

Health & Equity Assessment

and Approaches to the Unified Development Ordinance

Task B

Final BOC Draft | Updated November 29, 2023

RECODE | **HEALTH & EQUITY**
CHATHAM |



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for Chatham County

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Equity

EQUITY IS THE JUST AND FAIR INCLUSION IN A SOCIETY SO THAT ALL CAN PARTICIPATE, PROSPER, AND REACH THEIR FULL POTENTIAL.



Health Equity

Health equity is a state in which everyone has the opportunity to attain their full health potential, and no one is disadvantaged in achieving this potential because of social or economic position or any other socially defined circumstance.

Introduction

What is Health Equity?

Equity is the just and fair inclusion in a society so that all can participate, prosper, and reach their full potential. Equity differs from equality. Equity involves people having what they need to enjoy full, healthy lives. In contrast, equality aims to ensure that everyone gets the same things, no matter their starting place. However, different groups of people (e.g., based on race, ethnicity, gender, immigration status, sexual orientation, geography, or socioeconomic status, among other factors) may need different types or amounts of resources and support to enjoy full, healthy lives. Like equity, equality aims to promote fairness and justice, but it can only work if everyone starts from the same place and needs the same things.¹

Health equity is a state in which everyone has the opportunity to attain their full health potential, and no one is disadvantaged in achieving this potential because of social or economic position or any other socially defined circumstance. Health inequity, then, is unjust and avoidable differences in health associated with individual or group-specific attributes (e.g., income education, race, or ethnicity, among other attributes) that are connected to social disadvantage and historical or contemporary injustices and that can be minimized through changes to policies, programs, and practices.²

1 *The Planner's Playbook: A Community-Centered Approach to Improving Health & Equity.* ChangeLabSolutions. December 2020.

2 *The Planner's Playbook: A Community-Centered Approach to Improving Health & Equity.* ChangeLabSolutions. December 2020.

Why Plan for Health & Equity?

The field of Planning has a rich history of shaping the physical, social, and economic aspects of communities where people live, work, and play. Traditionally, planning practice has focused on problem solving to safeguard the well-being and character of a community. However, the enduring legacy of past planning efforts have highlighted compelling reasons for planners to prioritize health and equity in their work. The challenges faced by communities in the past may not hold the same relevance today, as concerns related to climate change, resiliency, race relations, and impacts of the COVID-19 pandemic have prompted a collective re-examination of our outlook toward the future and question how we want to move forward as a society. Likewise, evolving perspectives on equity and health have shifted our outlook on placemaking, with a growing emphasis on achieving better outcomes that benefit all members of a community.³

In community planning, equity is recognized as a critical value that aims to ensure all members of a community have equitable access to benefits, resources, and opportunities. Thus, health and equity are integral in the creation of livable, sustainable, and healthy communities. Health is considered a fundamental element of community planning, with improving outcomes as a key objective. Planners can address health in the built environment by designing and implementing community plans that foster healthy lifestyles through features such as walkability, access to nutritious food, and recreational opportunities.

³ *Long-Range Planning for Health, Equity, & Prosperity*. Change Lab Solutions. December 2019.

Elderly Persons. Inequities faced by elderly persons can include lack of access to healthcare, social isolation, financial insecurity, ageism and discrimination, and burdens associated with caregiving.

Single-Parent Households. Single-parent households, whether led by a mother or father, may face economic challenges, limited access to affordable housing, childcare access, and healthcare, social stigmas, and caregiving burdens.

Minority Populations. Minority groups suffer worse health outcomes than non-minority populations, according to various studies. Health inequity is most severely felt by those within historically marginalized populations (HMPs). The NCDHHS recognizes HMPs as “individuals, groups, and communities that have historically and systematically been denied access to services, resources, and power relationships across economic, political, and cultural dimensions as a result of systemic, durable and persistent racism, discrimination, and other forms of oppression.”

Limited English Proficient (LEP) Populations. According to an analysis completed by the [North Carolina Cooperative Extension](#), an estimated total of 9,305 individuals (or 14.3%) of the County’s population speaks a language other than English. LEP populations include those with limited proficiency in English and those speaking Spanish as a primary language.



Who Experiences Inequity?

Inequity manifests in various forms and dimensions, encompassing an individual or community's health care, social status, politics, and economics. Research indicates certain communities face barriers or obstacles that result in unfair, unjust, and avoidable burdens when compared to their counterparts. Furthermore, research reveals that individuals who belong to multiple disadvantaged communities face compounded adverse effects, such as heightened exposure to health risk factors including poverty, food insecurity, and environmental justice issues, among others. This increased exposure amplifies the challenges faced by those individuals and communities, but also resonates externally to the rest of the County, impacting healthcare providers delivering services and production of services. As an example, the North Carolina Department of Health and Human Services (NCDHHS) highlights impacts affecting the County's critical and essential workforce. The NCDHHS estimates that 40% of long-term care workers are either African American or Latinx and 99% of farmworkers are Latinx.⁴ The below listed communities frequently experience disadvantages and vulnerability when compared to their peers.

Public policy—or the commonly established programs, systems, and vision in place for how we want to live—shapes the environment in which we operate and function on a daily basis. In turn, our environment can be a healthier place if we are willing to change, adjust, and intervene in the public policies that create it. This spans many facets of our community, affecting public safety; clinical care; fiscal responsibility and taxes; education and higher learning; and the quality of air, land, and water; as well as zoning and land use.

⁴ NCIM (n 3).

Low-income Populations.

People, especially children, experiencing poverty or those households considered low-income often have limited access to healthcare services, healthy food options, safe housing, and education. These conditions contribute to poorer health outcomes and increased risk of chronic disease.

LGBTQ+ Communities.

Members of the LGBTQ+ community frequently encounter barriers when accessing healthcare, including discrimination and limited resources from their healthcare providers. As a result, this can lead to inadequate health care and poorer health outcomes.

Persons with a Disability and Transportation Disadvantaged.

Individuals with a disability may face added physical and social barriers that limit access to healthcare, education, employment, and quality of life. Increased risk of exposure to socioeconomic disadvantages contributes to living in poverty, social isolation, and access to affordable and accessible housing.



Rural Communities. Those in rural areas are also considered a high risk demographic group experiencing disparities in comparison to urbanized areas. People living in rural areas often have limited access to health care services, face transportation barriers, and lack adequate healthcare facilities. The North Carolina Institute of Medicine points out 34% of North Carolina's geography, or approximately 3,417,871 people, is considered rural according to data from the 2013-2017 American Community Survey. It is documented that rural areas generally perform lower in comparison to metro areas on many health measures, such as mortality rate, suicide rate, drug and alcohol use, access to exercise, and teen birth, among many other factors. (NCIM (n 3).

About This Report

The purpose of this report is to identify specific revisions to the County’s zoning, subdivision, and other land use codes that support healthy environments, positive behavior changes, and equity among disenfranchised populations.

County elected and appointed officials acknowledge that the manner in which future development occurs has an impact on community health, and wishes to ensure the new Unified Development Ordinance, or “UDO,” incorporates best practices to improve health and equity. Therefore, Chatham County set aside a portion of its Healthy Communities grant funding to augment the Unified Development Ordinance rewrite and [ReCode Chatham](#) project by incorporating a “Health and Equity Assessment.”

The lead consultant team—White & Smith Planning and Law Group—was approached to develop a standalone report to increase focus on health and equity issues of Chatham County and evaluate necessary recommendations to improve upon existing policies and objectives within the Unified Development Ordinance that offer to enhance the quality of life of Chatham County residents.

The consultant team formally kicked-off the health and equity component of ReCode Chatham on May 24, 2022, by holding a work session with County Planning Department and Public Health Department staff. In addition, several topics emerged out of health and equity discussions early in the ReCode Chatham planning process during initial meetings with stakeholders and the Board of Commissioners, resulting in a decision to focus on 7 core areas:

- 1. Healthy Food Access**
- 2. Obesity & Inactivity**
- 3. Mobility & Multi-Modal Access**
- 4. Environment & Pollution**
- 5. Displacement & Gentrification**
- 6. Access to Health Care & Early Childhood Development**
- 7. Access to Affordable Housing**

This assessment gives a broad overview of each of the seven “Areas of Assessment” and supports each area with relevant findings related to Chatham County. The assessment evaluates and prioritizes objectives that align with best planning practices, ongoing State and local initiatives, and specific Chatham County policies outlined within *Plan Chatham*, followed by recommended approaches for implementing these objectives via the Unified Development Ordinance drafting process.

How This Report is Organized

This report describes seven “Areas of Assessment” identified as part of the *Health & Equity Assessment & Revisions* component of the Recode Chatham project. These areas were identified during initial stakeholder and committee meetings in Stage 1 of the Unified Development Ordinance (UDO) development process, as well as through initial meetings with the Planning Board and Board of Commissioners.

Each area builds upon core community priorities with related research compiled from local, state, and national sources. Previous reports and studies undertaken at federal, state, and local levels are cited throughout the report to build a baseline of resources to be used and referenced in Chatham County. Previous efforts help identify existing gaps and prioritize goals and objectives to address disparities.

Because health is largely determined by social, economic, behavioral, and environmental factors—commonly referred to as social determinants of health—the report includes Key Health Indicators within each section. This list references common indicators used as a barometer of general health, wellness, and quality of life.⁵

In order to address community priorities and close the gaps described in each section, a list of suggested implementation action items are provided to further align the Unified Development Ordinance with best planning practices and Chatham County policies, including those in *Plan Chatham*. Action items specifically relate to zoning, development patterns, and land use, and are organized under common thematic objectives.

The Unified Development Ordinance is one tool out of many other means and methods to achieve goals of health equity. Where applicable, this report also identifies policy objectives related to health and equity that cannot be accomplished through the UDO. For example, mapping publicly accessible health data is a powerful tool to convey information about the distribution of resources or community assets. Many local governments and health organizations are utilizing mapping efforts to show geographic dimensions of populations experiencing health inequity. The Centers for Disease Control maintains various data sets containing measures of “[Social Determinants of Health](#) (SDOH).” In Chatham County, it shows that areas surrounding

5 North Carolina Institute of Medicine. *Healthy North Carolina 2030: A Path Toward Health*. January 2020.

Siler City experience a greater number of disparities than the rest of the County. The SDOH ranks the northern census tract of Siler City as having the highest index value or measure of disparities. Areas south of Siler City within the southwestern portion of the County suggest the next highest value or measure of disparity.

Mapping can be a collaborative way for planners and public health officials to work towards common policy objectives in health and equity. However, this tool would be implemented through a collaborative approach among agencies.

Other objectives within this report, such as raising funds, sustaining resources, and working collaboratively across federal, state, and local agencies and organizations, also fall outside the scope of the UDO. These policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals and are distinguished from the UDO action items.

