and safety, educational and cognitive attainment, and socio-emotional adjustment and behavior.¹⁷ In this section, we examine how the neighborhood conditions affect health and educational outcomes of Duval County children. For children to be successful in life, they need both good health (physical, mental, and social) and good education. Many of the indicators in other domains of child well-being are closely related to health and education. For instance, some of the health conditions of children are closely related to the environmental conditions of the neighborhood where the children reside, and the location of their residence is related to the economic security of their family. This analysis will shed light on how vulnerable and marginalized kids are affected by opportunity structure and neighborhood conditions.

Health Zone analysis focused on the neighborhood effects on health by relating several health outcomes for children (diabetes, asthma, cancer, low birth weight infants and teen birth) and various neighborhood conditions. For an examination of educational outcomes, student non-promotion rate (or grade retention) was selected and analyzed for its relationship with both in-school factors (e.g. student minority rate, school poverty, disciplinary actions) and out-of-school factors (e.g., neighborhood poverty, crime, etc.). We study the correlation of student non-promotion rate with these factors in Duval County. We also study afterschool programs run by the Children's Commission and identify trends in non-promotion rates, which will help the Children's Commission identify programmatic needs for these programs.

Health Zone Analysis

Duval County Health Department has divided their region into six health zones¹⁸ for better data collection, tracking and research on health information. This section highlights health outcomes for children in Duval County, Florida by health zone and by zip code in relation to various social determinants of health through mapping and analysis.

Research

Health is a crucial aspect of child well-being as it interacts with children's development in various domains – physical, intellectual, mental, and social. Our health is influenced by where we live and the conditions of that environment.¹⁹ In addition to the physical quality of the neighborhood (exposure to toxins or access to healthy food), social and cultural factors such as neighborhood economic status, or access to health care play an important role in one's health outcomes.

One of the strongest predictors of diabetes is access to healthy food. Health and social science research suggests that residents with access to supermarkets tend to have healthier diets compared to residents who only have access to convenience stores.²⁰ Environmental justice research has focused on determining the link between proximity to toxic release sites and incidence of cancer, among other health hazards.²¹ Though there are lingering methodological questions, establishing direct causal relationships of the harmful effects of proximity to these sites on health is widely accepted.²²

Infants born at a low birth weight experience risks such as higher infant mortality rate,²³ long-term disability, impaired motor and social development and problems at school such as learning disability, lower IQ, higher dropout rates.²⁴ Risk factors for low and very low birth weight include smoking, low maternal weight gain or low pre-pregnancy weight, maternal or fetal stress, infections, and violence.²⁵ With recent focus on its economic costs to individuals and society, an examination of factors contributing to low birth weight is regarded as an important intervention strategy.²⁶

Teen birth is an important factor in examining child well-being for both teen mothers and their children. Children born to teen mothers are more likely to be premature, to have low birth weights, and to die as infants, compared to children born to mothers in their twenties and early thirties.²⁷ They generally have poorer academic and behavioral outcomes such as math or reading scores, language, communication or social skills, and physical and emotional well-being than do children born to older mothers.²⁸ For the teen mothers themselves, when compared with older mothers, they are less likely to finish high school or go on to college, and more likely to be dependent on welfare, especially in the first years after giving birth.²⁹

The *2009 State of Jacksonville's Children* report notes the racial disparities within Duval County at the neighborhood level and highlights Health Zone 1 as an area that requires the strongest efforts. The report states that “[o]ne of the most important decisions a parent makes is where to live. The neighborhood in which a child lives determines his or her choice of playmates, the quality of schools, availability of parks and grocery stores, and the level of safety and crime.”³⁰ The Commission’s acknowledgement of the importance of neighborhood conditions in impacting the life outcomes of residents aligns with the Kirwan Institute’s “Communities of Opportunity” framework.

A common theme from all studies on children’s health outcomes is that conditions of neighborhood and environment where children live and grow are important determinants of their health outcomes. This section offers an examination of this relationship by displaying neighborhood conditions and health outcomes on a map. As many neighborhood conditions bear racial implications, we also offer an overlay analysis of race data at the end of the section.

Indicators and Methods

As different indicators can attribute to varying health outcomes, the following set of indicators were selected based on our discussion with Jacksonville Children’s Commission, reports from

Duval County Health Department’s assessment of health conditions in the County, and social science research on issues of child well-being.

Factors affecting children with diabetes/asthma/cancer	Factors affecting low birth weight babies	Factors affecting teen births:
Poverty	Poverty	Parental education
Child poverty	Parental education	Poverty
Parental education	Teen births	Child poverty
Access to health care	Access to health care	Households on public assistance
Health professional shortage areas (by census tracts)		Unemployment rate
Access to grocery stores		
Proximity to toxic sites		
Access to parks and open spaces		

Table 4: Indicators used in Health Zone analysis

Data for this analysis has been collected from various sources – Environmental Systems Research Institute (ESRI), U.S. Census, Duval County Health Department (DCHD), HRSA (Health Resources and Services Administration), Bureau of Health Professions (BHPR), and Environmental Protection Agency (EPA). The attached maps display correlations between neighborhood conditions and health outcomes. Each map displays the underlying neighborhood conditions with an overlay of health outcomes. For neighborhood conditions, lighter colors represent lower values (e.g., low income or low poverty rate), whereas darker colors represent higher values (e.g., high percentage of adults with associate’s degrees and above). The resulting maps are in Appendix D.

Results

First discussed is the overall spatial distribution of each health outcome, followed by a discussion of neighborhood factors found as important determinants of the health outcomes examined in this analysis and the result of race overlay analysis.

Overall spatial distribution of each health outcome

- Mapping diabetes rates for children in Duval County displays a spatial pattern with zip codes in inner-city neighborhoods and areas in the southwest area with higher rates of the disease. Health zone maps show Health Zones 1 and 4 with higher rates of juvenile diabetes (see Maps B-9 through B-14).
- Higher rates of children with asthma were reported in the central to southeast parts of the city and Health Zones 1 and 5 (see Maps B-15 through B-20).
- Areas of zip codes with higher rates of cancer incidence among children follow a pattern from east to west, passing through the center of the city. Health Zones 2, 4 and 6 showed higher rates of cancer incidence (see Maps B-21 through B-24).
- The spatial pattern of low birth weight (LBW) babies highlights zip codes in the central city area, North-South corridor and from central to east with higher reported numbers.

Health Zones 2 (339) and 4 (304) are noted as areas with the highest cases of low birth weight babies (see Maps B-6 through B-8).

- Higher incidence of teen births were found in areas of zip codes in the central portion of Duval County, running north-south or in Health Zones 1, 2 and 4. The highest incidence of teen births were in Health Zone 1 (241 teen births) and zip code 32209 (96 teen births), which is located in Health Zone 1 (see Maps B-1 through B-5).

Poverty related factors

Neighborhood poverty rates and a few poverty related indicators such as child poverty, unemployment rates and households with public assistance are repeatedly noted as strong factors affecting all of the health outcomes examined in this analysis. One thing that stood out in Health Zone maps was the polarization in demographic conditions between Health Zone 1 and Health Zones 3 and 6. Health Zone 1 had the highest poverty and child poverty rates, the highest unemployment rate and the highest percentage of households with public assistance, and Health Zones 3 and 6 had the exact opposite demographic conditions – the lowest poverty and child poverty rates, the lowest unemployment rate and the lowest percentage of households with public assistance. Mapping analyses of health outcomes and neighborhood conditions revealed that poorer health outcomes are found in areas of higher rates of poverty related factors such as strong relationships with diabetes, asthma and teen birth and to a lesser degree with low birth weight infants and cancer.

Access to healthcare

Proper access to healthcare is crucial to children's health well-being for both prevention and treatment of their medical conditions. This analysis used two indicators as a proxy for access to health care: proximity to health facilities and healthcare professional shortage. The result displayed higher incidences of diabetes, asthma and cancer in areas with fewer hospitals or other healthcare facilities in proximity (Maps B-13, 14, 19, 20, 23 and 24). It is important to note that the availability or proximity to healthcare facilities does not directly translate into access to healthcare services, particularly for people in marginalized communities. Further analyses of related factors such as insurance coverage, quality of healthcare and community resources will help delineate the systematic disparities in healthcare.³¹

Access to quality food

Access to good quality food, affected by both family's economic resources and availability of food stores in the neighborhood, are found as important factors affecting rates of diabetes in Duval County children. Map B-12 shows relatively higher numbers of children with diabetes in the central and south west Duval County (Health Zones 1 and 4) where there are fewer supermarkets.

Parental education

Parents with good education can monitor food choices for their kids and can inculcate healthy eating habits in the family. Thus, parental education is a good predictor of children's health outcomes. Maps B-11 and B-17 display this relationship where higher incidence of diabetes and asthma are found in areas with lower percentages of adults with associate's degrees or higher

(Health Zones 1, 4 and 5). Parental education was also found as closely related with the teen birth rate as seen in Map B-5, which shows that lack of education (as measured by parental educational level) can be attributed to higher numbers of teen births.

Other factors of note

An important environmental factor innate in the neighborhood is the exposure to toxic release and its impact on children's health conditions. From our analysis, proximity to toxic release facilities was found to be closely related with incidence of asthma in children, which confirms research on environmental conditions and its effect on asthma in children (Map B-20).³² Higher incidence of low birth weight infants occur with children born to teen mothers according to infant mortality statistics data from 2004.³³ Our analysis of data from Duval County confirmed this, as more low birth weight infants are reported from areas with higher numbers of teen births (Map B-6).

Health outcome with race overlay

Maps B-25 through B-29 offer a racial analysis of health outcomes by the spatial distribution of non-white children of less than 18 years old on maps displaying incidence of various health outcomes of Duval County children. A pattern of higher incidence of negative health outcomes in areas with a higher percentage of non-white children are noted in the maps, with an exception of cancer. This was shown more clearly in Health Zone maps (smaller maps) where the lowest incidence of health outcomes (diabetes, asthma, low birth weight infants and teen birth) are found in Health Zones 3 and 6, where the percentages of non-white children are the lowest. It is incidental to note that Health Zones 3 and 6 had the most favorable neighborhood and demographic conditions related with poverty, which confirms the racial implication of poverty and neighborhood conditions found in opportunity mapping analysis.

Student Non-Promotion Rate Analysis

This section highlights the results of the student non-promotion rate analysis based on demographic, education and socio-economic data for elementary schools in Duval County, FL. Grade retention (or non-promotion) has been a concern for parents, educators, and policymakers. Local retention rates have increased due to changes in grade promotion policy made by the Duval County School Board in 2002, as well as the use of high stakes tests.³⁴ With the recent focus on grade retention in the State of Florida, coupled with research and controversy around causes and effects of grade retention, the Jacksonville Children's Commission is particularly interested in examining the impact of neighborhood- and school-based conditions on student non-promotion rates in Duval County Public Schools. The Commission also seeks to identify resources that can be used to mitigate the harmful effects of grade retention. One such effort is a collaborative called *Learning to Finish*,³⁵ which partners human services groups and the school district to understand and solve the graduation rate crisis. The goal of this student non-promotion analysis is to assist the Children's Commission with identifying the programmatic needs of Duval County children as it monitors and/or funds various programs.

Research

Grade retention in the U.S. has steadily increased since the 1980s, in response to the practice of social promotion,³⁶ a practice that opponents claimed was connected with lower achievement goals and academic motivation. Increasing concerns about slipping academic standards and a focus on increased accountability pushed more schools to employ promotion based on mastery of grade-level objectives.³⁷ Research on grade retention revolves around factors causing grade retention and its effects on students in various domains including academic, psychological, behavioral, or social.

The research to date on the effects of grade retention on children's academic performance and on social and personal adjustment has been split in terms of its benefits, failing to provide conclusive evidence. While some research claims to connect grade retention with improvements in academic performance,³⁸ other studies note that the small degree of initial achievement improvement is often short-lived.³⁹ Other harmful effects of grade retention noted by researchers include increased drop-out rates,⁴⁰ increases in behavioral problems, and harmful effects on children's mental health. A single retention is found to cause an 18% to 28% increase in the chance of dropping out.⁴¹ Impacts of retention on student mental health are especially troubling. Children suffer mental stress from fear of retention. Retained students are also more likely to become aggressive, often resulting in behavioral problems or eventually dropping out.⁴²

Research on the predictors of grade retention examined both individual factors pertaining to children and institutional factors such as school, family, and community. Many studies, often supported by empirical data, agree on a few factors as strong predictors of grade retention, including gender, race, and socioeconomic factors such as income, poverty, or parental education.⁴³ In general, female students are more likely to be promoted; White students are more likely to be promoted than Black or Hispanic students; and students from low-income families are less likely to be promoted. Some of the minor predictors of grade retention include academic performance, peer relationships, parental participation, school changes or residential mobility.⁴⁴

Afterschool programs can mediate some of the potential ills associated with students' familial or community conditions by providing various afterschool activities. The benefits of participating in afterschool programs include improved individual test scores and attendance, and children's increased ability to overcome difficulties in their local settings.⁴⁵ Research suggests that afterschool program participation can make a difference in a child's life.⁴⁶ The Children's Commission's afterschool program, TEAM UP, is built around the idea of expanded learning time.⁴⁷ All of its afterschool programs are designed to expose children to experiences that many middle-class children already have through provision of academic support, cultural experiences, and recreational opportunities.

Indicators and Methods

Based on available social science literature on grade retention and its effects, we identified the following indicators associated with student non-promotion rates:⁴⁸

School-based indicators	Neighborhood-based indicators
Student minority rate	Poverty rates
Free and reduced price lunch students	Homeownership rates
Afterschool programs ⁴⁹	Race ⁵⁰
	Foreclosure rates

Table 5: Indicators used in Student Non-Promotion Rate analysis

Since elementary schools draw students from neighborhoods in the vicinity, neighborhood conditions both impact and are impacted by elementary school outcomes. Our analysis utilizes elementary school data for this research. Data for this analysis has been collected from various sources – U.S. Census, Florida Department of Education, Duval County Public Schools, Environmental Systems Research Institute (ESRI), AGS Demographics, and the Jacksonville Children's Commission.⁵¹ Student non-promotion rates were obtained from Florida DOE for school year 2008-09. Elementary school attendance zone boundaries were supplied by Duval schools and were adopted as the unit of analysis. Block group level data for neighborhood conditions was downloaded from Census and was aggregated to our unit of analysis. Crime and foreclosure data was available at census tract level thus was not aggregated to attendance zone boundary. The resulting maps are in Appendix E.

Maps C-1 through C-8 display correlations between non-promotion rates and the indicators identified above. Each map displays the underlying neighborhood or school-based conditions with an overlay of stability rates.

Results

Most of the maps display a strong correlation of student non-promotion rates with identified indicators, as expected from our literature review. Some of the strongly correlated indicators include race, school poverty, and neighborhood conditions such as the following:

- Student minority rate: Elementary schools with higher percentages of non-white students are more likely to have higher non-promotion rates. (see Map C-1)
- Percentage of free and reduced price lunch students: As Map C-2 shows, elementary schools with higher concentrations of FRL students show higher non-promotion rates.
- Non-white population: As expected from our literature review, our maps show higher non-promotion rates are spatially correlated with areas with higher percentages of non-white residents (Map C-3).
- Poverty rates: A similar pattern is visible for areas with higher rates of poverty in relation to higher non-promotion rates (Map C-4).

- Home ownership rates and foreclosure rates: Although slightly less strong, low home ownership rates and high foreclosure rates are shown to be associated with high non-promotion rates (Maps C-5 and C-6).

Afterschool program data shown on Maps C-7 and C-8 provide a very important story. Mapping 30-day plus participation rates (defined as the percentage of students attending school-based afterschool programs for 30 days or more) calls for attention to areas on the Westside. Compared to other areas such as the Urban Core, areas on the Westside display more schools with high non-promotion rates and lower afterschool program participation rates, which translate into higher demands for afterschool programs. Not only is this area noted to have a very low level of educational opportunity (Map A-4), the historical comparison of comprehensive opportunity (Maps A-6 and A-7) display a significant loss of opportunity over the last two decades, particularly along the 103rd Street corridor.

The relatively lower number of schools with high non-promotion rates and higher rates of afterschool participation rates in the Urban Core could be attributed to the 21st Century Community Learning Centers⁵² programs that have focused on the inner-city schools in the Urban Core. Another point noted from this analysis was that participation rates for non-white students in afterschool programs are much higher compared to the entire student population (Map C-8). Non-white students' participation rates exceed 50%, with over 95% participation in some areas. This suggests that minority students in Duval County are in more need of afterschool programs, and their needs are being fulfilled by programs offered in the area. While the Children's Commission has been fulfilling the needs of most non-white students in Duval County as a whole, Map C-7 calls for an increased focus on the Westside, where higher numbers of struggling schools and lower afterschool participation rates are evident.

V. Child Well-being in Duval County through Opportunity Lens

The State of Child Well-being in Duval County

The well-being of our children today is a direct barometer of the future health and vitality of our society. Researchers in the field of child well-being have worked on identifying indicators to evaluate or measure the status of child well-being since the 1960s.⁵³ While numerous indicators looking at different sets of domains or aspects of well-being have been discussed, researchers generally agree on a few domains of child well-being as critical: health and safety, educational and cognitive attainment, and socio-emotional adjustment and behavior. These domains of child well-being are influenced by social contexts of children's lives (family, school, and neighborhood or community).⁵⁴

Child Well-being Nationally

Child well-being today is nearing a state of crisis. Recent poverty figures indicate that nationally, 1 in 5 children live in poverty:⁵⁵

“...there is little doubt that poverty and family homelessness are rising, that the quality of public education in many communities is deteriorating and that legions of children are losing access to health care as their parents join the vastly expanding ranks of the unemployed. This is a toxic mix for children, a demoralizing convergence of factors that have long been known to impede the ability of young people to flourish.”⁵⁶

As one pediatrician has warned, “We are seeing the emergence of what amounts to a ‘recession generation.’” Increases in child poverty, homelessness, and temporary relief indicate that children across the U.S. are experiencing “a quiet disaster.”⁵⁷

Although the national picture of child well-being today contains both positive and negative indicators, it also illustrates that the experiences of children vary drastically by income and race. Child poverty increased slightly from 19% to 20.7% in 2009, and while children make up 24.5% of the population, they make up 35.5% of the population in poverty.⁵⁸ The poverty rate increased across racial lines from 2008 to 2009, but the impact varied significantly by race. In 2009, the poverty rate for non-Hispanic Whites was 9.4%, while the rate for Blacks was 25.8% and for Hispanics it was 25.3%.⁵⁹

According to a recent publication by the U.S. Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States 2009*, the number of children without health insurance has changed little since 2008, from 9.9% to 10%. However, these figures vary significantly by race—in 2009, 16.8% of Hispanic children and 11.5% of Black children were uninsured, while the rate for White children was 7%.⁶⁰

Educational indicators have shown many long term improvements on average, but also serious inequality. Math scores for 4th and 8th grade students have slowly but steadily improved since 2000, and the high school graduation rate has increased by 6% since 1980.⁶¹ However, in 2008,

Black and Hispanic students continued to have much higher drop-out rates, 13% and 24% respectively, than the rate of White students, 6%.⁶²

Child Well-being in Florida and Duval County

In 2010, the State of Florida ranked 35th in overall child well-being, according to Annie E. Casey Foundation's *2010 Kids Count Data Book*.⁶³ On some key measures of child economic well-being, the state compares favorably to the nation. For example, between the years 2000 and 2008, there was a 5% decrease in the percentage of children in poverty in Florida as opposed to a 6% increase in the nation. In effect, the percentage of children in poverty in Florida converged with the U.S. rate, at 18%, placing Florida 27th.⁶⁴ Florida ranks 26th for the percentage of children under the age of 18 living in families where no parent has regular, full-time employment, at 28% (compared to 27% nationally). However, on other indicators of child economic well-being, the state does not fare so well. For example, the state ranked 43rd in 2008 for the percentage of children in single-parent families at 36%, compared to 32% nationally.⁶⁵ Children in single-parent families are much more likely to experience the hardships of poverty than children from two-parent families.⁶⁶

The Jacksonville Children's Commission has been tracking child well-being since 2005 for Duval County. The most recent report, *2009 State of Jacksonville's Children: Racial and Ethnic Disparities Report*,⁶⁷ compares child and family outcomes by race and ethnicity. The data analyzed in the report includes economic, social, health and educational indicators. When compared to children in Florida, children in Duval County are reported as doing worse on most health indicators such as prenatal care, teen birth rates, children with HIV/AIDS, and child deaths. For example, the teen birth rate (ages 15-19) in Duval County was higher than that of Florida for all years from 2002-2006, and the rate in Duval County in 2006 (51.2%) was 18 percent higher than for Florida (43.5%). In 2006, the percentage of children in poverty in Duval County was 18.2%, compared to 16% for Florida.⁶⁸ But similar to the national statistics, there were extreme racial differences — 33% of Black children under 18 lived in poverty in Duval County, compared to 9.5% of White children and 8.5% of Hispanic children.⁶⁹

In terms of educational outcomes, the performance of Duval County's children in early childhood is better than the state average. For example, in 2004 and 2005, more kindergartners in Duval County performed above average in Initial Sound Fluency and Letter Naming Fluency than in Florida.⁷⁰ However, educational performance deteriorates as they progress through the educational system. By 3rd grade for example, Duval County students lag the state average in FCAT math scores, with 65% scoring a level 3 or higher in the County compared to 74% in the state.⁷¹ Again, pronounced racial disparities in performance exist for Duval County. For example, in FCAT math tests in 2007, 81% of white students in 3rd grade scored a level 3 or higher, compared to just 49% of Black students.⁷² In 10th grade, 78% of white students did, compared to 47% of Black students.⁷³ More recently, 2009-2010 FCAT reading test results reported very low percentages of public school children reading at grade level, with only one of two white and Asian 10th graders achieving this benchmark, even fewer Hispanic students with a rate of one in three, and worse yet for African American students with only 17% reading at grade level.⁷⁴ The 2007 high school graduation rate in the county (64.3%) was 12 percent lower

than the state (72.4%).⁷⁵ And 65.5% of white students graduated in 2007, compared to 51.8% of Black students, and 62.5% of Hispanic students.⁷⁶

The report also highlights the geography of child poverty in Duval County, pinpointing the Urban Core (also known as Health Zone 1) where the neediest children and families are located. Health Zone 1 has the greatest concentration of African Americans and shows negative trends on many economic, social, health, and education measures. For example, almost 40% of children live in poverty in Health Zone 1.⁷⁷ The next highest rate for child poverty is Health Zone 4, where 16.6% of children live in poverty.⁷⁸

Children Served by Children's Commission and Opportunity

Jacksonville Children's Commission and Its Commitment to Child Well-being

The Jacksonville Children's Commission was created in 1994 to advocate for the rights and needs of all children living in the city of Jacksonville, with a mission of "supporting families in their efforts to maximize their children's potential to be healthy, safe, and educated and contributing members of the community." The Commission funds various children's services, including parent education, and provides access to free and low-cost health insurance for children, high quality afterschool programming, mentors for at-risk students, and summertime lunches, as well as prevention and early intervention services. The Commission's commitment to children's services follows a developmental sequence. The vision for the Commission's first developmental phase is that all children are raised in stable and nurturing families. The second phase's vision is that all Jacksonville children are prepared to enter kindergarten, and the third phase is about ensuring that all students have support during out-of-school time, including the afternoons and summertime. Early intervention services reach teens at risk of dropping out of school, runaways, homeless children, and children with special needs.

Opportunity Mapping Overlay Analyses: Children and Families Served by the Children's Commission

One of the goals of the "opportunity mapping" component of this project was to offer a tool to support various programs administered by the Children's Commission toward its mission. Opportunity maps overlaid with demographic data of children and families served by the Children's Commission can visualize their spatial distribution and can provide information on how to target the Children's Commission's efforts vis-à-vis the opportunity distribution in the neighborhoods. For this analysis, comprehensive opportunity maps are overlaid with locations of children and families participating in several programs administered by the Children's Commission – afterschool programs (school or community-based), the Healthy Families program, and a few other programs including mentoring, prevention, and special needs programs. Resulting maps are in Appendix F (Maps D-1, D-2 and D-3).

In all of the three maps, it is notable that a higher number of children and families from opportunity-poor communities are participating in the Children’s Commission programs. Among participants of afterschool programs, 69% were from very low or low opportunity areas whereas only 18% were from very high or high opportunity areas (Chart 3).⁷⁹ Children living in high and very high opportunity areas might attend afterschool programs funded by the Children’s Commission because they have physical handicaps or special needs requiring higher levels of attention and services.

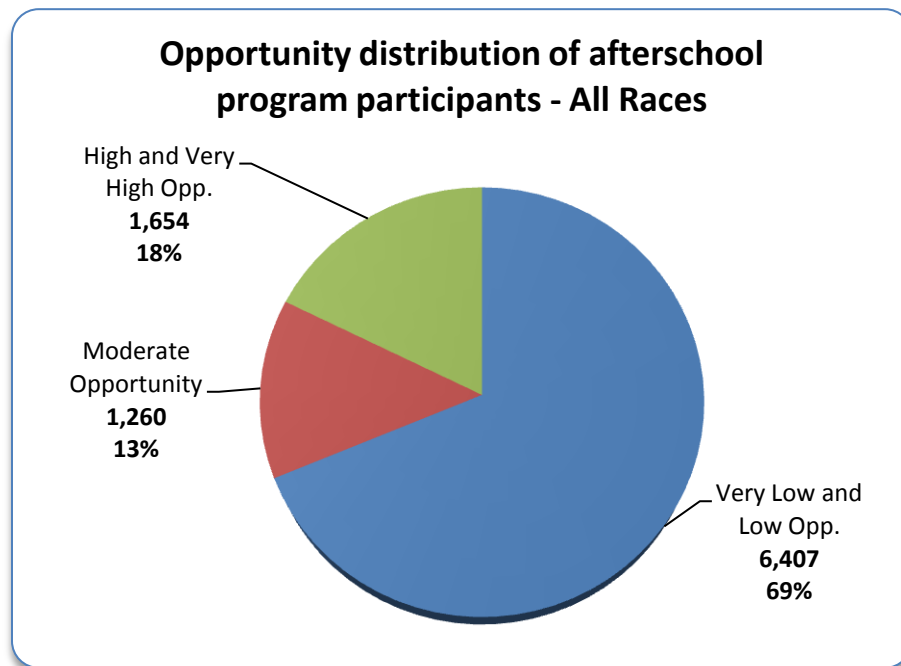


Chart 3: Opportunity distribution of afterschool program participants – All Races

The racial distribution of afterschool program participants revealed that 85% of them were African Americans, 73.5% of whom were from very low or low opportunity communities. On the other hand, only 6% of afterschool program participants were white children, who were from communities of varying levels of opportunities (see Charts 4 and 5, Table 6).

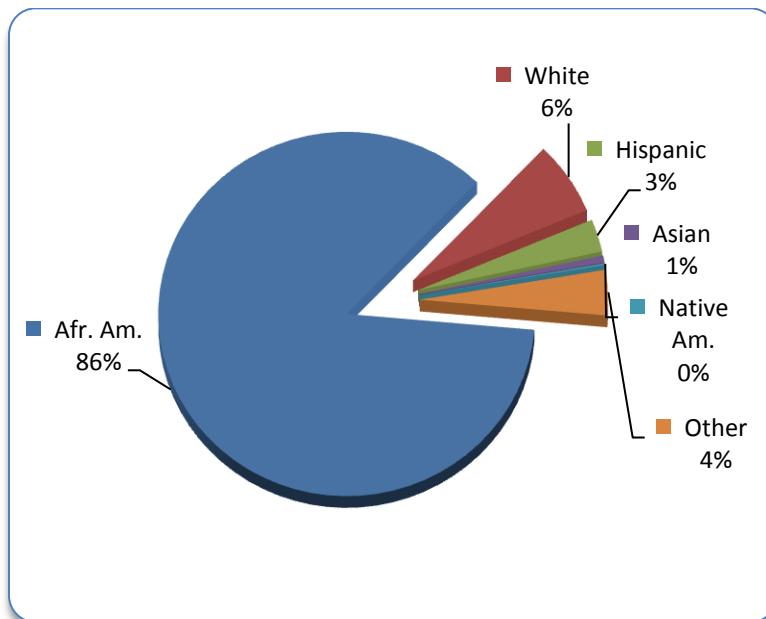


Chart 4: Racial distribution of afterschool program participants

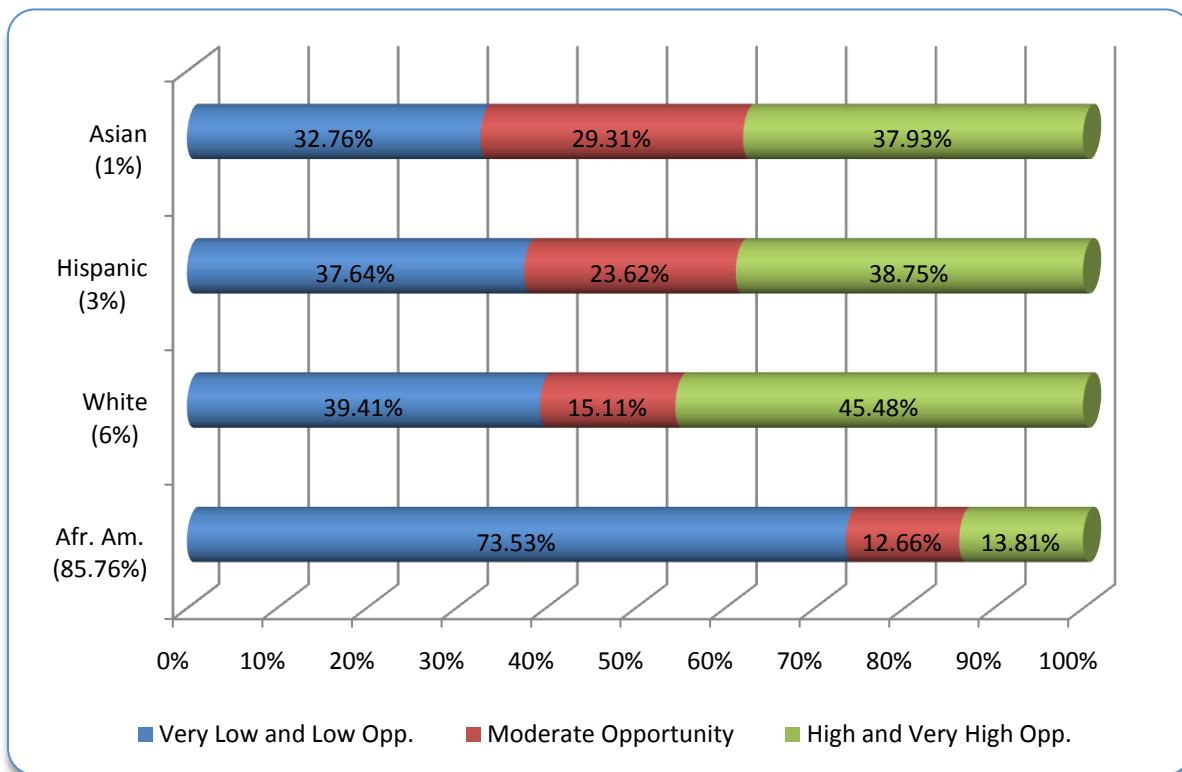


Chart 5: Opportunity distribution of afterschool program participants by race

Opportunity Level	All Races		African Am (85.76%).		White (6%)		Hispanic (3%)		Asian (1%)	
Very Low and Low	6,407	68.74%	5,878	73.53%	240	39.41%	102	37.64%	19	32.76%
Moderate	1,260	13.52%	1,012	12.66%	92	15.11%	64	23.62%	17	29.31%
High and Very High	1,654	17.74%	1,104	13.81%	277	45.48%	105	38.75%	22	37.93%
Total	9,321		7,994		609		271		58	

Table 6: Opportunity distribution of afterschool program participants by race

It is evident from this overlay analysis that the Children’s Commission is serving many children and families from low to very low opportunity communities in Duval County, particularly in Health Zone 1, also known as the Urban Core. This is a very positive indication that the Children’s Commission is succeeding in reaching out to families who need the most support and attending to their needs with various programs. However, as noted in Maps D-1 and D-3, areas on the Westside, which display lower comprehensive opportunity levels, have fewer numbers of children participating in the Children’s Commission programs. As this is an important indicator of a mismatch between demands (children’s needs) and supply of programs, strategic and targeted efforts need to be made to fill this gap.

The Story of New Town Success Zone

New Town Success Zone

First initiated in April 2007, the *New Town Success Zone* was inspired by New York's Harlem Children's Zone (HCZ) Project. The HCZ is a 97-block laboratory in Central Harlem that combines two reform-oriented and public charter schools with a web of community services designed to help children from birth to college graduation. The goal of the HCZ project is "to create a 'tipping point' in the neighborhood so that children are surrounded by an enriching environment of college-oriented peers and supportive adults, a counterweight to 'the street' and a toxic popular culture that glorifies misogyny and anti-social behavior."⁸⁰ Its holistic, neighborhood-based approach to the educational achievement of low-income students inspired the *Promise Neighborhood Initiative*, the Obama Administration's effort to put education at the center of comprehensive efforts to fight poverty in urban and rural areas.

The mission of the *New Town Success Zone* is "to provide a place-based continuum of services from prenatal to college or post-secondary training for the children and their families living in the area of the New Town neighborhood" with the following four goals:

- children are healthy and prepared to enter kindergarten
- children and youth are healthy and succeed in school
- youth graduate from high school and successfully complete post secondary education, technical training or military service
- families and neighborhoods support the healthy development, academic success and social well-being of their children

This section highlights the results of the New Town Success Zone (or New Town⁸¹) analysis based on demographic, education and socio-economic data. Data from various sources such as U. S. Census, Florida Department of Education and private vendors were utilized to create maps and charts showing existing conditions and data trends.

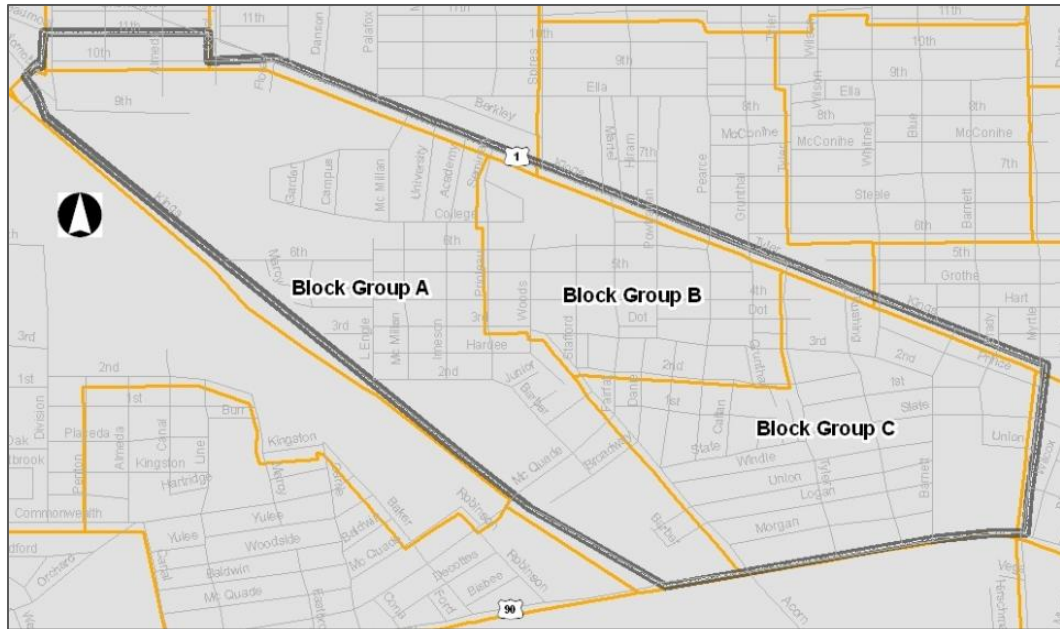


Figure 1: New Town Success Zone, Jacksonville, FL

The maps in Appendix G display neighborhood and school conditions based on Census 2000 data and 2008-2009 school year data respectively. The charts (also in Appendix G) utilized data from multiple sources and show the trends in neighborhood and school conditions over a number of years.

Population Change

From 1999 to 2009, all three block groups in the New Town area saw significantly less population growth compared to the county and state (see Map E-1). Block Group A saw a small gain of 6.11%, Block Group B had a 0.95% loss, and Block Group C showed a 12.83% loss, compared to a 17% population gain in Duval County and 19% gain in the State of Florida over the same time period. This was a significant change compared to the earlier decade; for the 1990 to 1999 population change rate, for instance, Block Group B had a substantially higher population gain (34.5%) than the county (15.7%) or the state (23.5%).

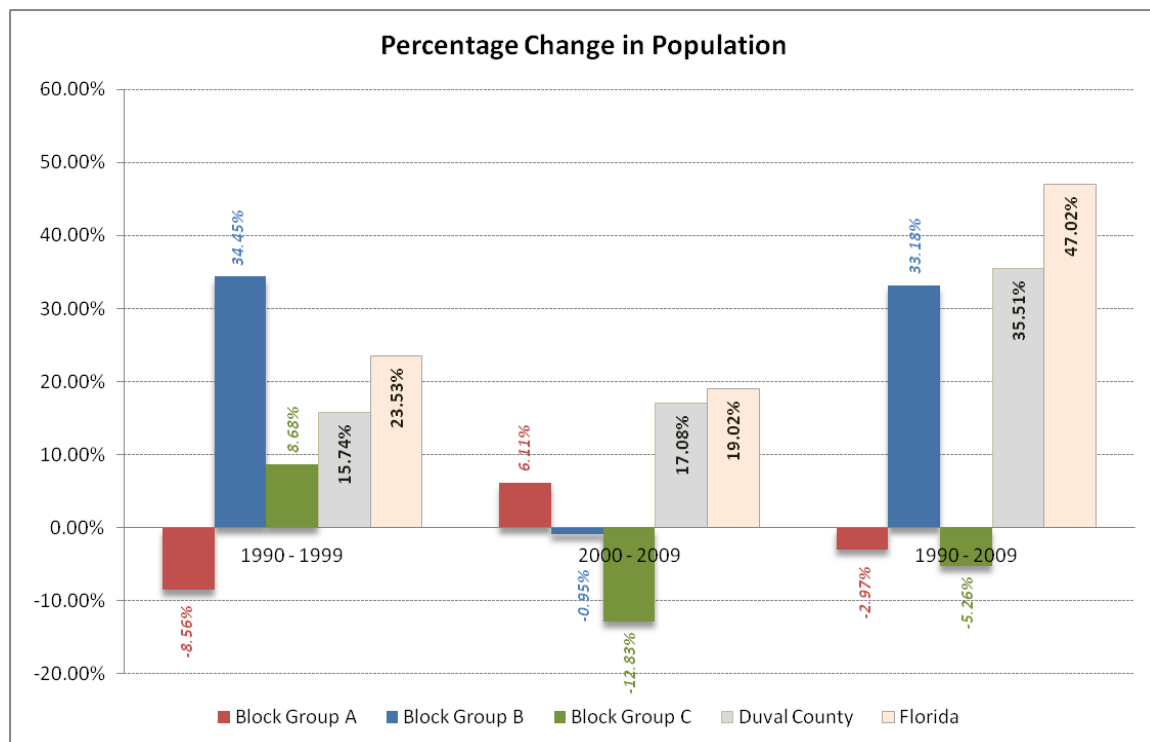


Chart 6: Population change for New Town

When assessing the age distribution of population in the New Town area (Chart 7 in Appendix G), the estimated population for 2008 showed that compared to Block Group B, whose population had most counts for ages 15 to 24, Block Groups A and C had a slightly higher proportion of population for both children and the older population (for example, age ranges 0-15 and 40-59).

Race

All three block groups in New Town show a high concentration of non-whites in 2000, averaging 98-100%, which are primarily African Americans, and just a small percentage of Whites (1.55%) in Block Group C (Maps E-2 and E-15). The non-white rate has not changed much since 1990, while the county average changed from 28.83% in 1990 to 43.75% in 2009. Between the years 1990 and 2000, the small percentage of Whites in Block Group A and Block Group B were reduced to 0%, whereas Block Group C showed some gains during the same period. Eventually, all three block groups had less than 1% of Whites, based on 2009 estimates (Chart 8).

Housing

The homeownership rate in 2000 for Block Group A (82.66%), higher than the county (63.12%) and state (70.08%) average, was highest among the three block groups in the New Town neighborhood (Map E-9). In fact, the chart shows that this has been true since 1990. Block Group B (40.68%) and C (39.42%), on the other hand, were about 25 percentage points lower than the county rate for homeownership for the year 2000. A block-level analysis of New Town reveals that only a few blocks in Block Group A fell below a 50% homeownership rate (Map E-16). This pattern is reflected in the distribution of Vacant Housing Rates as well. While Block

Group A (5.7%) has a lower rate compared to the county (7.89%) and the state (13.21%), Block Groups B (18.73%) and C (15.63%) had much higher housing vacancy rates than the county and the state (Maps E-10 and E-17; Chart 9).

Income and Poverty

The poverty rate in New Town was in the range of 23-47%⁸² when the 100% federal poverty line⁸³ was used, but the poverty rates increased to 37-53% when the poverty line was lifted to 125% of poverty threshold. When the line was lifted even higher, using 200% of the federal poverty threshold, 42-75% of population in New Town was shown as living in poverty (Maps E-3, E-4, and E-5; Chart 10). Poverty rates for children reflect similar patterns (Map E-6).