Finally, some objectives raise regulatory questions that may be resolved by local or state authorities and the courts. Nonetheless, these are included here, first, in the interest of completeness, and second, to err on the side of including policy options instead of excluding them, since the UDO drafting process is not yet complete.

The concluding portion of the report gives a summary of how the UDO intends to implement the various action items. A table is provided to graphically depict each chapter of the UDO along with the appropriately applied action item. The table is followed by a chapter-by-chapter narrative describing the implementation process of each action item within the UDO.

North Carolina General Statutes & Chapter 160D

In 2019, North Carolina’s General Assembly passed legislation that reorganized the state’s planning statutes into a new chapter of the North Carolina General Statutes (N.C.G.S.), referred to as Chapter 160D, and codified several new development regulations.

Jurisdictions in North Carolina have appeared to have broad statutory authority relating to zoning and other land use controls over the years. The North Carolina Supreme Court expressly recognized that Dillon’s Rule was abolished in a 1994 case. This would leave jurisdictions not only powers expressly delegated under the zoning and subdivision statutes, but also general authority to protect the public’s health, safety, and welfare. However, the cases regarding local government authority in recent years have varied and legislation recently has tended to limit, or “preempt,” local powers.

Chapter 160D grants power to local governments through legislative authority, specifically under §160D-Article 7 Zoning Regulation. This statute outlines a regulatory framework related to zoning authority, including the purpose of zoning regulation, grant of power, zoning districts, incentives, quasi-judicial zoning decisions, and zoning conflicts with other development standards.

Several action items expressed throughout this report cannot be implemented in the UDO without raising considerations best clarified by state legislation or court interpretation. Nonetheless, these are included in certain sections of the document in the interest of completeness and inclusivity. Where possible, peer case studies in other jurisdictions are referenced to showcase successful implementation of action items.

For example, North Carolina General Statutes (N.C.G.S.) Chapter 160D outlines a regulatory framework for zoning and subdivision laws. While the text does include language on certain permitted development incentives, it is silent on other incentives commonly used during the development process by jurisdictions in other states.

The current language in §160D-704 - Incentives allows specific incentives for the purposes of reducing energy consumption and to encourage sustainable design. §160D-704 - Incentives states:

(a) "For the purpose of reducing the amount of energy consumption by new development, a local government may adopt ordinances to grant a density bonus, make adjustments to otherwise applicable development requirements, or provide other incentives within its planning and development regulation jurisdiction, if the person receiving the incentives agrees to construct new development or reconstruct existing development in a manner that the local government determines, based on generally recognized standards established for such purposes, makes a significant contribution to the reduction of energy consumption and increased use of sustainable design principles.

(b) In order to encourage construction that uses sustainable design principles and to improve energy efficiency in buildings, a local government may charge reduced building permit fees or provide partial rebates of building permit fees for buildings that are constructed or renovated using design principles that conform to or exceed one or more of the following certifications or ratings:

(1) Leadership in Energy and Environmental Design (LEED) certification or higher rating under certification standards adopted by the U.S. Green Building Council.

(2) A One Globe or higher rating under the Green Globes program standards adopted by the Green Building Initiative.

(3) A certification or rating by another nationally recognized certification or rating system that is equivalent or greater than those listed in subdivisions (1) and (2) of this subsection."

In addition, communities in North Carolina have had mixed approaches and experiences with inclusionary zoning (or “inclusionary housing”) programs that would create affordable housing in conjunction with market rate housing as new subdivisions are built. Inclusionary zoning programs are either mandatory or voluntary/incentive-based requirements where developers of residential housing designate some units for occupancy by low- and moderate-income persons.

N.C.G.S. Chapter 160D does not explicitly address inclusionary zoning, and there remains some uncertainty regarding the regulatory authority of local governments in this area. Takings, due process, and equal protection claims have been raised against such programs in other states.

There is some language in N.C.G.S. Chapter 160D specific to affordable housing units. Referred to as the ‘No Harmony Standard,’ §160D-703(b1) - Limitations states:

∴ *“For parcels where multifamily structures are an allowable use, a local government may not impose a harmony requirement for permit approval if the development contains affordable housing units for families or individuals with incomes below eighty percent (80%) of the area median income.”* ∴

However, the statutory language is unclear in its application. It does not state if it applies to special use permits, site plan review, conditional zoning, or all of the above. It also does not state a minimum number or percentage of units required to be affordable.

Proposed bills in previous years included provisions related to inclusionary zoning; though none have been adopted at this point. An alternative to the traditional inclusionary approach, however, might be to allow limited reductions in parking or other development standards that may add expense to and therefore limit affordable housing supply.

A number of strategies are used outside of Chatham County and North Carolina. For example, California mandates set-asides through density bonus incentives. Virginia utilizes a voluntary method of inclusionary zoning. New Jersey’s approach, though rare, coerces the use of inclusionary zoning through a state housing element. Common strategies employed nationwide include:

- » Inclusionary Zoning Ordinances
- » Housing Trust Funds
- » Tax Increment Financing
- » Development & Redevelopment Set-Asides
- » Linkage Fees



Food pantry items.
Source: Chatham Outreach Alliance (CORA)

Area 1

Access to Healthy Foods

Food Security & Food Deserts

Food insecurity is a household-level economic and social condition of limited or uncertain access to adequate food.¹ The United States Department of Agriculture (USDA) defines [food security](#) as having access to enough food to meet the needs of an active, healthy life. This includes availability of nutritionally adequate and safe foods. When access to healthy food is limited or non-existent, these areas become known as “food deserts.” The USDA defines food deserts as a place where at least 500 people or 33% of the population live more than one mile from the closest grocery store in urban areas. Often, when an area becomes oversaturated with fast food restaurants or other unhealthy options, these areas become known as “food swamps.”

Food insecurity disproportionately affects many groups, including single-parent households, female householders, Black/African American households, and households earning less than 185% of the poverty threshold. Research on food insecurity reveals that “racial discrimination limits people of color’s access to educational and employment opportunities resulting in social and economic consequences that could lead to food insecurity.”²

Food insecurity may lead to negative health outcomes such as obesity and chronic illness. According to Feeding America’s [Map the Meal Gap](#) 2019 report, Chatham County had a 11.7% food insecurity rate, representing 8,350 people and more than 1 in 9 households, compared to North Carolina food insecurity rate of 13.5%. Figure 1.1 illustrates the food insecurity rate in Chatham County compared to the state of North Carolina between 2017 to 2020. Meanwhile, the 2021 County [Community Health Assessment](#) reports that more than 1 in 8 Chatham County adults (12.8%) reported worrying they would run out of food

1 Definitions of Food Security. USDA Economic Research Service. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/>. Published September 8, 2021. Accessed February 20, 2023.

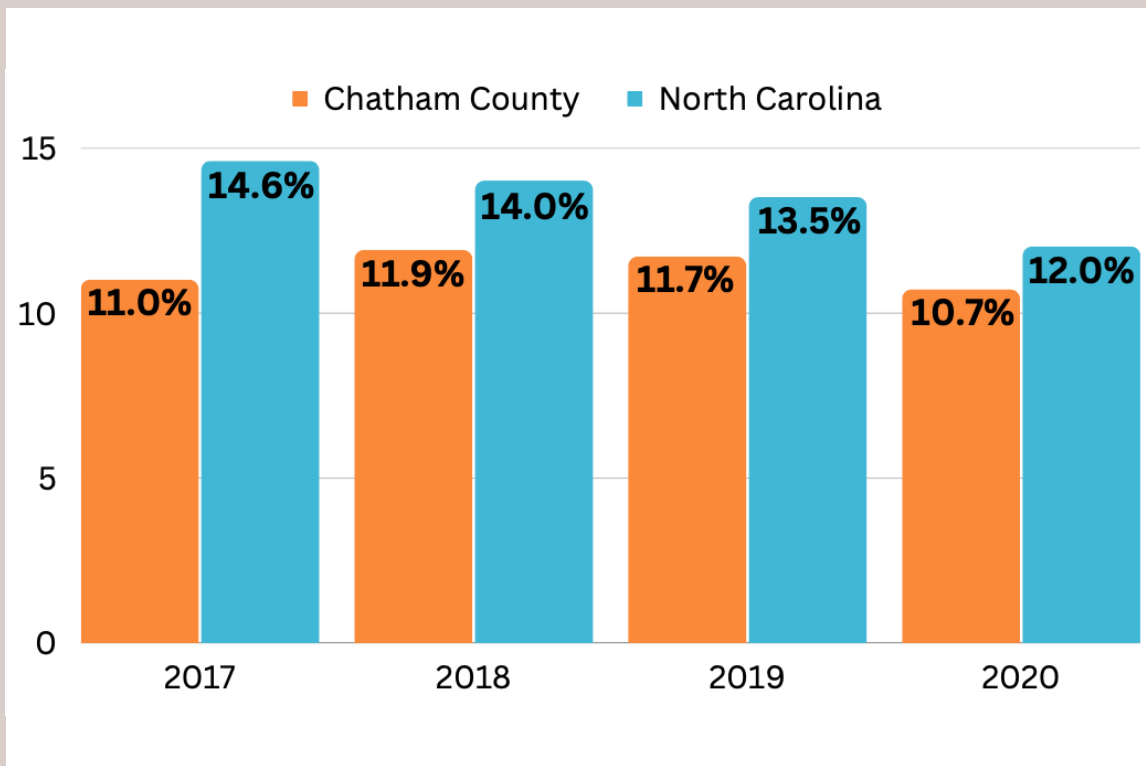
2 Chatham County Community Assessment. (p. 42)

before they had money to buy more in the past year, including approximately 30% of Hispanic/Latinx residents and 20% of Black residents. Additionally, children suffering food insecurity are more likely to have developmental and mental health issues.

A particularly vulnerable portion of the community facing food insecurity are households receiving public assistance in Chatham County. Public assistance includes Supplemental Security Income (SSI) and Supplemental Nutritional Assistance Program (SNAP). Two-thirds of residents in the County experiencing food insecurity qualify for SNAP and approximately 11.9% to 24.7% of households in and around Siler City and the southwestern portion of the County receive public assistance.