Median household income in 2000 for all three block groups in New Town (Block Group A, \$24,875, B, \$14,167, and C, \$22,036) were about half of the Duval County and the State of Florida, with Block Group B being the lowest (Map E-7). Median Household income (adjusted to 2009 dollars) from 1990 to 2009 again shows Block Group A doing better than the other two. Median household income for Block Group A was almost double that of Block Group B in 2009 (Chart 11).

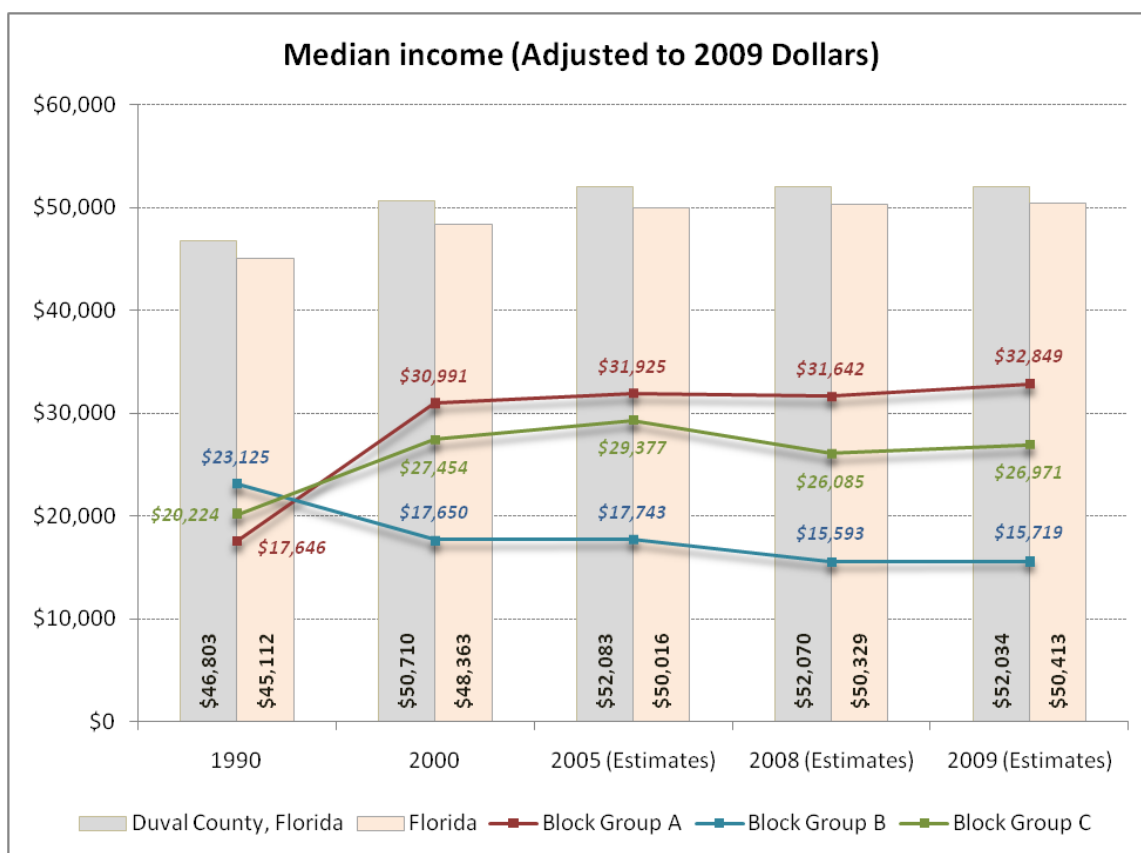


Chart 11: Median Household income, New Town

Interestingly, the percentage of households receiving public assistance is much higher for Block Group A (11.36%) compared to Block Group B (4.39%) and Block Group C (7.09%) (Map E-8). High homeownership rates and low vacancy rates for Block Group A suggest that there are more households in this block group than the other two.

Education

The level of educational attainment of adults, based on 2000 data, in New Town did not show much variation across the three block groups (Map E-11). The percentage of adults holding an associate's degree or higher was the highest in Block Group A (20.6%), followed by Block Group B (17.49%) and the lowest in Block Group C (11.33%).

We gathered data on a number of school-based indicators from the Florida Department of Education for the two schools in New Town over the 2000-2009 school years: Smart Pope Livingston Elementary School (SP Livingston ES) and Eugene J. Butler Middle School (Butler MS). SP Livingston ES exhibits a higher stability rate (87.80% ~ 91.20%) than Butler MS (79.50% ~ 85.40%). The elementary school has had less variation in its stability rate (around 4%), whereas the middle school has witnessed stability rates worsening in 2003-04, but going back up in 2006-07 (Map E-14; Chart 12). The data for 2008-09 suggests this middle school is once again facing some challenges.

While both the Elementary School and the Middle School have a high concentration of economically disadvantaged students, as determined by the percentage of students on free and reduced price lunch, the elementary school performs consistently worse in this category. Though Butler Middle School has had a lower percentage of free and reduced lunch students since 2000 compared to the elementary school, it still has extremely high student poverty levels—exceeding 80%.

Research has shown that the strongest predictor of student test achievement is the percentage of students on free and reduced priced lunch at school.⁸⁴ Poor testing results for these two schools in New Town could be a result of the higher percentage of poor students in these schools. For FCAT Math and Reading, both schools performed poorer than the county average throughout the nine school years (Maps E-12 and E-13; Chart 13). For example, on FCAT Math tests in the 2008-2009 academic year, Smart Pope Elementary School had 46% of their students who scored level 3 or higher and Eugene Middle School had 42%, whereas the county average was 68%. For the FCAT Reading tests in the 2008-2009 school year, 55% of Smart Pope Elementary School students and 42% of Eugene Middle School students scored level 3 or higher while the county average was 63%.

VI. Strategies to Improve Outcomes for Children

School-based Community Revitalization

Research shows that school quality and neighborhood quality are interdependent. Neighborhood quality not only impacts school outcomes, but is also impacted by school performance. For example, poorly performing schools can accelerate neighborhood decline. Declining neighborhoods, in turn, present additional challenges for school performance. Traditional approaches to neighborhood revitalization include: housing and homeownership development; economic development; workforce investment; and anti-crime efforts. A school-centered approach to neighborhood revitalization builds upon these strategies by incorporating the following five core elements:

- Improvement of at least one school in the neighborhood
- Development of housing that is safe, affordable, and attractive to families with children
- High-quality child care and early childhood education programs
- Affordable health services for children
- Workforce and economic development programs

Many of the Children's Commission's programs already address school improvement, notably their afterschool programs. The Jacksonville Children's Commission pays attention to the amount of time their children spend in out-of-school activities and the detrimental effects of the out-of-school time when it is spent in unstructured, unsupervised, or unconstructive ways. To this end, the Commission funds afterschool programs (school-based and community-based) that provide direct tutoring, guidance and enrichment activities. Research has indicated that students attending the Commission's TEAM UP afterschool programs generally have better attendance and a better promotion rate than students attending the same school but not enrolled in the program.

Further, the New Town Success Zone strategy, modeled after the Harlem Children Zone, is well-positioned to engage in more comprehensive neighborhood revitalization efforts because, like the Harlem Children Zone, it creates a "place-based constituency," necessary for long-term support of improvement efforts. In addition, one of the four programmatic outcomes is Neighborhood Safety and Stabilization, outlined in the New Town Success Zone strategic plan. This goal recognizes the critical importance of neighborhood conditions on children's well-being. There could be room for expansion of the strategies outlined so far, to include workforce/economic development, and housing or homeownership development to improve neighborhood stability.

Health Interventions in the Neighborhood Context

In the Health Zone analysis, some of the key themes throughout indicated that lack of access to healthy food choices, lack of access to health care resources and proximity to toxic sites matter most for the health and well-being of children in these zones. Therefore, interventions aimed at

these three areas have the potential to greatly improve the situation for children in Duval County.

Access to health care: Children who are born to mothers who received prenatal care, and children who are under the care of a primary care physician, already start out with a distinct advantage.⁸⁵ Some of the more obvious interventions in terms of health include targeting primary care physicians to areas of high need, targeting low cost prenatal care to pregnant mothers in low-income communities, and extending doctors' visitation hours (including weekends) to accommodate work schedules. Again, analysis of possible transportation impediments in easily accessing health care facilities will prove beneficial.

Institutional strategies: Schools can be a resource for health services, by ensuring every school has a nurse, or establishing mental and other health services for children within the school, through school-based programs, or in partnership with schools. Parent training classes are an important preventive measure, and can include topic areas such as immunization, diet, and so forth.

There are several place-based strategies that can be implemented to improve the social environment. For example, interventions in dealing with crime could include community patrolling, or neighborhood watch programs. Other strategies could include community development through leadership training and mentoring programs, establishing social network groups, etc.

Making Informed Decisions and Prioritizing Investments for Improving Children's Opportunities

Comprehensive opportunity maps overlaid with children and families participating in the Children's Commission programs have confirmed that the Children's Commission is succeeding in reaching out to the neediest families by serving a high number of children and families from opportunity-poor communities in Duval County. But the same analysis also noted a mismatch between children's needs and the supply of programs in a few areas on the Westside. This calls for special attention to this area and increased efforts to bring more programs to children in this low opportunity area.

One of the benefits of opportunity mapping is its policy implications for making informed decisions as to how best to invest funding to improve opportunities for people in their community. For example, one way to help children in low opportunity areas is through participation in afterschool programs, a service currently provided by Jacksonville Children's Commission. Studies confirm that children and youth who participate in afterschool programs benefit in a number of interrelated outcome areas - academic, social/emotional, prevention and health and wellness.⁸⁶ In the same study by Harvard Family Research Project, key factors for the success of afterschool programs are discussed, including factors of access, sustained participation, program quality (appropriate supervision and structure, well-prepared staff, or intentional programming) and strong partnerships with families, other community organizations, and schools.

Based on this study, one way to analyze monetary needs per child is to measure how much will be required to fulfill these conditions, as listed below:

- Access: calculate monetary requirement for establishing afterschool programs in areas with low opportunity.
- Sustained participation: calculate money needed to stabilize families so that their children participate in high-quality afterschool programs long enough to produce benefits.
- Program quality: calculate operational cost per afterschool program.
- Partnership: calculate money required for efforts in building partnership with family, local community, or schools.

The first step in identifying monetary needs for successful afterschool programs (and summer programs) is to measure the current funding distribution across the region. This can be done by gathering data on current spending on afterschool programs using the above list. The cost per child can then be calculated by dividing the spending by the number of children served in each area. Comprehensive opportunity maps produced from this report will help identify areas of inequity and mismatch between low and high opportunity communities, and the result of this comparative analysis can be used to target investments accordingly.

VII. Conclusion

The challenges facing Jacksonville's marginalized communities and marginalized children are complex and multi-faceted. The most disadvantaged of Jacksonville's children face a number of obstacles, and many live in communities which lack resources and the critical pathways to opportunity needed to thrive and survive in our society. Despite the depth of these challenges, strategic interventions to affirmatively connect marginalized children to opportunity can produce transformative change in the lives and future of Jacksonville's children. With an eye towards creating opportunity for all, Duval County residents can begin with targeted, strategic interventions. These initial interventions can bring various groups to the table to define a shared vision of success, mobilize energy around important issues, build trust among diverse people and organizations, and show that change can indeed happen.

The strategies discussed in this report are a starting point, but these solutions alone are not effective without an organized and engaged community to implement them. Political and public will, collaboration, strategically used resources and extensive civic engagement are a critical foundation to implementing strategies to expand opportunity for Jacksonville's marginalized communities and children. Laying this foundation is the critical starting point and represents the crucial first steps in responding to these systemic challenges.

The many faces of poverty—dilapidated schools, sporadic health care, stress, exclusion and increased exposure to crime—force us to recognize that poverty is more than just a lack of money. In policy terms, this means that interventions that aim to expand opportunity for all of our children and families cannot be limited to one domain. The challenge for Jacksonville is to move forward on all these domains: health, education, and financial stability. The *New Town Success Zone* can become an excellent candidate in this effort. As much as it is in great need for attention, it can be used as a testing field of strategies for improving child well-being on a smaller scale before expanding to the whole city, county, state and the nation.

Achieving sustainable, positive change amidst inequality and economic instability is a monumental challenge. At the heart of this challenge is a new vision of an inclusive society – inclusive physically, socially, economically and spiritually. Nobel-Prize winning economist Amartya Sen wrote that we must recognize “the relevance of our shared humanity in making the choices we face.”⁸⁷ As such, perhaps a *healthy* individualism – one in which the individual is nurtured by a sustainable, robust and diverse community – is a better indicator of a healthy society. It is important to build a shared understanding that responding to unequal distribution of opportunity is not just a response to help communities' most marginalized children, but a critical investment in the future of the region as a whole. By providing the necessary support services and pathways to opportunity for marginalized kids living in opportunity deprived areas, Duval County provides an environment where all kids can flourish and reach their full potential.

Appendix A: Opportunity Indicators for Duval County Children

Neighborhood Conditions

- **Neighborhood poverty rate**

Definition: The proportion of the population meeting Census Bureau poverty criteria in 2000. Higher percentages mean more concentrations of people at or below poverty level. Concentrated poverty is defined as a neighborhood where more than 40% of the population lives in poverty. Neighborhoods with extremely high poverty rates manifest community-wide problems due to the concentration of social issues associated with poverty. Concentrated poverty creates hostile environments, where all residents are prone to be impacted by violence and emotional or psychological stress.

References:

- Duncan, G. J., & Brooks-Gunn, J. (Eds.). (1997). Consequences of growing up poor. New York: Russell Sage Foundation.
- Paul Jargowsky, Stunning progress, hidden problems: The dramatic decline of concentrated poverty in the 1990s (May 2003). The Brookings Institute. Available online at: <http://www.brookings.edu/es/urban/publications/jargowskypoverty.htm>. See [Page 2](#).

Data source: U.S. Census 2000

- **Population on public assistance**

Definition: The percentage of population receiving public assistance. Census tracts with higher percentages suggest low economic opportunity, fewer jobs, thus more people depending on public subsidy to survive. Living in a neighborhood with significant populations on public assistance suggests that local and neighborhood social networks are not well connected to employment opportunities.

References:

Karen Chapple, "Overcoming Mismatch: Beyond Dispersal, Mobility, and Development Strategies," *Journal of the American Planning Association* 72.3 (2006): 322-36

Data source: U.S. Census 2000

- **Unemployment rate**

Definition: The rate of unemployment of population 16 years of age and above. A growing body of research has found that social networks are the primary mechanisms for accessing employment opportunity. Living in a neighborhood with significant unemployment suggests that local and neighborhood social networks are not well connected to employment opportunities.

References:

- Karen Chapple, "Overcoming Mismatch: Beyond Dispersal, Mobility, and Development Strategies," *Journal of the American Planning Association* 72.3 (2006): 322-36.

- Social Networks and the Employment Problem of the Urban Poor, David A. Reingold, *Urban Studies*, Vol. 36, No. 11, 1907± 1932, 1999
- The Effects of Social Networks on Employment and Inequality By ANTONI CALVO´-ARMENGOL AND MATTHEW O. JACKSON, *American Economic Review*, 2004
Data source: U.S. Census 2000, ESRI Business Analyst Data 2009
- **Share of household headed by single mothers**
Definition: The proportion of households with children under age 18 headed by a single mother.
References:
 - Sandefur, G. D. & Meier, A. (2008). The family environment: Structure, material resources and child care. In Brown, B. V. (Ed.), *Key indicators of child and youth well-being: Completing the picture* (pp. 237-257). New York: Lawrence Erlbaum Associates.
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- **Home ownership rate**
Definition: The percentage of estimated owner occupied houses in relation to overall housing stock. This data is calculated by dividing the number of owner occupied housing units by the total number of housing units in each census tract. A higher value of this indicator suggests a more stable neighborhood with less resident turnover and problems associated with absentee landlords.
References:
 - Scanlon, E., & Devine, K. (2001). Residential mobility and youth well-being: Research, policy, and practice issues. *Journal of Sociology and Social Welfare*, 28(1), 119-138.
 - Schachter, J. (2004, March). *Geographical Mobility: Population characteristics*. Washington, DC: U.S. Census Bureau.
 - Schachter, J. (2001, May). *Geographical mobility: Population characteristics*. Washington, DC: U.S. Census Bureau.
 - Chengri Ding and Gerrit-Jan Knaap, Property Values in Inner-City Neighborhoods: The Effects of Homeownership, Housing Investment, and Economic Development, 13 (4) HOUSING POLICY DEBATE 701-727 (2003).Data source: ESRI Business Analyst Data 2009, U.S. Census 2000
- **Housing vacancy rates**
Definition: The percentage of estimated vacant houses in relation to overall housing stock. This data is calculated by dividing the number of vacant housing units by the total number of housing units in each census tract. Vacant properties are associated with many detrimental impacts to the surrounding neighborhood, including higher crime and greater

public safety risk to children. Vacant properties have also been shown to lead to property value decline and population loss in the surrounding neighborhood.

References:

For more information on the impacts of vacant and abandoned properties, visit the resource page of the National Vacant Property Campaign. Located on-line at:

<http://www.vacantproperties.org>

Data source: ESRI Business Analyst Data, USPS Vacancy Data from U.S. Department of Housing and Urban Development

- **Foreclosure rate**

Definition: Percentage of foreclosures with respect to number of mortgages by census tract.

References:

- Partnership for America's Economic Success. (2008). *The Hidden Costs of the Housing Crisis*. Research brief no. 7. Washington, DC: Author.
- Crowley, S. (2003). The affordable housing crisis: residential mobility of poor families and school mobility of poor children. *Journal of Negro Education*, 72(1), 22-38.
- Lovell, P. & Isaacs, J. (2008). *The Impact of the Mortgage Crisis on Children and Their Education*. Washington, DC: First Focus.
- Cunningham, M. (2009). *Renters Need Protection against Foreclosures Too*. Washington, DC: The Urban Institute. Retrieved June 23, 2000 from http://www.foreclosureresponse.org/assets/foreclosure-response/Cunningham_commentary.pdf
- McFarland, Christiana, and William McGahan. 2008. "Housing Finance and Foreclosures Crisis: Local Impacts and Responses." *Research Brief on America's Cities* Issue 2008-1. Washington, DC: National League of Cities.

Data source: U.S. Department of Housing and Urban Development

- **Adult educational attainment**

Definition: The percentage of population of 25 years or older with an associate's degree or higher. Higher levels of parent educational attainment are strongly associated with positive outcomes for children in many areas including school readiness, educational achievement, incidence of low birth weight, health-related behaviors including smoking and binge drinking, and pro-social activities such as volunteering. Children of more educated parents are also likely to have access to greater material, human, and social resources.

References:

- Chandler, K., Nord, C., Lennon, J., & Liu, B. (1999). Statistics in brief: Home literacy activities & signs of children's emerging literacy, 1993 and 1999. Washington, DC: National Center for Education Statistics.
- Hair, E., McPhee, C., Martin, L. T., Milot, A., & Halle, T. (2007). Parents Matter: Parental Education, Parenting and Child Well-Being. Paper presented at the Society for Research in Child Development (SRCD). April 1, 2007.
- Nord, C., & West, J. (2001). Fathers' and mothers' involvement in their children's schools by family type and resident status. Washington, DC: U.S. Department of Education,

National Center for Education Statistics.; Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, 995-1120.

Data source: ESRI Business Analyst Data 2009, U.S. Census 2000

- **Crime rates**

Definition: The crime rate of census tracts summarized by local police jurisdiction in the region. Crime is often identified by residents as one of the most critical elements impacting neighborhood quality.

References:

M. R. Greenberg, Improving Neighborhood Quality: A Hierarchy of Needs 10 (3) *HOUSING POLICY DEBATE* 601-624 (1999).

Data source: Jacksonville Sheriff's Office (2009)

Education and School Related Factors

- **School Poverty (Free/Reduced-Price Lunch)**

Definition: The percentage of students eligible for free or reduced-price lunch.

References:

- The Century Foundation. (2004). *Can separate be equal? The overlooked flaw at the center of No Child Left Behind*. Available on-line at:

<http://www.equaleducation.org/publications.asp?pubid=468>

- Patricia M. McDonough, *Choosing Colleges: How Social Class and Schools Structure Opportunity*, SUNY Press, 1997

Data source: Florida Department of Education - Office of Education Information and Accountability Services, <http://www.fldoe.org/eias/>

- **Teacher Qualification (Teachers by Degree Level)**

Definition: Percentage of teachers with a bachelor's degree, master's degree, specialist degree or doctorate degree.

References:

Darling-Hammond, L. (2000). Teacher Quality and Student Achievement. *Education Policy Analysis Archives*, 8 (1). Retrieved August 27, 2010 from

<http://epaa.asu.edu/ojs/article/view/392>

Data source: Florida Department of Education - Office of Education Information and Accountability Services, <http://www.fldoe.org/eias/>

- **Teacher Experience**

Definition: The average years of experience of teachers in each school.

References:

- Darling-Hammond, L. & Berry, B. (1999). Recruiting Teachers for the 21st Century: The Foundation for Educational Equity. *The Journal of Negro Education*, 68 (3), 254-279.
- Brookings Papers on Education Policy 2004,

http://muse.jhu.edu/journals/brookings_papers_on_education_policy/toc/pep2004.1.html

- Muranane, R. J. & Philips, B. R. (1981). Learning by doing, vintage, and selection: Three pieces of the puzzle relating teaching experience and teaching performance. *Economics of Education Review*, 1, 453-465.
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- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives*, 8(1). Retrieved August 24, 2010 from <http://epaa.asu.edu/ojs/article/view/392>

Data source: Florida Department of Education - Office of Education Information and Accountability Services, <http://www.fldoe.org/eias/>

- **Student/Teacher Ratio**

Definition: The average number of students assigned to each teacher. This indicator reflects teacher workload and the availability of teachers' services to their students.

References:

Education Indicators: An international perspective, National Center for Education Statistics, <http://nces.ed.gov/pubs/eiip/eiipid39.asp>

Data source: Florida Department of Education

- **Test Results (Math and Reading) - Florida Comprehensive Assessment Test (FCAT)**

Definition: The percentage of examinees placing at each achievement level on a range from Level 1 (lowest) to Level 5 (highest) in the mathematics and reading subtests of the FCAT for grades 3 through 10.

References:

Hedges, Larry V. and Amy Nowell (1999). Changes in the Black-White Gap in Achievement Test Scores. *Sociology of Education* Vol. 72, No. 2, pp. 111-135

Data source: Florida Department of Education – Office of Assessment and School Performance, <http://www.fldoe.org/asp/>

- **Student Non-Promotion (Retention) Rate**

Definition: The percentage of students who are not promoted to the next grade at the end of each school year.

References:

- Greene, J. P. & Winters, M. A. (2007). Revisiting grade retention: An evaluation of Florida's test-based promotion policy. American Education Finance Association.
- Lange, R. R. (2006). State Education Data Indicate Florida's FCAT Based Grade Retention Policy Is A Failure. [online]. Available: <http://www.mmdnewswire.com/state-education-data-indicate-floridas-fcat-based-grade-retention-policy-is-a-failure-628/print.html>. (October 22, 2010)
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- Kaase, K. (2002). Promotion/retention of students in grades K-8, 2000-2001. (ERIC Document Reproduction Service No. ED466487)
- Kenneady, L. M. (2004). Good for Nothing: In-Grade Retention, Intercultural Development Research Association. (ERIC Document Reproduction Service No. ED484914)
- McCoy, A. R., & Reynolds, A. J. (1999). Grade retention and school performance: An extended investigation. *Journal of School Psychology*, 37 (3), 273-298.

Data source: Florida Department of Education - Office of Education Information and Accountability Services, <http://www.fldoe.org/eias/>

Health and Environmental Factors

- **Rates of children with asthma, cancer, diabetes**

Definition: The number of children with asthma (cancer, diabetes) per 100,000 by health zone or zip code.

Children with asthma experience more absenteeism from school compared with their non-asthmatic peers, and excessive absenteeism is related to lower student grades, psychological, social, and educational adjustment. Some of environmental factors causing asthma, such as dampness and mold, cockroaches, and inadequate ventilation are more common in poor, urban settings.

Children who are overweight or obese are at increased risk for physical and socio-emotional problems such as cardiovascular disease, type-2 diabetes, hepatic steatosis (a fatty liver), sleep apnea, high cholesterol, or asthma. Studies find that parents can play an important role in preventing and reducing child and adolescent obesity by promoting healthy eating through family meals, providing healthy foods in the home, limiting television watching and other sedentary behavior, and encouraging physical activity.

References:

- Moonie S, Sterling DA, Figs LW, Castro M. The relationship between school absence, academic performance, and asthma status. *J Sch Health*. 2008; 78: 140-148.
- Krieger, James, Takaro, Tim K., Allen, Carol, Song, Lisa, Weaver, Marcia, Chai, Sanders, and Dickey, Philip. (2002). "The Seattle-King County Healthy Homes Project: Implementation of a Comprehensive Approach to Improving Indoor Environmental Quality for Low-Income Children with Asthma." *Environmental Health Perspectives*, 110 (Supplement 2):311-22. Available at: <http://www.ehponline.org/members/2002/suppl-2/311-322krieger/EHP110s2p311PDF.PDF>
- Hellmich, Nancy. April 27, 2008. "Childhood Obesity Rates High but 'Leveling Off,'" USA Today. Available at http://www.usatoday.com/news/health/weightloss/2008-05-27-obesity-children_N.htm

- Center for Disease Control and Prevention. 2007. "Overweight and Obesity: Childhood Overweight." Department of Health and Human Services. Accessed on 5/5/08.
<http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm>

Data source: Florida Department of Health

- **Low birth weight babies**

Definition: The number of low birth weight babies born in a specific time period by health zone or zip code. Low birth weight babies have higher levels of mortality, disability and impaired development than normal weight babies.

References:

- Mathews, T.J., MacDorman, M.F. (2007) Infant Mortality Statistics from the 2004 Period Linked Birth/Infant Death Data Set. National vital statistics reports; vol 55, num 14,. Hyattsville, Maryland: National Center for Health Statistics.
http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_14.pdf (Table 6)
- Ricketts, Sue Austin, Murray, Erin K., and Schwalberg, Renee. (2005). "Reducing Low Birthweight by Resolving Risks: Results from Colorado's Prenatal Plus Program." *American Journal Public Health*, 57(11):1952-1957.
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Data source: Florida Department of Health

- **Teen birth**

Definition: The number of teen births per health zone or zip code.

Children born to teen mothers are more likely to be born prematurely, to be born at a low birth weight, and to die as infants, compared to children born to mothers in their twenties and early thirties. The children of teen mothers generally have poorer academic and behavioral outcomes than do children born to older mothers.

References:

- Mathews, T .J., and MacDorman, M. F. (2007) Infant mortality statistics from the 2004 period linked birth/infant death data set. National Vital Statistics Report 55 (14).
http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_14.pdf
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<http://www.urban.org/publications/106764.html>
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<http://onlinelibrary.wiley.com/doi/10.1111/j.1741-3737.2001.00355.x/abstract>

Data source: Florida Department of Health

- **Access to healthcare facilities**

Definition: The availability and accessibility to healthcare facilities in proximity to the neighborhood.

Minority children experience multiple health disparities in medical and oral health, access to care, and use of services. One study reports that approximately 20% of physicians care for 80% of the black population in the United States and the physicians treating black patients may be less well trained clinically and may have less access to important clinical resources than physicians treating white patients. Studies also suggest that the causes of these disparities go beyond insurance coverage to include quality of care, public health measures, and community resources.

References:

- Flores, G. & Tomany-Korman, S. C. (2008). Racial and ethnic disparities in medical and dental health, access to care, and use of services in US children. *Pediatrics*, 121 (2), e286-e298.
- Lurie, N. & Dubowitz, T. (2007). Health disparities and access to health. *JAMA*, 297 (10), 1118-1121.
- Bach, P. B., Pham, H. H., Schrag, D., Tate, R. C., & Hargraves, J.L. (2004). Primary care physicians who treat blacks and whites. *N Engl J Med*. 2004;351:575-584.

Data source: ESRI Business Analyst Data

- **Availability of healthcare professional (or healthcare professional shortage)**

Definition: The number of physicians working in the neighborhood relative to the population.

References: (same as Access to healthcare facilities)

Data source: Health Resources and Services Administration (HRSA) Bureau of Health Professions (BHPR)

- **Access to affordable food (Availability)**

Definition: The number of grocery and food stores per 1000 people within each census tract. A larger number represents a higher availability of grocery stores to the local population.

Inadequate food intake in children is associated with a number of serious health, behavior, and cognitive deficits. Studies also report higher behavioral problems in three-year-olds; in school-aged children, psychosocial deficits, as well as higher anxiety and depression; and, in adolescents, higher rates of depressive disorder and suicidal symptoms. Food insecure children experience smaller gains in math and reading achievement between kindergarten and third grade, and, among those ages 6 to 11, a higher likelihood of repeating a grade. Child food insecurity is also associated with a greater risk for being overweight. While the processes underlying this association are not completely understood, food insecurity can result in lower diet quality and less variety, both of which can contribute to being overweight.

References:

- Nord, M. (2009). Food insecurity in households with children: Prevalence, severity, and household characteristics. U.S. Department of Agriculture, Economic Research Service. Retrieved from www.ers.usda.gov/Publications/EIB56/
- Rose-Jacobs, R., Black, M. M., Casey P. H., et al. (2008). Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics*, 121 (1), 65-72.
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Data source: ESRI Business Analyst Data 2009

- **Exposure to toxic waste**

Definition:

- Proximity to toxic release sites – the number of toxic release sites within each census tract
- Amount of toxic release – the amount of toxic chemicals released by nearby toxic release sites aggregated by census tract

Many studies find evidence of association between child health and development outcomes and exposure to environmental toxicants found in air, water, soil, house, foods, or consumer products. As the sources of these toxicants are closely related to where one lives, the residential location is an important factor in the “production” of health and spatial analysis called for as a useful analysis tool.

References:

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- Currie, J. (2009). Health, wealthy, and wise: Socioeconomic status, poor health in childhood, and human capital development. *Journal of Economic Literature*, 47 (1), 87-122.

Data source: Environmental Protection Agency - Toxics Release Inventory (TRI) Program

- **Access to parks and open spaces (Proximity and Accessibility)**

Definition: The area in square miles of the parks and open areas available within a 5-mile radius of the center of each census tract relative to local population.

References:

- The significance of parks to physical activity and public health - A conceptual model, Ariane L. Bedimo-Rung PhD, Andrew J. Mowen PhD and Deborah A. Cohen MD, *American Journal of Preventive Medicine*, Volume 28, Issue 2, Supplement 2, February 2005, Pages 159-168.
- Places to Walk: Convenience and Regular Physical Activity, Kenneth E. Powell, MD, MPH, Linda M. Martin, MS and Pranesh P. Chowdhury, MBBS, MPH, *American Journal of Public Health*, Vol 93, No. 9, September 2003, Pages 1519-1521.
- Increasing walking - How important is distance to, attractiveness, and size of public open space?, Billie Giles-Corti PhD, Melissa H. Broomhall MPH, Matthew Knuiman PhD, Catherine Collins MBBS, Kate Douglas MBBS, Kevin Ng MBBS, Andrea Lange BA (Hon) and Robert J. Donovan PhD, *American Journal of Preventive Medicine*, Volume 28, Issue 2, Supplement 2, February 2005, Pages 169-176.

Data source: ESRI Business Analyst Data 2009

Appendix B. Calculating Opportunity Index

To calculate an opportunity index, the various opportunity indicators were first analyzed relative to the other block groups within the region by standardizing through the use of “z scores.” A z score is a statistical measure that quantifies the distance (measured in standard deviations) a data point is from the mean of a data set. The use of z scores allows data for a census tract to be measured based on their relative distance from the data average for the entire region. The final “opportunity index” for each census tract is based on the average z score for all indicators by category. The corresponding level of opportunity (very low, low, moderate, high, very high) is determined by sorting all census tracts into quintiles based on their opportunity index scores. Thus, the block groups identified as “very high” opportunity represent the top 20% of scores among block groups. Conversely, block groups identified as “very low” opportunity represent the lowest scoring 20% of block groups.

Z scores are helpful in the interpretation of raw score performance because they take into account both the mean of the distribution and the amount of variability (or the standard deviation). The z score indicates how far the raw score is from the mean, either above it or below it in standard deviation units. A positive z score is always above the median (upper 50%). A negative z score is always below the median (lower 50%) and a z score of zero is always exactly on the median or equal to 50% of the cases. Thus, when trying to understand the overall comparative performance of different groups with respect to a certain variable, we can assess how a certain group (of individuals, block groups, etc.) is performing with respect to the median performance for the certain variable. No weighting was applied to the various indicators and all indicators were treated as equal in importance. However, future analysis could weight specific indicators based on local input and community priorities to provide more meaningful and practical information.

Appendix C: Opportunity Maps for Duval County Children

Map Number	Map Title
Map A-1	Comprehensive Opportunity Analysis
Map A-2	Comprehensive Opportunity Analysis and Race Overlay
Map A-3	Neighborhood Opportunity Analysis
Map A-4	Educational Opportunity Analysis
Map A-5	Health & Environmental Opportunity Analysis
Map A-6	Comprehensive Opportunity - 2009 (9 indicators)
Map A-7	Comprehensive Opportunity - 1990 (9 indicators)

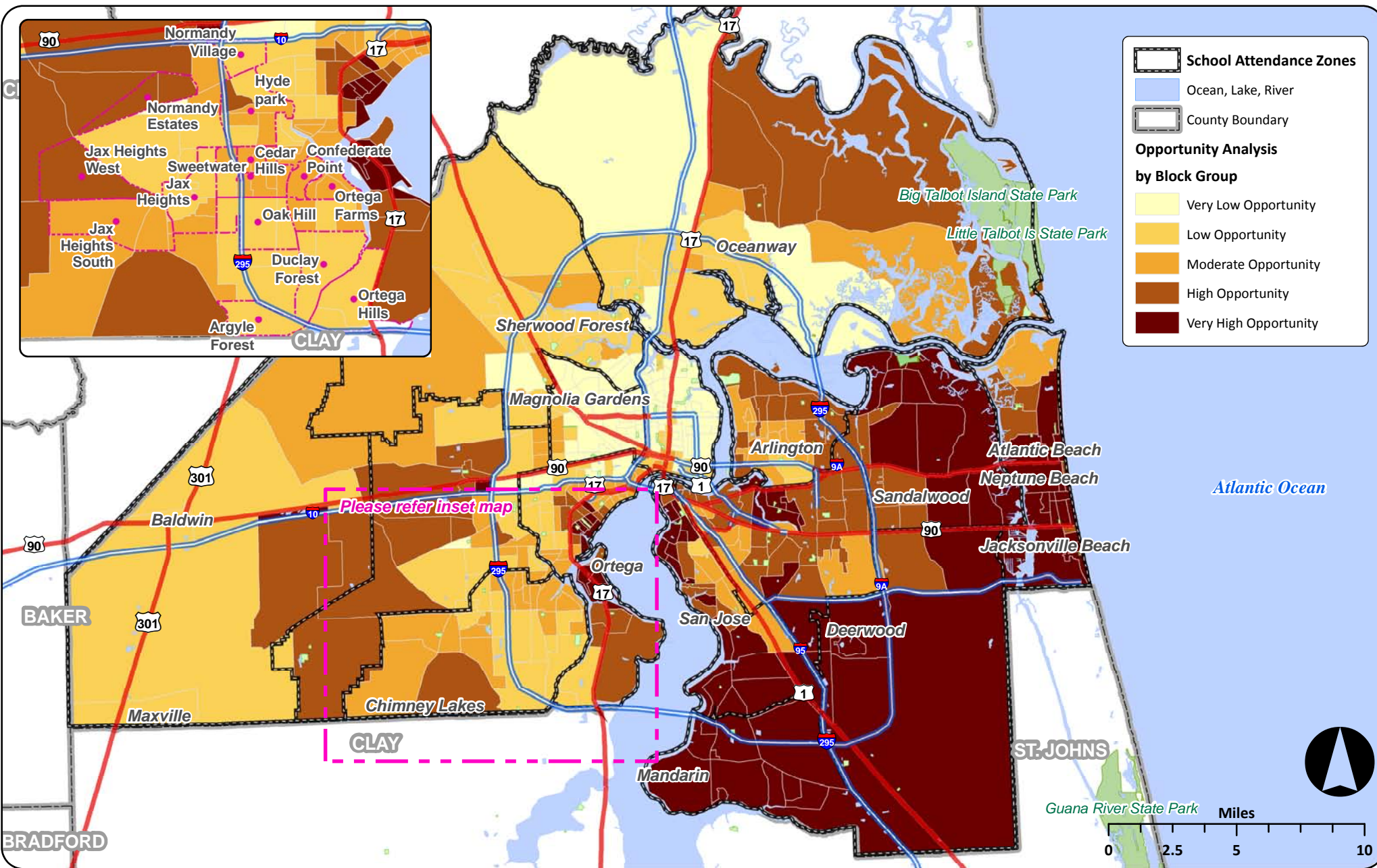
Map A-1: Comprehensive Opportunity Analysis

Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on education, health/environment and neighborhood indicators at the census block group level in 2000 with an overlay of high school attendance zones

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: November 2, 2010

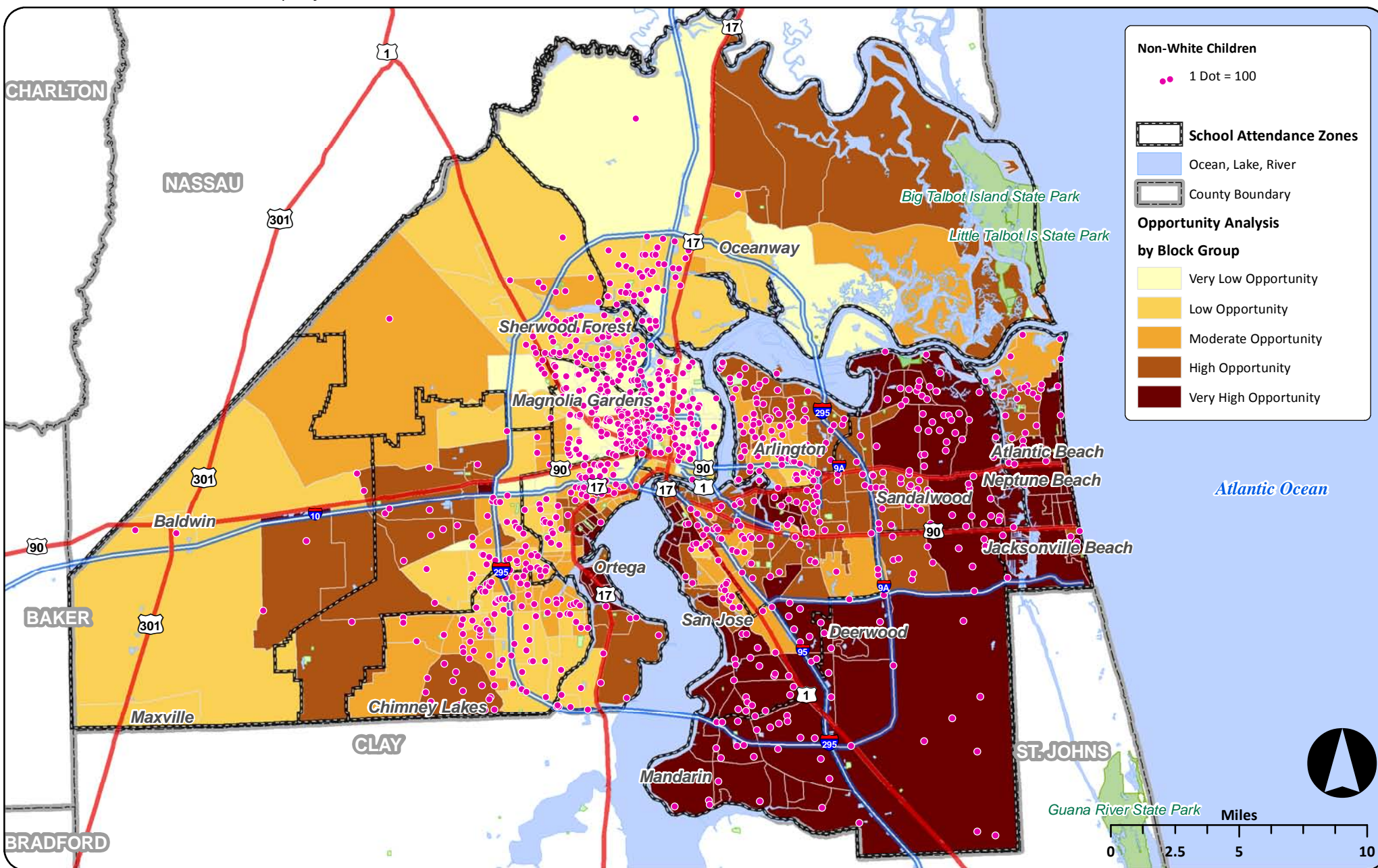


Map A-2: Comprehensive Opportunity Analysis and Race Overlay Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on education, health/environment and neighborhood indicators at the census block group level in 2000 with an overlay of non-white children (<18years).