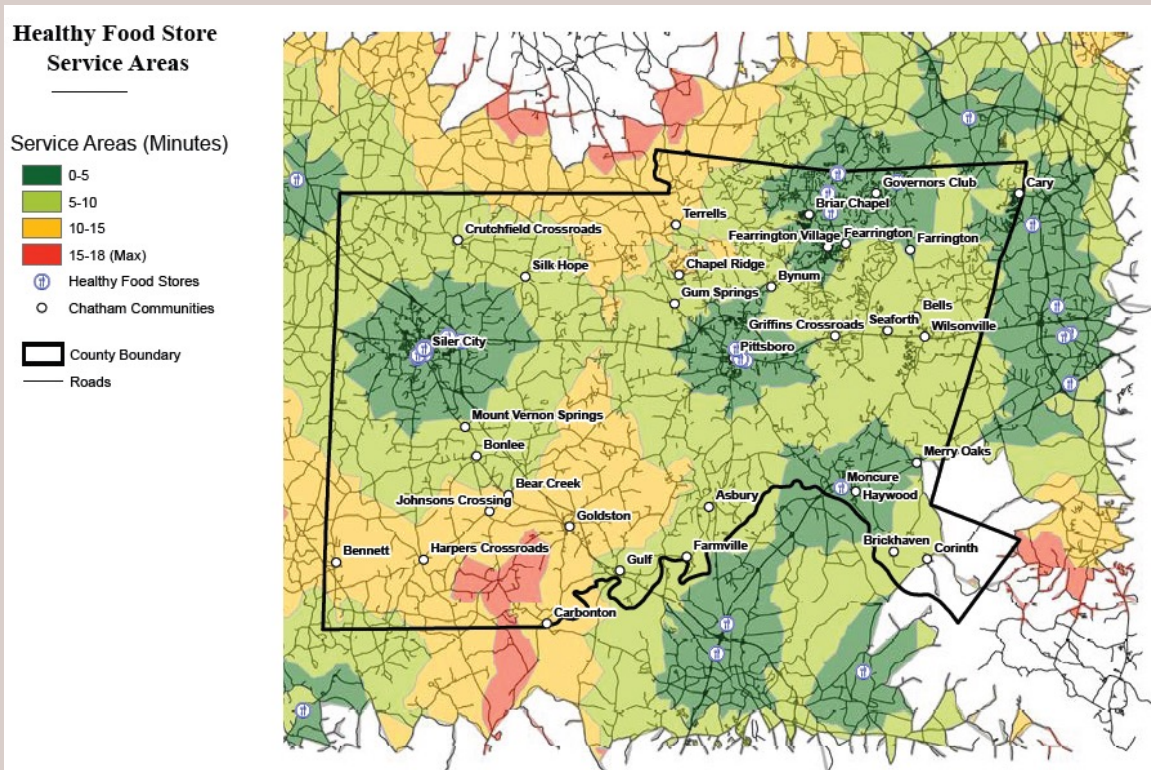
Many adults cite convenience, cost, or not having enough time to prepare as reasons for not eating more healthy varieties of food. Even if healthy food is affordable, it needs to be accessible and easy to find. Figure 1.2 depicts service areas for urban and rural areas throughout the County. For metropolitan communities, living close to a grocery store is defined as being less than a mile from a store; in rural areas, the threshold proximity is 10 miles from a grocery store according to the USDA. The 2021 County [Community Health Assessment](#) states more than 2 in 5 Chatham County adults (22.2%) say the County should focus on affordable healthy food in Chatham, while more than a quarter (26.4%) said there needed to be more places to buy groceries in the County.

FIGURE 1.1: Food Insecurity Percentage by Region



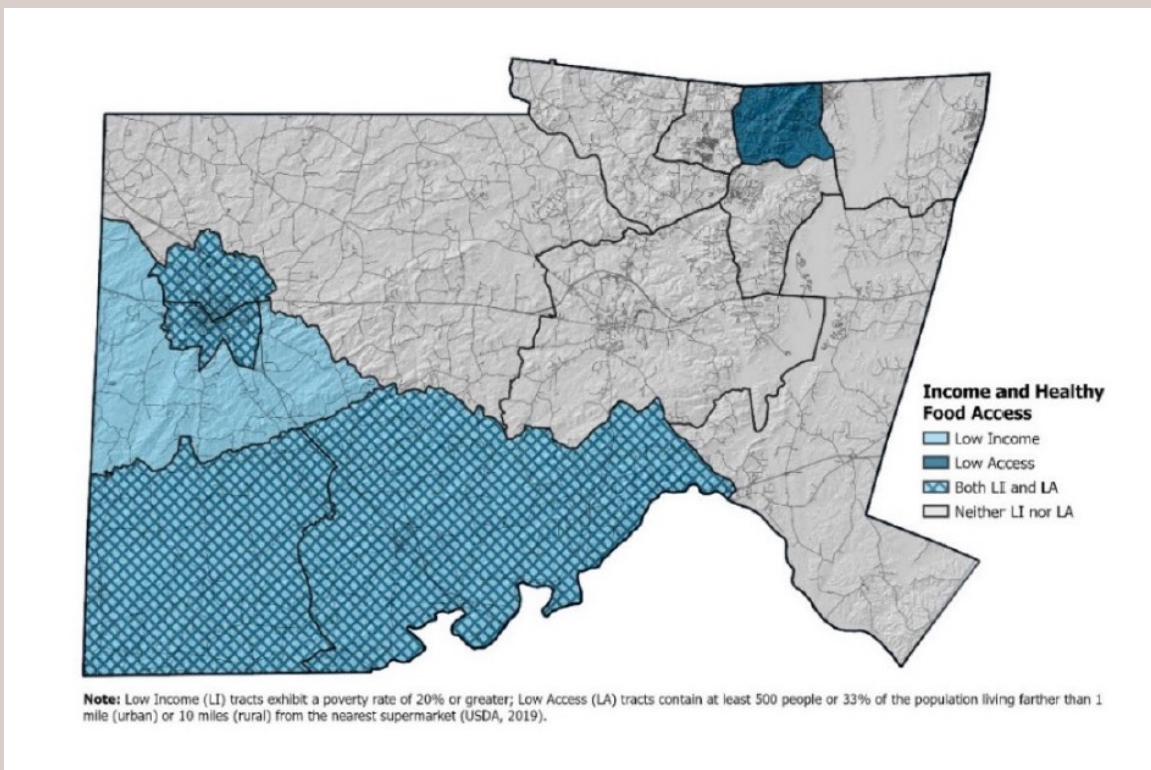
Source: Feeding America

FIGURE 1.2: Healthy Food Store Service Areas Map



Source: 2018 Chatham County Community Assessment

FIGURE 1.3: Income and Food Access in Chatham County



Sources: USDA (2019); NCGS; NCDOT; EOC.



KEY INDICATORS OF HEALTHY FOOD ACCESS:

- » Food Deserts
- » Poverty and Low-Income
- » Percent of Households Receiving Public Assistance
- » Vehicle Ownership
- » Number and Location of Available Markets & Grocers

Farm To Table

According to tax parcel data compiled by the County, 75% of the land area in the County is used for agricultural or forestry purposes and 48% of the land area is estimated to be farms and timberlands. Cattle, poultry, and timber operations make a significant contribution to the County’s economic output. However, the growth trend of new home building in Chatham County creates new challenges that can conflict with the agricultural and natural backdrop of the County.

Residential growth and new development is a primary concern for farmers in the area, according to a *Plan Chatham* survey. *Plan Chatham* points out that the USDA shows the number of farms in the County have increased slightly over the years and there is a steady growth in smaller farms less than 50 acres serving specialty, organic, or niche markets. *Plan Chatham* also notes that demand for local food is increasing overall within the County and the region, especially for products such as vegetables, meat, and honey. Four farmers’ markets exist in the County including Chatham Mills, Pittsboro, Fearington, and Siler City.

The U.S. Department of Agriculture defines “low-access Census tracts” where a significant number (at least 500 people) or share (at least 33%) of the population is greater than half a mile from the nearest supermarket, supercenter, or large grocery store. Figure 1.3 illustrates the relationship between income and food access in Chatham County. The percentage of people who are low-income that do not live in close proximity to a grocery store is a leading indicator of limited access to healthy foods, based on USDA-designated food deserts. However, other forms and methods of accessing healthy foods are becoming more popular. These include farm stands, farmers markets, and mobile markets. The food industry, including grocery and restaurants, was identified as part of a *Plan Chatham* survey as businesses that could be compatible with or supportive of farm culture and agriculture.

Area 1 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Healthy Eating

1. **Cottage & Commissary Kitchens.** Update the use regulations to include provisions for cottage kitchens (food that is prepared in an unlicensed kitchen) and commissary kitchens (kitchens that can be rented out).
2. **Food Pantries.** Food banks or pantries are often prohibited in zoning or land use codes because they are viewed as storage rooms or stock rooms. In order to support local food pantries, such as [Chatham Outreach Alliance](#) (CORA), that serve meals and groceries to persons with food insecurity, the UDO should permit food pantries as a use separate from storage facilities.
3. **Corner Store Availability.** Evaluate zoning and uses to introduce small-scale commercial/mixed use areas for neighborhood-appropriate stores such as tiendas, bodegas, and corner stores. See the USDA resource on [Corner Stores](#).
4. **Healthy Food Retailers.** Encourage food retailers to locate in and/or offer healthier food and beverage choices in underserved areas.
 - a. Modify the definition of grocery store to include provisions for healthy foods.
 - b. Incentivize or encourage developers to include a percentage of floor area dedicated for healthy options. (See [North Carolina General Statutes and Chapter 160D, p. 8](#))
5. **Mobile Vendors.** Promote mobile vending to provide access to healthy food and beverage options.
 - a. Permit mobile food vending in appropriate zoning districts.
 - b. Allow seasonal or temporary mobile vending permits for Green Cart Vendors (fruits and vegetables) and seasonal vendors that offer healthy and local food options. See NYC "[green carts](#)" model.
6. **Healthy Land Uses.** Examine land uses to promote types of businesses that encourage smarter eating and increased physical activity.
 - a. Evaluate a healthy food overlay as a way of implementing healthy land uses. See Birmingham, AL's [Healthy Food Overlay District](#) as an example.
 - b. Reconsider drive-through facility standards, especially in mixed-use or compact communities, to promote walk-ins and social interaction and limit pollution emissions of idling vehicles. Consider commercial

and economic needs of individual uses such as financial institutions, gas stations, post offices, pharmacies, fast-food restaurants, and other similar uses that incorporate drive-through facilities as part of their business model. Introduce flexible standards with consideration given to orientation to the street, means of access, situation of queue lanes, and medians. Consider spacing requirements in proximity to certain uses or zoning districts.

B. Evolving Agriculture & Farming

1. **Agriculture Terminology.** Update the terminology of agriculture to address niche farming markets and evolving concepts of agricultural uses and farming such as, but not limited to, farms, urban farms and urban agriculture, community gardens, neighborhood gardens, home gardens, and apiaries.
2. **Agricultural Land Uses.** Incorporate “urban agriculture” as part of the land use chart.
 - a. Consider expanding and distinguishing agriculture uses across varying contexts and zoning districts.
 - b. Evaluate the use of apiculture and select livestock/poultry/fowl in residential zoning districts.
 - c. Consider allowing home gardens, greenhouses, fruit trees, and livestock.
3. **Equitable Access to Farmers Markets.** Increase the footprint of farmers markets, in addition to the Ferrington, Chatham Mills, and Pittsboro Farmers Markets, especially in rural areas and communities experiencing high rates of food insecurity.
 - a. Add provisions to allow farmers markets as a permitted use in community open spaces.