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: November 2, 2010



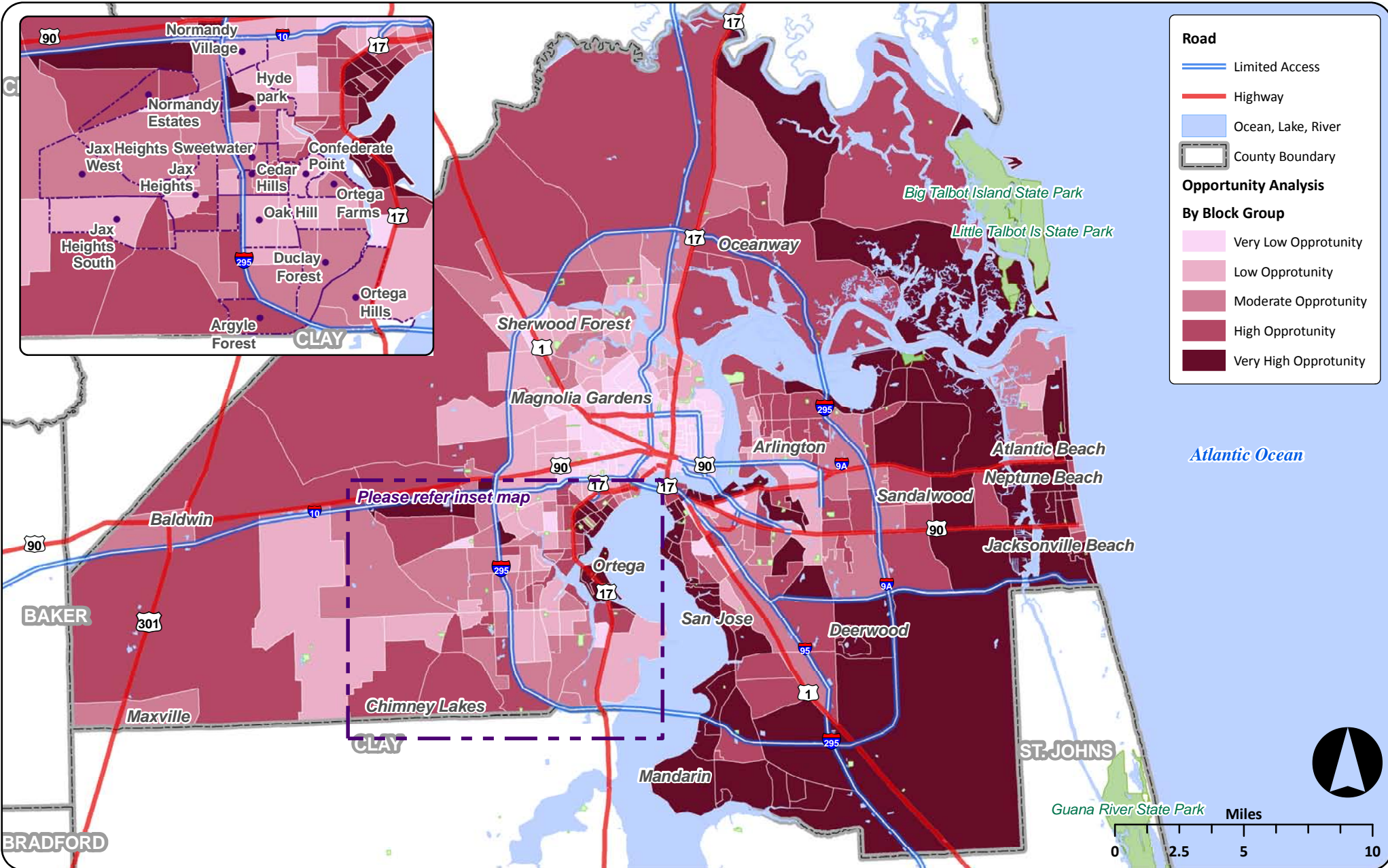
Map A-3: Neighborhood Opportunity Analysis

Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on neighborhood indicators at the census block group level in 2000 with an overlay of high school attendance zones.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 19, 2010



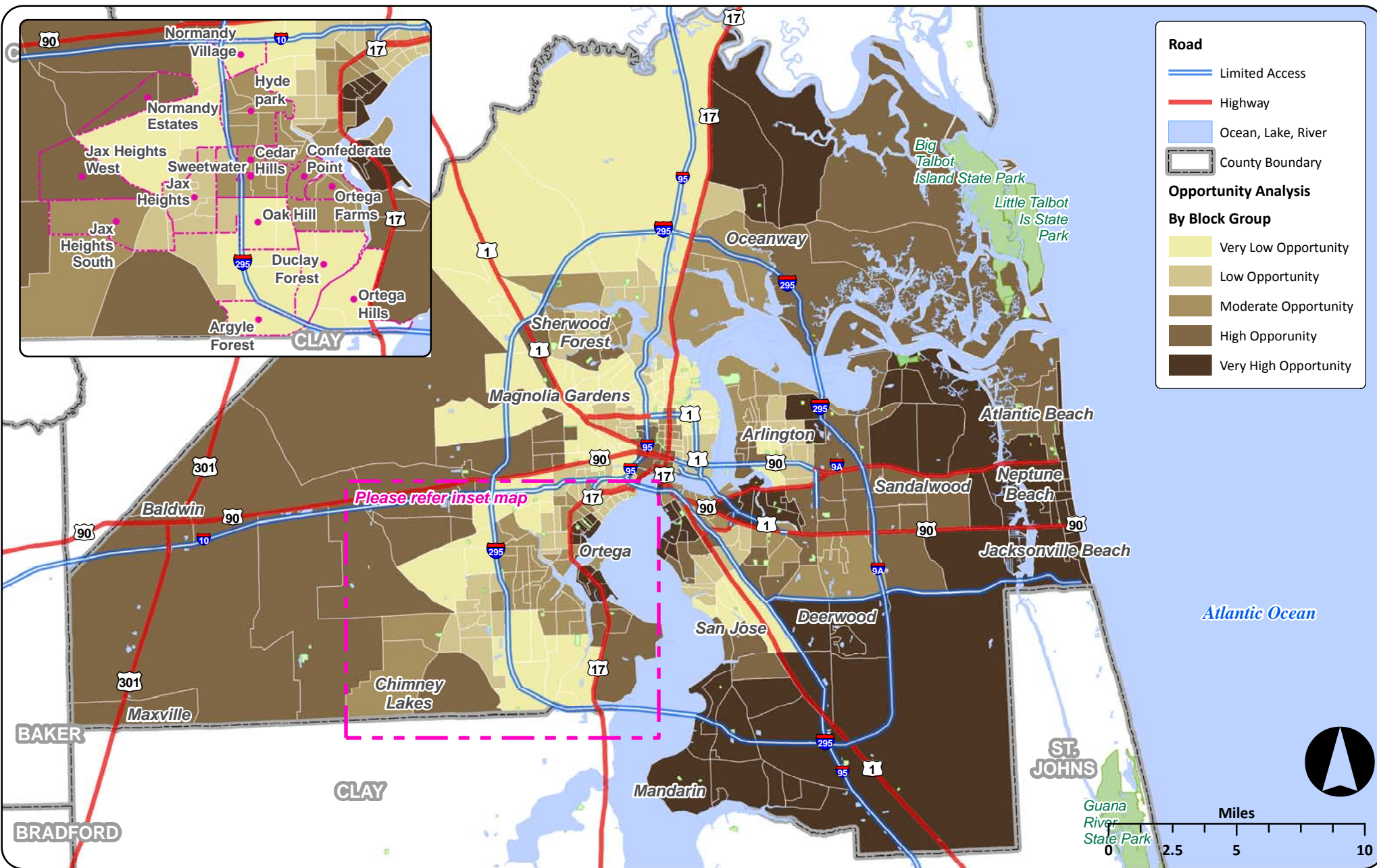
Map A-4: Education Opportunity Analysis

Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on education indicators at the census block group level in 2000 with an overlay of high school attendance zones.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 19, 2010



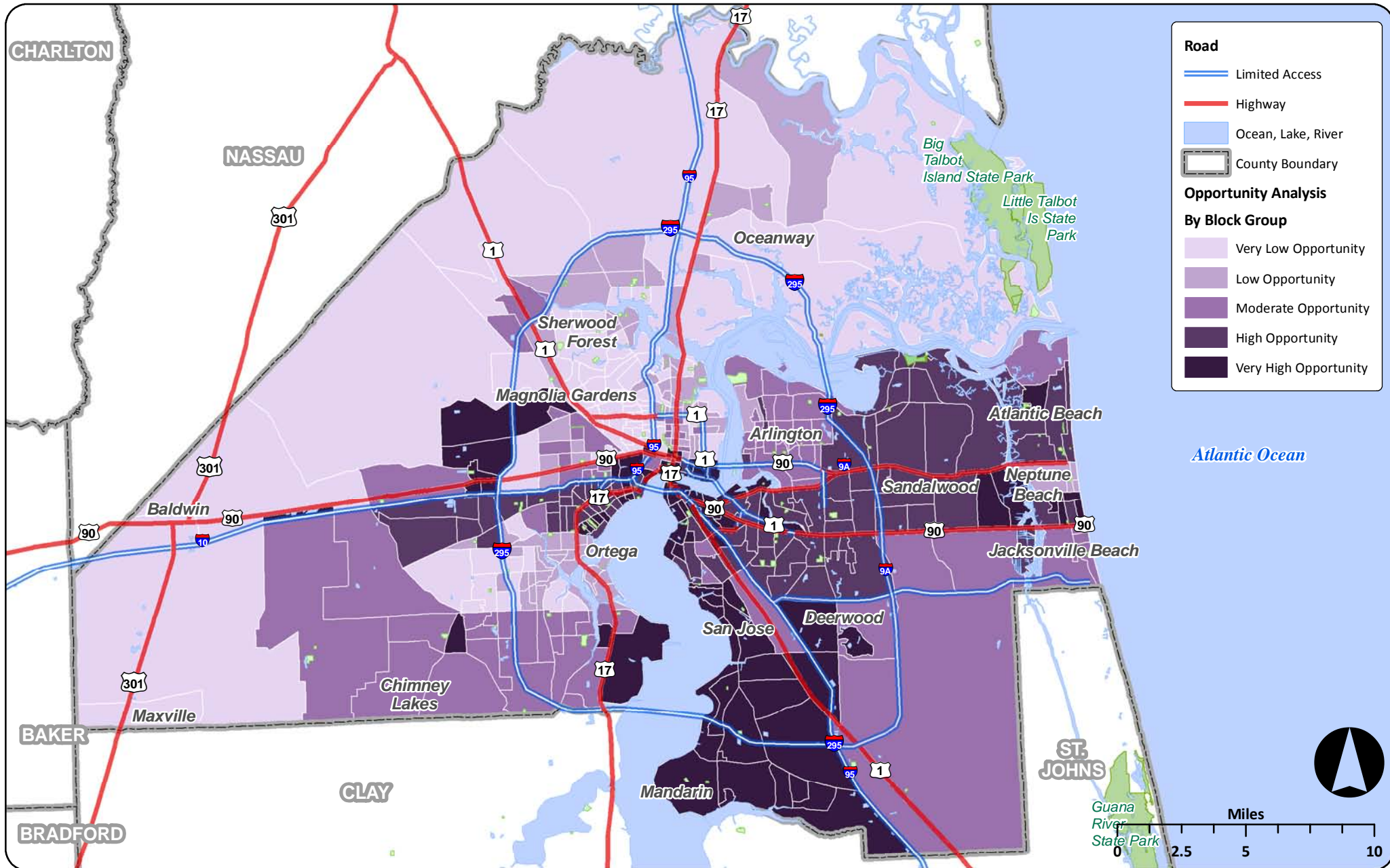
Map A-5: Health and Environmental Opportunity Analysis

Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on health and environment indicators at the census block group level in 2000 with an overlay of high school attendance zones.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 19, 2010

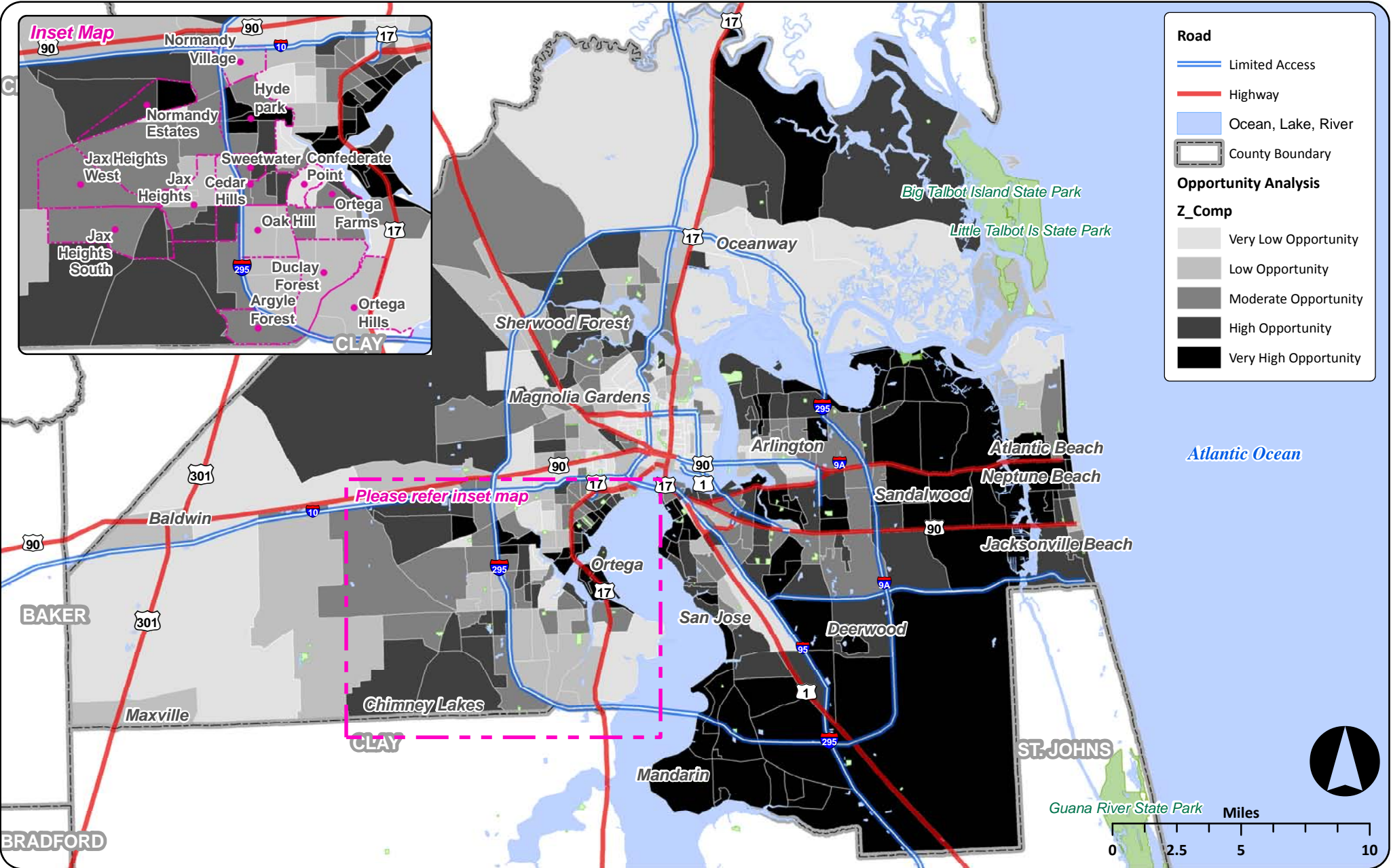


Map A-6: Comprehensive Opportunity Analysis - 2009 with Subset of indicators

Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on most recent data on a subset of education, health/environment, and neighborhood indicators to compare with comprehensive opportunity in 1990 at the census block group level.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission Date: November 2, 2010

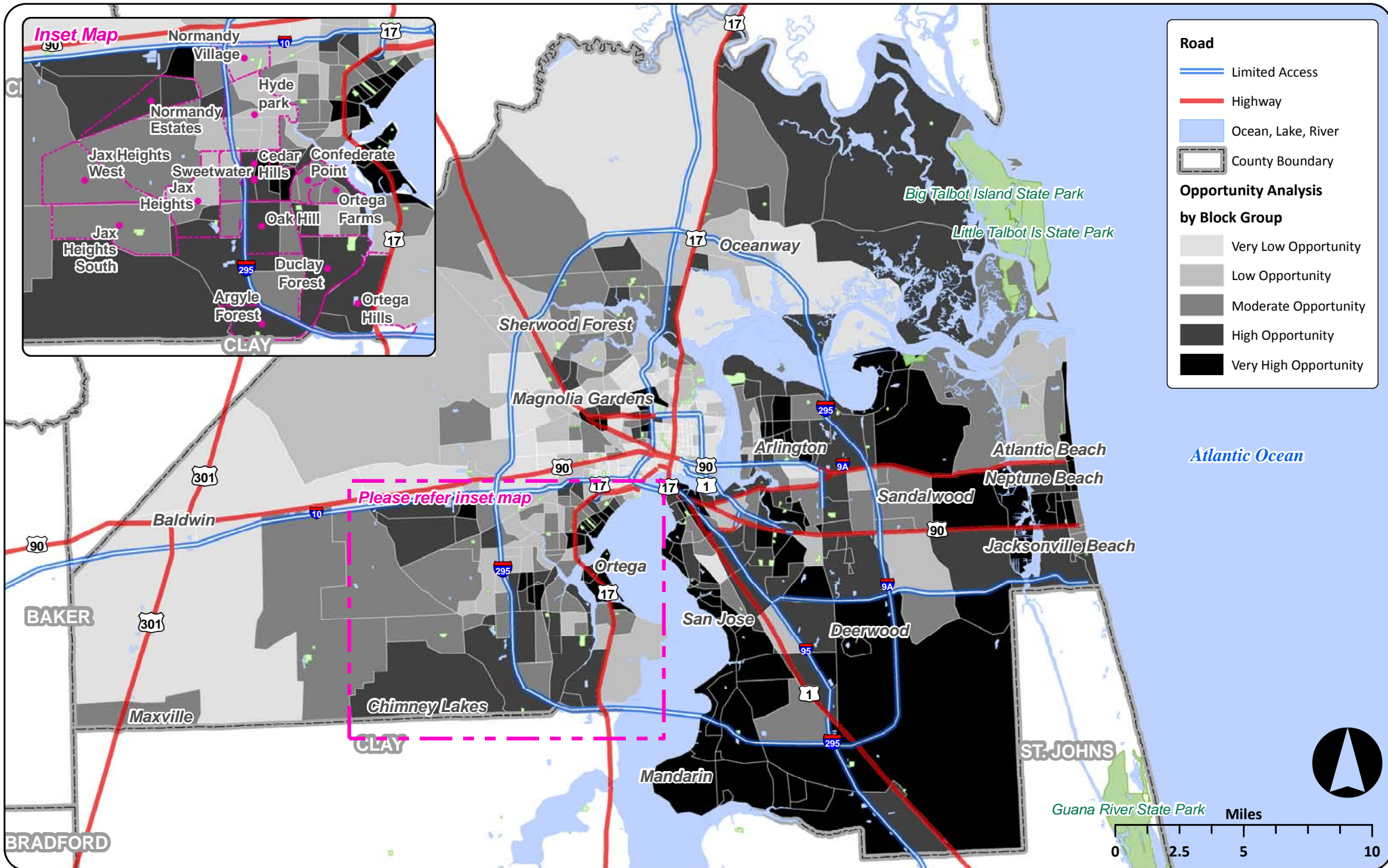


Duval County, FL

This map displays the spatial distribution of opportunity in Duval County based on education, health/environment and neighborhood indicators, at the census block group level in 1990.

Sources: U.S. Census 1990, Florida Dept. of Education, EPA

Date:November 2, 2010



Appendix D: Health Zone Analysis Maps

Map Number	Map Title
Map B-1	Teen Births vs. Poverty Rate
Map B-2	Teen Births vs. Child Poverty
Map B-3	Teen Births vs. Households with Public Assistance
Map B-4	Teen Births vs. Unemployment Rate
Map B-5	Teen Births vs. Adult Educational Attainment
Map B-6	Low Birth Weight Infants vs. Teen Birth
Map B-7	Low Birth Weight Infants vs. Poverty Rate
Map B-8	Low Birth Weight Infants vs. Adult educational Attainment
Map B-9	Children with Diabetes vs. Poverty Rate
Map B-10	Children with Diabetes vs. Child Poverty
Map B-11	Children with Diabetes vs. Adult educational Attainment
Map B-12	Children with Diabetes vs. Food Store Access
Map B-13	Children with Diabetes vs. Access to Healthcare**
Map B-14	Children with Diabetes vs. Healthcare Professional Shortage**
Map B-15	Children with Asthma vs. Poverty Rate
Map B-16	Children with Asthma vs. Child Poverty
Map B-17	Children with Asthma vs. Adult educational Attainment
Map B-18	Children with Asthma vs. Access to Healthcare**
Map B-19	Children with Asthma vs. Healthcare Professional Shortage**
Map B-20	Children with Asthma vs. Toxic Release Facilities
Map B-21	Children with Cancer vs. Poverty Rate
Map B-22	Children with Cancer vs. Child Poverty
Map B-23	Children with Cancer vs. Access to Healthcare**
Map B-24	Children with Cancer vs. Healthcare Professional Shortage**
Map B-25	Teen Births vs. Non-White Children
Map B-26	Low Birth Weight Infants vs. Non-White Children
Map B-27	Children with Diabetes vs. Non-White Children
Map B-28	Children with Asthma vs. Non-White Children
Map B-29	Children with Cancer vs. Non-White Children

** These maps are not included in this report but are accessible on the web:

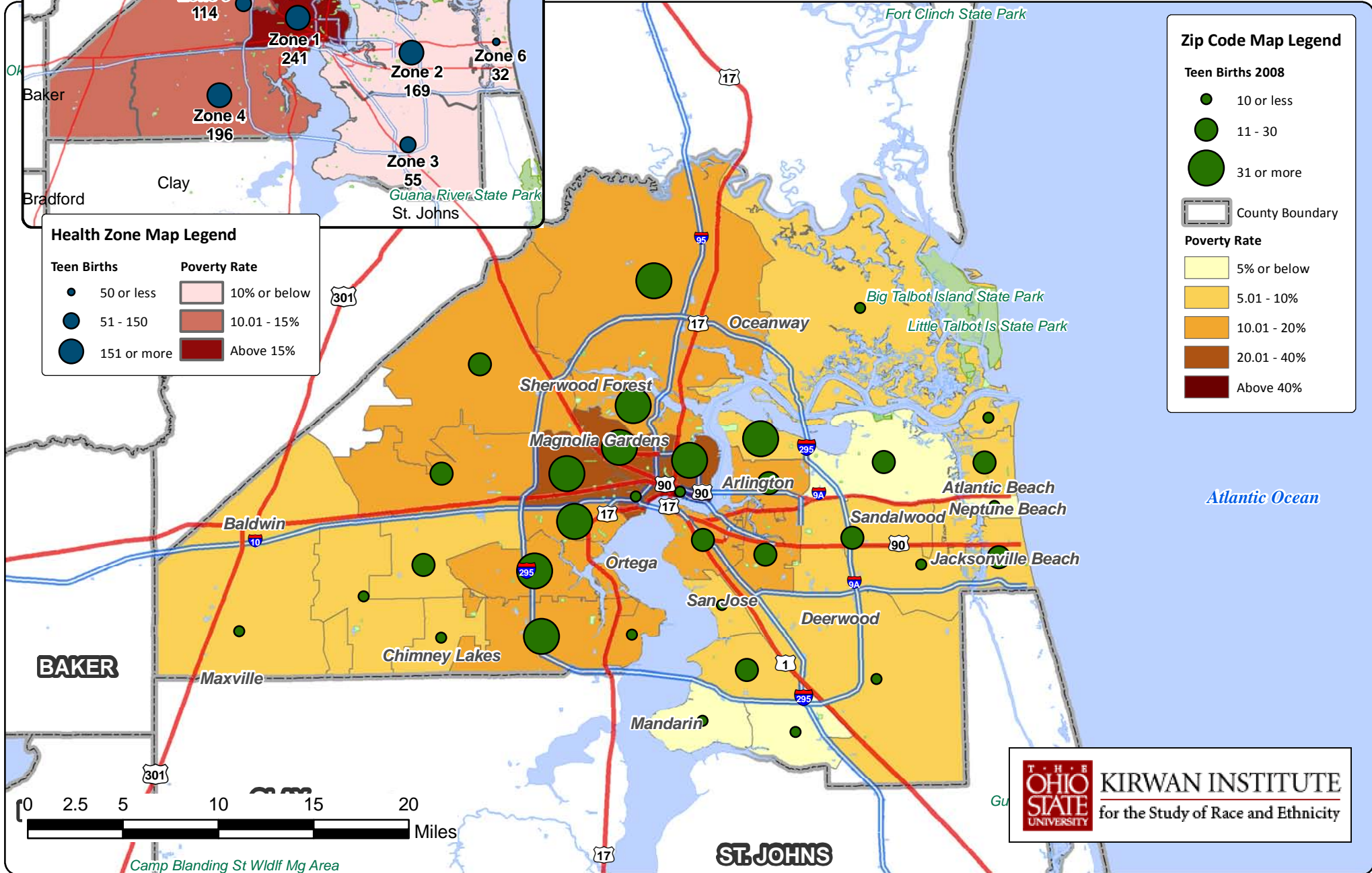
<http://www.kirwaninstitute.org/research/projects/icc-child-well-being.php>

Map B-1: Teen Births vs. Poverty Rate

Duval County, FL

This map displays the distribution of teen births and poverty rate in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010

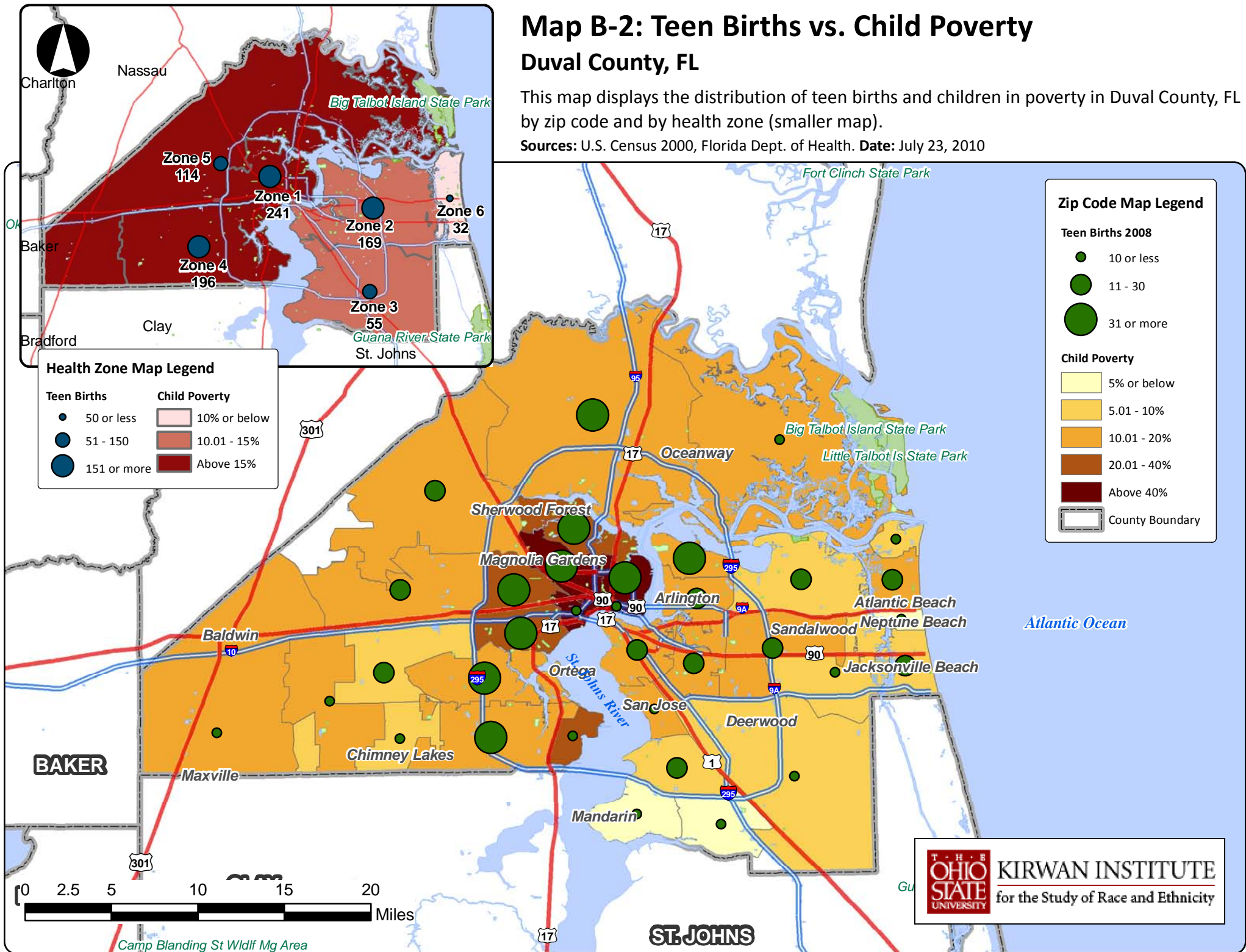


Map B-2: Teen Births vs. Child Poverty

Duval County, FL

This map displays the distribution of teen births and children in poverty in Duval County, FL by zip code and by health zone (smaller map).

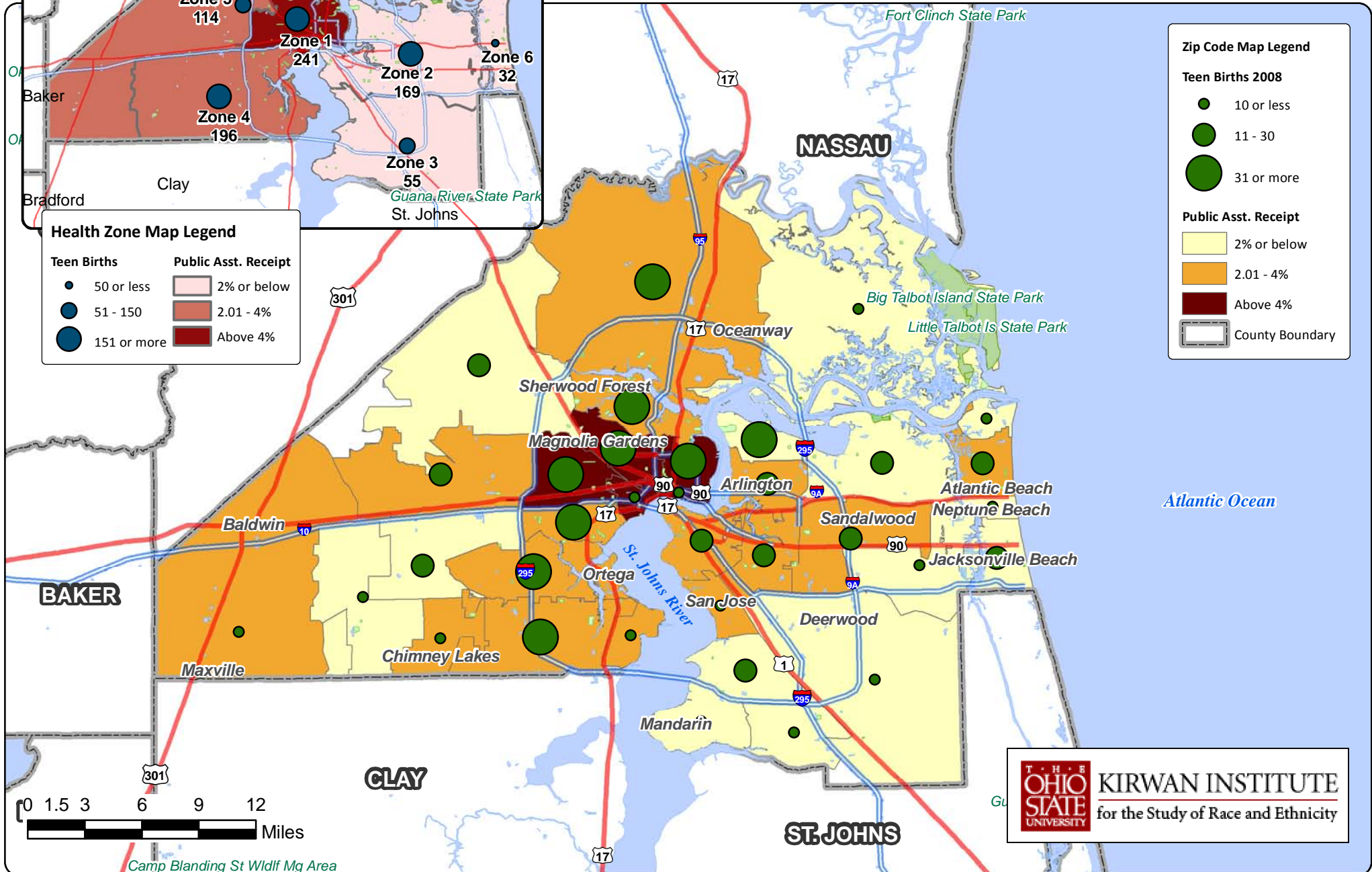
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Map B-3: Teen Births vs. Households with Public Assistance Duval County, FL

This map displays the distribution of teen births and households receiving public assistance in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010

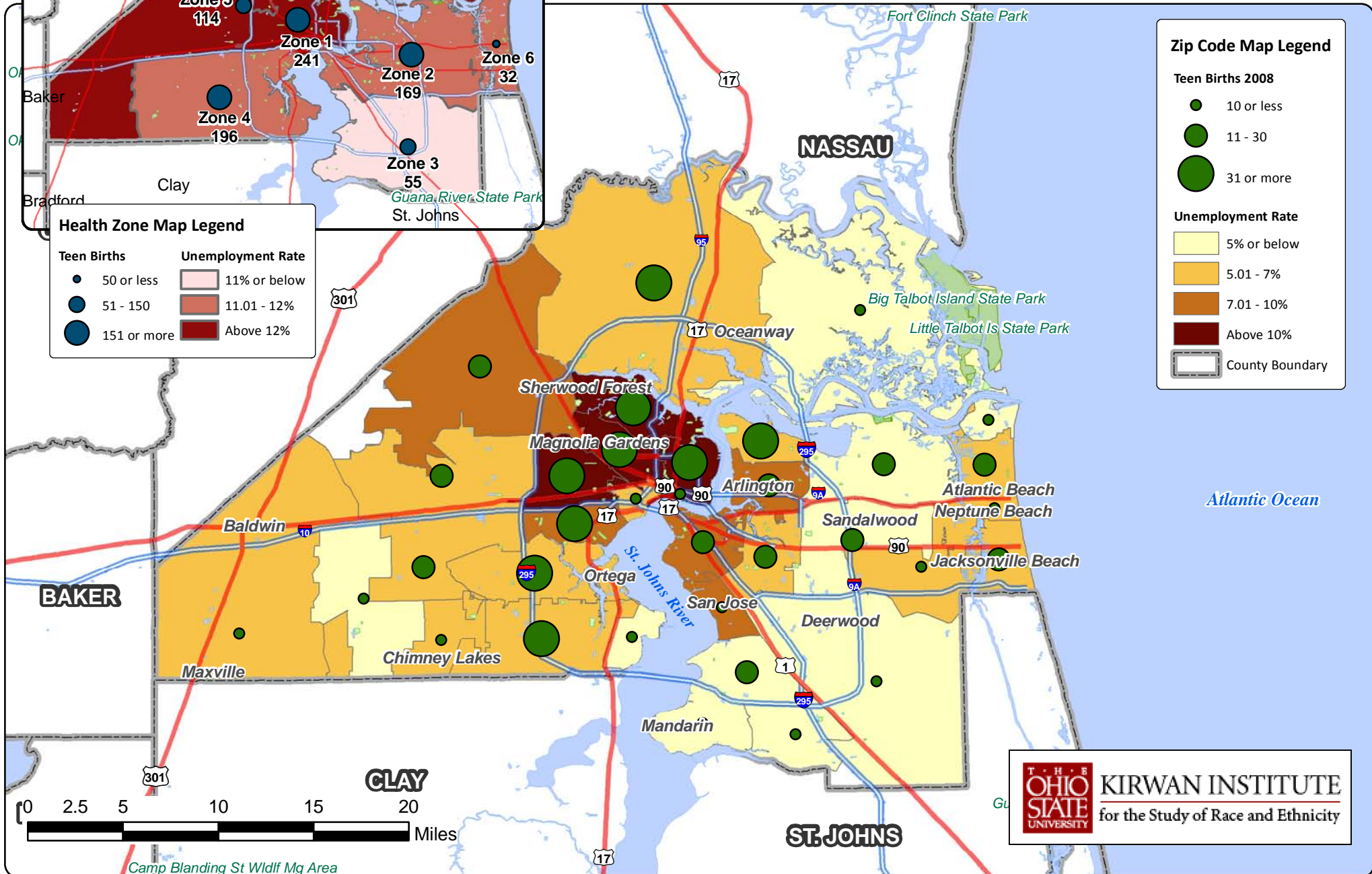


Map B-4: Teen Births vs. Unemployment Rate

Duval County, FL

This map displays the distribution of teen births and unemployment rate in Duval County, FL by zip code and by health zone (smaller map).

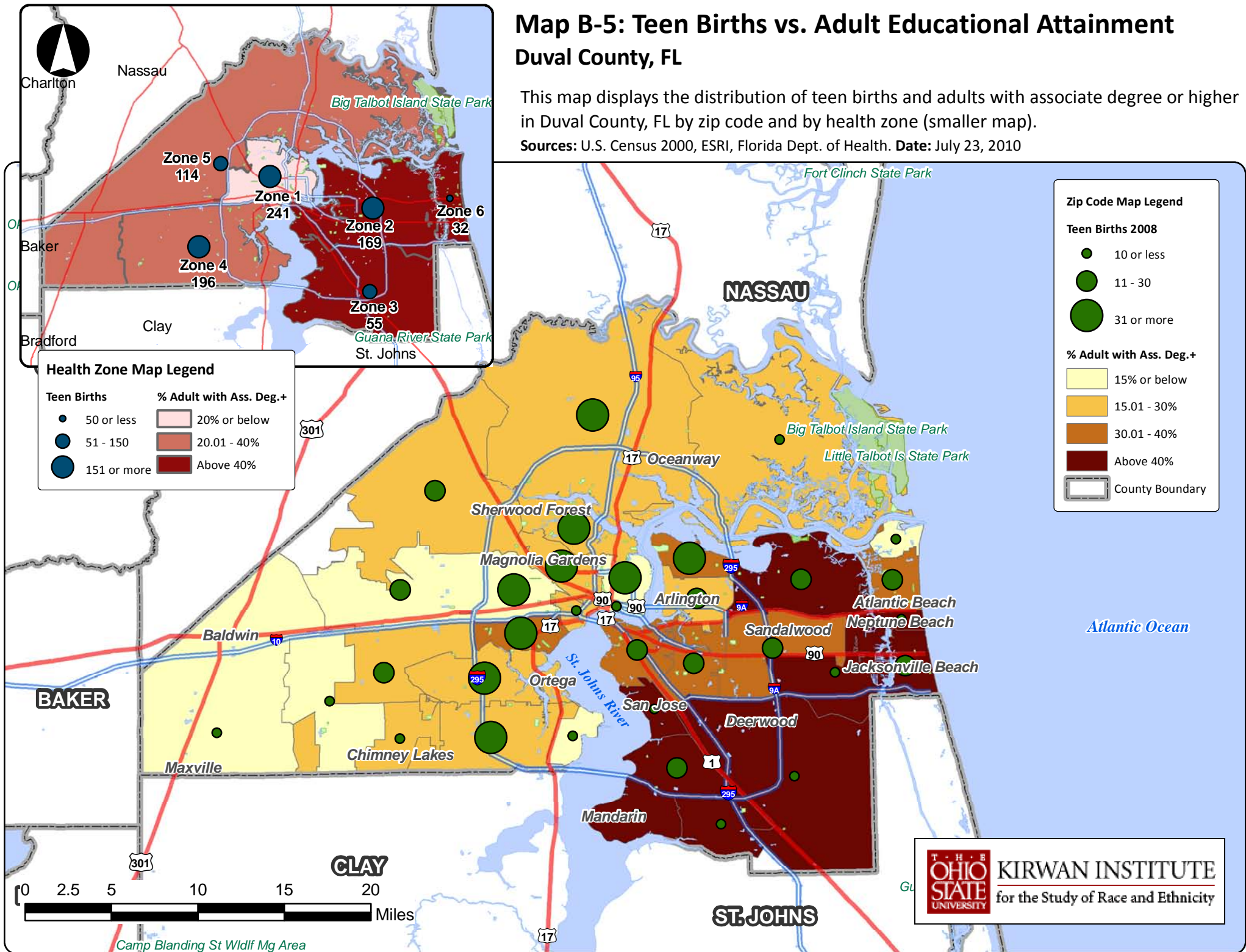
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Map B-5: Teen Births vs. Adult Educational Attainment Duval County, FL

This map displays the distribution of teen births and adults with associate degree or higher in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010

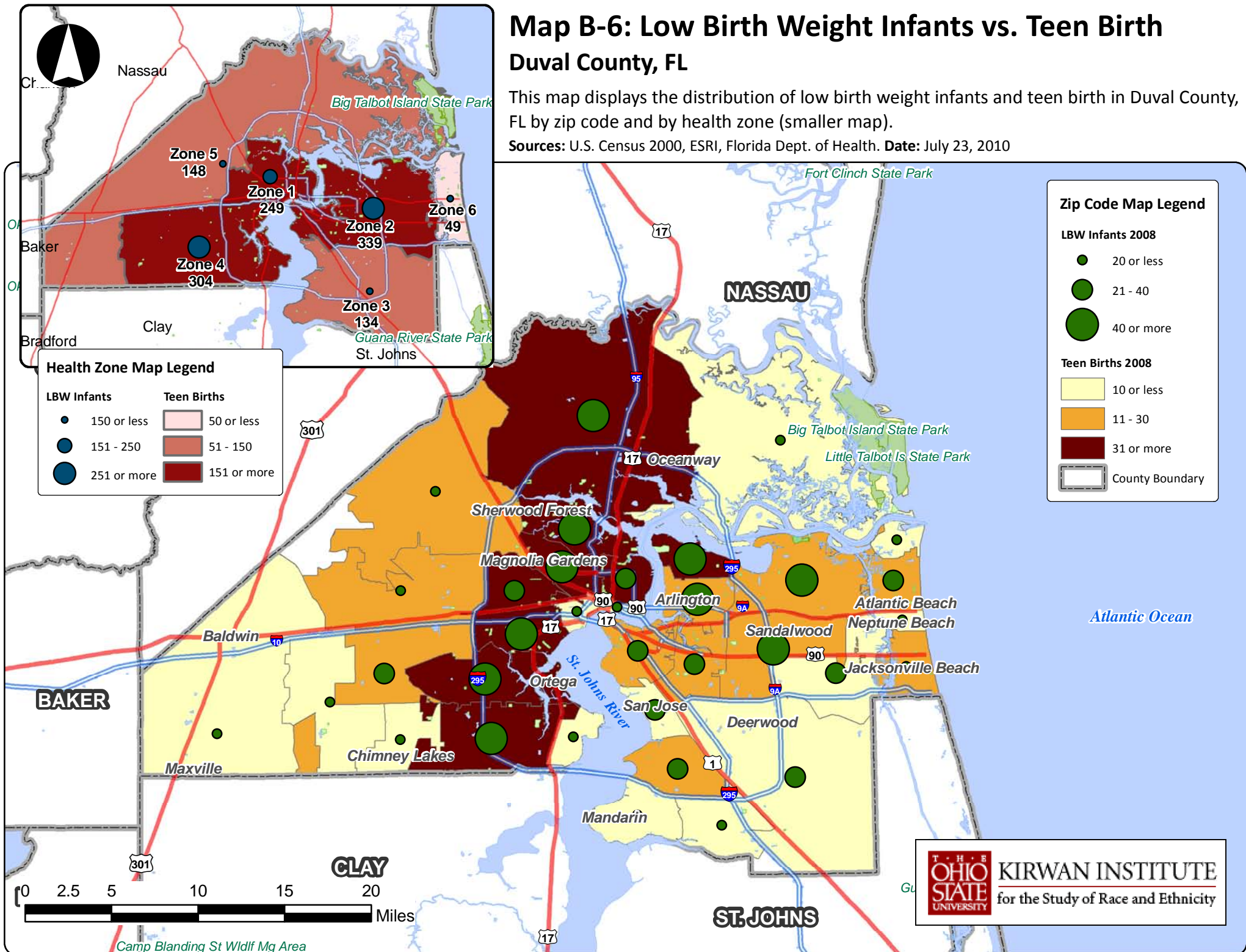


Map B-6: Low Birth Weight Infants vs. Teen Birth

Duval County, FL

This map displays the distribution of low birth weight infants and teen birth in Duval County, FL by zip code and by health zone (smaller map).