Area 1 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **GIS Mapping.** Utilize mapping software so that users can view and find food resources, such as food pantries and farmer’s markets, in their area. As an example, see Clemson University & SCDHEC’s [statewide map](#) displaying food pantries in every county in South Carolina to aid families facing food insecurity.
2. **Food Policy Council.** Collaborate with a Food Policy Council (FPC) to help shape public policy around food, which includes statutes, ordinances, regulations, budgets, executive orders, and resolutions. The FPC could also serve as champion of current efforts, such as Chatham Health Alliance’s food pantry & food vendor program. See [Chatham Community Food Council](#) and [North Carolina Local Food Council](#), a collaborative network of members that works to create and implement food strategies for improving Chatham’s and North Carolina’s food system.
3. **Grocer Availability.** Improve geographic availability of supermarkets, grocers, or healthy food markets in underserved areas with limited access to healthy and affordable food. The County can examine successful stores and business models that offer healthy food in rural areas similar to Chatham County. Current program efforts in the County include Dollar General’s [commitment to Fresh Produce and Healthier Food Goals](#) and the [Food Shuttle](#), which improves equitable access to nutritious food, with a focus on strengthening rural and/or communities of color. There are a few examples of jurisdictions in North Carolina utilizing grant or trust funding to support efforts to increase availability and sales of healthy, affordable foods. The [Kate B. Reynolds Charitable Trust](#) works with partners across the state to promote healthy eating and active living by increasing equitable access to healthy foods and recreational activities and exercise. Outside of the state, Louisville, Kentucky’s Shawnee Market is a recent example of a successful grocery store formed out of grant money and partnerships providing healthy food in vulnerable communities. Louisville’s Healthy Kids, Healthy Communities [Case Report](#) documents the City’s planning and advocacy efforts for healthy eating and active living strategies.

4. **Healthy Food Assessments.** Procure state and/or federal grant funding to continue monitoring needs for healthy food that will help inform decision-making and more effective implementation of policies. The County's [Community Health Assessment](#) reports have historically identified factors affecting the health of the community and what resources are available within the community to address these factors.
5. **Healthy Food Literacy.** Promote educational campaigns and material on healthy food and beverage choices for consumers in County government and institutions. The County maintains [Healthy Lifestyles & Wellness](#) programs and information on a variety of topics, such as diabetes prevention, diabetes self-management education, and nutrition counseling. See North Carolina's [Eat Smart, Move More NC](#) campaign.
6. **Mobile Markets.** Promote mobile markets and shuttle services that provide access to and distribute healthy food and beverage options to meet neighbors at their point of need, especially seniors and low-income individuals with limited access. See [The Spinning Plate](#), which delivers directly to communities across North Carolina. See Central Carolina Community College's [efforts to expand mobile food truck operations](#) in conjunction with their on-campus restaurant. See NYC's GrowNYC [Greenmarkets](#) program.
7. **Farm Food Purchasing.** Improve available mechanisms for purchasing food from farms to benefit rural farmers and vulnerable communities experiencing food insecurity. The County can evaluate and expand existing programs and networks purchasing and distributing food from farms to support vulnerable communities.
 - a. *Farm-to-Table Programs.* Expand sourcing of food from local farms used by restaurants.
 - b. *Agricultural Cooperatives.* Support the establishment of agricultural co-ops locally and regionally.
 - c. *Community Supported Agriculture.* Promote and expand the use of community supported agriculture (CSA) programs that offer consumers regular deliveries of locally grown farm products.
8. **Farm Production.** Encourage the production, distribution, and procurement of foods from local farms.
 - a. Encourage small or boutique farms and businesses that offer various types of local produce.

9. **Agriculture Education.** Continue to utilize agricultural extensions to collaborate with institutions and organizations providing non-formal education and learning activities to farmers and helping residents within rural and vulnerable communities. The [North Carolina Cooperative Extension](#) currently offers many educational programs that encourage people to make healthier, better-informed decisions. Programs cover a variety of areas from local foods and food safety to gardening and environmental efforts.
10. **Equitable Access to Farmers Markets.** Increase the footprint of farmers markets, in addition to the Fearington, Chatham Mills, and Pittsboro Farmers Markets, especially in rural areas and communities experiencing high rates of food insecurity.
 - a. Consider expanding farmers' market services in Siler City area and near census tracts with high rates of food insecurity.
 - b. Support efforts to allow SNAP benefits at farmers markets for items such as fresh produce.



Hike and Bike Trail.
Photo by Justin Wallace

Area 2

Obesity & Inactivity

Healthy Eating & Active Living (H.E.A.L.)

Chatham County's [2018 Community Assessment](#) listed "obesity" as the number 2 priority for Chatham County, in terms of health impacts. Since then, the Chatham Health Alliance has re-framed this priority as Healthy Eating & Active Living (HEAL), in recognition of the many complex factors that affect an individual's diet, physical activity, and lifestyle. Physical inactivity has been identified as a primary cause of most chronic health conditions including cardiovascular disease, Type II Diabetes, obesity, certain cancers, depression, and anxiety.¹

The Centers for Disease Control and Prevention (CDC) describes weight that is higher than what is considered healthy for a given height as *overweight* or *obesity*. Body Mass Index (BMI) is a screening tool used to determine whether an individual is *underweight*, *healthy weight*, *overweight*, *obesity*, or *Class 3 obesity*. For example, adults are *overweight* with a BMI² between 25 and 29.9. Adults that are obese have a BMI of 30 or higher. Note that adults include ages 20 and older and BMI for children is measured using a percentile method.

The State of North Carolina envisions "an economically competitive North Carolina with a healthy workforce, where the healthy choice is the easy choice, where families and individuals eat smart and move more, lessening the burden of obesity, chronic disease, and health care costs."³ According to [North Carolina's Plan to Address Obesity](#), more than 2/3 of adults are overweight or obese and an estimated 30% of children (ages 10-17) are overweight or obese in North Carolina. More than 1 in 3 Chatham County adults (34.1%) say that a medical professional has told them they are overweight or have obesity.⁴ Chatham's 2019 Community Assessment reports nearly 1 in 3 high school

1 Parks & Recreation Comprehensive Master Plan (p. 85).

2 Body Mass Index (BMI) is an approximate index of body fat. The formula for calculating BMI is: weight (kg) / [height (m)]² x 703.

3 NCIM (n 3).

4 Chatham County Community Survey. Chatham Health Alliance; 2021.

students (32.1%) in the County were either overweight or obese. Hispanic/Latinx and Black/African American students and males were more likely than their peers to both be overweight and have obesity.

The Chatham County [Parks and Recreation Comprehensive Master Plan](#) reports communities that create spaces for physical activity and social connectivity are linked to people with positive physical, psychological, and social outcomes. Specifically:

- » People who live near trails are 1.5 times more likely to meet physical activity guidelines.
- » Access to outdoor space that is well-maintained and safe has been associated with initiating and maintaining physical activity and reducing obesity.
- » Children living within ½-mile of a park are more likely to have higher levels of physical activity.



The [Parks and Recreation Comprehensive Plan](#) indicates there are many barriers to physical activity and a lack of safe, accessible places to exercise available to all. In fact, more than 1 in 5 Chatham County adults (21.2%) think the County should focus on improving sidewalks and bike lanes to improve health and quality of life in the Chatham community. More generally, research has shown that youth who live in poor or mostly minority neighborhoods are 50% less likely to have a recreational facility near their home⁵ and that 70% of predominantly African-American neighborhoods and 81% of predominantly Hispanic neighborhoods lack recreation facilities.⁶ Furthermore, disparities exist in acres of parks per person, park spending, park quality, park maintenance, and park safety in minority and low-income neighborhoods when compared to peer neighborhoods.⁷

In 2019, 63.4% percent of the population had access to exercise opportunities in Chatham County according to Healthy Communities, NC [data](#). The County's [2021 Community Assessment](#) reports most Chatham County adults engage in some physical activity during a typical day. More than half spend at least an hour doing physical activity in a day (53.7%), while a small amount does less than 30 minutes (15.7%). According to the report, the main reasons why adults do not engage in physical activity include not having time to do so (36.7%), having no one to exercise with (30.5%), not liking to exercise (30.5%), and having an injury (10.3%). The 2018 Chatham County Parks

5 Gordon-Larsen P, Nelson MC, Page P, Popkin BM. "Inequality in the Built Environment Underlies Key Health Disparities in Physical Activity and Obesity, 117(2): 417-424, 2006.

6 Moore LV, Diez Roux, AC, Evenson KR, et.al. "Availability of Recreational Resources in Minority and Low Socioeconomic Status Areas". American Journal of Preventive Medicine, 34(1): 16-22, 2008.

7 Wen, M., et al. (2013). Spatial Disparities in the Distribution of Parks and Green Spaces in the USA. Annals of Behavioral Medicine, 45(1Suppl): S18-S27.



KEY INDICATORS OF OBESITY AND INACTIVITY:

- » Body Mass Index (BMI)
- » Proximity to parks (e.g., % of population within ½-mile of a park or shared use recreation area)
- » Walking access (% of population with a less than ½-mile walkable route to park, shared use recreation area, or trail entrance)
- » Park acreage (total land area designated as public parks or trails in a given range (park deserts, unequal distribution)
- » Financial Investment (per park user; per resident within ½-mile of park; ratio of reinvestment (how much invested in park/ total cost to replace all existing park assets)

and Recreation Survey indicated the top three reasons that prevent residents from using parks, facilities, and programs offered by the Chatham County Parks and Recreation Department include lack of information and not knowing what is offered (54%), facilities being too far from home (32%), and not enough time or too busy (31%). Over half of survey respondents (55%) indicated being closer to parks, trails or greenways would help them be more physically active.

In 2020, the COVID-19 pandemic highlighted pre-existing inequities in our systems, ranging from healthcare, to transportation, to food access, to quality public spaces. The pandemic spurred new approaches to active design of transportation and public space. Barriers such as housing cost burden, unsafe streets, lack of adequate transportation access and healthy food access were all exacerbated in communities with high concentrations of lower-income and racial minority households. Local governments across the nation put in place new guidelines and restrictions that partially or fully closed businesses, restaurants, public facilities, parks, trails, and other gathering spaces. These challenges forced elected and appointed officials to develop equitable solutions to promote activity-friendly public spaces and transportation efforts and to prioritize the pedestrian experience. For example, closing streets to vehicles or enhancing streets for socialization and outdoor dining.



Area 2 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Safe & Accessible Public Spaces

1. **Universal Design.** In addition to designing in accordance with the minimum standards outlined in the Americans with Disabilities Act (ADA), open space and streetscape standards should consider intuitive design and inclusive mobility for all users. For example, consideration should be given to safety for youth, those with visual impairments, parents with strollers, and those with physical impediments.
 - a. The UDO should integrate universal and accessible design principles, standards, and specification where practicable.
 - b. Consider integrating Universal Design requirements or incentives for new housing construction to better accommodate the needs of aging individuals and those who experience disabilities.¹
2. **Community Gathering Space.** Promote the creation of green spaces, amenity space, and community spaces that foster social cohesion and activity in subdivisions and new developments.
3. **Link Neighborhoods with Parks & Open Spaces.** Promote a continuous and complete open space network and strengthen connection of parks and open spaces through adequate bicycle and pedestrian infrastructure.
4. **Public Access to Parks.** Support public transportation options and expansions that connect neighborhoods to parks and open space.
5. **Safe Active Areas.** Enhance design and safety of public areas where people are or could be physically active.

¹ American Planning Association. *Equity in Zoning Policy Guide*, 2022.

B. Active & Healthy Living

1. **Walkable Subdivisions.** Review subdivision requirements to promote optimal conditions for walkability, including sidewalks, shorter block lengths, amenity space, mid-block crossings, traffic calming techniques, trailways, and benches, shade trees, and adequate lighting.
2. **Active Living Zoning.** Zone for mixed-use development with infrastructure that supports bicycling, walking, better access to public transportation, and provides for active living through community gathering space.
 - a. Cluster development refers to a development approach that concentrates housing into a portion of available land, typically closer to transportation networks, while preserving a portion of the land for open space uses, such as conservation, recreation, or agriculture.
 - b. Traditional Neighborhood Design (TND), or village-style development, is a land-use approach that provides a mix of land uses and housing types connected by pedestrian-friendly streets in a compact setting.
 - c. Mixed-use development is an alternative to single-use zoning and places multiple uses within a site, such as street-level retail with residential units above (vertical mixed use), or co-locates uses within a designated area, such as neighborhoods that offer residential, commercial, and civic spaces within walking distance (horizontal mixed use).
3. **Pedestrian-Oriented Design.** Require development within activity centers and along corridors to improve pedestrian mobility through provisions for sidewalk access, bicycle facilities, and pedestrian-friendly design.
4. **Flexible Public Space Standards.** Review and relax regulations where possible for streets, curbsides, and public spaces to remove unnecessary barriers to accessibility.
5. **Adaptive Reuse of Existing Assets.** Adaptive reuse of buildings and facilities in areas of disinvestment encourages active living by converting previously unoccupied or underoccupied spaces, which may already connect to community amenities, such as sidewalks, public transportation, and economic centers, into destinations.
 - a. For example, permit painted signs and mural walls to provide affordability for new businesses, and promote active street fronts and walkability.

Area 2 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Park & Open Space Adjacency.** Increase the percentage of the population, particularly marginalized communities and those in vulnerable neighborhoods, living within close proximity to a park or public recreational facility. Ensure vulnerable communities have access to parks, green areas, cultural amenities, and recreation opportunities.
2. **Municipal Service Districts.** Leverage Municipal Service Districts, also known as Business Improvement Districts (BIDs), in vulnerable communities to implement projects that enable pedestrian-friendly improvements, such as improved wayfinding, adequate sidewalks, seating areas, and amenity space.
3. **Community Coalitions.** Promote efforts of community coalitions or partnerships to address obesity and inactivity in vulnerable communities.
4. **Healthy Living Programs.** Work with institutions such as government, schools, colleges, and universities to find effective ways to support and encourage programs and promote environmental changes that have impacts on the County as a whole such as, but not limited to, increasing the amount of physical and extracurricular activity in school programs in marginalized communities.
5. **Community Events.** Allow temporary events and create temporary destinations by bringing people together in public spaces. Events could include small businesses, farmers' markets, outdoor concerts, street festivals, and block parties in vulnerable neighborhoods.
6. **Creative Placemaking.** Involve community members in vulnerable neighborhoods in collaborative arts and culture activities that help reimagine existing destinations, enhance a sense of place, and support vibrant community spaces. Storytelling, visual expression, and performance can provide a sense of place and improve community identity.
7. **Pop-up, Pilot, or Demonstration Projects.** Tactical urbanism and demonstration projects, or light/quick/cheap (LQC) techniques can test out ideas quickly, engage the community, and build trust. Consider short-term, low-cost efforts for pop-up, pilot, or demonstration projects in priority areas that may benefit from traffic-calming, crosswalks, protected bicycle lanes, and shared street measures.



*Chatham Transit Shuttle.
Chatham County*

Area 3

Mobility & Multimodal Access

Chatham's Changing Mobility Needs

All individuals should have safe, affordable, and reliable methods of moving around their community to access jobs, services, and amenities. The [2021 Chatham County Community Health Assessment](#) reported transportation as a top priority for its residents.

Barriers to meeting essential mobility needs can prevent critical access to health care, healthy eating options, and education. For example, while nearly 95% of adults in the County typically use a vehicle to get around, some areas and populations do not have access to a vehicle. In fact, 13% of households reported in census tracts north of Siler City have no personal vehicle and up to 5 to 7% of households in the County do not have a car, according to data reported in the American Community Survey.

Rural communities are particularly vulnerable and experience higher health risks than urban communities due to social isolation, longer distances between essential infrastructure and services, and limited access. In particular, low-income households, seniors, and those with limited mobility are especially vulnerable in rural communities.¹

Adequate sidewalks and pedestrian paths are critical means of getting around for many residents. However, one in six adults in the County report lack of sidewalks as being a barrier to getting to where they need to walk and 26% of Hispanic/Latinx adults reported there were no sidewalks where they needed to walk.

¹ Move This Way – Making Neighborhoods More Walkable and Bikeable. Change Lab Solutions



KEY INDICATORS OF MOBILITY AND MULTIMODAL ACCESS:

- » Vehicle Ownership
- » Transit Ridership
- » Pedestrian Accidents & Deaths
- » Employment Data (e.g., Location and Number of Jobs, Concentration of Jobs and Colocation Quotient)
- » Commuting Data (e.g., Vehicle Miles Traveled, Energy Costs, etc.)

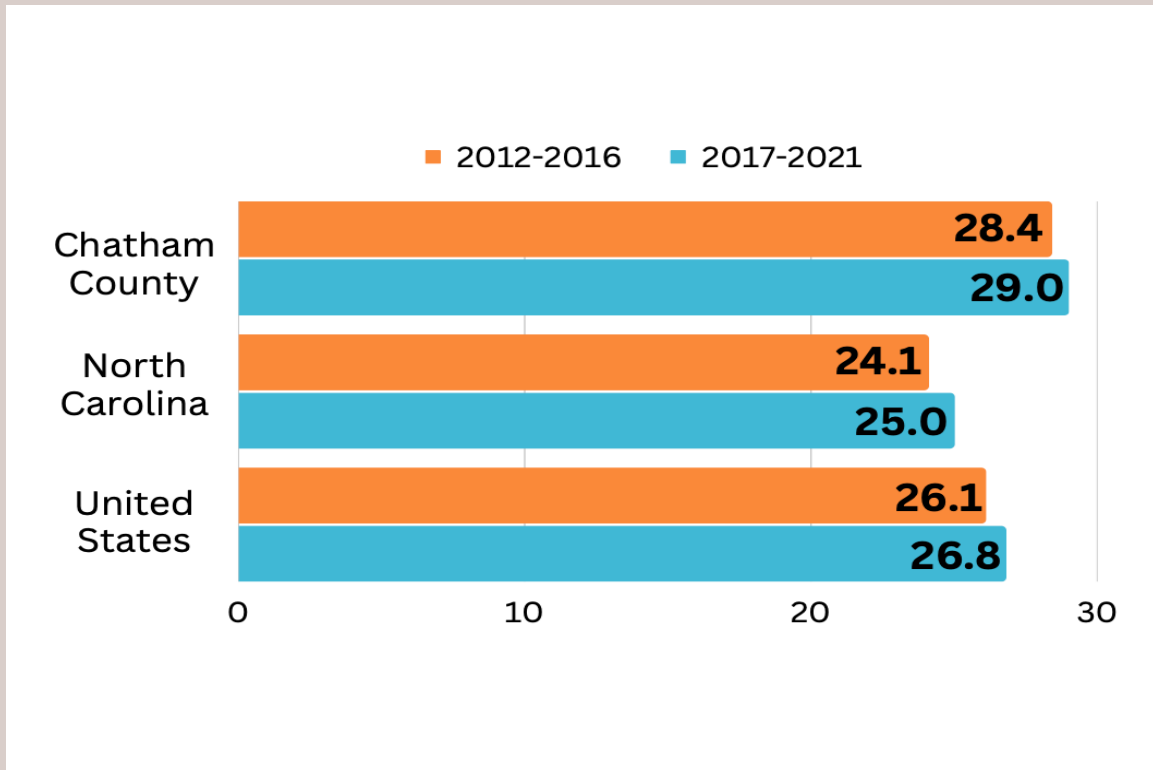
Access to alternative modes of transportation and affordable transportation options is crucial for many the County’s residents. Lack of safe, convenient, and affordable transportation options, including vehicles, walking, or biking, can be a barrier to health and well-being of residents. For example, according to the [2018 Chatham Community Assessment](#), 9.2% of County residents reported public transportation routes were not convenient to them, 8.1% cited a lack of knowledge with how to use public transportation, and 7.2% reported not being able to afford necessary repairs to their vehicles. Meanwhile, 22% of Hispanic/Latinx adults reported lack of knowledge about using Chatham’s public transportation as a barrier, and Black and Hispanic/Latinx adults were significantly more likely to report using public transportation than White, Non-Hispanic adults.²

Commuting to and from work plays an increasingly important role as a community grows with new employment opportunities and new residents. Transportation costs associated with work take up a large percentage of household budgets, which can be a burden on low-income households. The 2021 Chatham County Community Assessment reports 55.6% of employed residents work outside of the County, compared to 28.5% of North Carolina workers overall who work outside of their home counties. The added cost of commuting to and from work is compounded by the travel time to and from work, a considerable burden to vulnerable communities. Figure 3.1 below shows the average time to work increased from 28.4 minutes between 2012-2016 to 29 minutes in 2017-2021, according to latest data from the U.S. Census Bureau.

As the County expands its population and development footprint, the demand for safe and reliable transportation options will continue to grow in tandem. It will be important for Chatham County to consider transportation to connect all residents with jobs, health care, essential services, recreational opportunities, and amenities.