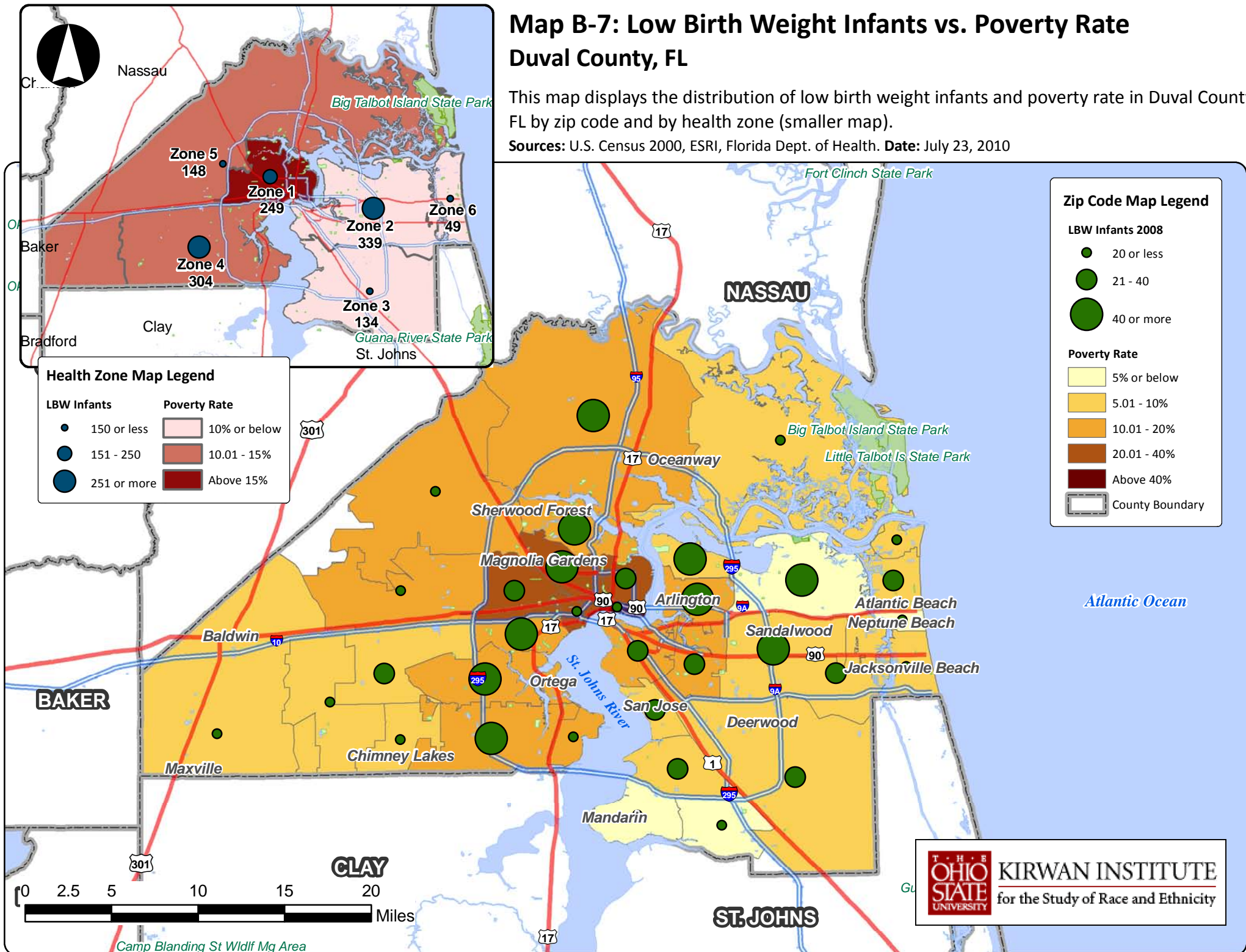
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-7: Low Birth Weight Infants vs. Poverty Rate Duval County, FL

This map displays the distribution of low birth weight infants and poverty rate in Duval County, FL by zip code and by health zone (smaller map).

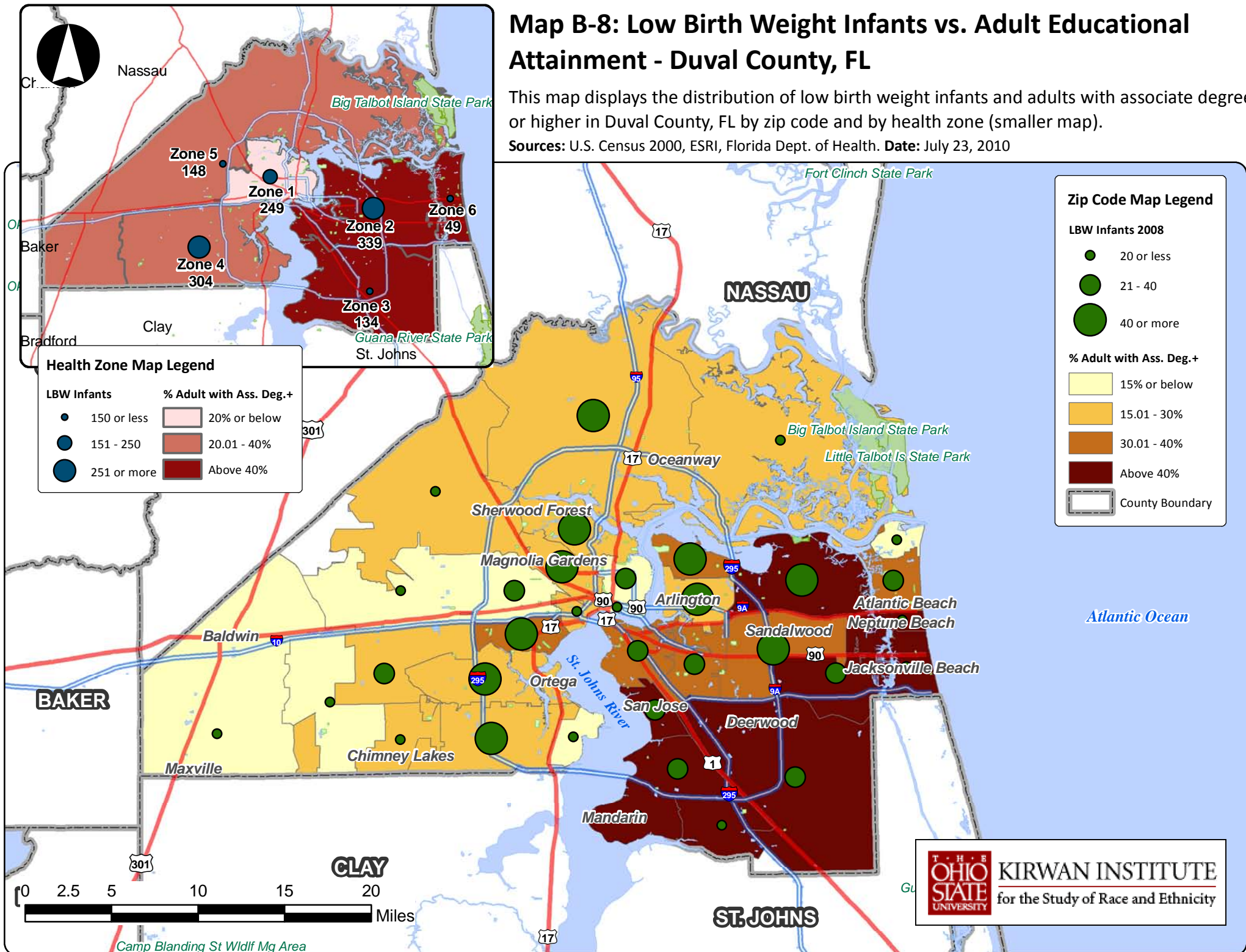
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-8: Low Birth Weight Infants vs. Adult Educational Attainment - Duval County, FL

This map displays the distribution of low birth weight infants and adults with associate degree or higher in Duval County, FL by zip code and by health zone (smaller map).

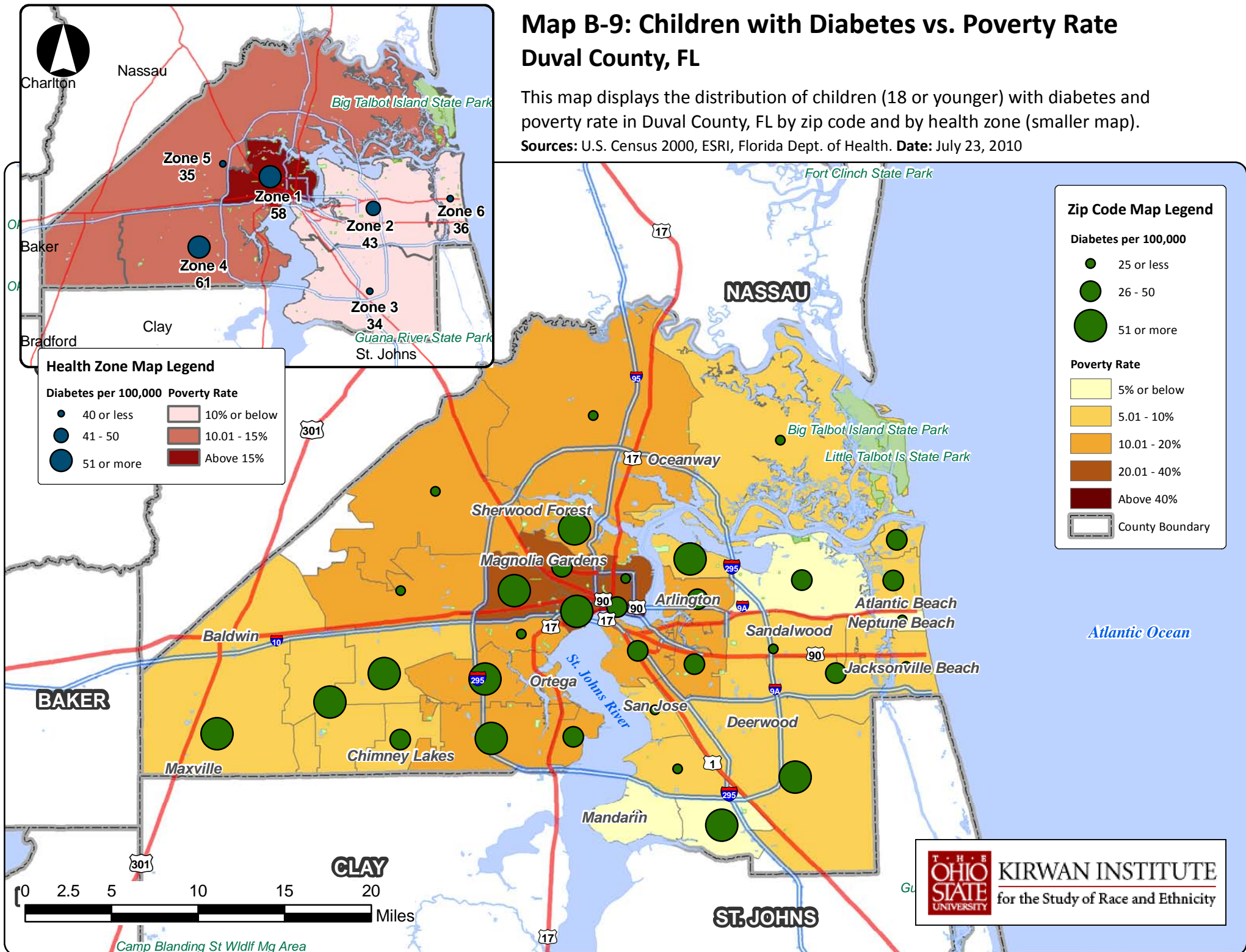
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-9: Children with Diabetes vs. Poverty Rate Duval County, FL

This map displays the distribution of children (18 or younger) with diabetes and poverty rate in Duval County, FL by zip code and by health zone (smaller map).

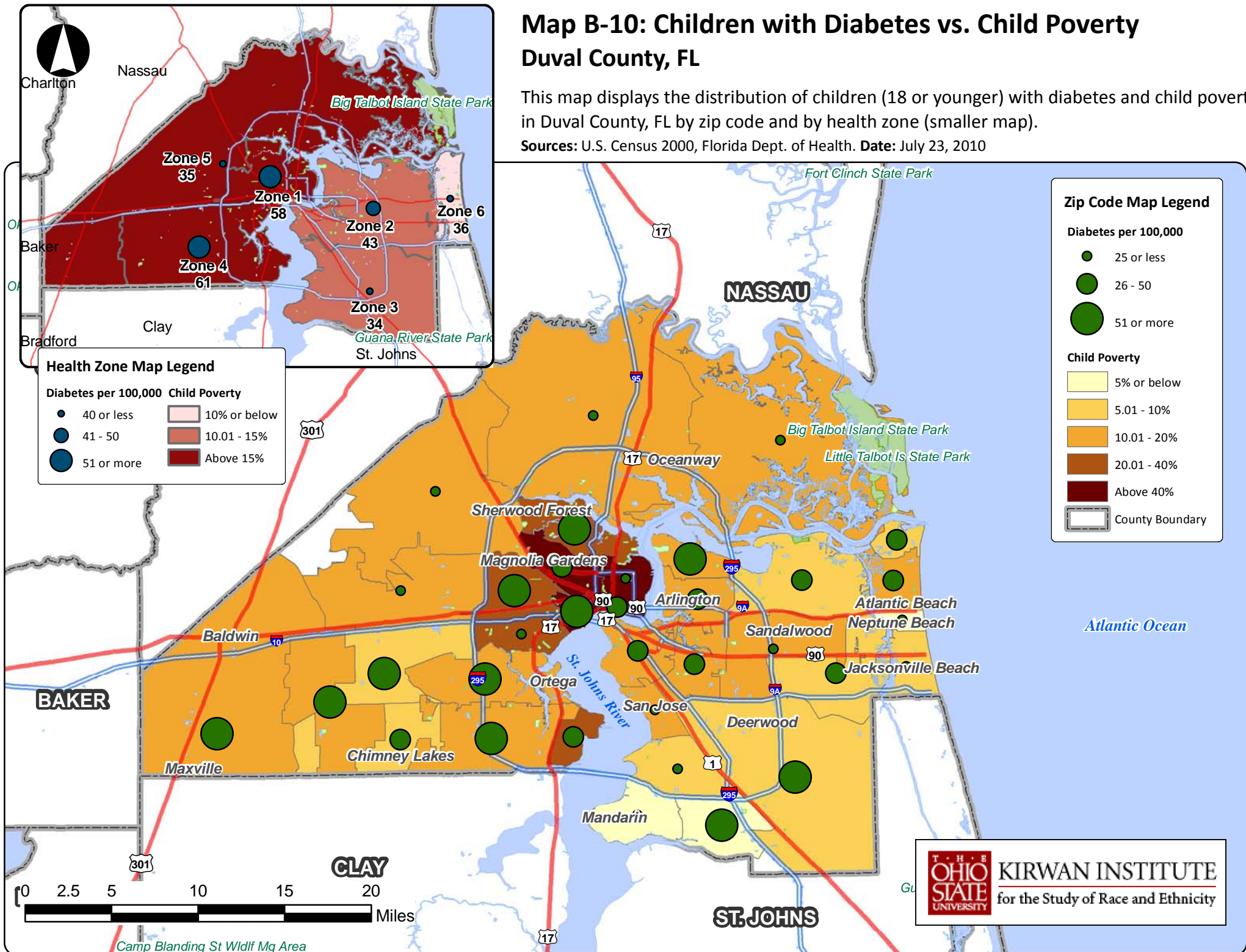
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-10: Children with Diabetes vs. Child Poverty Duval County, FL

This map displays the distribution of children (18 or younger) with diabetes and child poverty in Duval County, FL by zip code and by health zone (smaller map).

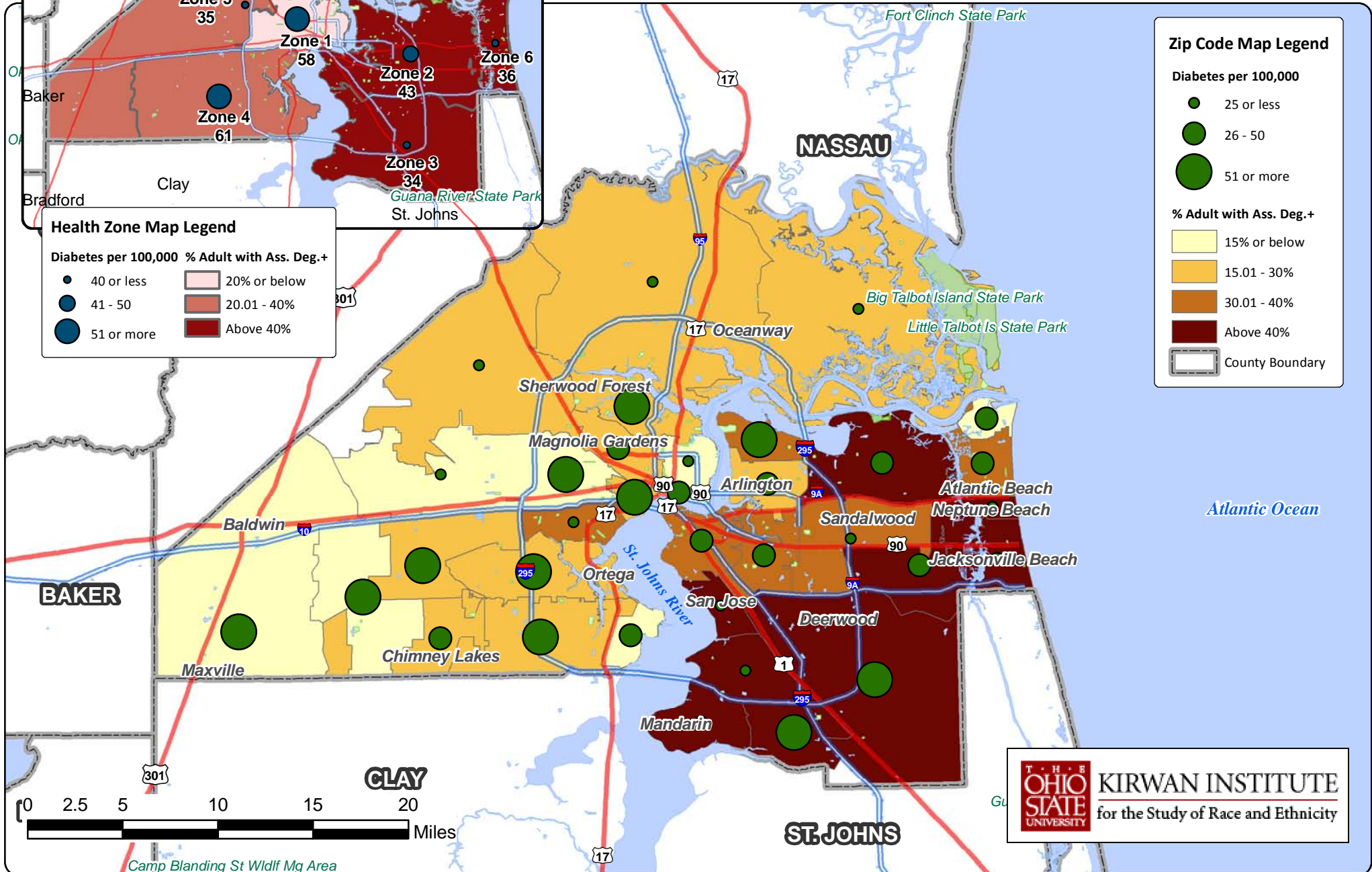
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Map B-11: Children with Diabetes vs. Adult Educational Attainment - Duval County, FL

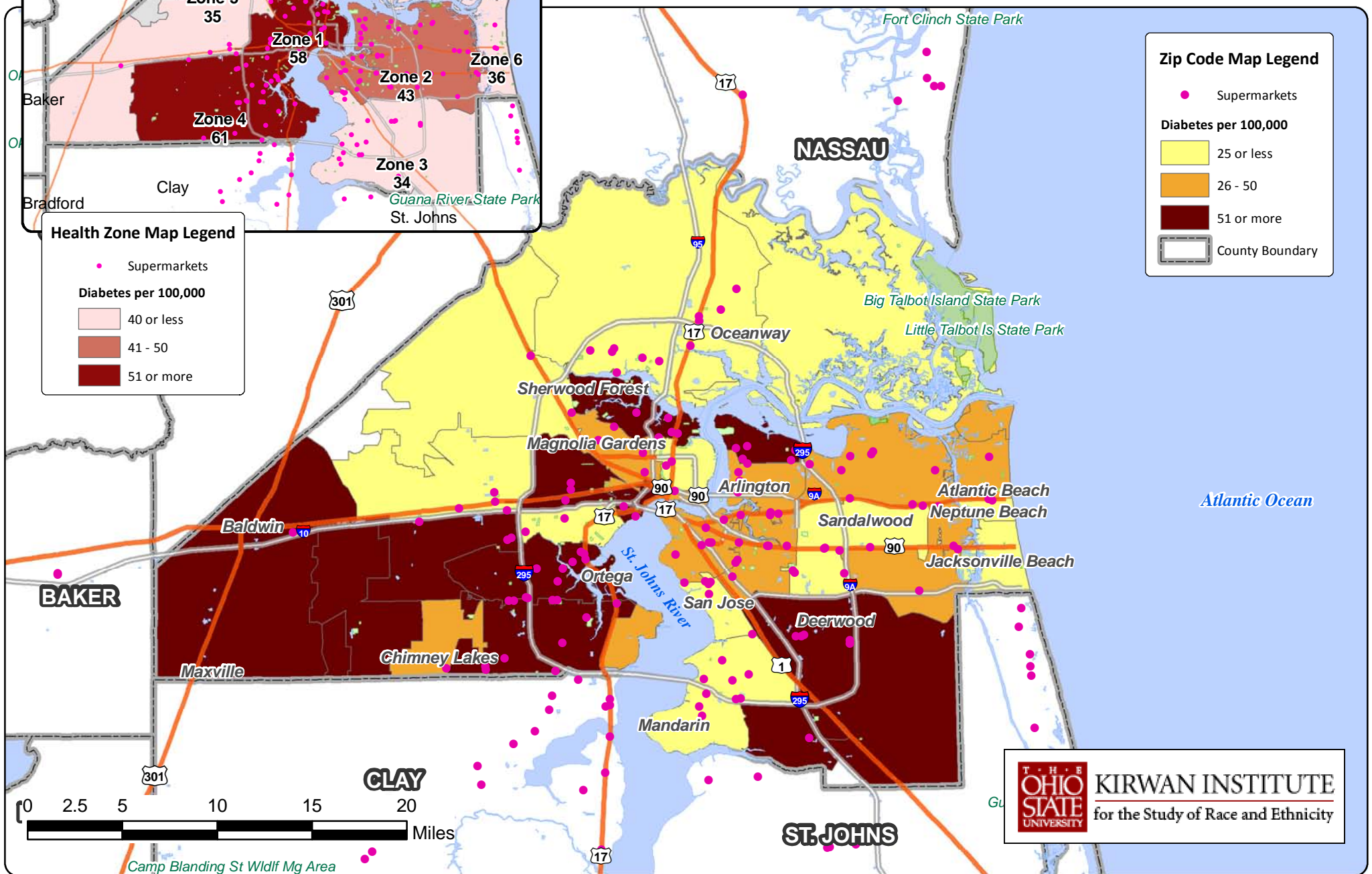
This map displays the distribution of children (18 or younger) with diabetes and adults with ass. deg. or higher in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-12: Children with Diabetes vs. Food Store Proximity Duval County, FL

This map displays the distribution of children (18 or younger) with diabetes and grocery stores in Duval County, FL by zip code and by health zone (smaller map).
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. **Date:** October 18, 2010

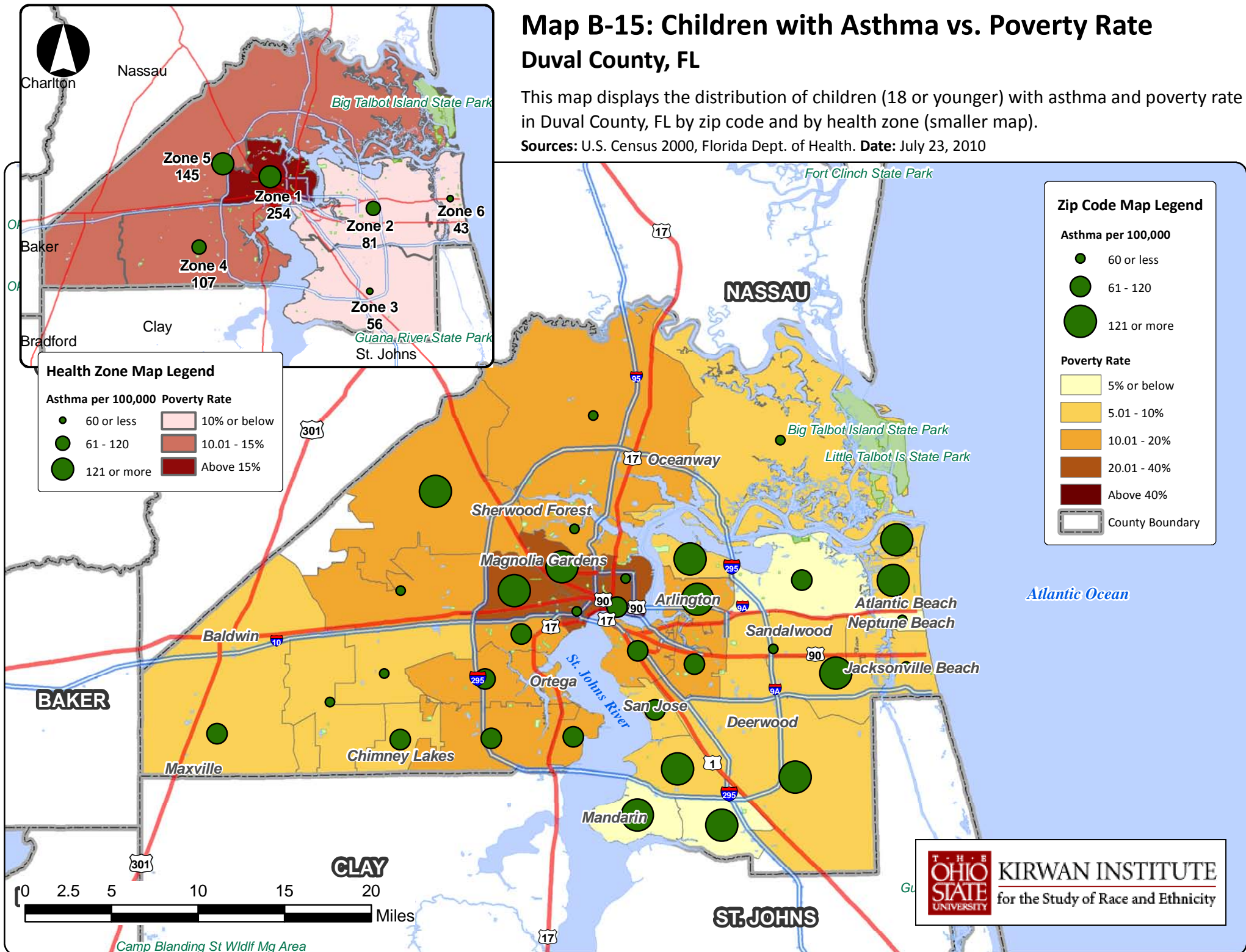


Map B-15: Children with Asthma vs. Poverty Rate

Duval County, FL

This map displays the distribution of children (18 or younger) with asthma and poverty rate in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010

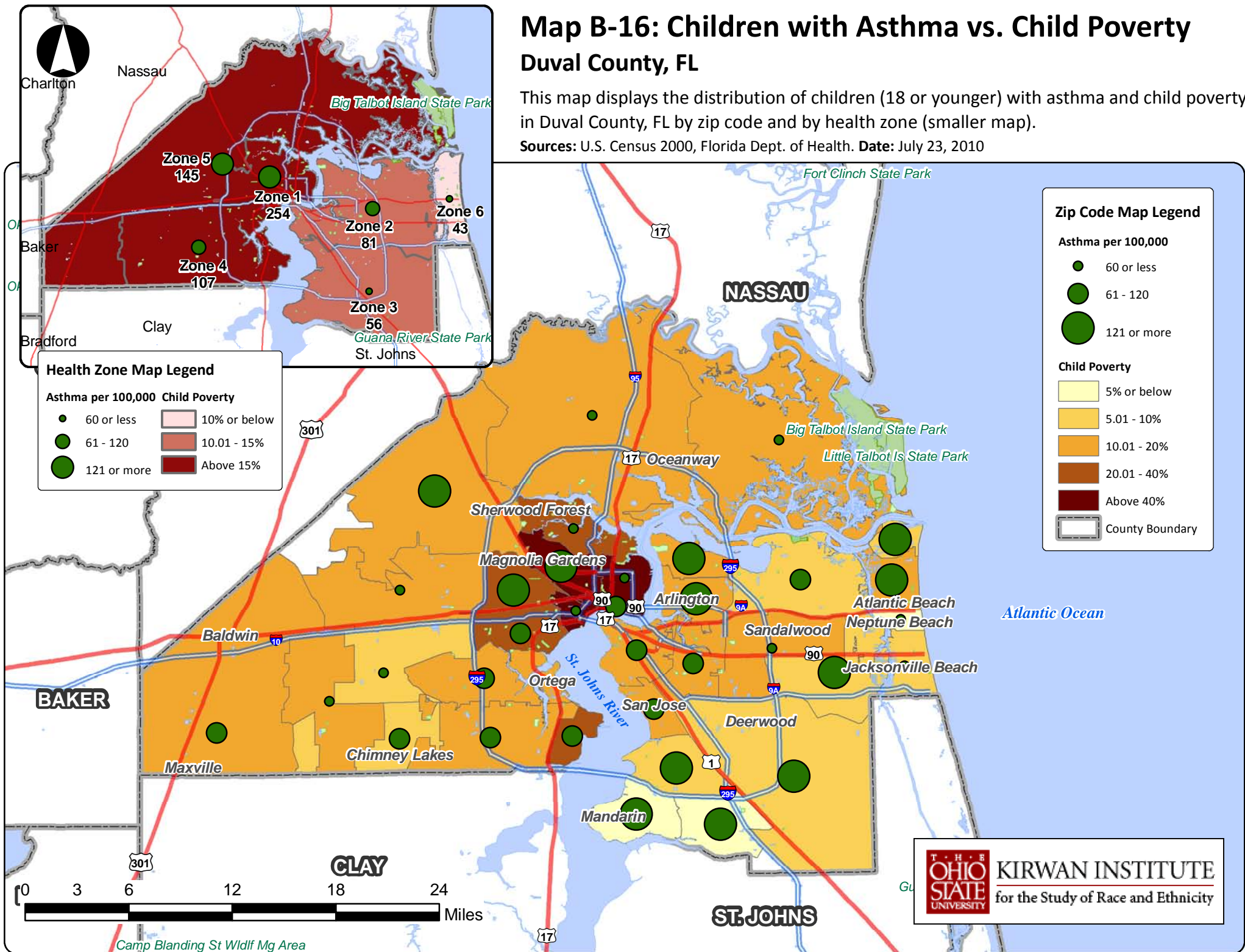


Map B-16: Children with Asthma vs. Child Poverty

Duval County, FL

This map displays the distribution of children (18 or younger) with asthma and child poverty in Duval County, FL by zip code and by health zone (smaller map).

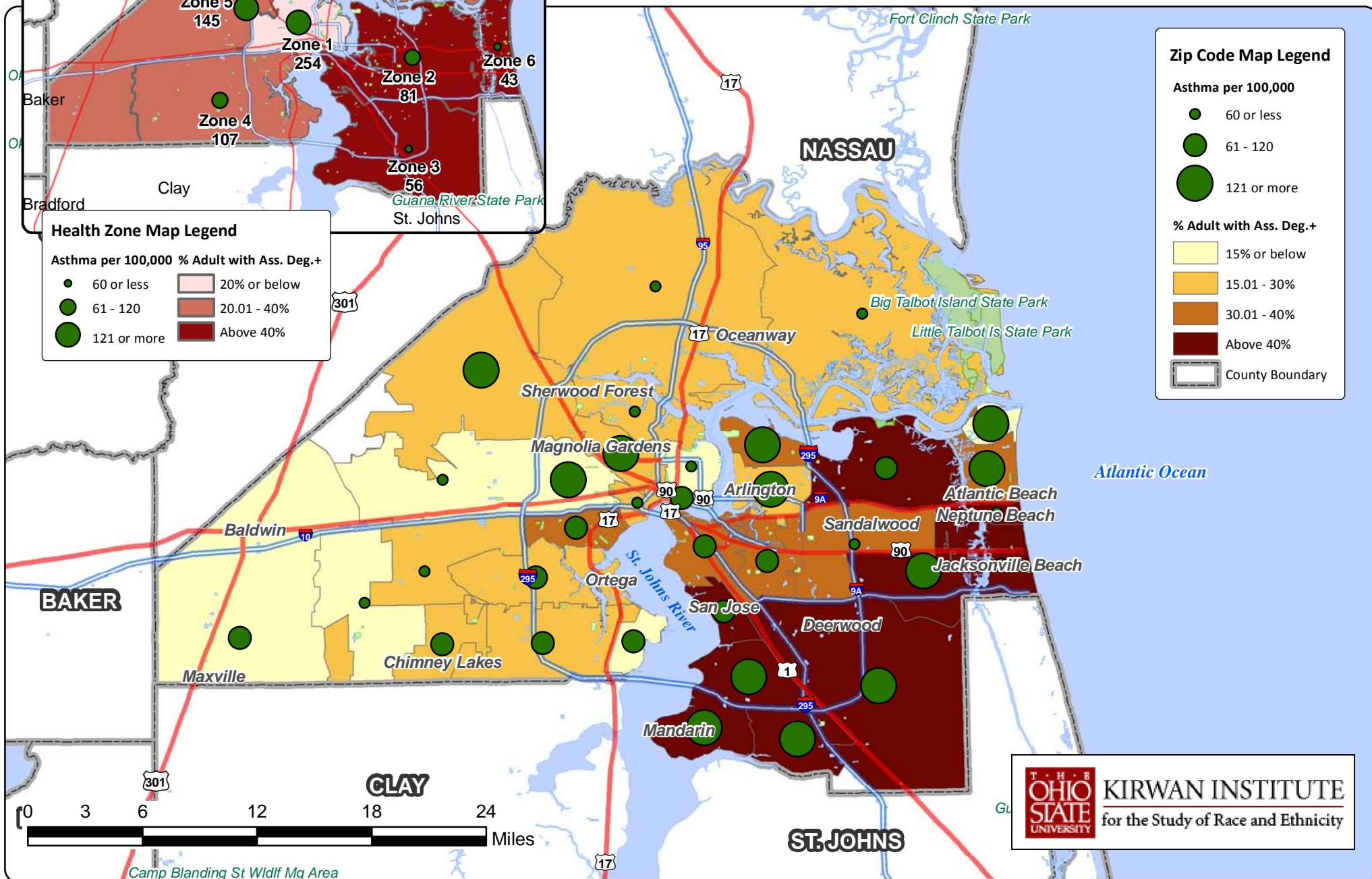
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



A map of St. John's, Antigua and Barbuda, divided into six health zones. The zones are color-coded: Zone 1 (light pink), Zone 2 (dark red), Zone 3 (dark red), Zone 4 (light red), Zone 5 (light red), and Zone 6 (dark red). Each zone is marked with a green circle and its population count. The map includes a north arrow in the top left corner, labeled 'Charlton'. The map also shows the coastline, major roads, and surrounding areas like Nassau, Baker, Clay, and Bradford. The map is titled 'Health Zone Map Legend' at the bottom.