² Chatham County Community Survey. Chatham Health Alliance; 2021.

FIGURE 3.1: Average Time to Work, in Minutes, by Region



Source: U.S. Census Bureau



Area 3 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Complete Streets

1. **Complete Streets Implementation.** Require new development and new streets to address all modes and users and consider context of streets.
2. **Rural Road Design.** Coordinate with North Carolina Department of Transportation (NCDOT) to implement rural cross-section road design (such as yield streets; wide, advisory shoulders; on-street pedestrian/ bicycle lanes; and wide, contrasting pavement shoulders).
3. **Bicycle Facilities.** Establish design guidelines for short-term and long-term bicycle facilities and encourage developers to provide adequate and safe bicycle facilities to improve accessibility for bicycle-accessible development along existing and planned transit routes.
 - a. See ChangeLab Solutions [Model Bicycle Ordinance](#).
 - b. See Charlotte's [Bicycle Program](#) and [UDO Bicycle Requirements](#).
4. **Bicycle Self-Service Repair Stations.** Plan for publicly accessible bicycle workstations, or outdoor self-service repair stations, with ADA-compliant design, providing tools that can be used for bikes and other wheeled devices to support and promote physical activity opportunities. These amenities can support active routes (e.g., bike lanes, multi-use trails) to everyday destinations. Examples of destinations include, but are not limited to, schools, workplaces, libraries, parks, grocery stores, pharmacies, and essential services. Priority should be given to [historically marginalized populations](#) to increase opportunities for physical activity within their communities.
5. **Reducing Speeds.** Evaluate street design for subdivisions and new development to determine effective and appropriate design for traffic speed and movement, with consideration given to public transit, bicyclists, and pedestrians. Reductions to traffic speeds can be implemented using physical interventions such as narrower travel lanes, bulb-outs, and roundabouts to accommodate a safe environment for pedestrians and bicyclists. For example, collisions with cars traveling 30 miles per hour result in pedestrian deaths 40 percent of the time, compared to 5 percent of the time for collisions with cars traveling 20 miles per hour.³

³ Leaf WA and Preusser DF. "Literature Review on Vehicle Travel Speeds and Pedestrian Injuries Among Selected Racial/Ethnic Groups." US Department of Transportation, National Highway Traffic Safety Administration, 1999. www.nhtsa.gov/people/injury/research/pub/hs809012.html

B. Transit Demand & Access

1. **Transit-Adjacent Development.** Encourage greater density in areas near transit stations to secure demand for transit, such as compact communities and mixed-use zoning districts. Ensure jobs, education, and training opportunities are located close to transit service, near centers, or in high-need areas. Implement facilities by requiring development along transit corridors to be transit ready.
2. **Transit-Oriented Development.** Encourage compact development within walking distance to transit stations and incentivize development near public transit with incentives such as reduced parking requirements.
3. **Universal Transit Station Design.** Consider potential future transit stations in hubs for jobs, institutions, co-located resources, and high-intensity residential areas. Review and implement design standards that support universal design principles.
4. **Home Occupation.** Update and broaden home occupation uses to allow individuals the ability to work from home or remotely in places close to home.

C. Connectivity

1. **Compact & Complete Neighborhoods.** Promote compact, mixed-use neighborhoods, subdivision design, and development with open space, amenities, and a variety of uses that offer to bring destinations closer to neighborhoods reducing the need to travel long distances for basic needs such as food, jobs, and retail.
2. **Sidewalk Network.** Strive for building a continuous network of sidewalks, closing gaps in the network, and reducing the number of conflict points between vehicles and pedestrians.
3. **Pedestrian Paths.** Strengthen connectivity and promote walkability in communities throughout the various contexts of the County through such measures as mid-block crossings, pedestrian bridges over high traffic areas, pedestrian connections among subdivisions, direct walking paths to building entries and the public sidewalks along the street. Where possible, strengthen connections among neighborhoods and to parks, community spaces, cultural spaces, and recreation opportunities. Where sidewalks are not practical or feasible, consider alternative connections such as greenways, multi-use paths, or pedestrian pathways to connect developments along powerline rights-of-way or other such easements.
4. **Vehicular Circulation.** Encourage efficiency of routing and circulation of streets with integrated and compact developments, with consideration given to emergency response times, effectiveness of essential services, and promotion of efficient commerce.

Area 3 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Complete Streets Vision.** Establish an overall vision for the community that aligns and coordinates NCDOT policy guidance and addresses all modes and users and considers context of streets.
 - a. See North Carolina Department of Transportation [Complete Streets](#). Work with NCDOT to investigate innovative options for rural cross-section road design (such as yield streets; wide, advisory shoulders, on-street pedestrian/bicycle lanes; and wide, contrasting pavement shoulders).
 - b. See *Plan Chatham* & Transportation Element, Strategy 5.5 to encourage “complete street” elements and transit service expansions to provide residents with transportation options in order to reduce vehicle miles traveled.
 - c. See National Association of City Transportation Officials (NACTO) Complete Streets Complete Networks [Manual](#).
2. **Vision Zero Policy.** Aim to eliminate traffic fatalities and severe injuries using data driven prevention strategies, including education, enforcement, engineering, and emergency response. These policies may apply to pedestrians, bicyclists, and motor vehicles individually, but should address all modes together, and are intended to improve safety, health, and equitable mobility for all.
3. **U.S. 15-501 Transit Corridor.** Re-establish the U.S. 15-501 corridor as a transit corridor and reinstitute transit service along this route.
4. **Invest in Equitable Transit Routes.** Target, plan, and build out a complete and efficient multimodal transportation system that optimizes access to work, housing, activities, and other needs in communities of disinvestment. Employ equity criteria in project prioritization. See American Planning Association April/March 2020 PAS Memo, “Equity-Oriented Performance Measures in Transportation Planning.”

5. **Rural Transit Accessibility.** For those who do not want or cannot afford a car, an efficient and accessible transportation system gets people from homes to jobs, school, and services.
 - a. Identify areas with demand for increased mobility options such as shared use paths, safe crosswalks, bicycling, shuttle service, etc. See *Plan Chatham* (p. 131) - Multimodal Networks.
 - b. Translate and provide transportation services in Spanish for those that do not speak English as a first language or have difficulty reading English.
6. **Safe Routes to Schools.** The County can implement safe routes to schools focused on students in vulnerable communities to bike and walk safely to schools. See Triangle J Council of Governments [Safe Routes to School](#) program.
7. **Commuting Alternatives.** Promote programs that incentivize alternative commuting options to and from work such as public transit, carpooling, carsharing, and bicycling. Encourage work-from-home and remote working options. See [Triangle Transportation Choices](#).
8. **Siting Community Facilities to Increase Accessibility.** Consider location policies for future community facilities to locate within walking distance of prominent transit routes, such as schools, libraries, post offices, community gardens and farmers' markets, courthouses, childcare facilities, and police stations to aid in accessibility for those without a vehicle.



Aerial view of river system in Chatham County.
Chatham County

Area 4

Environment & Pollution

Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population bears a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or policies. Meaningful involvement requires effective access to decision makers for all, and the ability to make informed decisions.¹

Chatham County, along with neighboring Warren County, is associated with contributing to the birth of the environmental justice movement in the late 1970s and early 1980's. Following an incident involving illegal disposal of a highly dangerous chemical on public roadways, state officials began the process of siting a landfill to mitigate the contaminated soil, resulting in two potential sites – one in Chatham County and one in Warren County. The Chatham County site received immense opposition from local residents and was defeated. Meanwhile, the Warren County site location caught national headlines because of the landfill's siting within a poor, rural, and predominately Black neighborhood. The lack of power residents had in the decision-making process led to protests and sparked the environmental justice movement.² Since then, research has demonstrated a direct correlation between pollution, race, and poverty.

1 U.S. Environmental Protection Agency definition of [Environmental Justice](#).

2 [Real People-Real Stories](#) (2006). Exchange Project at the University of North Carolina at Chapel Hill.

Mapping is one powerful and effective tool to show correlations between demographics and the geographic location of pollution. There are a few mapping tools available to aid in identifying areas of the County experiencing issues related to environmental injustice.

At the County level, the [NCDEQ's](#) community mapping tool identifies potentially underserved Census block groups throughout North Carolina and maintains geographically referenced data of facilities, permits, and incidents. The mapping tool identifies census tracts as areas where occupants are more susceptible to adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Figure 4.1 on page 44 depicts census tracts having high percentage of populations classified as minority and low-income along the County's southern border and two census tracts in northern Siler City as potentially underserved block groups.



Healthy Land, Air, & Water

Chatham County contains a wealth of natural resources, ranging from habitats that serve as home for endangered and rare plant species to parks and open space that serve as recreational opportunities for County residents. It is well documented that increased proximity to natural open space results in lower rates of obesity, reduced stress, and decreased depression levels. As Chatham's landscape gradually adds more households, it will be important to maintain and increase opportunities for outdoor enjoyment and recreation. Access to shared green space, such as shared footpaths and trails, also allows individuals to interact with others. Furthermore, outdoor exercise is linked to an increase in social connections. Social cohesion and interaction are key components of meaningful open space.

Nationwide, local parks systems are facing equity concerns. *Plan Chatham* notes youth who live in poor or mostly minority neighborhoods are 50% less likely to have a recreational facility near their home, and 70% of predominantly African American neighborhoods and 81% of predominantly Hispanic neighborhoods lack recreation facilities. It is also shown that minority and low-income communities experience disparities in park acreage per person, park spending, park quality, park maintenance, and park safety when compared to their peers. There are also disparities in access and utilization for other populations as well. Approximately 12% of adults aged 18-64 years have a disability and nearly half are inactive, creating a disparity in the participation rates in leisure engagement for persons with disabilities. Despite the Americans with Disabilities Act (ADA), many parks and recreation systems fall short of meeting the needs of people with disabilities.

Trees provide tremendous value and benefit towards a healthy environment and are correlated to positive effects on human health. Trees filter out pollutants from the air, soil, and water and have been shown to reduce rates of cardiovascular disease, strokes, and asthma, due to improved air quality, as well as reduced stress and depression and improved well-being. African Americans have a 36% higher rate of asthma incidents and are 3 times more likely to die or visit the emergency room from asthma-related complications than Non-Hispanic Whites.³

3 Rudolph, L., Harrison, C., Buckley, L. & North, S. (2018). *Climate Change, Health, and Equity: A Guide for Local Health Departments*. Oakland, CA and Washington D.C., Public Health Institute and American Public Health Association.

Trees and stormwater are strongly related and should be considered in tandem. Trees decrease the amount of runoff by retaining and absorbing water. Not only do trees mitigate stormwater runoff, but they also sequester and store carbon and produce oxygen. The County should strive to protect, maintain, and enhance areas that reduce air pollutants like ozone, sulfur dioxide, and carbon monoxide through filtration processes such as photosynthesis. African Americans are more likely to live in neighborhoods with few trees and more heat-trapping pavement. In addition, African Americans experience heat-related deaths at a rate of 150-200% greater than for non-Hispanic Whites.⁴

Air pollution poses serious threats to those who breathe in toxic air particles. Pollutants have been tied to increased cancer risks. A local news outlet, [Equity Report](#), indicates that in the Durham-Chapel Hill metro area, which includes Chatham County, Black populations face at least twice the respiratory risk from air pollution compared to Non-Hispanic White populations, and Hispanic residents face increased risk compared to Non-Hispanic Whites. The report states a legacy of disinvestment and redlining of minority communities has contributed to these communities being closer to highway infrastructure and industrial activity.

Clean water should be accessible to all residents. A large percentage of the Chatham County residents obtain their drinking water from private wells, which are largely dependent on soil conditions for proper operation. Studies indicate that communities of color and other marginalized groups rely heavily on well water and are therefore more susceptible to pollutants.⁵ Testing existing well water quality should be a priority for communities that are dependent on their water supply for safe and healthy drinking water. In response to this concern, the Environmental Health division initiated a partnership with the Chatham County Planning Department, Chatham County GIS, the North Carolina Geological Society, and NCSU to complete a long-term project with a goal to produce a map that indicates the depth and yield of all known wells in Chatham County. This map will also be used to develop predictive modeling for potential naturally occurring water quality concerns based upon the geology of the area. The division also continued its work with the Childhood Lead Poisoning Prevention Program in response to new rules from the Chatham County Board of Health, lowering the blood lead level requiring follow-up action with the goal of preventing ongoing lead exposure, and making others aware of the recently installed PFAS treatment at the Town of Pittsboro water plant that is already reducing the levels of PFAS by 95%.

4 Rudolph, L., Harrison, C., Buckley, L. & North, S. (2018). *Climate Change, Health, and Equity: A Guide for Local Health Departments*. Oakland, CA and Washington D.C., Public Health Institute and American Public Health Association.

5 George, et. al. *Well Water Contamination and Environmental Justice in Chatham, Lee, and Moore Counties*. ENEC 698.

Climate & Clean Energy

Climate change and health inequities are intricately related, affecting every community but disproportionately impacting marginalized communities. Climate justice focuses on the disproportionate impacts of climate change experienced among marginalized communities and the fair transition towards a clean energy economy.

Across North Carolina, climate change is leading to more intense storms and flooding, elevated temperatures, droughts, rising sea levels, and damage to ecosystems and wildlife. Studies suggest climate-related events, such as extreme heat and severe storm events, could worsen environmental conditions that bring about illnesses and cause dislocation of disadvantaged communities. Minority communities are particularly vulnerable to these changing climate conditions. The EPA [reports](#) that Black and African American individuals are projected to face increased impacts from climate change, including being 40% more likely to live in areas with the highest projected increase in extreme temperature-related deaths. During extreme weather events, African American households have a smaller cushion against property damage or injuries, which is further complicated by lack of access to medical care and insurance.⁶ Meanwhile, Hispanics and Latinos, communities that generally have higher participation in weather-exposed industries such as construction and agriculture, are 43% more likely to live in areas with the highest projected reductions in labor hours due to extreme temperatures.⁷ According to FEMA's National Advisory Council, recovery programs related to climate-related events have historically provided an additional boost to wealthy homeowners and others with less need, while lower-income individuals and others sink further into poverty after climate-related disasters.⁸

At the federal level, the [Justice 40](#) initiative is a federal project with a goal to direct investments to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. The [Climate and Economic Justice Screening Tool](#) identifies communities as disadvantaged if at or above the 90th percentile for expected agriculture loss rate, expected building loss rate, or expected population loss rate; above the 65th percentile for low income; and 80% or more of adults 15 or older are not enrolled in higher education. Figure 4.2 shows [census tracts](#) in the southwest portion of the County are identified as disadvantaged.

6 Rudolph, L., Harrison, C., Buckley, L. & North, S. (2018). [Climate Change, Health, and Equity: A Guide for Local Health Departments](#). Oakland, CA and Washington D.C., Public Health Institute and American Public Health Association.

7 [Climate Change and Social Vulnerability Report](#) (2021). US Environmental Protection Agency.

8 [Report to the FEMA Administrator](#) (2020). National Advisory Council



KEY INDICATORS OF ENVIRONMENT AND POLLUTION:

- » Household Growth and Commercial Square Footage Growth
- » Vehicle Miles Traveled
- » Greenhouse Gas Emissions; Air Pollution Rates
- » Pollen Concentration
- » Heat-related Illness
- » Number of Households with low- or zero-emission vehicles; electric vehicle
- » Number of environmental facilities, permits, and incidents
- » Electricity Generation / Annual Load Growth
- » Tree Canopy Coverage; Number of Trees
- » Number of residents within maximum 10-minute walk from public space
- » Park acreage per person; Park acreage per land area
- » Proportion of low-income residents with access to green space

Plan Chatham recognizes that climate change does not impact everyone in the same way and the importance of becoming a carbon negative county to reduce the County’s greenhouse gas emissions and the environmental risks that will result from global warming.⁹ Chatham County has also committed to clean energy with a goal of attaining 100% clean energy by 2050. The [Chatham County Climate Change Advisory Committee](#) (CCAC) has identified several priorities including conservation of land, tree preservation, sustainable agriculture, carbon management, green space in new developments, cleaner fleet vehicles, access to EV charging stations, green buildings, green jobs, and County policy.¹⁰ North Carolina has also made a commitment to transitioning towards a renewable energy future, relying less on coal and natural gas and more on electric vehicle manufacturing and other industries that make up the supply chain of clean energy. In fact, renewable energy is a significant industry in the state, and solar photovoltaics are the largest subset of the clean energy economy aside from energy efficiency.¹¹ The governor of North Carolina released an Executive Order ([EO 246](#)) declaring North Carolina’s commitment to clean energy and calling for public participation plans to help guide decision-making.

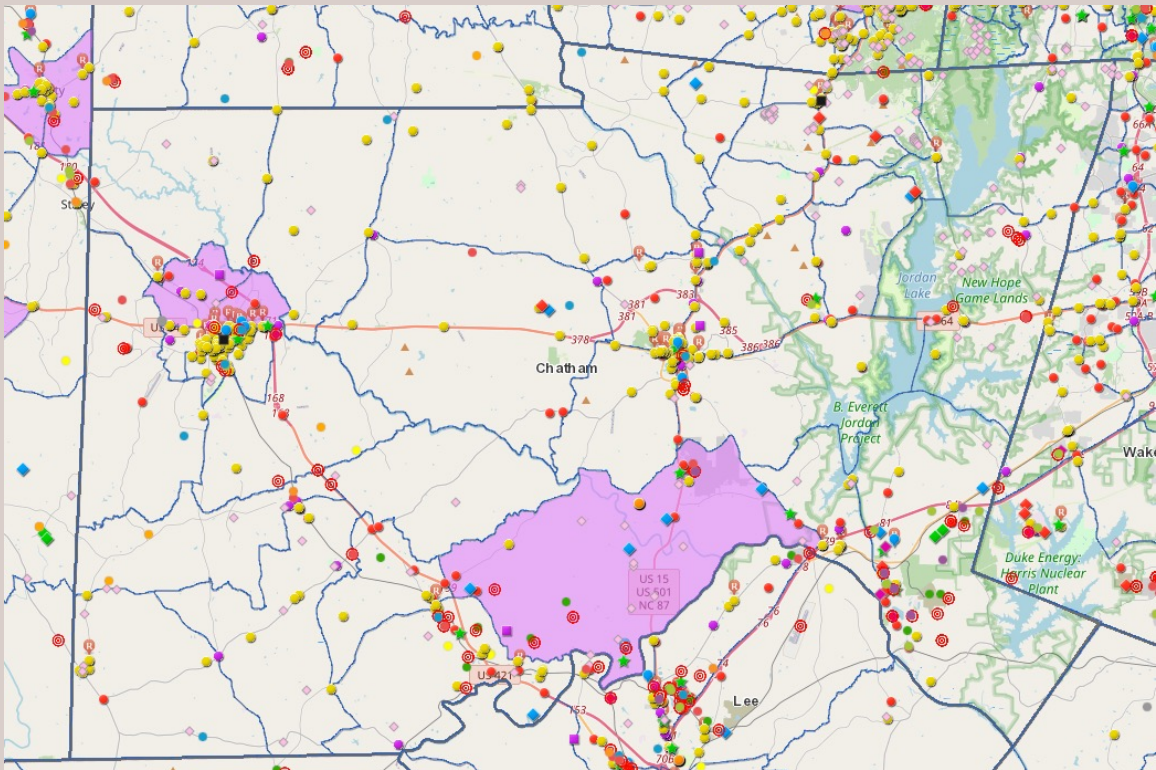
As new clean energy jobs and associated development occur over time, it will be important for households to keep up with a changing economy and climate. Burdens of energy efficiency, weatherproofing, and power generated by renewable energy will affect households, particularly in low-income communities. Access to clean transportation such as fuel efficient, low- or zero-emission, and electric vehicles should be equitable across all communities. Finally, the County should ensure safety and health of vulnerable communities in response to more frequent weather events driven by climate change.

9 *Plan Chatham* Resiliency Element, p 111

10 2021 Chatham County Community Assessment (p. 99)

11 North Carolina Solar Land Use and Agriculture (2022). NC Sustainable Energy Association (www.energync.org)

FIGURE 4.1: NCDEQ's Potentially Underserved Block Groups



Source: NCDEQ's Community Mapping System, 2019

FIGURE 4.2: Disadvantaged Census Tracts



Source: White House Council on Environmental Quality's Justice40 Atlas - [Climate and Economic Justice Screening Tool](#)

Area 4 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Clean Air, Land, & Water

1. **Light Pollution.** Introduce lighting standards to mitigate and prevent light pollution, especially for clustered or compact development areas.
2. **Tree Canopy Equity.** Maintain and enhance tree canopy with new development and subdivisions to add shade, reduce heat accumulation, and sequester carbon emissions and other air pollutants within vulnerable communities, especially with proximity to highways, nearby transit stations, and in landscape buffers separating communities from industrial activity.
 - a. See [ReLeaf Cedar Rapids](#), which created an equity priority ranking system based on road classification, percent of trees lost to storm damage, total number of vacant planting spots, Tree Equity Score, and pedestrian infrastructure needs.
3. **Graywater Recycling.** Encourage use of graywater recycling in areas prone to drought where permissible by law.
4. **Conserve Rural/Agricultural Areas.** Conserve rural and agricultural settings of the County and enable a transition to more rural development patterns.
 - a. *Agricultural Zoning District.* Establish new rural zoning districts. Allow certain types of uses to occur in these districts to promote agribusiness. Consider nuisances such as odors and livestock.
5. **Expand Open Space in New Developments.** Increase required open space or conservation areas in new developments.
 - a. *Compact Communities Ordinance.* Initially created in 2004 in response to Briar Chapel, and amended since that time, this ordinance includes many guidelines pertaining to sustainable water and wastewater practices. Many regulations are currently outdated. The ordinance should be reviewed for viability of use in future rezonings.
 - b. *Conservation Subdivision Alternative.* Encourage options for conservation design of subdivisions to increase the amount of community gathering space, outdoor recreational spaces, and natural areas. Review regulatory language for efficiency, enforcement, and legal compliance. See Raleigh's updated [Unified Development Ordinance](#).