Health Zone	Population
Zone 1	254
Zone 2	81
Zone 3	56
Zone 4	107
Zone 5	145
Zone 6	43

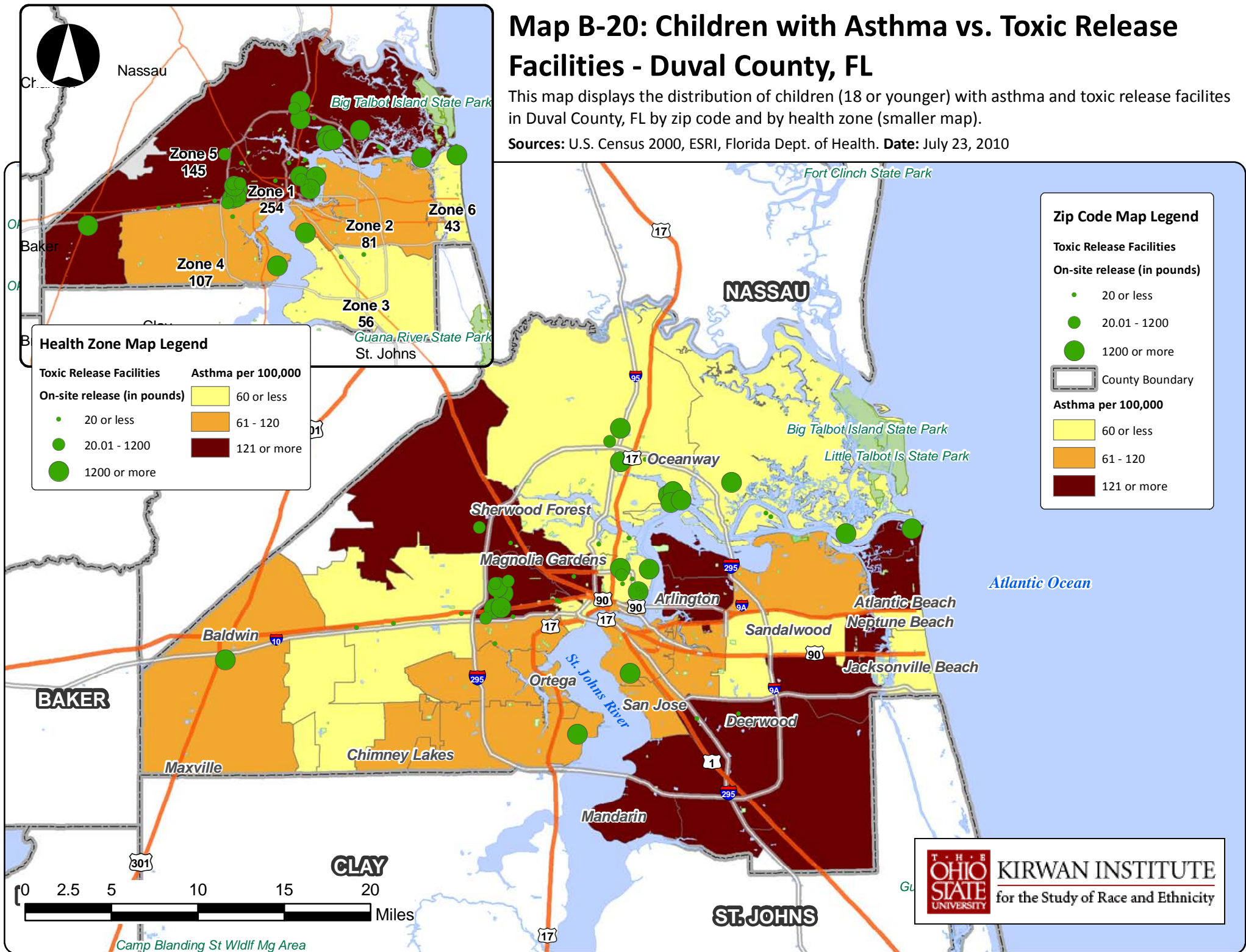
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. **Date:** July 23, 2010



Map B-20: Children with Asthma vs. Toxic Release Facilities - Duval County, FL

This map displays the distribution of children (18 or younger) with asthma and toxic release facilities in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010

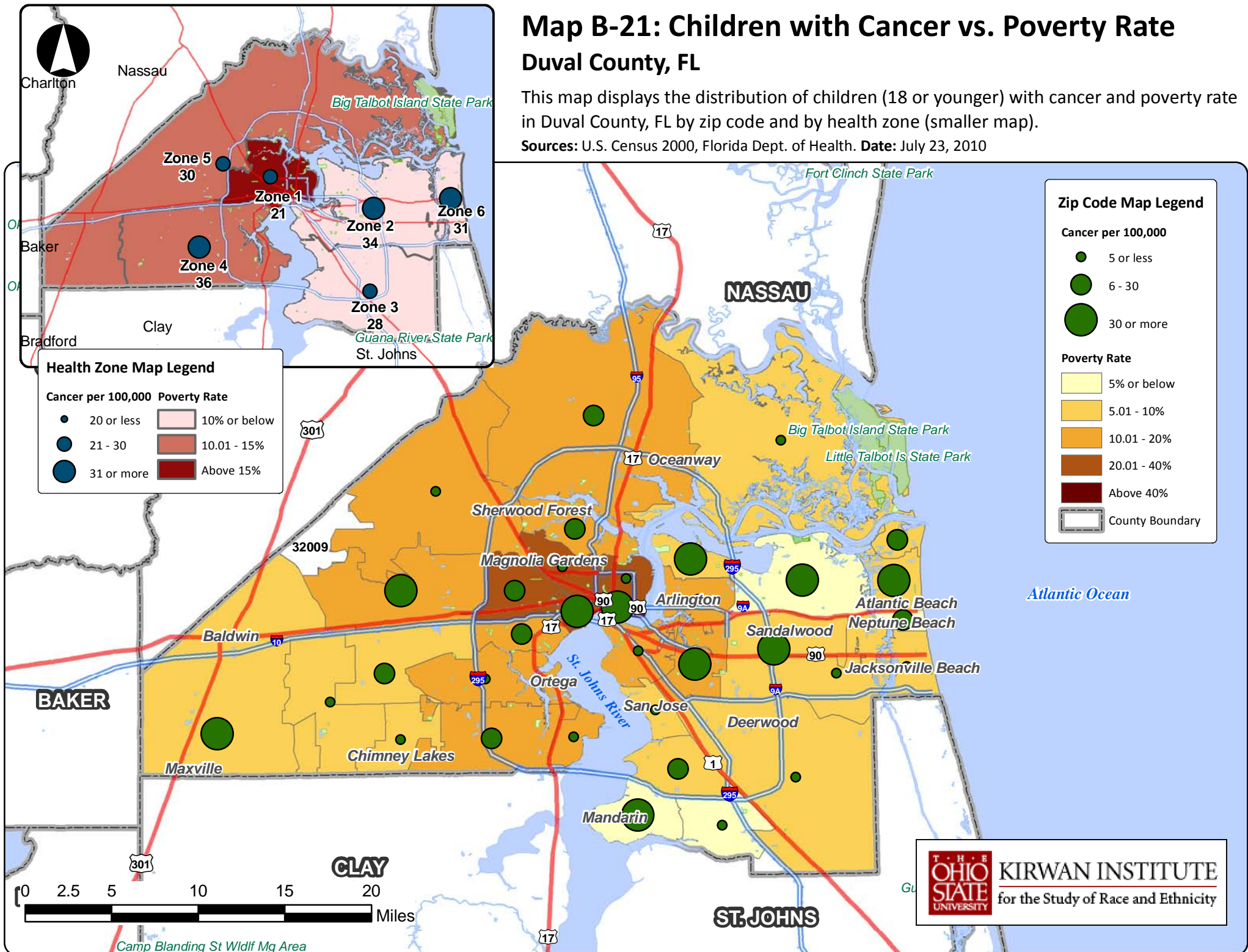


Map B-21: Children with Cancer vs. Poverty Rate

Duval County, FL

This map displays the distribution of children (18 or younger) with cancer and poverty rate in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010

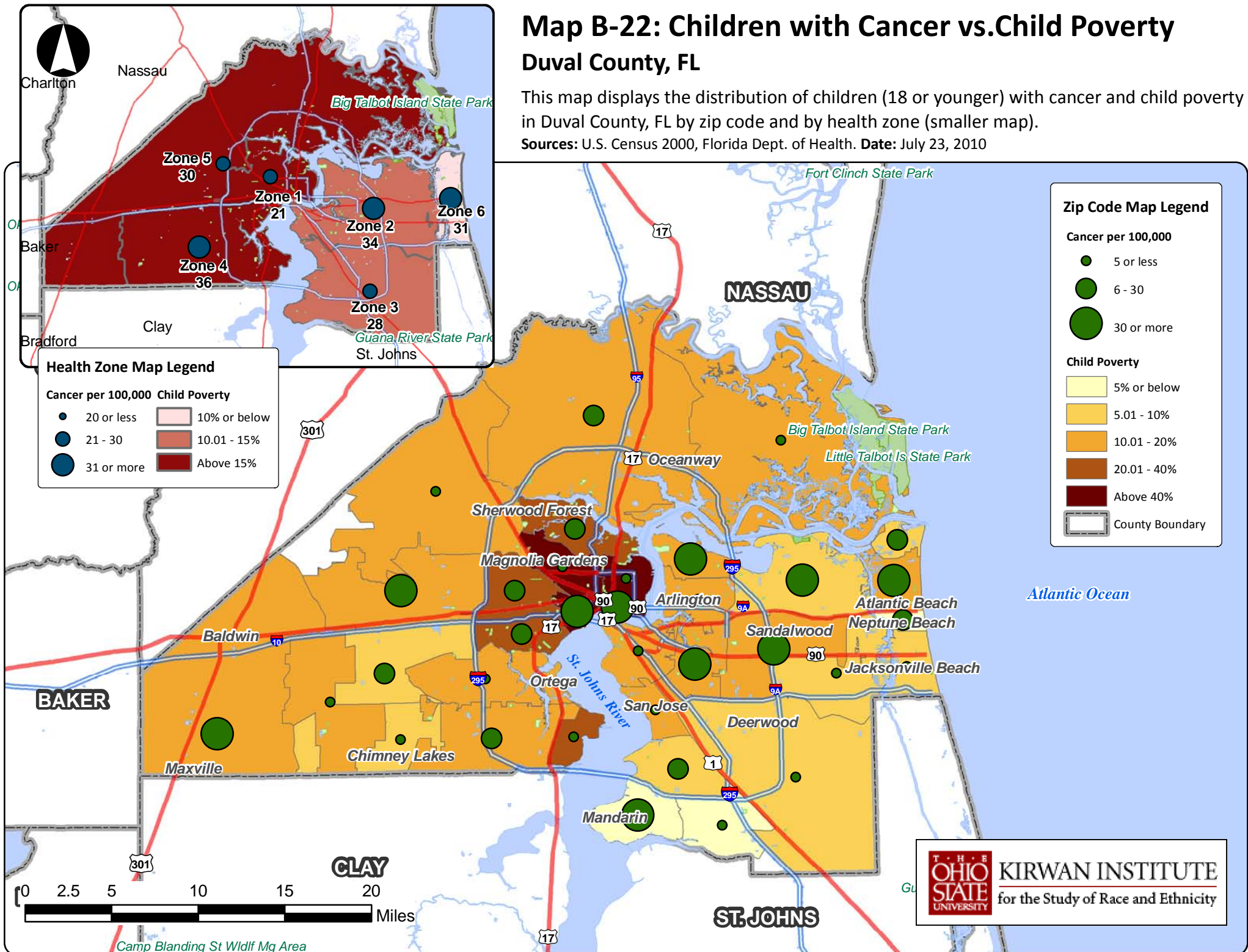


Map B-22: Children with Cancer vs. Child Poverty

Duval County, FL

This map displays the distribution of children (18 or younger) with cancer and child poverty in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010

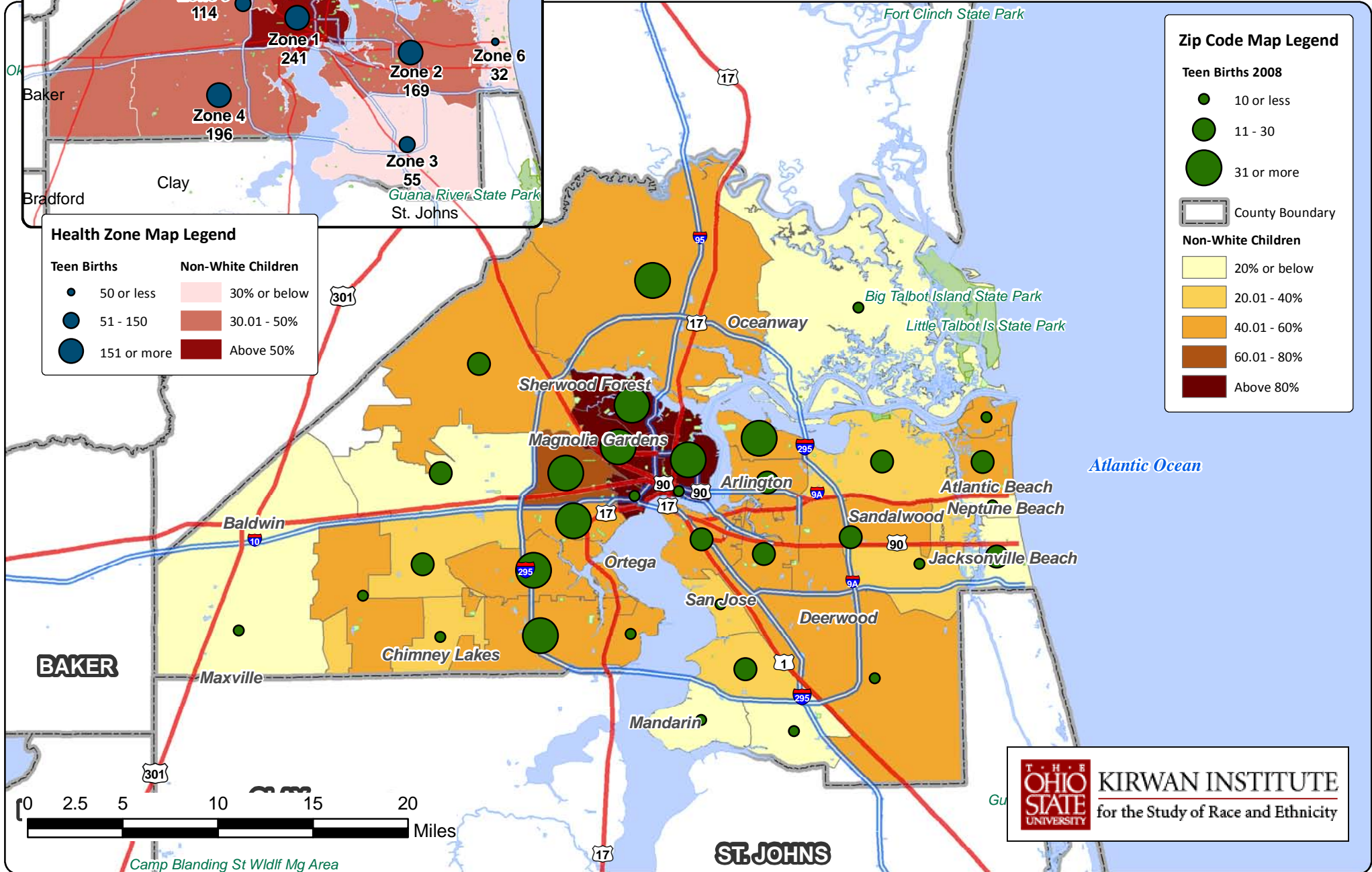


Map B-25: Teen Births vs. Non-White Children

Duval County, FL

This map displays the distribution of teen births and non-white children in Duval County, FL by zip code and by health zone (smaller map).

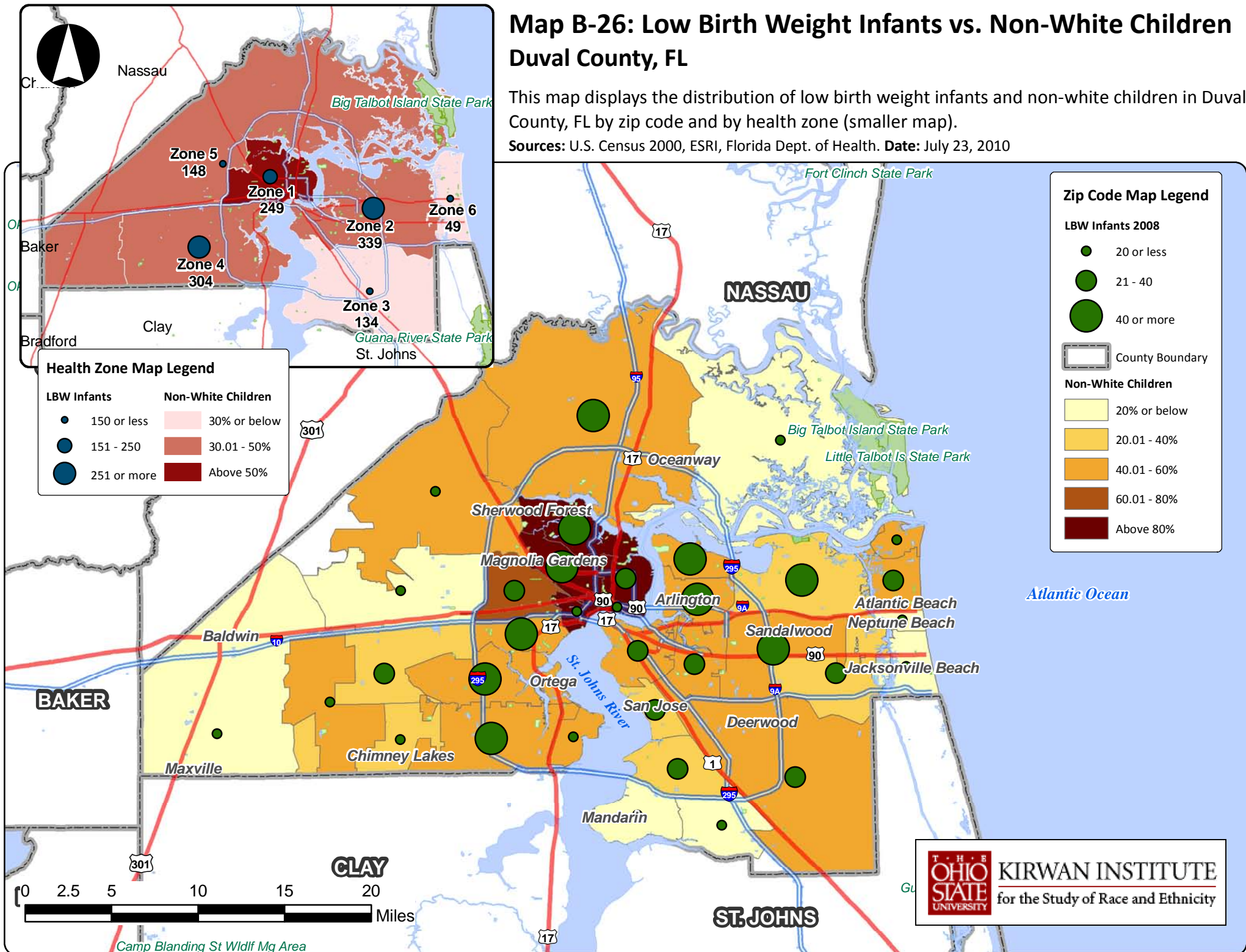
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Map B-26: Low Birth Weight Infants vs. Non-White Children Duval County, FL

This map displays the distribution of low birth weight infants and non-white children in Duval County, FL by zip code and by health zone (smaller map).

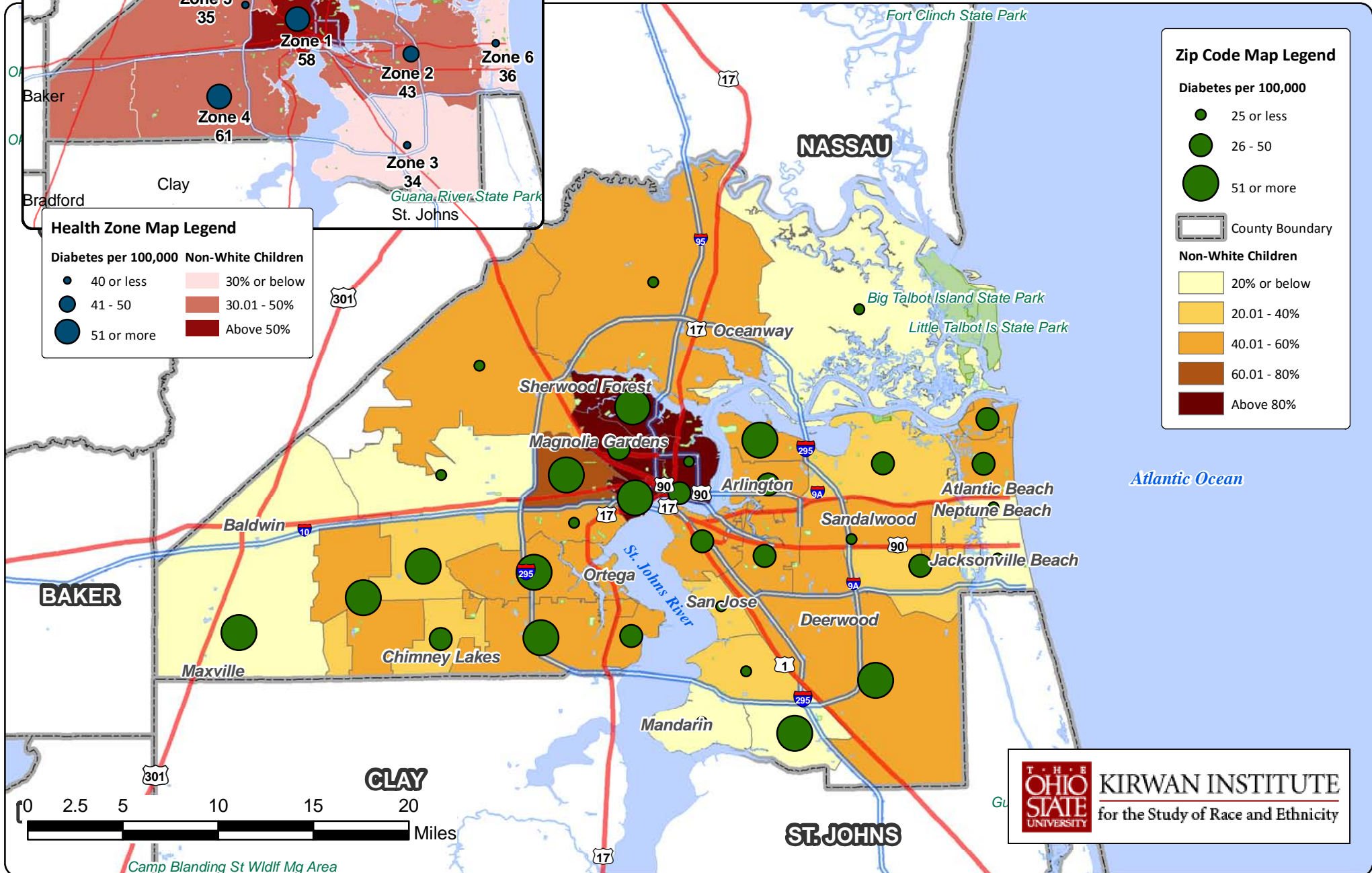
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-27: Children with Diabetes vs. Non-Whites Children Duval County, FL

This map displays the distribution of children (18 or younger) with diabetes and non-white children in Duval County, FL by zip code and by health zone (smaller map).

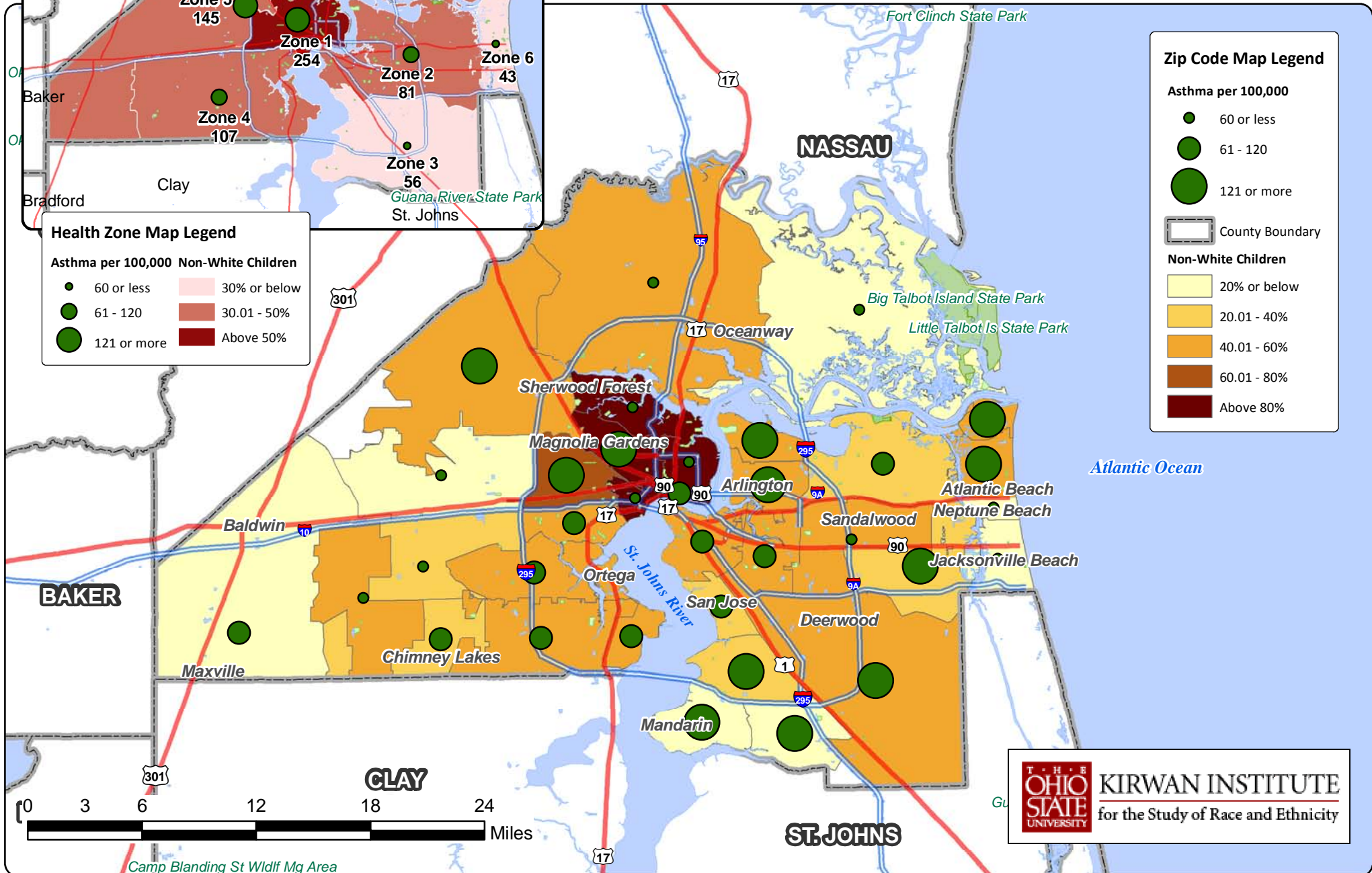
Sources: U.S. Census 2000, ESRI, Florida Dept. of Health. Date: July 23, 2010



Map B-28: Children with Asthma vs. Non-White Children Duval County, FL

This map displays the distribution of children (18 or younger) with asthma and non-white children in Duval County, FL by zip code and by health zone (smaller map).

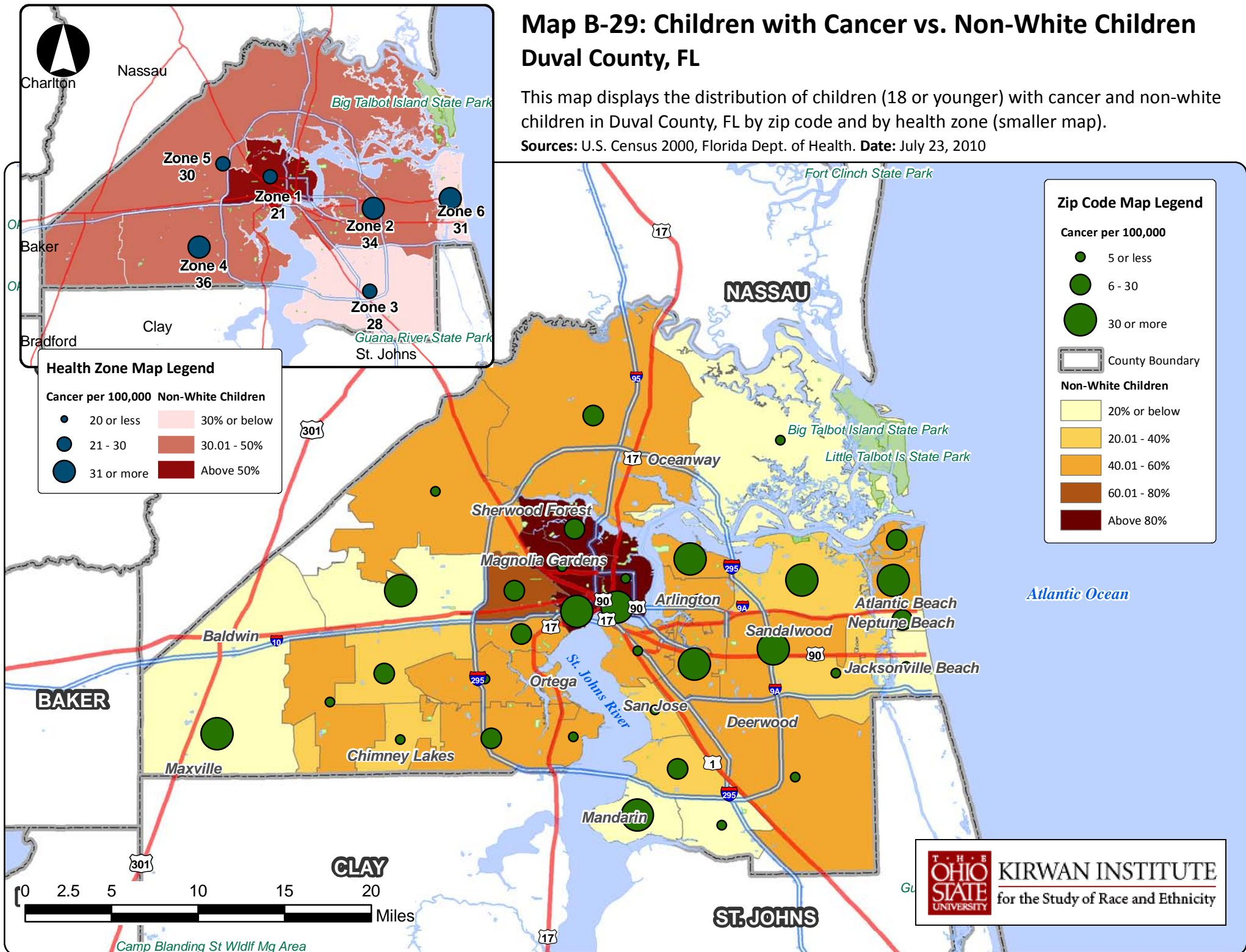
Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Map B-29: Children with Cancer vs. Non-White Children Duval County, FL

This map displays the distribution of children (18 or younger) with cancer and non-white children in Duval County, FL by zip code and by health zone (smaller map).

Sources: U.S. Census 2000, Florida Dept. of Health. Date: July 23, 2010



Appendix E: Student Non-Promotion Rate Analysis Maps

Map Number	Map Title
Map C-1	Elementary School Non-Promotion Rates and Non-White Students
Map C-2	Elementary School Non-Promotion Rates and Free and Reduced Lunch Students
Map C-3	Elementary School Non-Promotion Rates and Non-White Population**
Map C-4	Elementary School Non-Promotion Rates and Poverty Rate
Map C-5	Elementary School Non-Promotion Rates and Homeownership Rate**
Map C-6	Elementary School Non-Promotion Rates and Foreclosure Rate
Map C-7	Elementary School Non-Promotion Rates and Afterschool Program Participation for 30 Days or More
Map C-8	Elementary School Non-Promotion Rates and Afterschool Program Participation for 30+ Days by Non-White Students

** These maps are not included in this report but are accessible on the web:

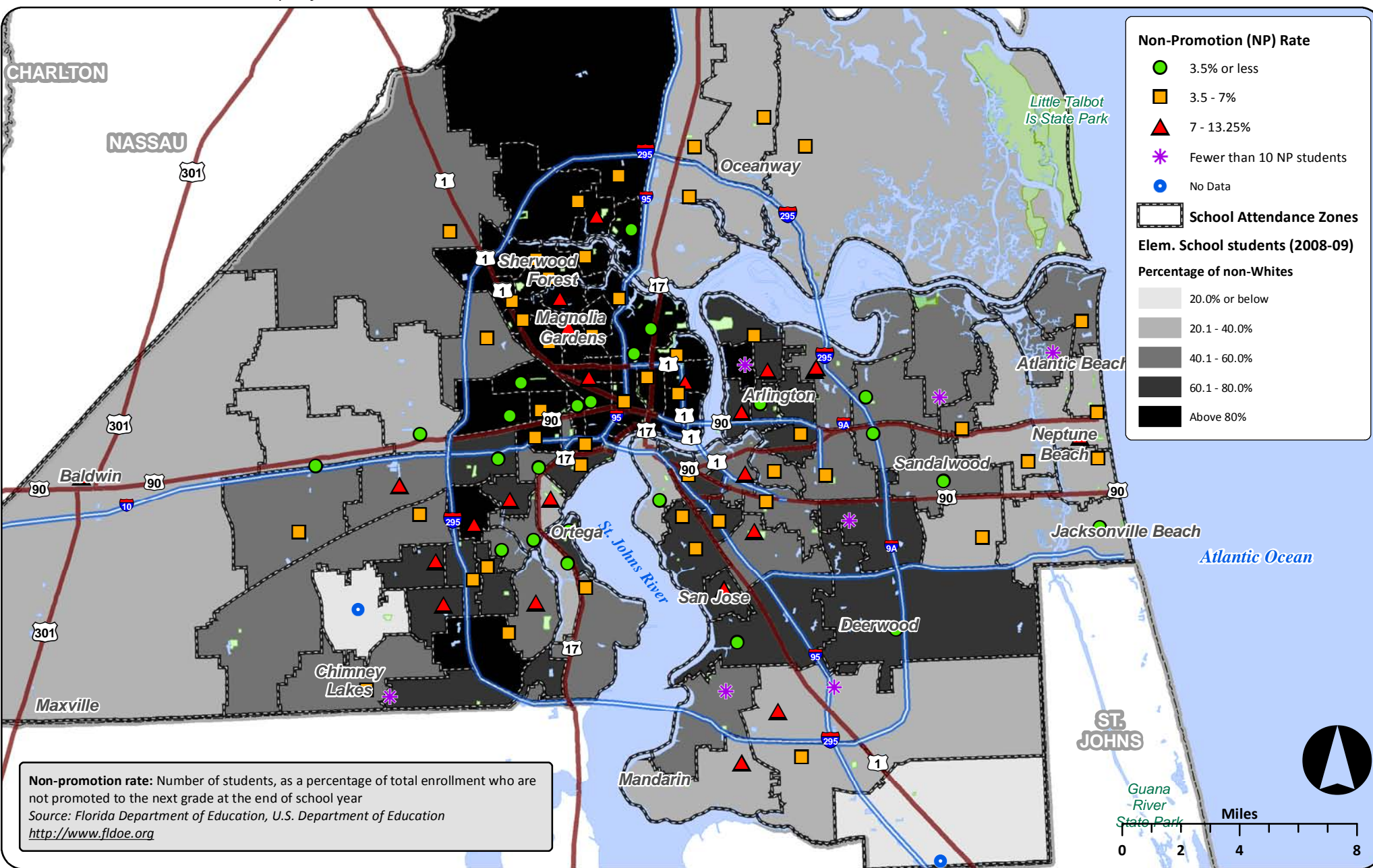
<http://www.kirwaninstitute.org/research/projects/jcc-child-well-being.php>

Map C-1: Elementary School Non-Promotion Rates and Non-White Students Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools and percentage of non-White students in elementary schools in Duval County, FL. Data is for the 2008-2009 school year.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 14, 2010

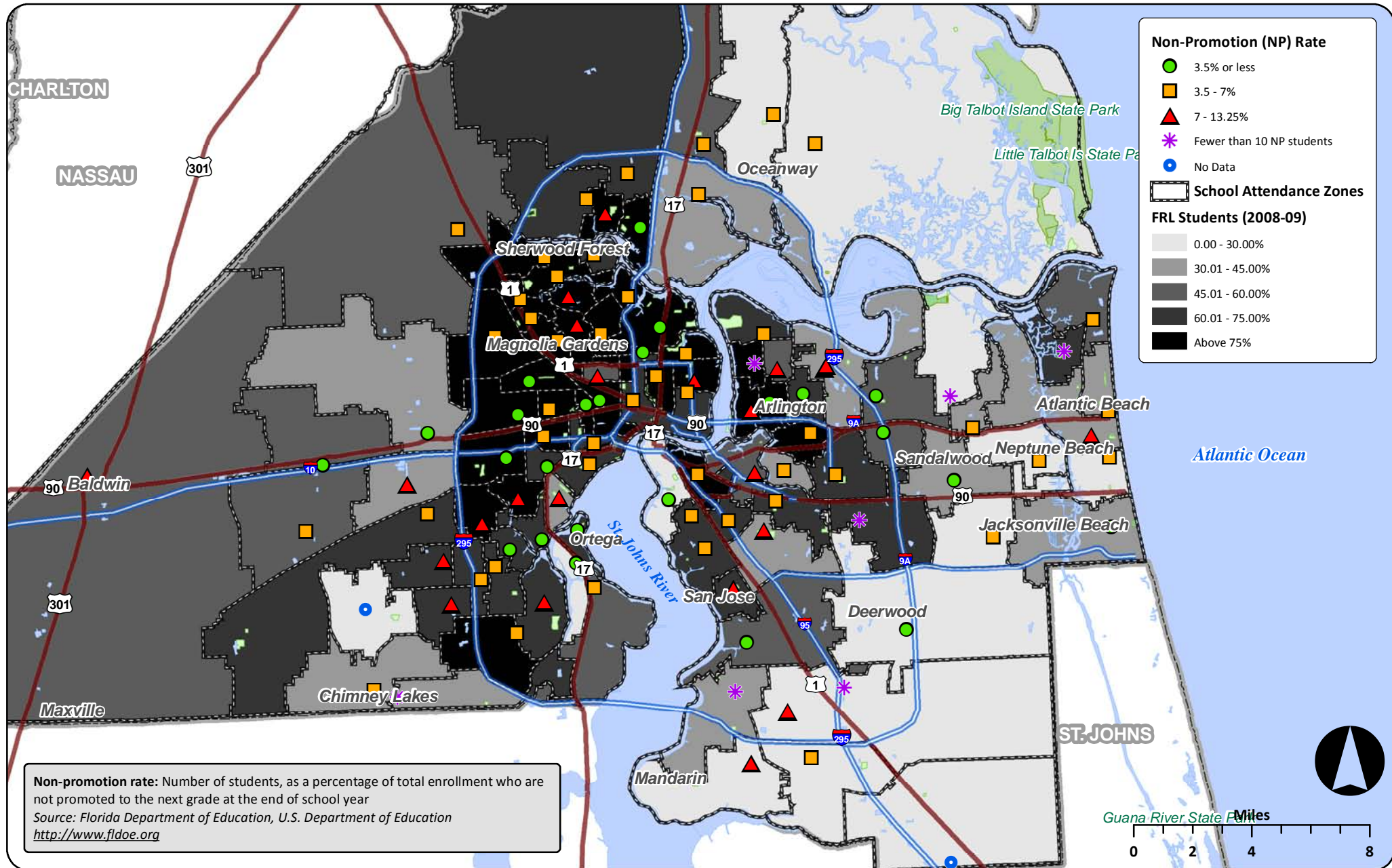


Map C-2: Elementary School Non-Promotion Rates and Free and Reduced Lunch Students Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools and the distribution of free and reduced lunch (FRL) students in elementary schools, in Duval County, FL. Data is for the 2008-2009 school year.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 14, 2010

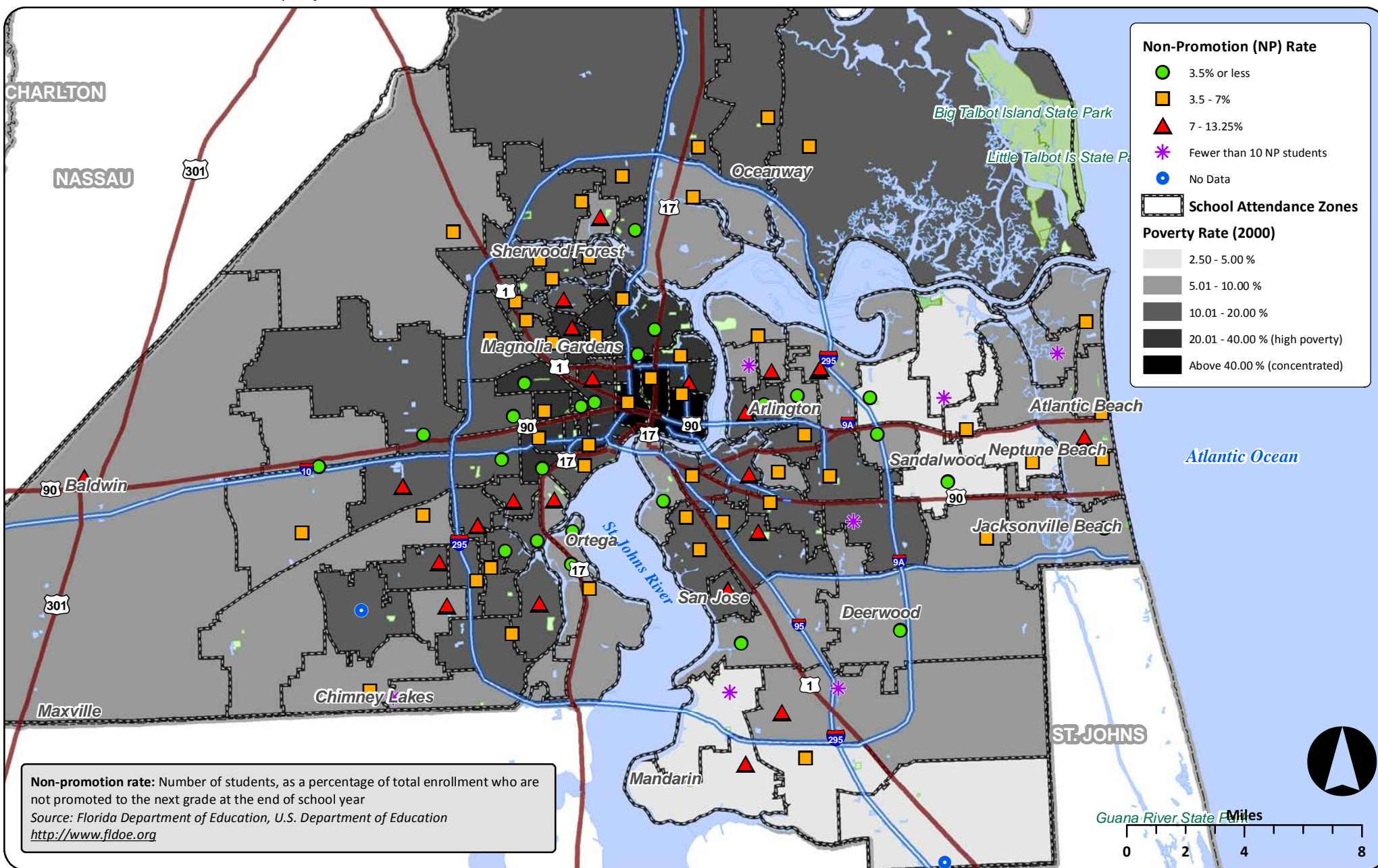


Map C-4: Elementary School Non-Promotion Rates and Poverty Rates Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools and the 2000 poverty rate, aggregated to elementary school attendance zone in Duval County, FL. School data is for the 2008-2009 academic year.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: October 14, 2010



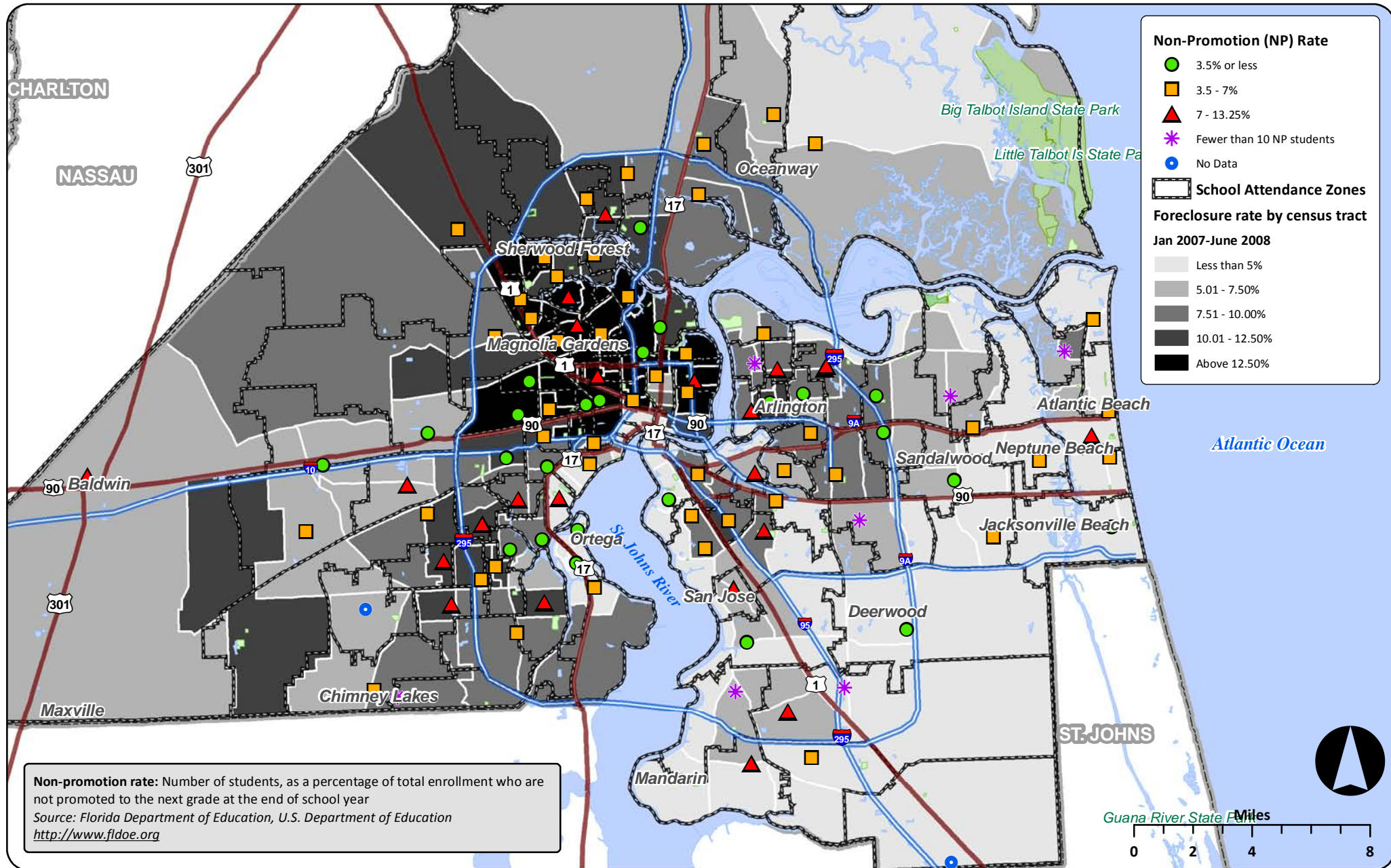
Map C-6: Elementary School Non-Promotion Rates and Foreclosure Rates

Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools (2008-2009 school year) and foreclosure rate (Jan 2007- June 2008) by census tract in Duval County, FL.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission, HUD

Date: October 14, 2010

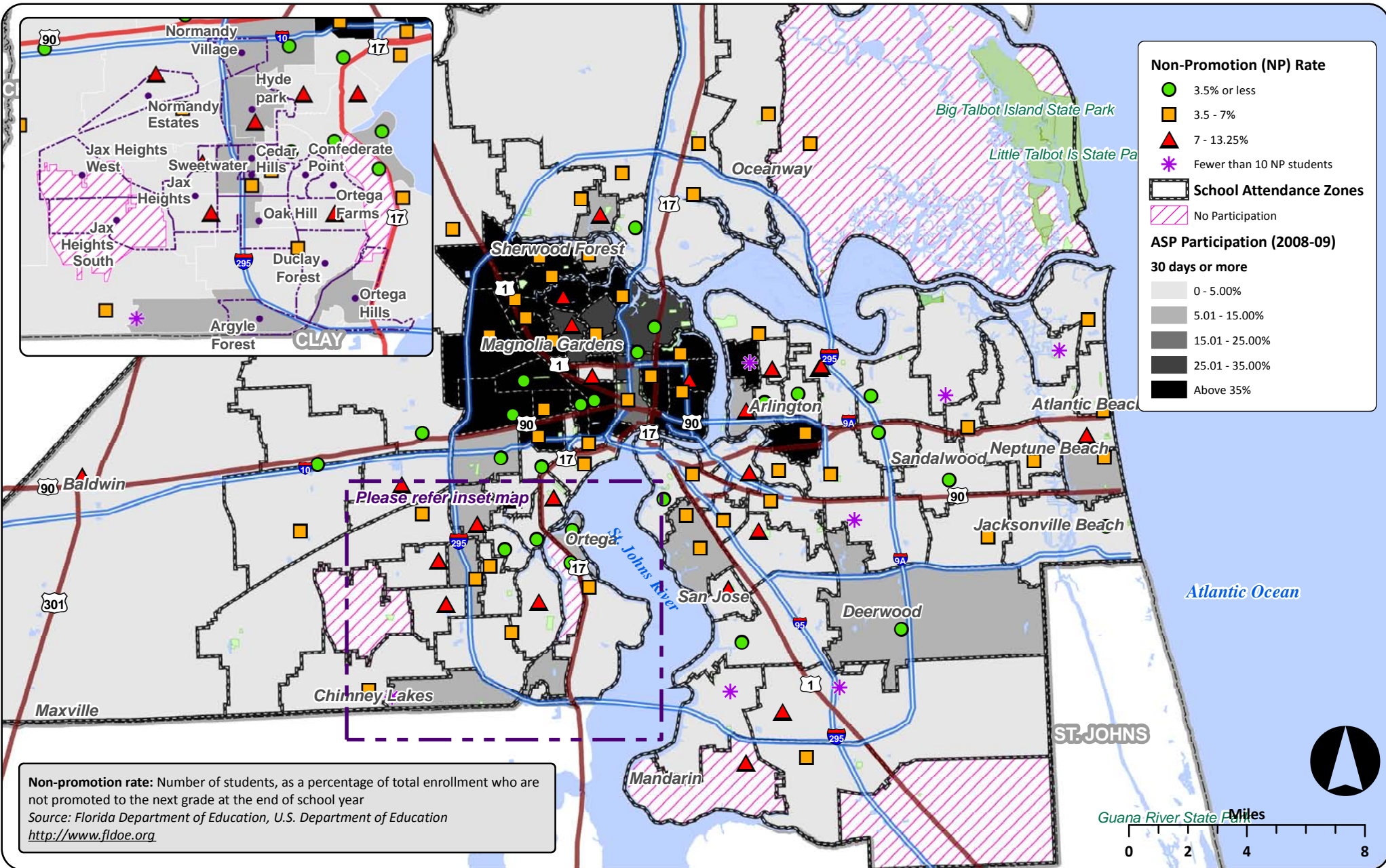


Map C-7: Elementary School Non-Promotion Rates and After-School Program (ASP) Participation for 30 Days or More - Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools and percentage of students in respective schools attending after-school program (ASP) for 30-days or more in Duval County, FL. Data is for school year 2008-09

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

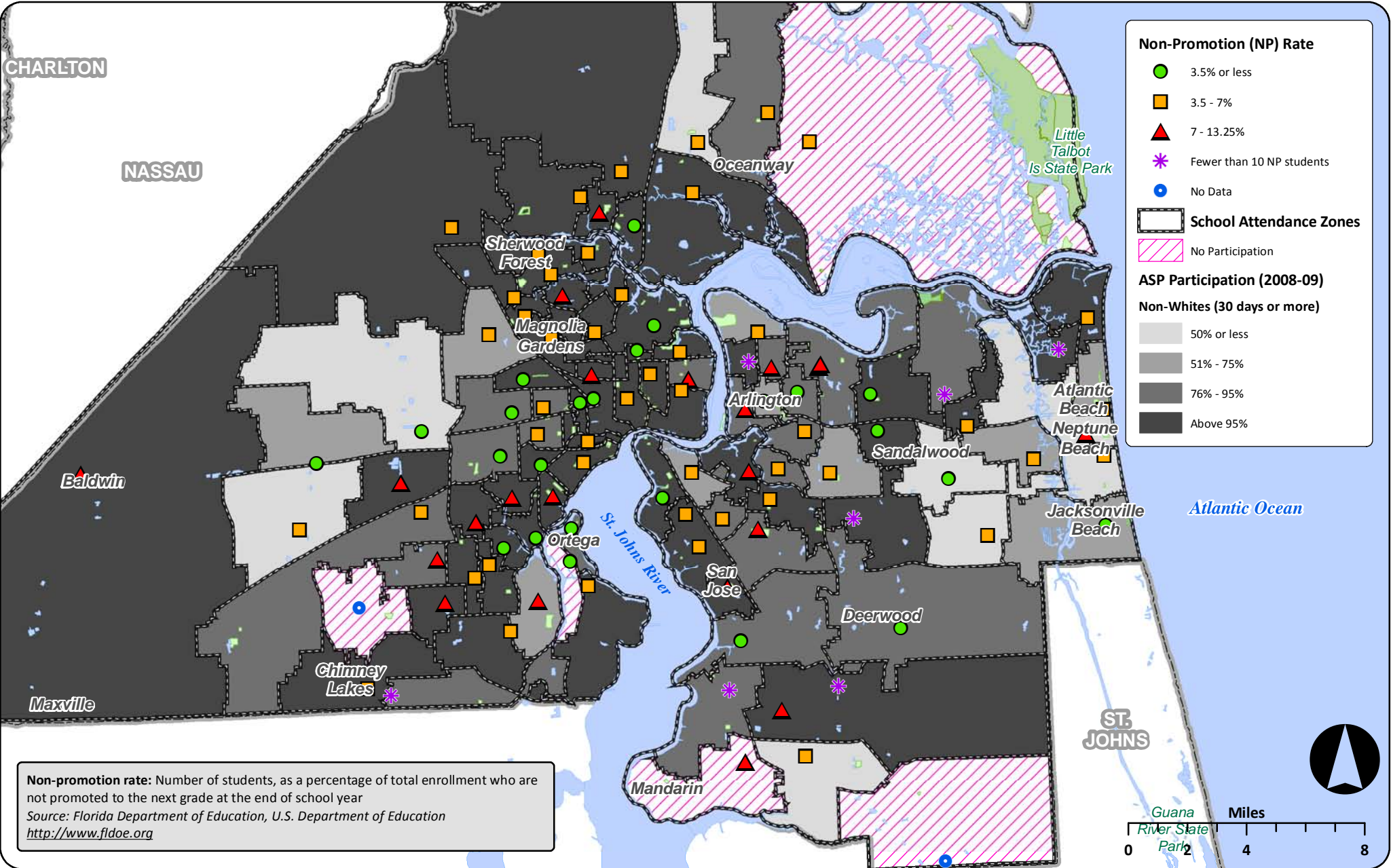
Date: October 14, 2010



Map C-8: Elementary School Non-Promotion Rates and After-School Program Participation for 30+ Days by non-White Elementary School Students - Duval County, FL

This map displays the percentage of students who are retained and not promoted to the next grade in elementary schools and respective non-White students as a percentage of all participating students in ASPs for 30 days or more in Duval County, FL. Non-White students include all but non-Hispanic Whites. Data is from school year 2008-09.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission Date: October 14, 2010



Appendix F: Opportunity Maps with Children Served by the Jacksonville Children’s Commission Overlay

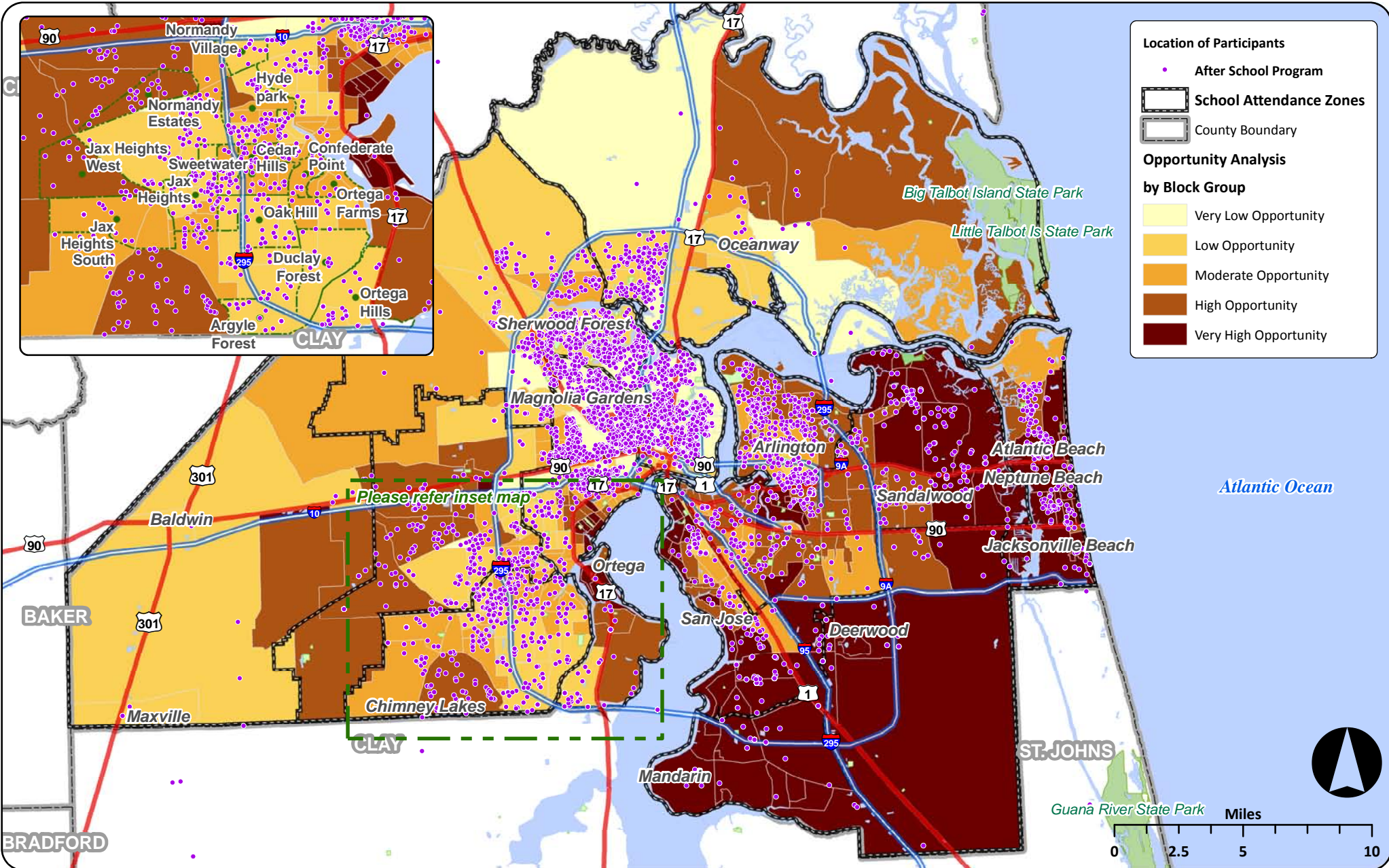
Map Number	Map Title
Map D-1	After School Program Participants and Comprehensive Opportunity
Map D-2	Healthy Family Program Participants and Comprehensive Opportunity
Map D-3	Children in Other Services and Comprehensive Opportunity

Map D-1: After School Program Participants and Comprehensive Opportunity Duval County, FL

This map displays the location of students in After School Programs over the spatial distribution of opportunity in Duval County, based on education, health/environment, and neighborhood indicators.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: November 12, 2010

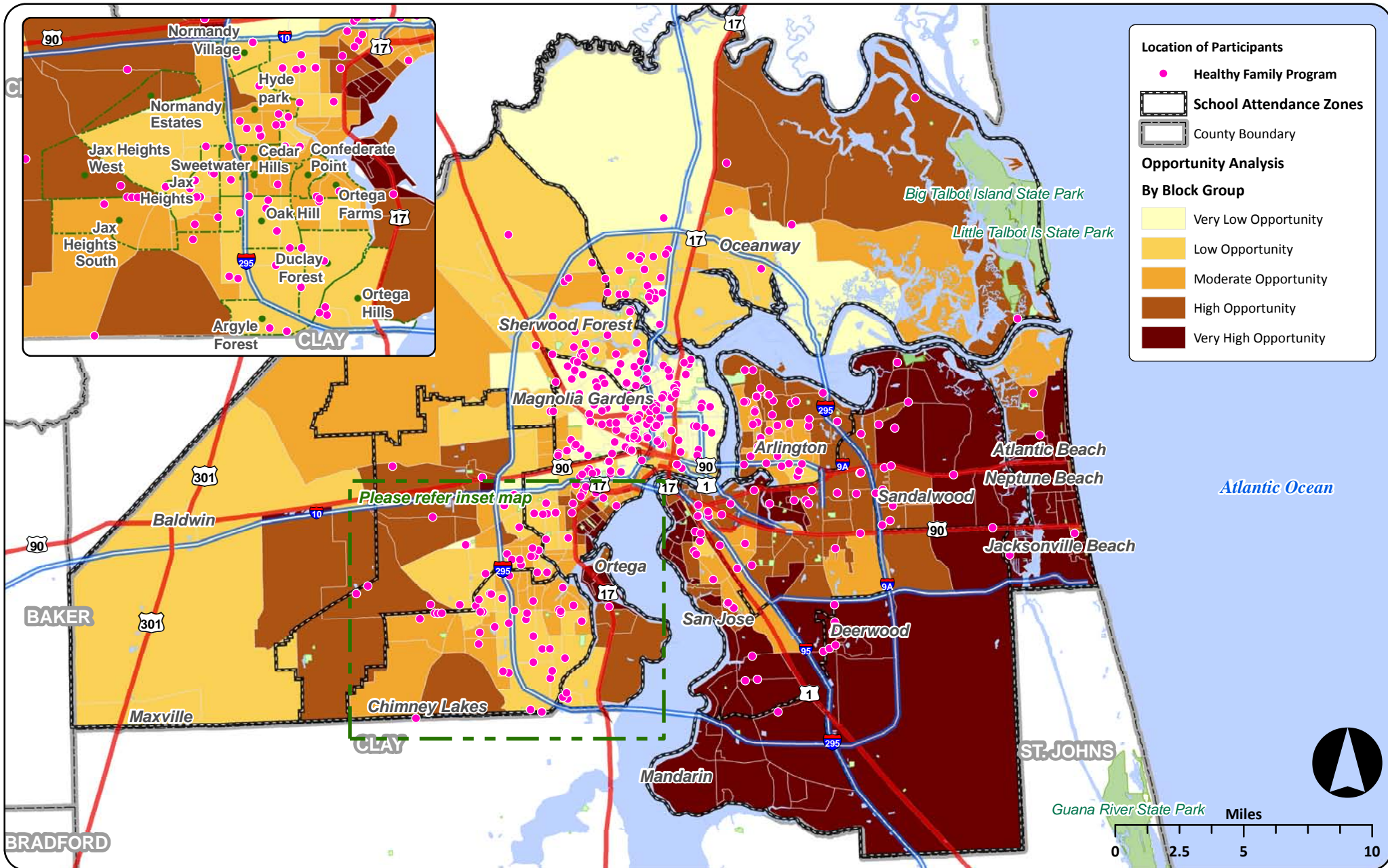


Map D-2: Healthy Family Program Participants and Comprehensive Opportunity Duval County, FL

This map displays the location of participants in Healthy Family Program over the spatial distribution of opportunity in Duval County, based on education, health/environment, and neighborhood indicators.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: November 12, 2010

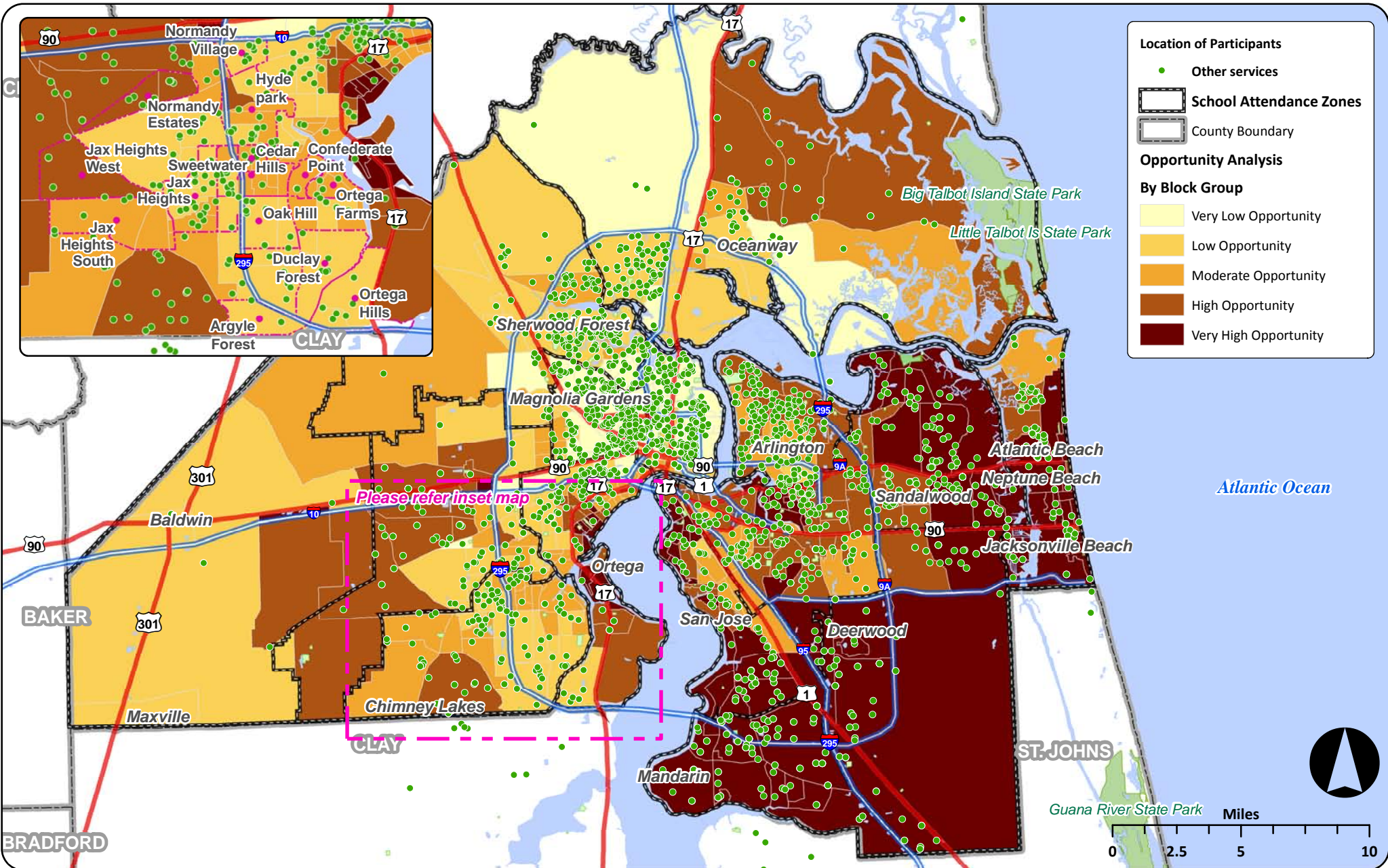


Map D-3: Children in other services and Comprehensive Opportunity Duval County, FL

This map displays the location of children in service other than After School Program over the spatial distribution of opportunity in Duval County, based on education, health/environment, and neighborhood indicators.

Sources: U.S. Census 2000, Florida Dept. of Education, ESRI 2009, Jacksonville Children's Commission

Date: November 12, 2010



Appendix G: New Town Analysis Maps and Charts

Map/Chart Number	Map/Chart Title
Map E-1	New Town - Population Change Rate 2000-2009
Map E-2	New Town - Non-White Population
Map E-3	New Town - Poverty Rate, Below 100% Poverty Line
Map E-4	New Town - Poverty Rate, Below 125% Poverty Line**
Map E-5	New Town - Poverty Rate, Below 200% Poverty Line**
Map E-6	New Town - Poverty Rate, Child Poverty
Map E-7	New Town - Median Household Income
Map E-8	New Town - Households with Public Assistance**
Map E-9	New Town - Homeownership Rate**
Map E-10	New Town - Vacant Housing
Map E-11	New Town - Adult Educational Attainment
Map E-12	New Town - Math Proficiency (2008-09 School Year)
Map E-13	New Town - Reading Proficiency (2008-09 School Year)
Map E-14	New Town - School Stability (2008-09 School Year)
Map E-15	New Town - Non-White Population by Census Block**
Map E-16	New Town - Homeownership Rate by Census Block**
Map E-17	New Town - Vacant Housing by Census Block**
Chart 7	Age distribution of population in New Town
Chart 8	Population Change (1990-2000) by Race
Chart 9	Home ownership and housing vacancy rate
Chart 10	Poverty Rate
Chart 12	School stability rate and school poverty
Chart 13	Performance on FCAT Math and Reading

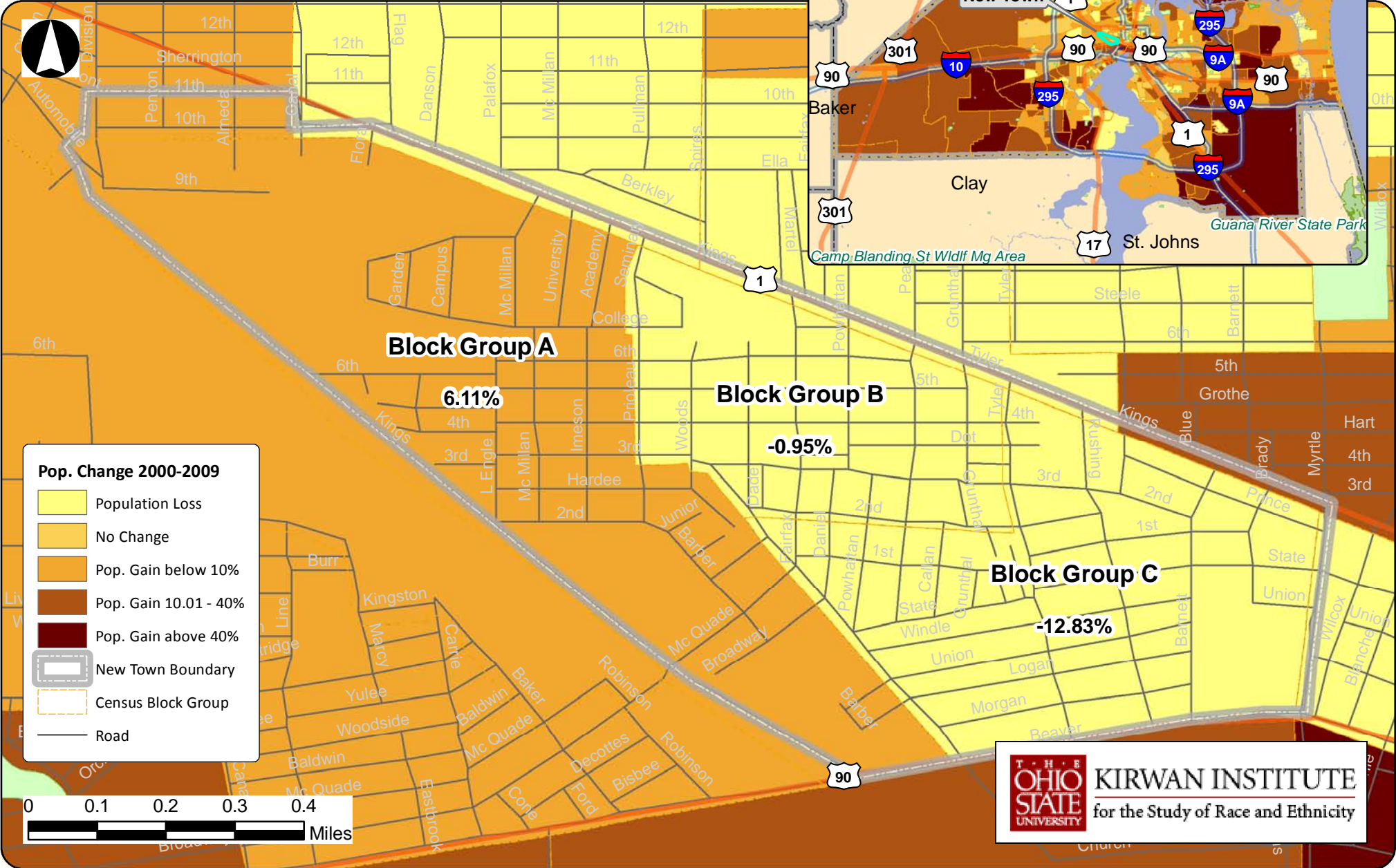
** These maps are not included in this report but are accessible on the web:
<http://www.kirwaninstitute.org/research/projects/jcc-child-well-being.php>

New Town, Duval County, FL

Map E-1: Population change 00-09

This map displays the distribution of population change over 9 years (2000-2009) in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

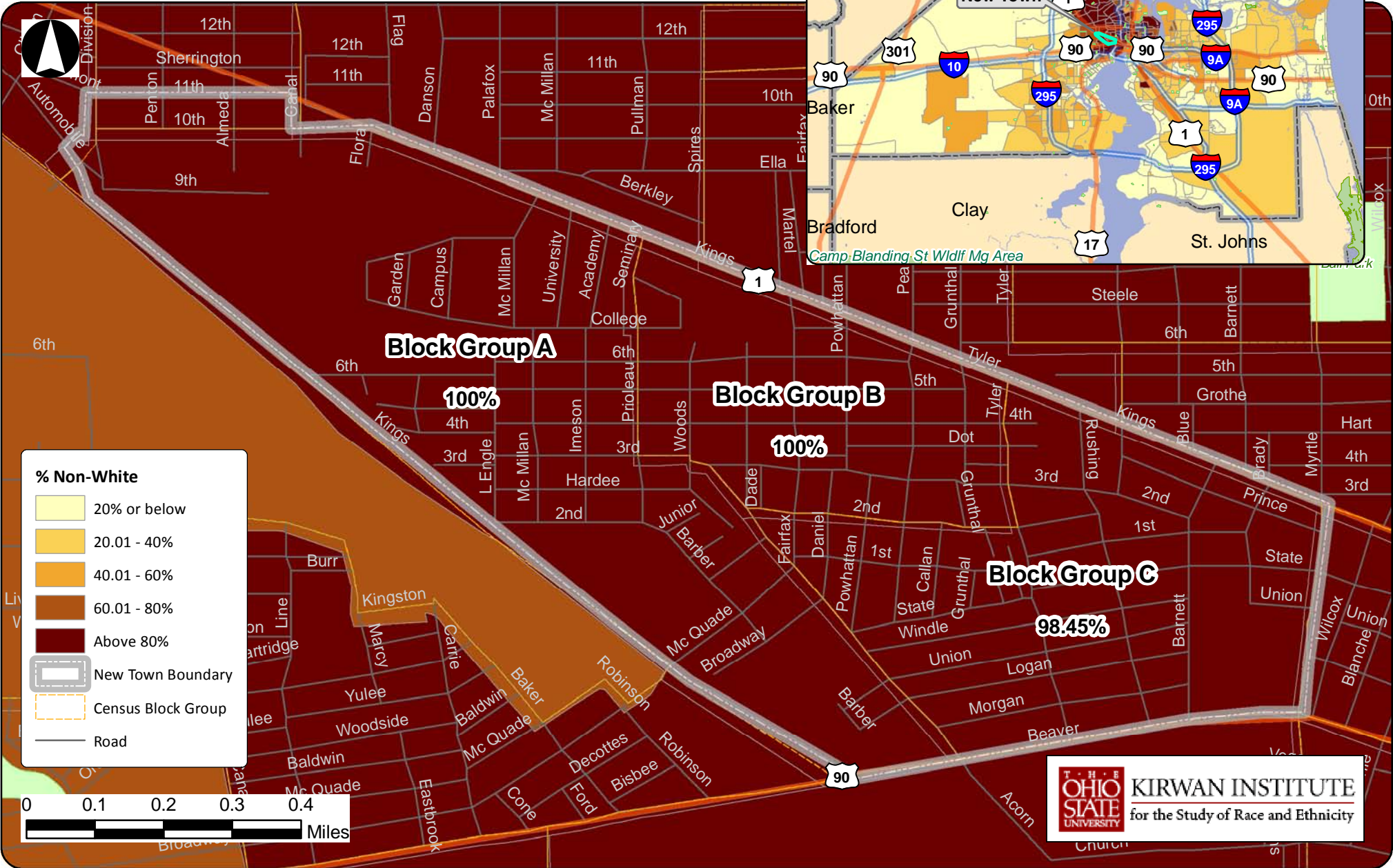


New Town, Duval County, FL

Map E-2: Non-White Population

This map displays the distribution of non-White population by census block group in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

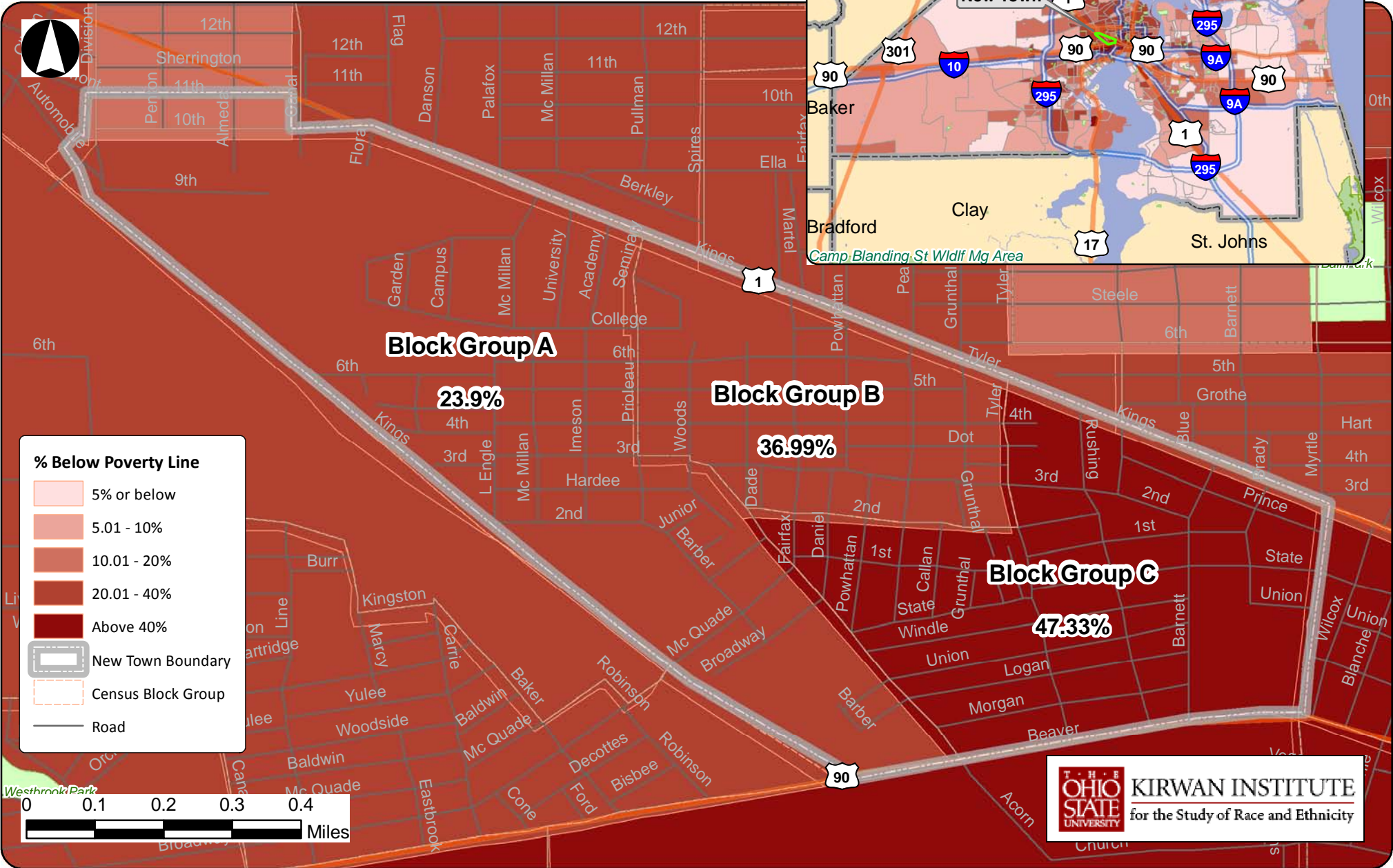


New Town, Duval County, FL

Map E-3: Poverty Rate - Below 100% Poverty Line

This map displays the distribution of poverty defined as below 100% of poverty line in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

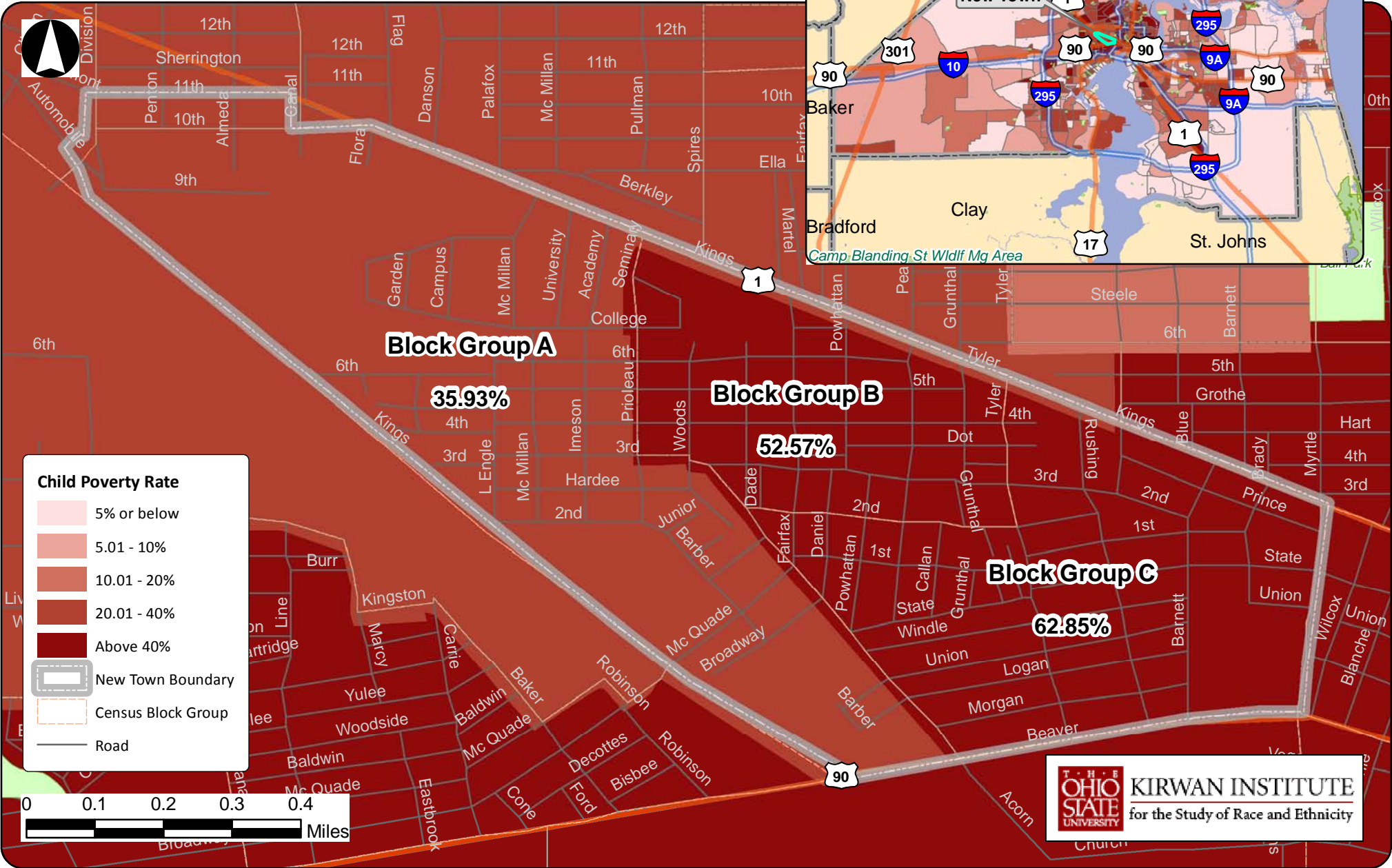


New Town, Duval County, FL

Map E-6: Poverty Rate - Child Poverty

This map displays the distribution of children in poverty in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

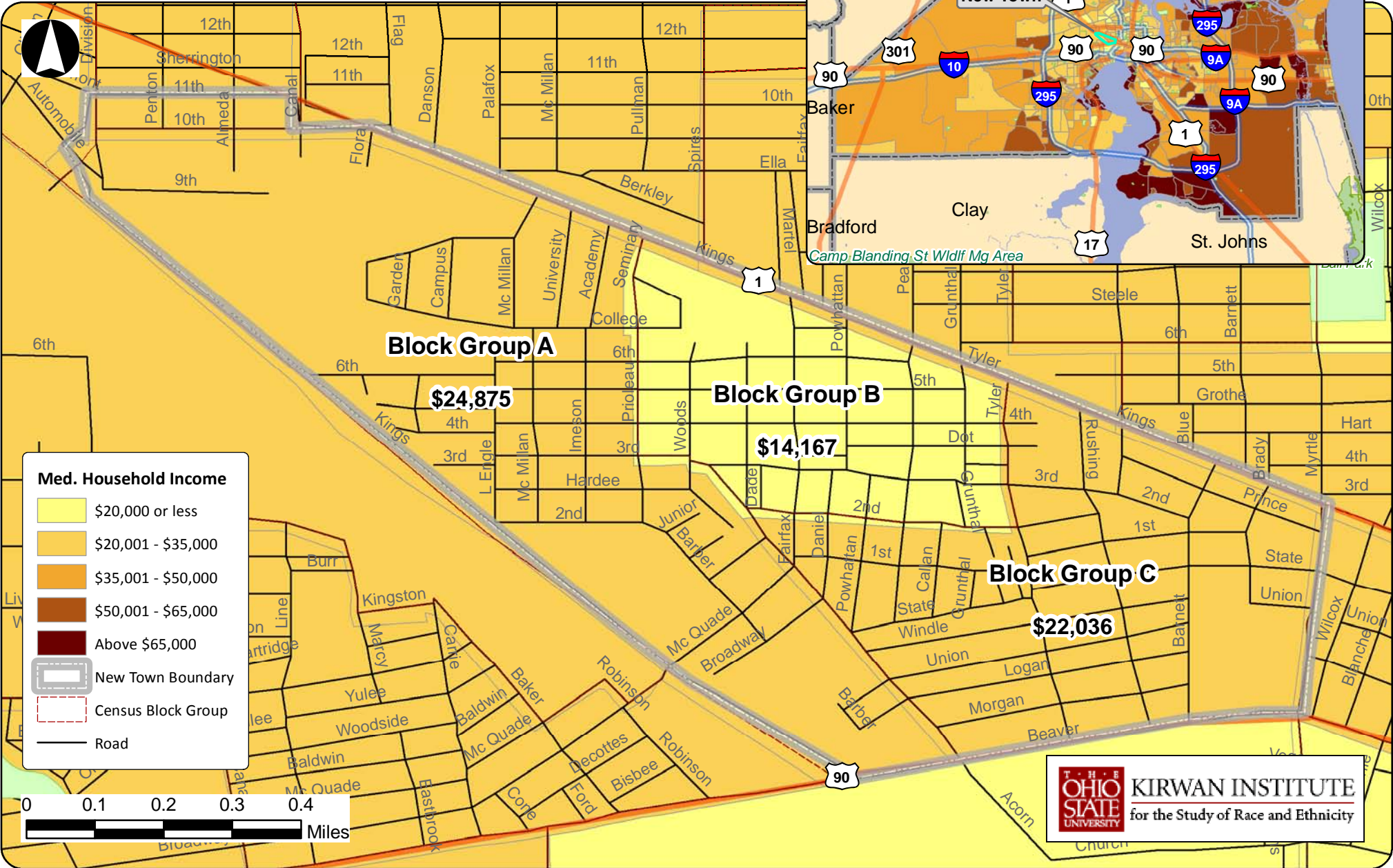


New Town, Duval County, FL

Map E-7: Median Household Income

This map displays the distribution of median household income in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

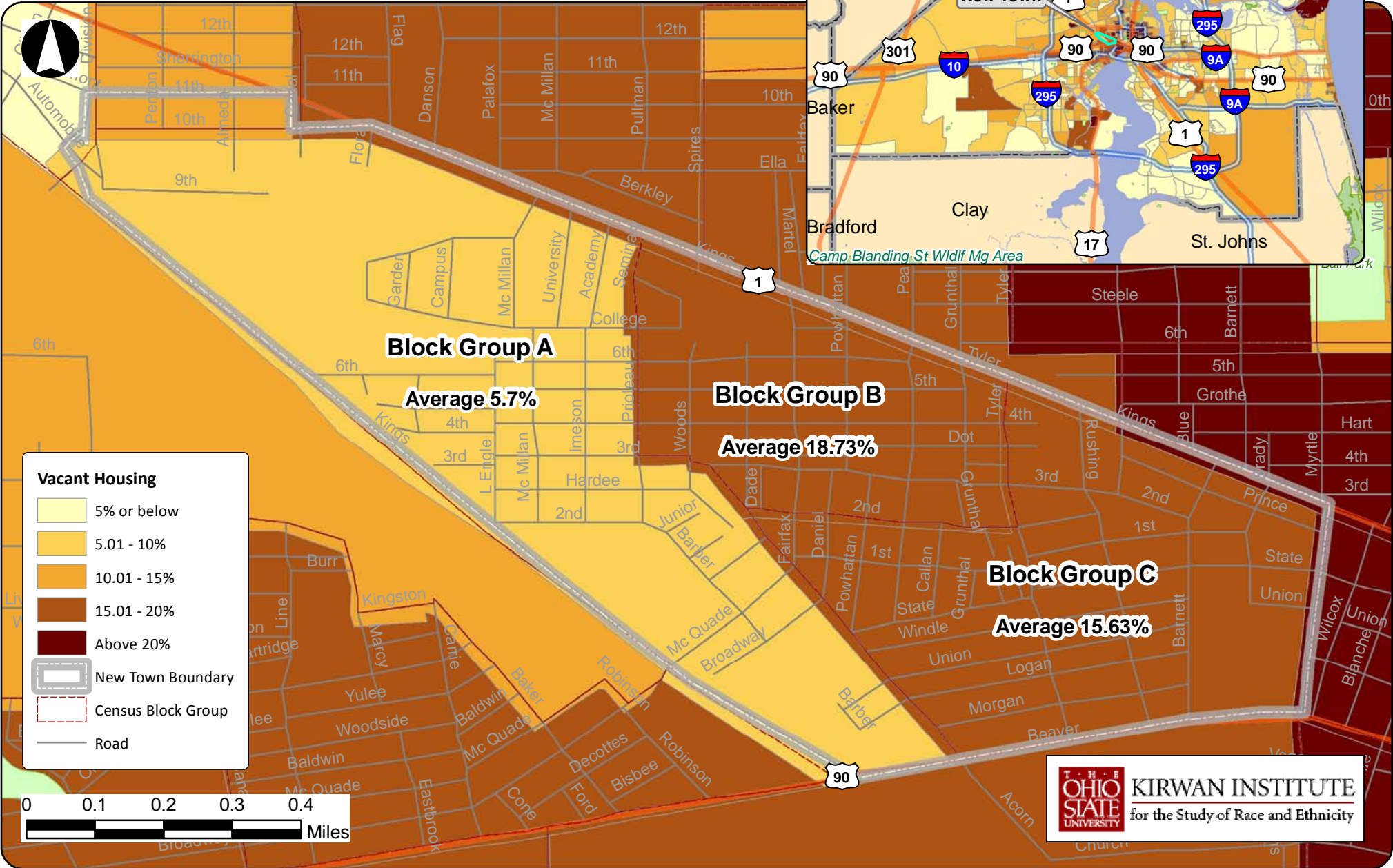


New Town, Duval County, FL

Map E-10: Vacant Housing

This map displays the distribution of vacant properties by census block group in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010

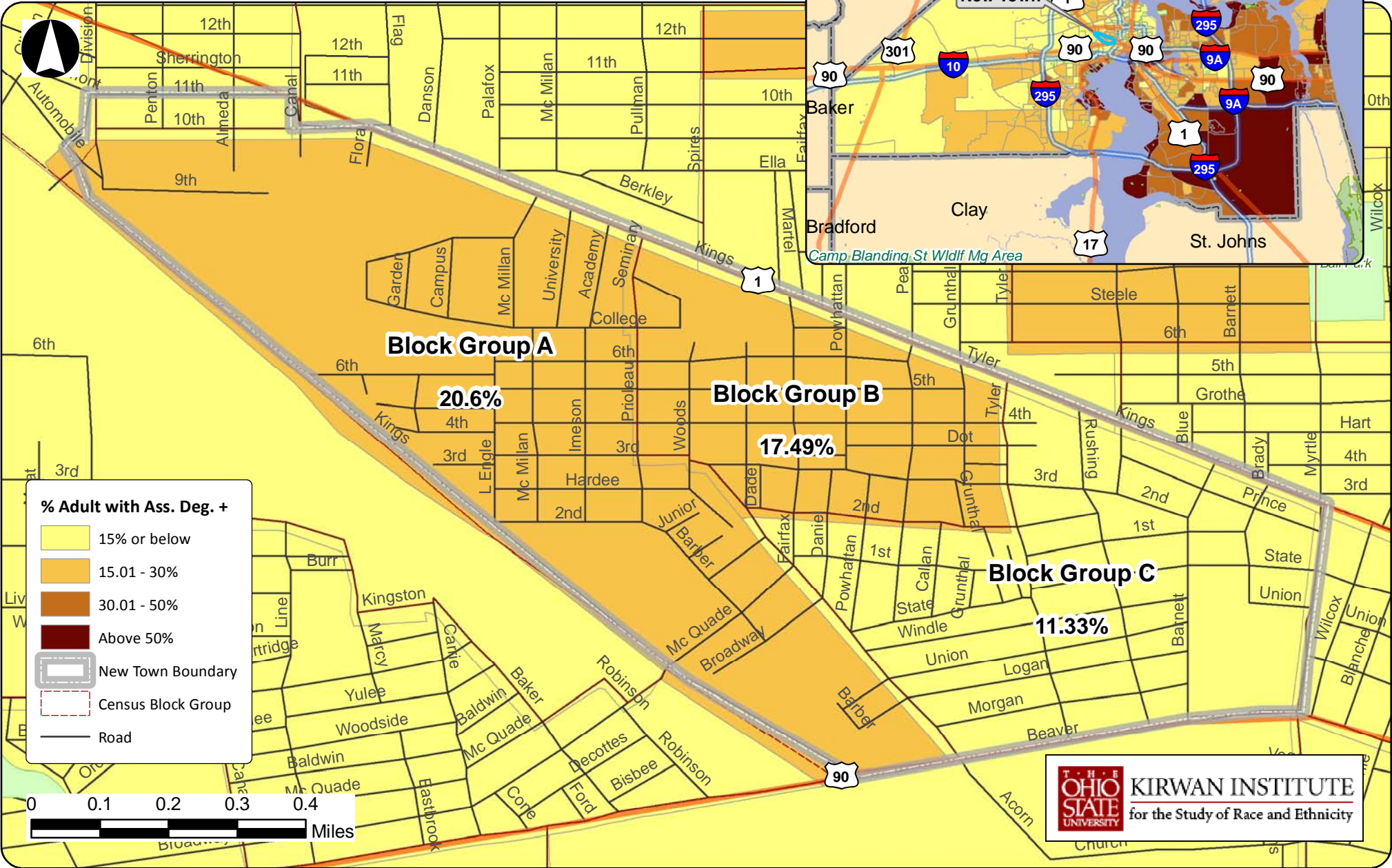


New Town, Duval County, FL

Map E-11: Adult Education Attainment

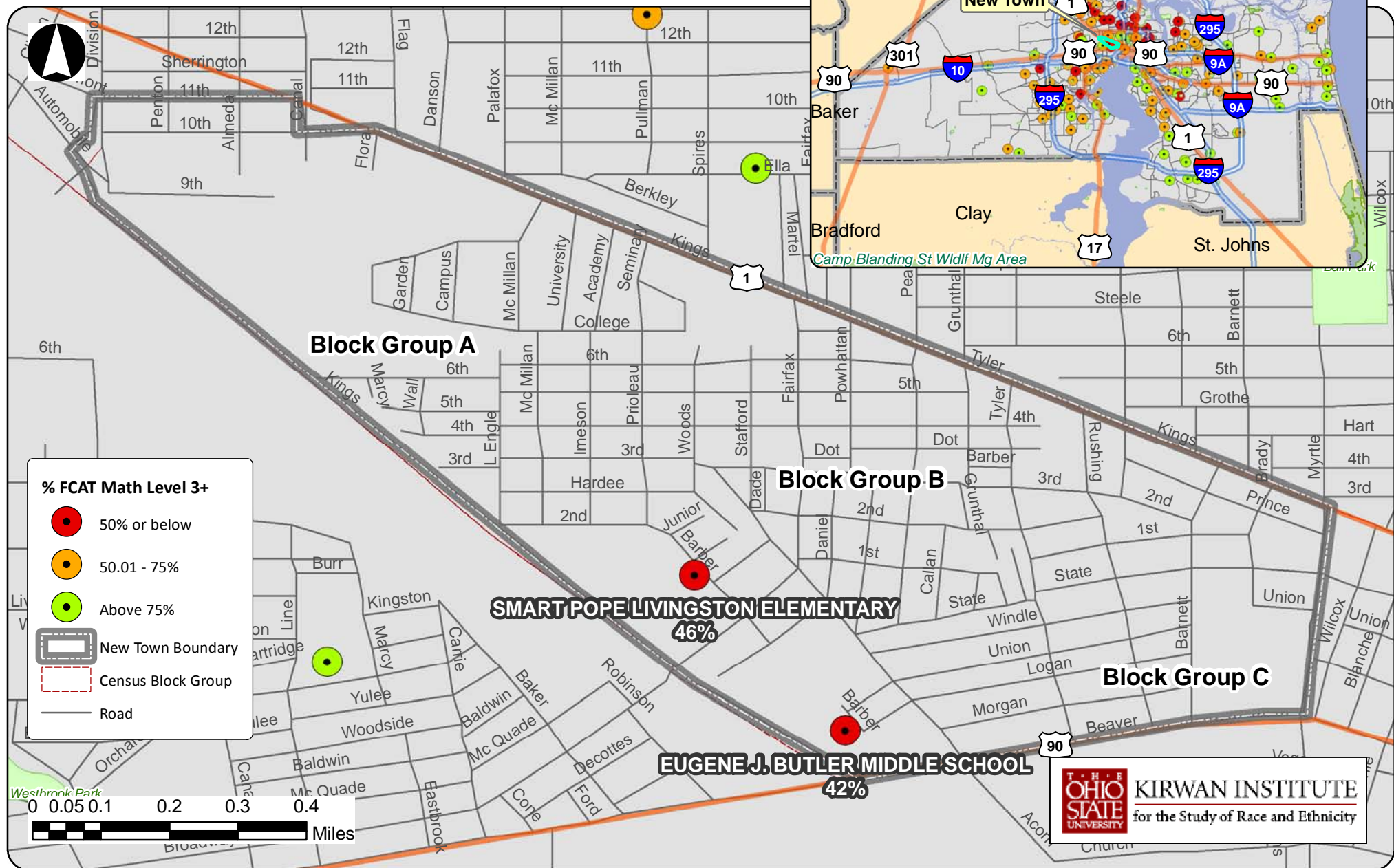
This map displays the distribution of adults with associate degree or higher in Duval County, FL with a focus on New Town area.

Sources: U.S. Census 2000, ESRI. Date: June 22, 2010



Map E-12: Math Proficiency (2008-09 School Year)

Sources: U.S. Census 2000, ESRI, Florida Department of Education. **Date:** June 22, 2010

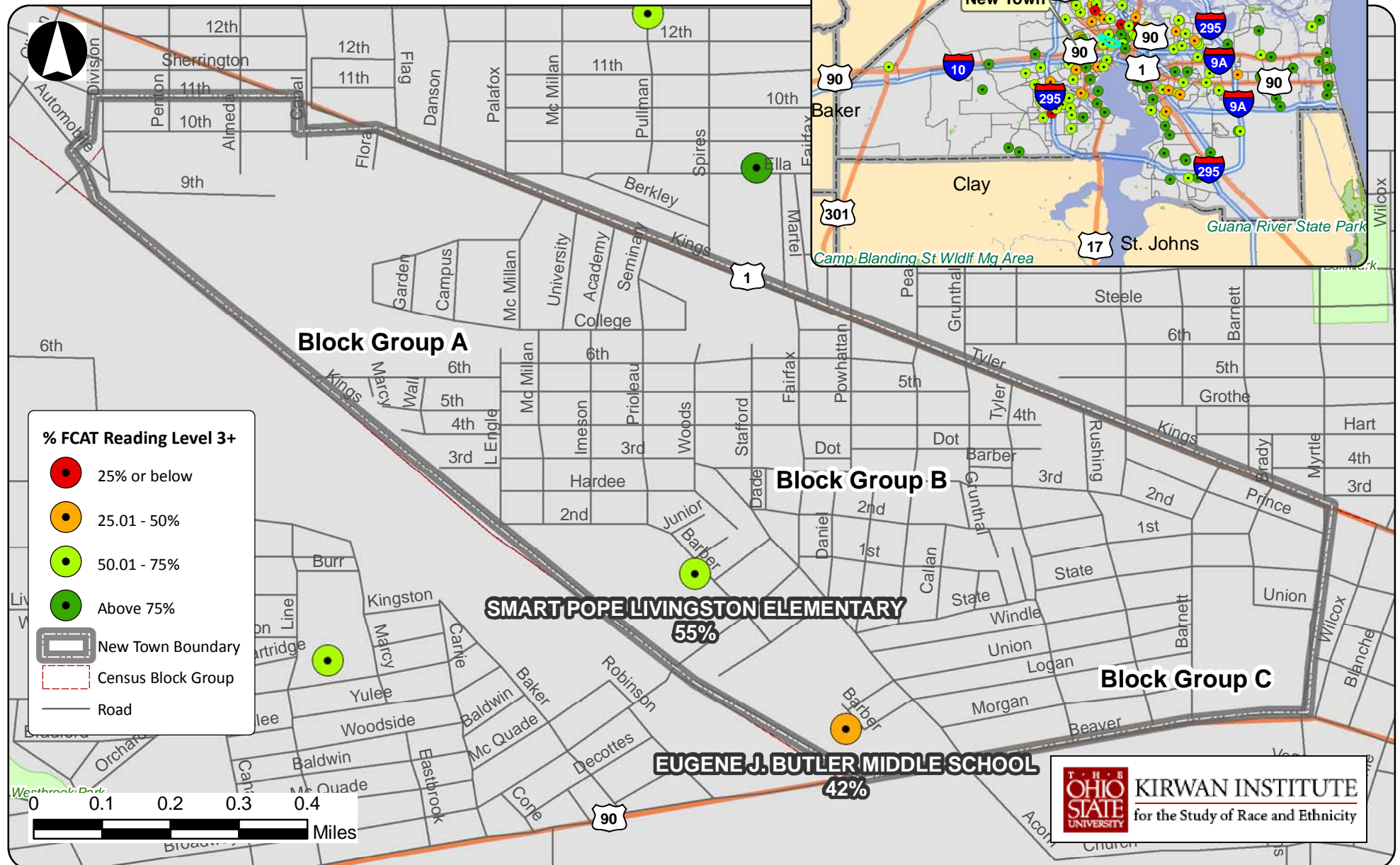


New Town, Duval County, FL

Map E-13: Reading Proficiency (2008-09 School Year)

This map shows Duval County, FL schools' performance on FCAT Reading for 2008-2009 school year with a focus on New Town area. (Duval County Average=63%)

Sources: U.S. Census 2000, ESRI, Florida Department of Education. Date: June 22, 2010



New Town, Duval County, FL

Map E-14: School Stability (2008-09 School Year)

This map shows stability rate for schools in Duval County, FL for 2008-2009 school year with a focus on New Town area.

Sources: U.S. Census 2000, ESRI, Florida Department of Education. Date: June 22, 2010

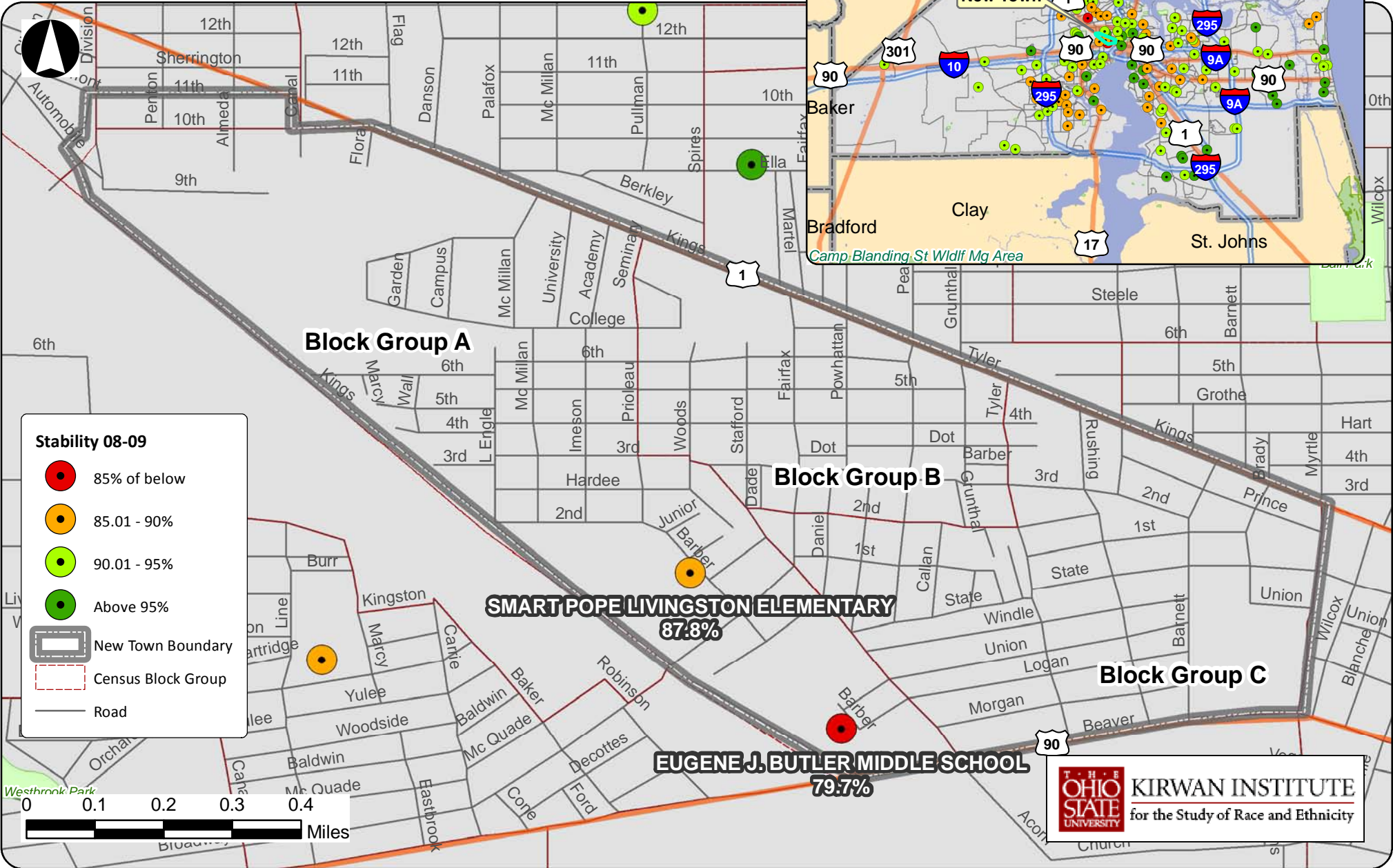
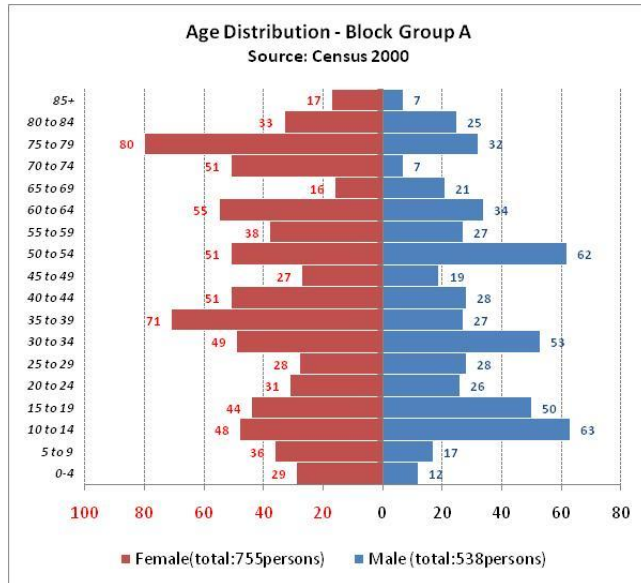


Chart 7: Age distribution of population in New Town

Census 2000



2008 Estimate

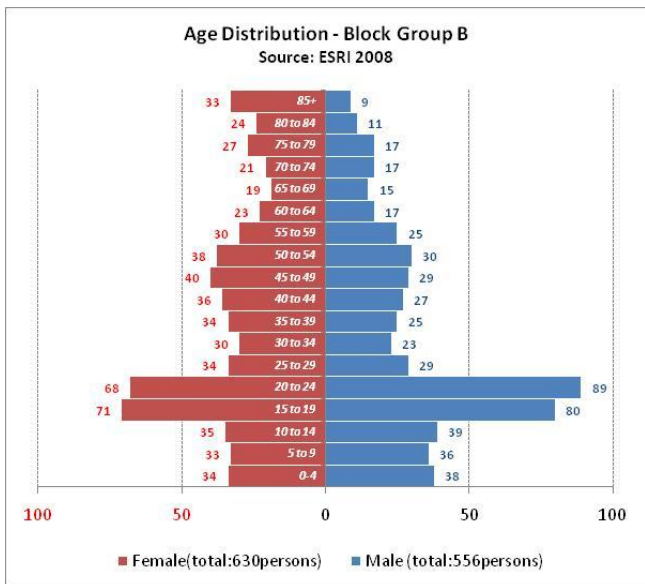
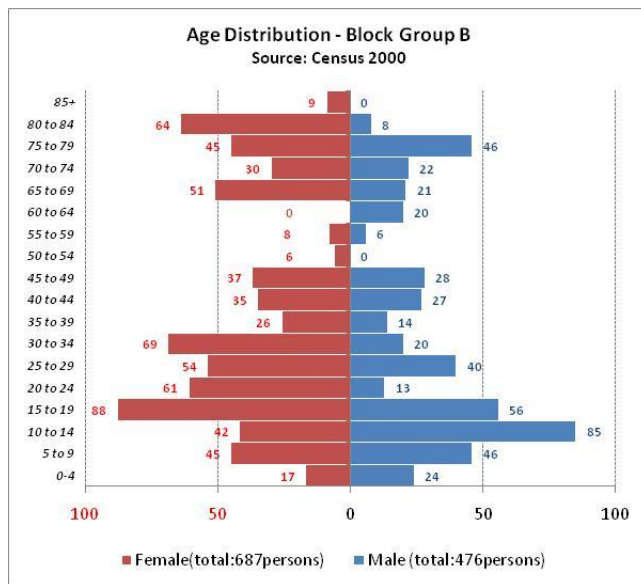
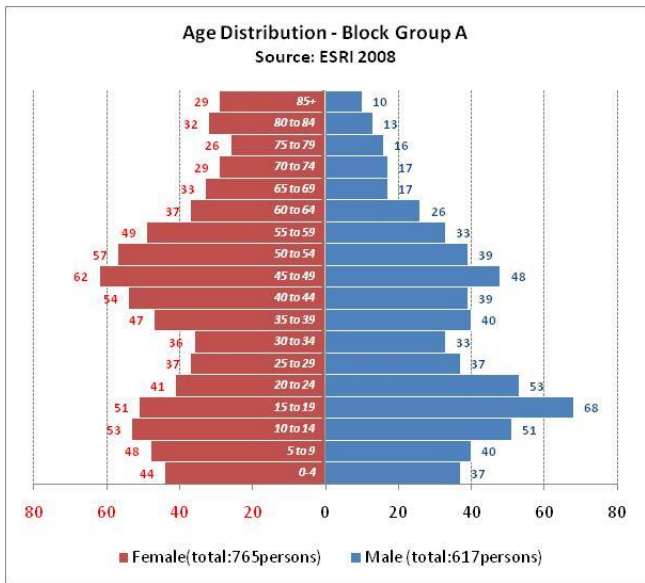
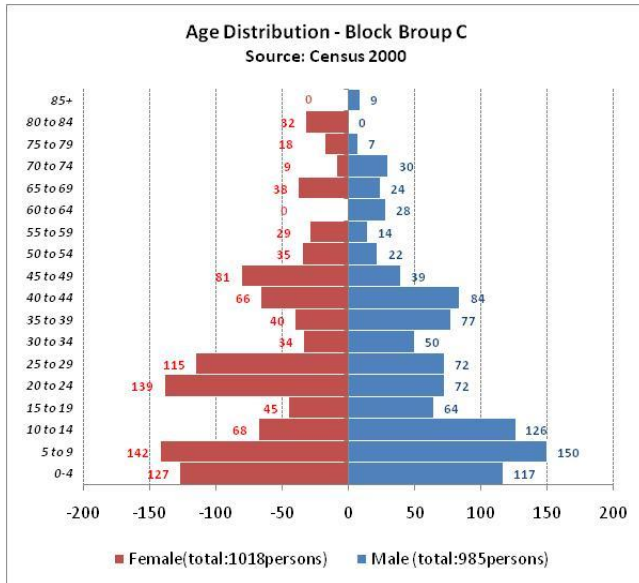


Chart 7: Age distribution of population in New Town (Cont.)

Census 2000



2008 Estimate

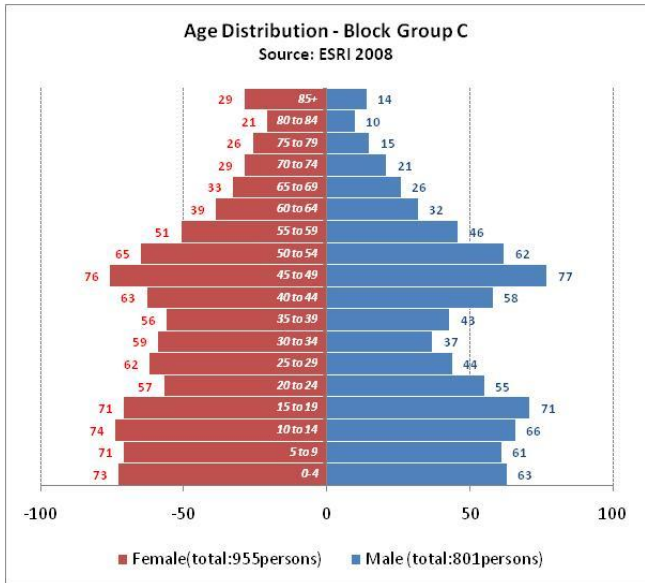


Chart 8: Population Change (1990-2000) by Race

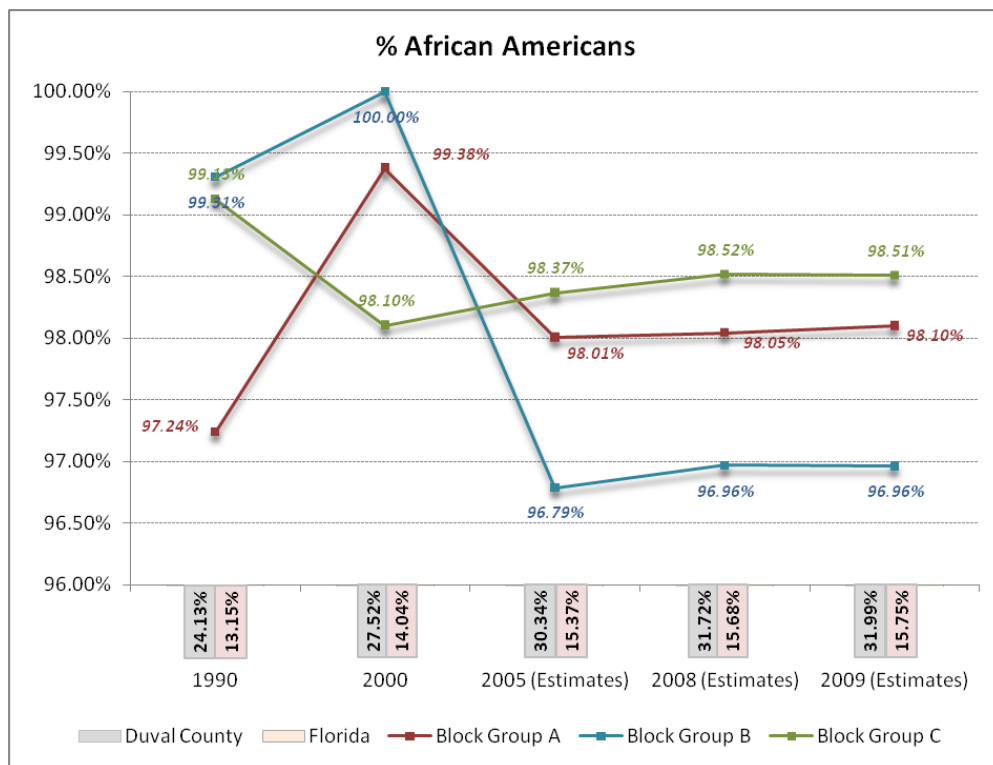
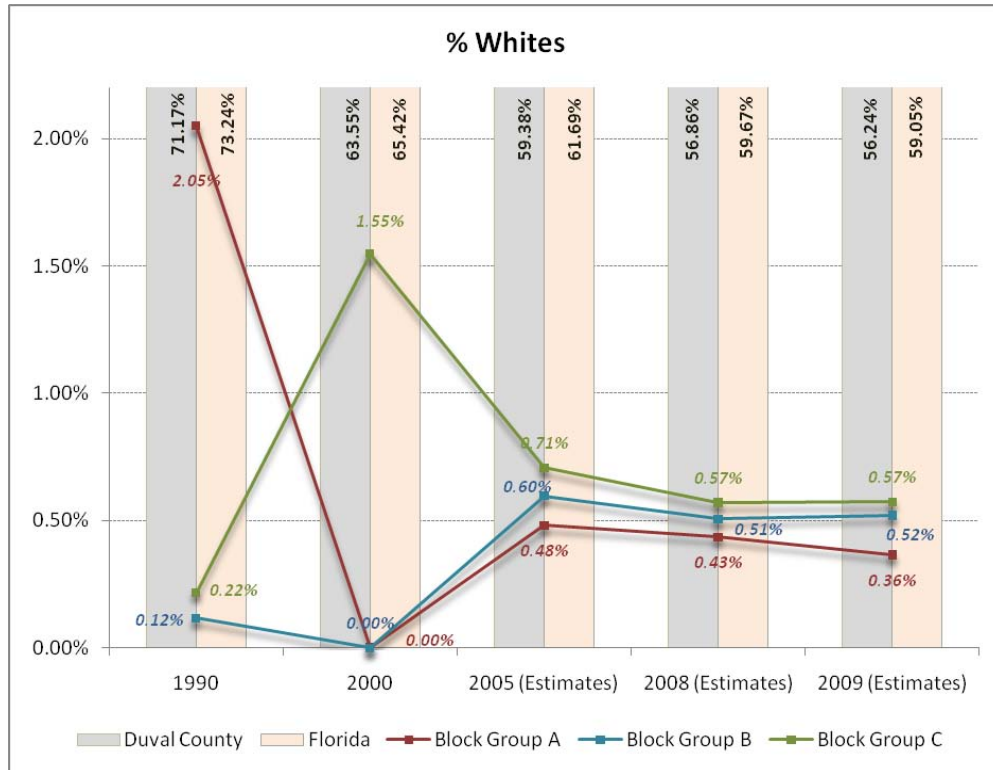


Chart 8: Population Change (1990-2000) by Race (Cont.)

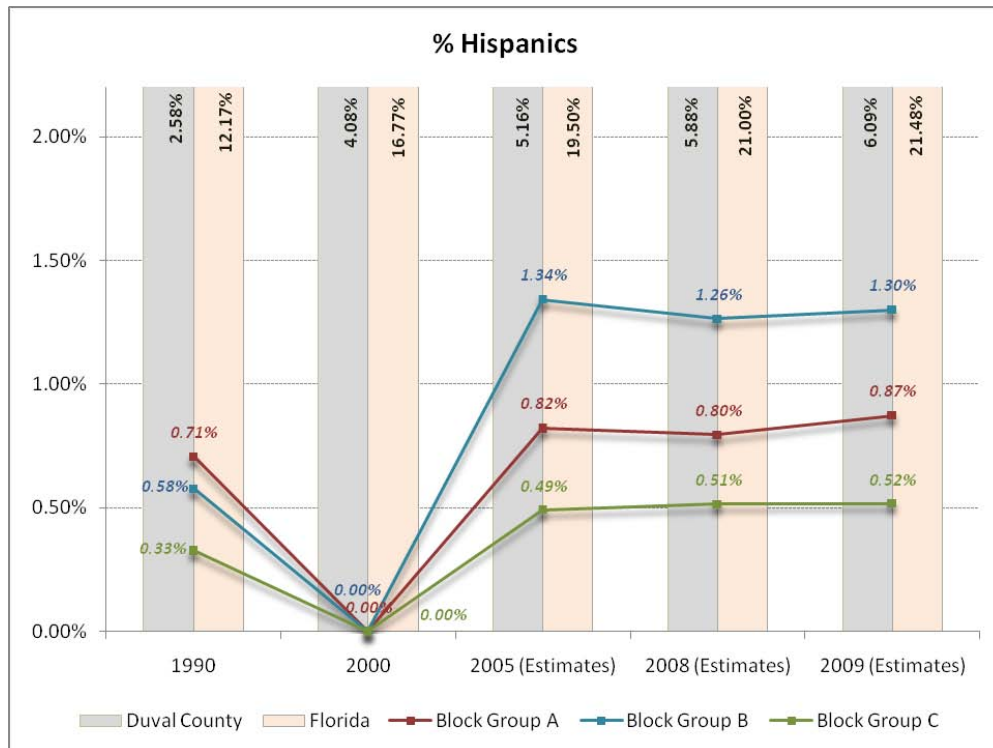
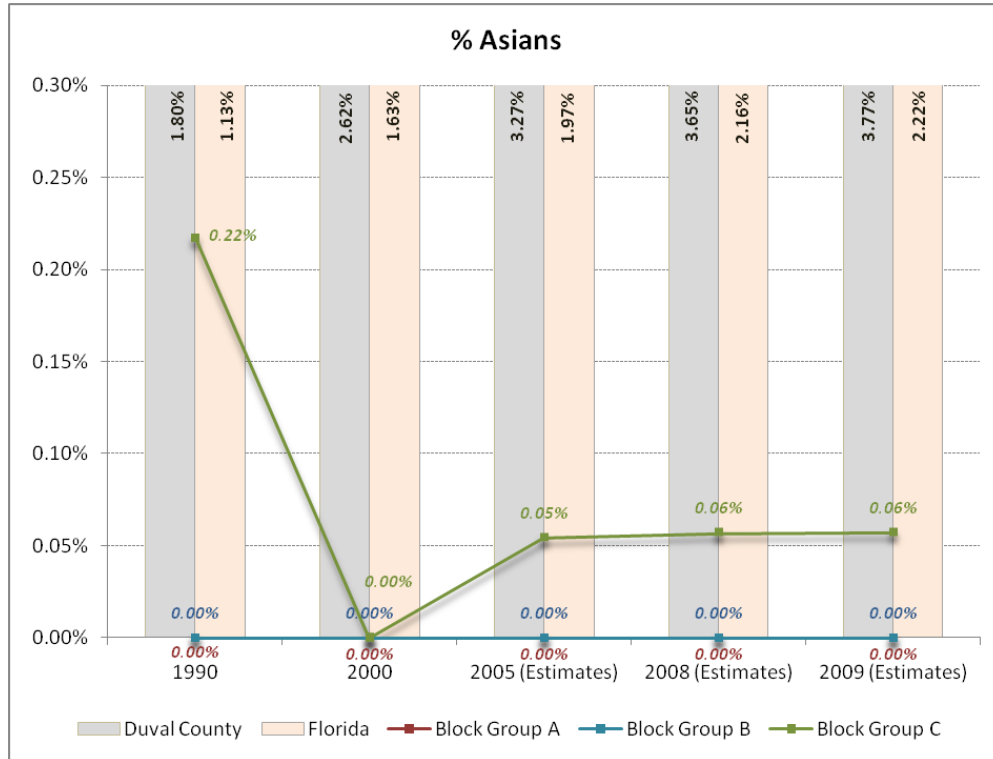


Chart 9: Home ownership and housing vacancy rate

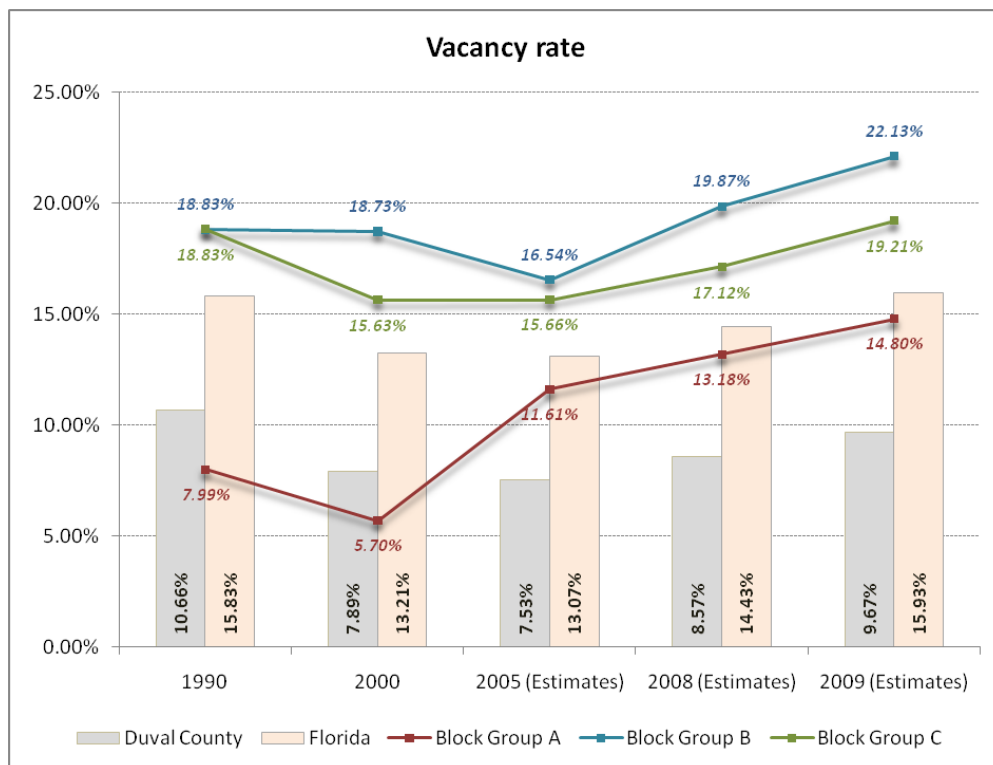
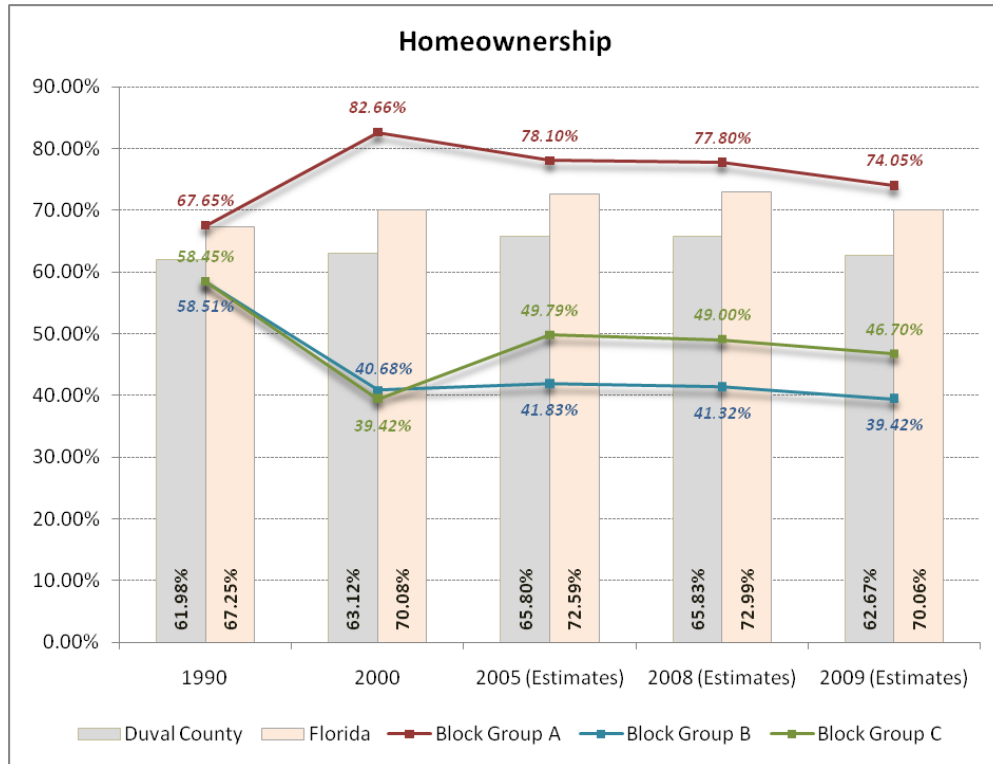


Chart 10: Poverty Rate

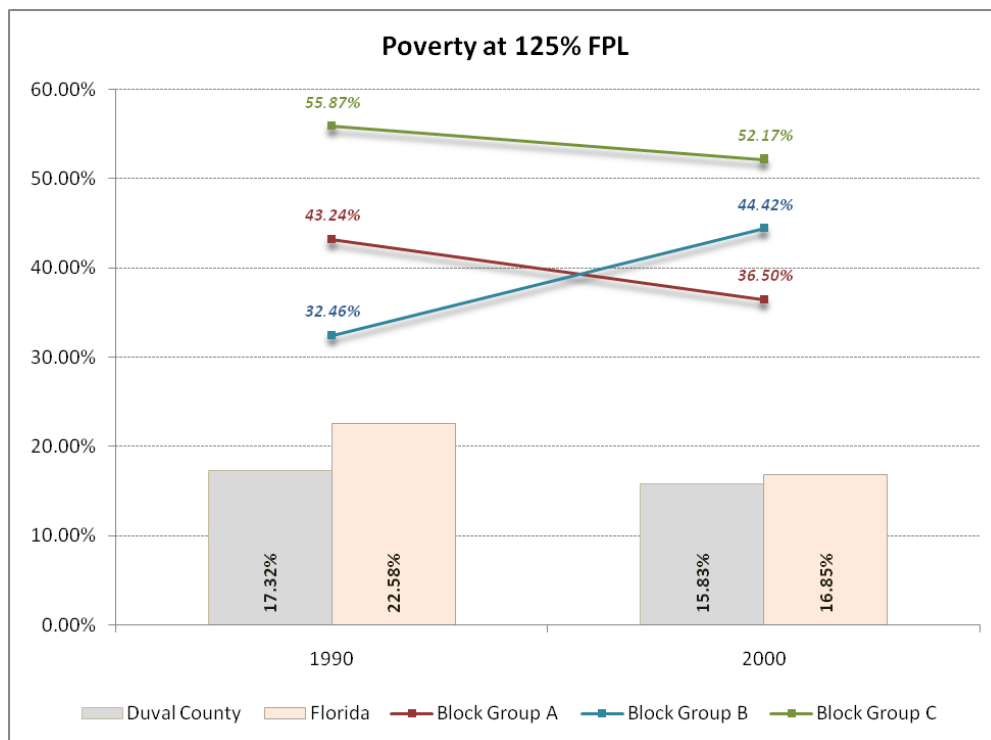
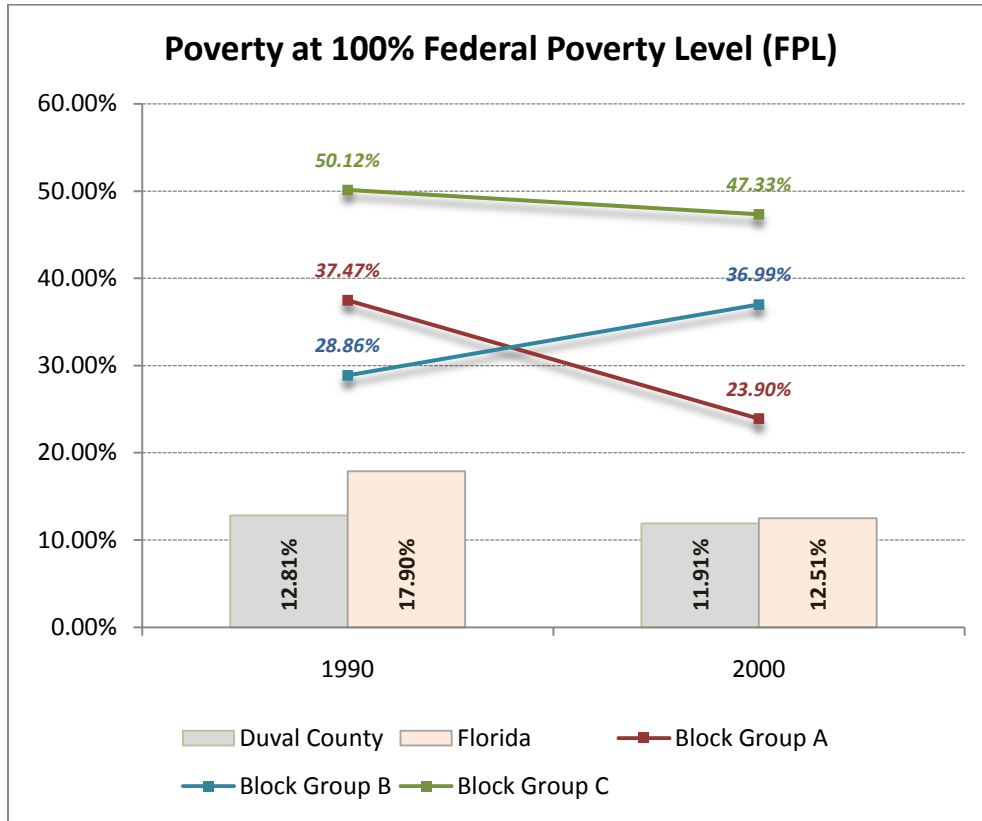


Chart 10: Poverty Rate (Cont.)

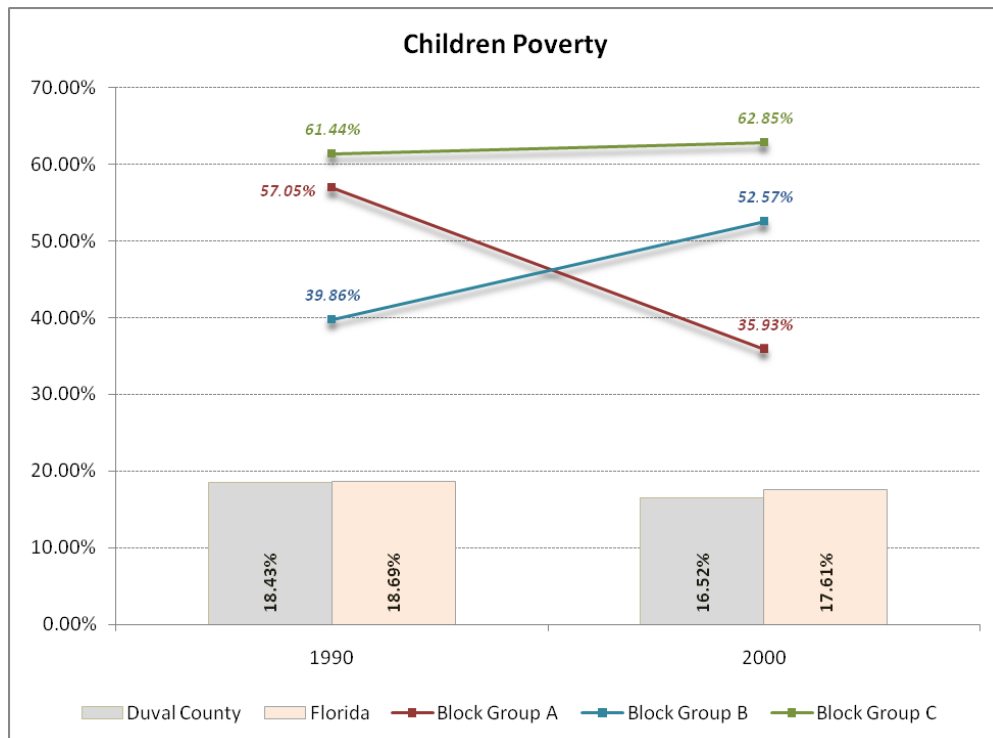
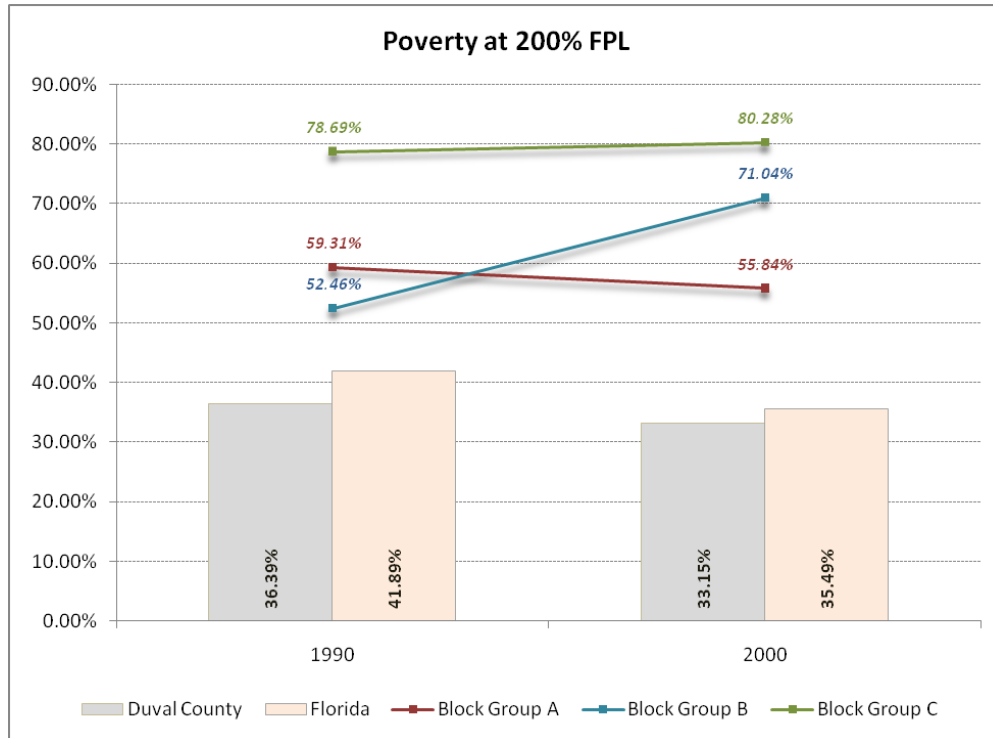


Chart 12: School stability rate and school poverty

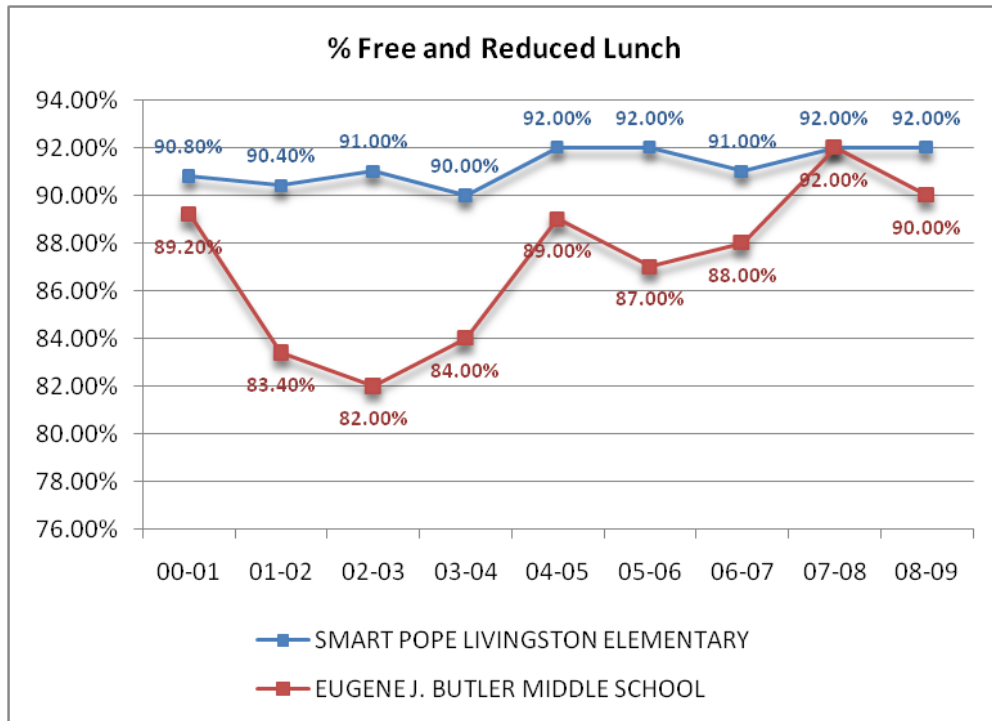
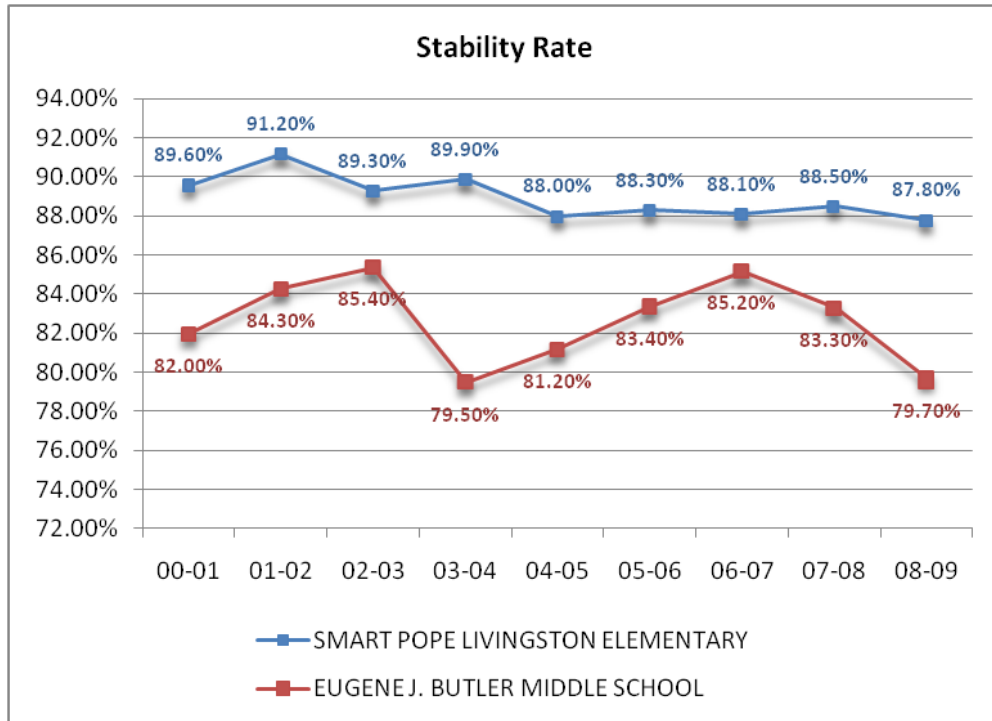
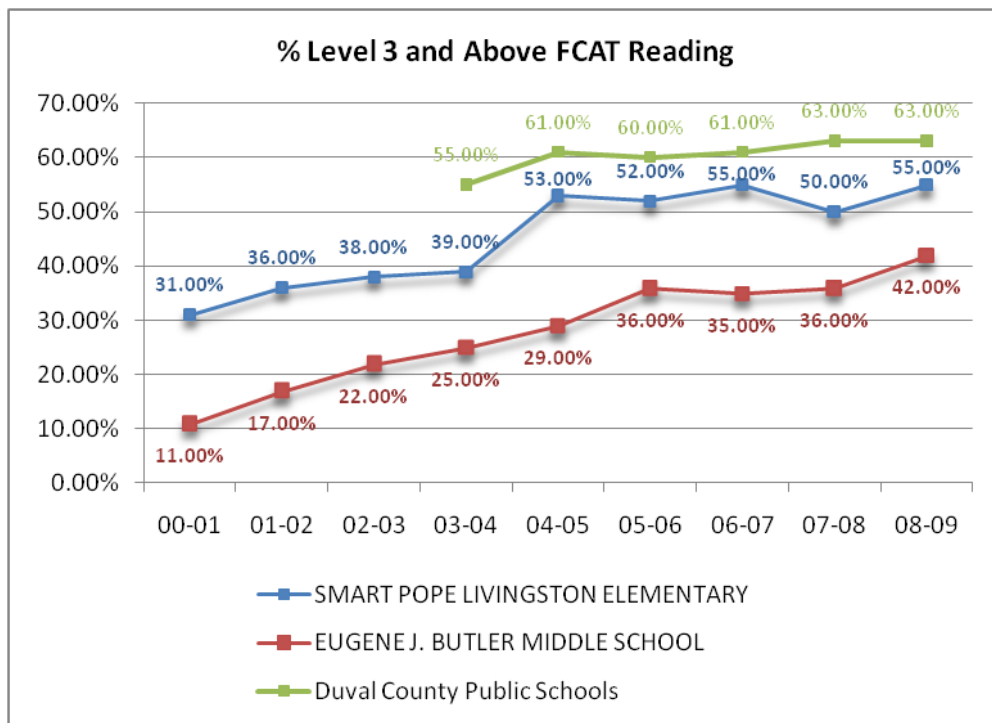
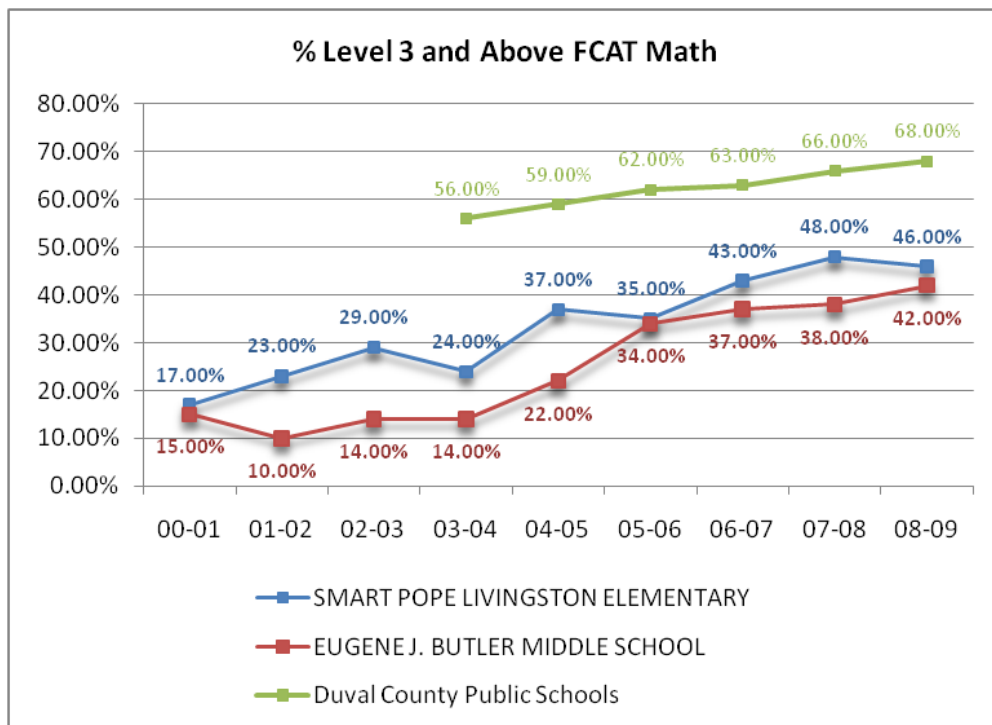


Chart 13: Performance on FCAT Math and Reading



References

¹ Definition of Human Development Index from <http://hdr.undp.org/en/humandev/glossary/>

² Recently, people in Seattle found that property values, more than income or education levels, were the best predictor of obesity rates, most likely due to the neighborhood presence or absence of grocery stores in safe walking distance with affordable, healthy food.²

³ Children can be harmed by racial disparities even before birth. Black and Hispanic women are more than twice as likely to receive late or no prenatal care as White women.³ (Prenatal care prevents low birth weight that may lead to mental disabilities, vision problems, and neuromuscular disorders.³) Racial health disparities seem to be growing, even as mortality rates overall have decreased. In 1950, a Black child was 1.6 times more likely to die before his or her first birthday than a White child; in 2002, they were 2.4 times as likely.³

⁴ Robert J. Sampson, Patrick Sharkey, and Stephen W. Raudenbush, "Durable effects of concentrated disadvantage on verbal ability among African-American children." *Proceedings of the National Academy of Sciences* 105(3): 845-852 (October 28, 2007).

⁵ Richard L. Canfield, Ph.D., Charles R. Henderson, Jr., M.A., Deborah A. Cory-Slechta, Ph.D., Christopher Cox, Ph.D., Todd A. Jusko, B.S., and Bruce P. Lanphear, M.D., M.P.H. (April 17, 2003).

"Intellectual Impairment in Children with Blood Lead Concentrations below 10 µg per Deciliter." *New England Journal of Medicine*. Vol. 348, no. 16: 1517-1526.

⁶ Joel T. Nigg, G. Mark Knottnerus, Michelle M. Martel, Molly Nikolas, Kevin Cavanagh, Wilfried Karmaus, Marsha D. Rappley, "Blood Lead Levels Associated with Clinically Diagnosed Attention-Deficit/Hyperactivity Disorder and Mediated by Weak Cognitive Control." *Biological Psychiatry* Vol. 63, Issue 3: 325-331; Canfield, R.L., Henderson, C.R., Cory-Slechta, D.A., Cox, C. Jusko, T.A., Lanphear, B.P. April 17, 2003. Intellectual Impairment in Children with Blood Lead Concentrations below 10 µg per Deciliter. *New England Journal of Medicine*. Volume 348, no. 16. p. 1517-1526.

⁷ Cookson, Clive. "Poverty mars formation of infant brains." *Financial Times.com* 2/16/2008. (The biggest negative effects were found on language and memory.)

⁸ Asthma, for example, is one of the leading causes of school absenteeism. Low-income children and children of color experience higher rates of asthma than affluent, non-White children. US Environmental Protection Agency. May 2005. Managing Asthma in the School Environment. <http://www.epa.gov/iag/schools/managingasthma.html>;

⁹ Currie, Janet. 2005. "Health Disparities and Gaps in School Readiness." *The Future of Children*. 15(1, Spring): 117-38.

¹⁰ S. J. Schellenberg, "Concentration of Poverty and the Ongoing Need for Title I", in G. Orfield & E. H. DeBray eds., *Hard Work For Good Schools: Facts Not Fads In Title I Reform*, 130, 137 (1999).

¹¹ Orr, Feins, Jacob, and Beecroft (Abt Associates Inc.) and Sanbonmatsu, Katz, Liebman and Kling (NBER), U.S. Department of Housing and Urban Development Office of Policy Development and Research, *Moving To Opportunity Interim Impacts Evaluation* (September 2003).

¹² See M. Kurlaender & J. T. Yun, *Is Diversity A Compelling Educational Interest? Evidence From Metropolitan Louisville*, Harvard Civil Rights Project (1999). Summary available on-line at <http://www.diversityweb.org/Digest/W01/louisville.html>

¹³ John a. Powell, Opportunity-Based Housing, 12-WTR J. AFFORDABLE HOUSING AND COMMUNITY DEV. L. 188.

¹⁴ The "Communities of Opportunity" framework is a model of fair housing and community development based on the premises that everyone should have fair access to the critical opportunity structures needed to succeed in life, and that affirmatively connecting people to opportunity creates positive, transformative change in communities. The Communities of Opportunity model advocates for a fair investment in all of a region's people and neighborhoods, to improve the life outcomes of all citizens, and to improve the health of entire regions. The organization's signature work has been its "opportunity mapping." Opportunity mapping creates composite index maps based on numerous neighborhood indicators of community opportunity and vitality. The Communities of Opportunity framework, in conjunction with our opportunity mapping, has been utilized in policy advocacy, litigation, applied research, community organizing, coalition building and to inform service delivery. Recent partners of the Institute include: Maryland ACLU, NAACP Legal Defense Fund, Poverty Race & Research Action Council, The Miami Workers Center, The Greater New Orleans Fair Housing Center, Green Doors (formerly

Community Partnership for the Homeless), The Presidents' Council of Cleveland, The Michigan Roundtable for Diversity & Inclusion, ISAIHA (Minnesota Gamaliel affiliate), The Connecticut Fair Housing Center, Massachusetts Law Reform Institute, Washington County Oregon Department of Community Development, and the Northwest Justice Project.

¹⁵ Granger, R. C. (2006). Preface. In A. Ben-Arieh & R. M. Goerge (Eds.), *Indicators of children's well-being: Understanding their role, usage and policy influence*. (pp. ix–xi). Dordrecht, The Netherlands: Springer.

¹⁶ 1) Block group (BG): A statistical subdivision of a census tract. A BG consists of all tabulation blocks whose numbers begin with the same digit in a census tract; for example, for Census 2000, BG 3 within a census tract includes all blocks numbered between 3000 and 3999. The block group is the lowest-level geographic entity for which the Census Bureau tabulates sample data from the decennial census. See tribal block group.

2) Census Tract: A small, relatively permanent statistical subdivision of a county or statistically equivalent entity, delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. Designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time they are established, census tracts generally contain between 1,000 and 8,000 people, with an optimum size of 4,000 people. (source: <http://www.census.gov/dmd/www/glossary.html>)

¹⁷ Granger, R. C. (2006). Preface. In A. Ben-Arieh & R. M. Goerge (Eds.), *Indicators of children's well-being: Understanding their role, usage and policy influence*. (pp. ix–xi). Dordrecht, The Netherlands: Springer.

¹⁸ The health zones are made up of zip codes based on Duval County Public Schools, Jacksonville Sheriff's Office, and Community Planning Action Council's existing geographic boundaries. In addition, zones were also based on geographical locations/barriers (river, ocean) and similar demographics (i.e. rural, urban). More information on health zones is found from Duval County Health Depart website at <http://www.dchd.net/>.

¹⁹ Currie, J. (2009). Health, wealthy, and wise: Socioeconomic status, poor health in childhood, and human capital development. *Journal of Economic Literature*, 47 (1), 87-122.

²⁰ Larson, Nicole I., Mary T. Story and Melissa C. Nelson. 2009. "Neighborhood Environments: Disparities in Access to Healthy Foods in the U.S." *American Journal of Preventive Medicine*, 36(1), 74-81

²¹ Ho, Chau-Sa and Diane Hite. 2008. "The benefit of environmental improvement in the southeastern United States: Evidence from a simultaneous model of cancer mortality, toxic chemical releases and house values." *Papers in Regional Science*, 87(4), 589-604. See also Choi, H. S., Shim, Y. K., Kaye, W. E., & Ryan, P. B. (2006). Potential residential exposure to Toxics Release Inventory chemicals during pregnancy and childhood brain cancer, *Environmental Health Prospect*, 114 (7), 1113-1118.

²² Bevc, Christine A., Brent K. Marshall and J. Steven Picou. 2007. "Environmental Justice and Toxic Exposure: Toward a spatial model of physical health and psychological well-being." *Social Science Research*, 36(1), 48-67
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²³ Mathews, T.J., MacDorman, M.F. (2007) Infant Mortality Statistics from the 2004 Period Linked Birth/Infant Death Data Set. National vital statistics reports; vol 55, num 14,. Hyattsville, Maryland: National Center for Health Statistics. http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_14.pdf

²⁴ Reichman, N. (2005). "Low Birth Weight and School Readiness". In: "School Readiness: Closing Racial and Ethnic Gaps". *The Future of Children: Vol. 15*(1):91-116.

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²⁵ Ricketts, Sue Austin, Murray, Erin K., and Schwalberg, Renee. (2005). "Reducing Low Birthweight by Resolving Risks: Results from Colorado's Prenatal Plus Program." *American Journal Public Health*, 57(11):1952-1957.

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- With the proliferation of graded schools in the middle of the 19th century, retention became a common practice. Social promotion began to spread in the 1930s along with concerns about the psychosocial effects of retention. This trend reversed in the 1980s, as concern about slipping academic standards rose. (from http://en.wikipedia.org/wiki/Social_promotion)
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⁵¹ One of the programs supported by the Children's Commission is community-based and school-based afterschool programs for children. These programs are sponsored/organized by different agencies in the county and the Children's Commission maintains an extensive database with relevant demographic and socio-economic information on kids attending these programs.

⁵² More information may be found at: <http://www2.ed.gov/programs/21stcccl/index.html>

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⁵⁶ Bob Herbert. "Children in Peril," *New York Times*. April 20th 2009.

Herbert is quoting Dr. Irwin Redlener, president of the Children's Health Fund in New York

⁵⁷ *Ibid.*

⁵⁸ *Supra* n. 14 at 19 U.S. Census Bureau.

⁵⁹ *Id.* at 14, US Census

⁶⁰ *Id.* at 14, US Census

⁶¹ Federal Interagency Forum on Child and Family Statistics. "America's Children in Brief: Key National Indicators of Well-Being, 2010." Accessed September 23, 2010 at <http://www.childstats.gov/index.asp>

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⁶³ Some of the top ranked states were New Hampshire, Minnesota, and Vermont, while Mississippi, Louisiana, and Arkansas are ranked the lowest. Ranks of states for overall child well-being is found at:

<http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?ind=137>.

⁶⁴ The Annie E. Casey Foundation. National Kids Count Data Center. Available at

<http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?by=a&order=a&ind=43&dtm=322&tf=35>

⁶⁵ Three other states—Alabama, Georgia, and Arkansas—also tied for 43rd.

<http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?loct=2&by=v&order=a&ind=106&dtm=430&tf=35>

⁶⁶ *Supra* n. 11 at 32 JCC 2009

⁶⁷ This report is available online at

<http://www.coj.net/Departments/Childrens+Commission/Community+Information+and+Resources/default.htm>

⁶⁸ *Supra* n. 11 at 35 JCC 2009 report p 35

⁶⁹ *Id.* JCC 2009 report p 35

⁷⁰ *Id.* at 65 JCC Racial Ethnic Disparities report p 65

⁷¹ FCAT (Florida Comprehensive Assessment Test) is the basis for the statewide educational assessment and accountability program. The FCAT includes assessment for writing (grades 4, 8 and 10), reading and mathematics (grades 3 – 10) and science (grades 5, 8, and 11). The FCAT is scored one to five, with one being the lowest level, three being considered on grade level and five being the highest level.

⁷² *Supra* n. 11 at 46 JCC report 2009 p 46

⁷³ *Id.* JCC 2009 report p 46

⁷⁴ Jacksonville Community Council Inc. (2010). Race Relations Progress Report for Jacksonville, Florida. [online]. Available: <http://www.jcci.org/jcciwebsite/documents/10%20Race%20Relations%20Progress%20Report.pdf>

⁷⁵ *Supra* n. 11 at 45 JCC report p 45

⁷⁶ *Id.* at 46 JCC 2009 report 46

⁷⁷ *Supra* n. 11 at 35 JCC 2009 report 35

⁷⁸ *Id.* JCC report p 35

⁷⁹ In the discussion of children served by Jacksonville Children's Commission, it needs to be acknowledged that children living in a high opportunity area might not have high opportunity in a specific domain. In Jacksonville, it is the case that a child is raised in a slumlord's apartment complex in an area that offers high opportunity in terms of education and health. In this case, an access to an afterschool program at their apartment complex or school is still quite important because small pockets of low opportunity can exist in areas that might not show on the map.

⁸⁰ <http://www.hcz.org/about-us/the-hcz-project>

⁸¹ New Town is an area made up primarily of three census block groups: Block Group A – ID 120310028023; Block Group B – ID 120310028021; Block Group C – ID 120310028022. This area is part of census tract (ID 12031002802) within the City of Jacksonville, FL.

⁸² According to Census Bureau, areas with concentrated poverty have poverty rates above 40%, whereas areas with high poverty have poverty rates from 20% to 40%. Research has shown that concentrated poverty has an adverse effect on children and their life outcomes. Poverty maps show block group A performing relatively better than block groups B & C, but is nevertheless a high poverty area.

⁸³ Federal and State welfare programs determine a person's or household's eligibility based on income to poverty ratio. These thresholds range from 100% to 200% of federal poverty level as reported by Census. We reviewed data at 100%, 125% and 200% to provide an in-depth understanding of poverty landscape in the New Town.

⁸⁴ Guo, G. and KM Harris. 2000. "The Mechanisms Mediating the Effects of Poverty on Children's Intellectual Development." *Demography* 37.4: 431-47

⁸⁵ Barton, Paul. 2003. Parsing the Achievement Gap: Baselines for Tracking Progress. Education Testing Service. <http://www.ets.org/Media/Research/pdf/PICPARSING.pdf>

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⁸⁷ Amartya Sen, *Development as Freedom* (New York: Alfred A. Knopf, 1999): 283.



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The Jessie Ball duPont Fund is a national foundation that makes grants to a defined universe of organizations whose eligibility is determined exclusively by Mrs. duPont's personal philanthropic decisions. An organization is eligible if it received a gift from Mrs. duPont between January 1, 1960 and December 31, 1964. Today, there are more than 300 eligible organizations. The Fund organizes its resources around three focus areas: Strengthening the Independent Sector; Building the Assets of People, Families and Communities; and Building the Capacity of Eligible Organizations.

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JACKSONVILLE CHILDREN'S COMMISSION.

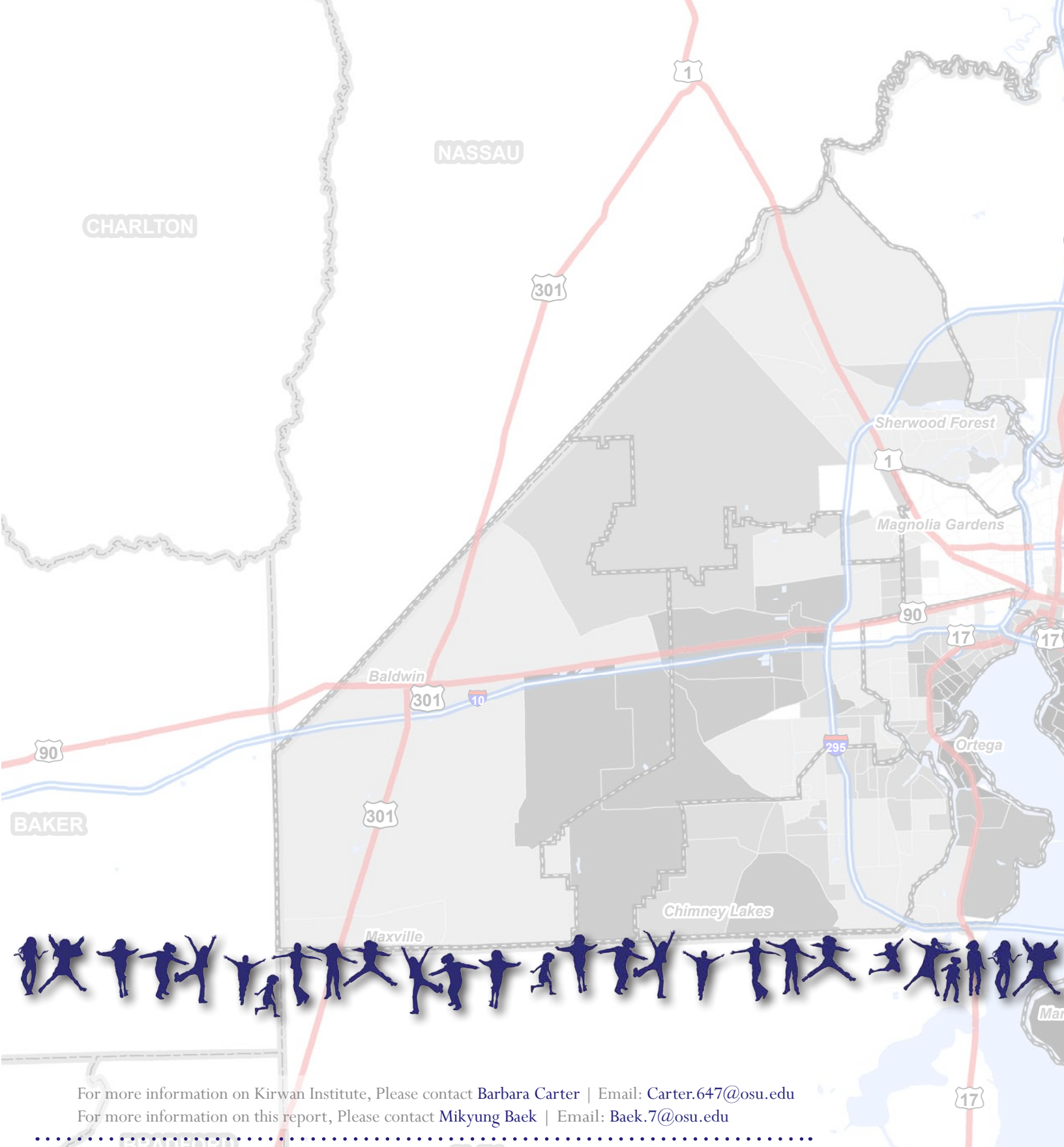
The Jacksonville Children's Commission plans, funds, and evaluates the city's efforts to grow great kids. It is an autonomous entity of the City of Jacksonville, leveraging federal and state funding dollars, improving the lives of more than 40,000 children. The Commission creates pathways to opportunity by funding a wide range of programs including child care scholarships, high-quality afterschool programs and summer camps, mental health services, quality improvement initiatives in early education centers, mentoring programs and services for children with special needs.

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