B. Environmental Justice

1. **Flexible & Effective Rezoning Processes.** Evaluate and update the rezoning process to be transparent, equitable, and accessible for all. This could include reviewing rezoning review criteria to ensure equitable outcomes and goals to achieve equity. This also may include ensuring effective feedback is received from a wide range of stakeholders, including residents, property owners, and developers. Review processes and procedures to incorporate variables that balance flexible solutions with predictable and clear outcomes so that communities have reasonable understanding of the process.
2. **Environmental Impact Assessment.** Require Environmental Justice reports and accident risk analysis to examine the demographic and environmental conditions in relation to Census tracts within a certain distance of proposed developments with potential environmental impacts on the community. The report should analyze potential health and environmental risks and identify alternatives to mitigate risks. (e.g., In 2019, an [Environmental Justice Report](#) was completed for proposed additions to the Cape Fear Plant.)
3. **Land Use Buffers.** Review separation widths of buffers used between land uses, streams, and watersheds and evaluate landscaping used to screen and mitigate noise and pollution.
 - a. Coordinate with state limitations and requirements.
 - b. Consider using 500-year floodplain for riparian zones.
4. **Locally Unwanted Land Uses.** Review and revise zoning maps to avoid future location of polluting or environmentally harmful facilities and other locally unwanted land uses (LULUs) in neighborhoods that already contain a disproportionate share of those uses and facilities.
 - a. Ensure that zoning maps allow practical locations for these and future similar uses in other areas of the community where they will not exacerbate health impacts on populations that have already been exposed to these uses. This analysis should consider how long existing nonconforming uses are likely to operate and how that affects the concentration of uses in different neighborhoods.
 - b. Avoid map changes that increase residential development potential in areas near sources of pollution, hazards, or climate risks, particularly in historically disadvantaged and vulnerable neighborhoods, where possible. Where residential intensity is increased near major highways and other sources of pollution, evaluate potential health risks, and ensure that buffering and other measures to mitigate risks and public health impacts are included.

5. **Equity in Zoning Map.** Analyze zoning map boundaries based on discriminatory lending policies or the construction of divisive public works, and revise maps to remove those historical boundaries if doing so would increase the economic health and welfare of the historically disadvantaged and vulnerable community. These changes should open up neighborhoods formerly favored by redlining to allow more diverse and affordable forms of housing, and to allow more affordable forms of housing to locate closer to good jobs, services, and schools. Removal of redline-based barriers should be done in close consultation with the affected community.
6. **Artisan Manufacturing Uses.** Classify industrial or commercial uses with low-impact or no impact on the surrounding area as artisan or low-impact manufacturing uses to allow these productive activities in more zoning districts and near residential areas, especially those that produce artisan or seasonal wares.¹²

C. Climate & Clean Energy

1. **Natural Sustainable Systems.** Design with natural systems (e.g., tree canopy, passive solar, green roof gardens) that offer to lessen effects of heat exhaustion and urban heat island impact, especially in vulnerable communities with low-income or minority residents. Design with natural systems over human-made systems.
 - a. For example, district geothermal techniques may be used to heat and cool neighborhoods or community facilities to replace expensive and unhealthy gas heating.
2. **Clean Energy Incentives.** The UDO should include incentives and remove barriers for clean energy uses. Examples of potential incentives include increased height allowances to accommodate energy generation systems, like rooftop solar panels and wind turbines; exclusion of ground-mounted solar panels from lot coverage calculations; reduced setback requirements; relaxed or alternative tree protection requirements; parking reductions in exchange for solar canopies; and expedited permitting processes for developments that include clean energy generation systems.

¹² APA (n 12).

3. **Microgrids.** Allow microgrids and ensure they are evenly/equitably spaced throughout the County so that neighborhoods are able to keep the power on in their area during larger grid failure using energy storage, local solar, and smart devices that help manage energy use to match clean energy supply. See Minneapolis' [The Peoples Climate & Equity Plan](#).
4. **Responsible Solar Farms.** Incorporate low-impact development practices that mitigate the increasing number of solar farms in Chatham County, including:
 - a. Mitigate loss of forest and timberlands; Consider maintaining tree stands where possible.
 - b. Create buffer areas around solar photovoltaic (PV) systems.
 - c. Coordinate with NC Department of Environmental Quality to establish regulatory programs that considers the end-of-life decommissioning of PV systems after their approximate 25-year lifespan.
 - d. Types of materials used and their potential toxicity to the environment.
 - e. Agrivoltaics, or the dual land use potential to integrate crops and/or animals with solar farms.
 - f. Coordinate with the North Carolina Pollinator Conservation Alliance to add native plants and pollinator habitats (e.g., bees and butterflies) to support local ecosystems; restore native vegetation and grasslands; avoid erosion and areas of high native biodiversity.
5. **Equitable Access to Zero-Emission and Low-Emission Vehicles (ZEVs).** Ensure access and ownership of electric vehicles and low- or zero-emission vehicles is culturally, geographically, and economically diverse.
 - a. Ensure public access to ZEV charging stations in public parks and spaces near disadvantaged communities.
 - b. Incentivize the use and accommodation of ZEV charging stations.
6. **Solar-Ready Infrastructure.** Integrate solar infrastructure in publicly owned spaces and structures.
 - a. Integrate solar specifications into the County's subdivision and open space design specifications.
7. **Drought Tolerant Landscapes.** Review permitted planting materials to include drought tolerant species.

Area 4 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Environmental Justice Point Person.** Identify a point person to champion environmental justice efforts.
2. **Chief Resilience Officer.** Identify a Chief Resilience Officer (CRO) or point person to help shape thinking and decision-making related to County policies as they relate to climate, resiliency, and equity.
 - a. See North Carolina [Office of Recovery and Resiliency](#) (NCORR).
 - b. See Charlotte's [Chief Sustainability & Resiliency Officer](#)
 - c. See Greensboro's [Chief Sustainability Officer](#)
3. **Public Participation Plan.** Develop a public engagement and participation plan to ensure the public, especially those in underserved areas, low-income households, and minority communities, are meaningfully engaged in government decision-making.
 - a. See U.S. Environmental Protection Agency (EPA)'s [Model Guidelines for Public Participation](#).
 - b. See North Carolina Department of Environmental Quality (NCDEQ)'s [Public Participation Plan](#)
 - c. See New Orleans RPC [Public Participation Plan](#).
4. **Environmental Justice Mapping.** Utilize the EPA's [Environmental Justice Screening and Mapping Tool](#) to identify communities affected by environmental injustice and work closely with those communities to develop strategies and approaches to remedy environmental injustice.
5. **Nuisance Ordinance.** Review nuisance regulations and environmental performance standards to consider parameters for soundproofing, ventilation systems, dust, truck access, fumes and odors, vibration, glare and heat, and light controls that may be obtrusive to residential areas.
6. **Airport Flight Traffic Patterns.** Evaluate proximity of the Raleigh-Durham Airport and the County's authority and influence in air flight traffic pattern.
7. **Public Perception and Awareness.** Work with citizens on education, awareness, and outreach to inform the public about changes in regulations.
8. **Healthier Industrial Practices.** Work with facilities polluting the water, air, and land located in/near low-income and communities of color to reduce emissions and transition to healthier practices.
9. **Relief Shelters/Resiliency Hubs.** Create a network of community centers, especially in under-invested areas, with emergency medical services, communications, and infrastructure that aid in reducing risks associated with climate-related hazards, including but not limited to shelters and cooling/warming rooms during extreme weather events, shelters during flooding events, and food distribution.

10. **Clean Energy Investment.** Focus investment on communities of color and low-income communities to advance weatherization, local clean energy, and building carbon-free transportation.
11. **Clean Energy Workforce Diversity.** Increase workforce diversity in industries that are critical to addressing climate change.
12. **Clean Energy Youth Apprenticeship Programs.** Expand youth apprenticeship programs that prepare graduates for good-paying careers in the clean energy economy.
13. **Transportation Electrification.**
 - a. Increase registration and sales of zero-emission vehicles (ZEVs).
 - b. Champion the [North Carolina Clean Transportation Plan](#) to guide transition to a clean transportation future.
 - c. Invest in public transportation powered by local energy from the wind and sun and encourage electric fleet vehicles to reduce community-wide greenhouse gas emissions.
 - d. Build capacity for electric vehicle usage, such as shuttle service or shared vehicles, into public housing.
14. **Septic Systems.** Work with state and local agencies as well as the private sector to monitor and install safe and effective septic systems in low-income areas.
15. **Environmental Justice Grants.** Explore grant applications tailored to climate justice and environmental justice, especially in areas disadvantaged by climate change, such as those [Census tracts](#) identified in the [Justice 40](#) initiative.
16. **Ancestral Land Acknowledgement.** Recognize Indigenous Peoples as original stewards of the land on which Chatham County residents now call home and acknowledge the legacy of their traditions, human knowledge, and ancestral homeland prior to colonial settlement.
17. **Greenhouse Gas (GHG) Emissions.** Coordinate on statewide efforts to reduce GHG emissions by 2030 and net-zero emissions by 2050. Coordinate on statewide GHG inventory and analyze pathways for achieving net-zero GHG emissions by 2050. Consider the social cost of GHG emissions in agency decision-making.
 - a. Work to reduce greenhouse gas emissions from institutional, commercial, and government purchasing.
18. **Building Energy Retrofits.** Improve energy efficiency of buildings, particularly in low-income/disadvantaged communities.
 - a. Improve appliance energy efficiency based on [EIA Annual Energy Outlook 2022](#).
 - b. Improve building shell efficiency by adopting the latest International Energy Conservation Code (IECC) building code for new construction.
 - c. Phase in solar generated power into public housing.
19. **Household Weatherization & Electrification.** Partner with community organizations to make sure households can weatherize their homes, especially in disadvantaged communities and households that do not speak English.



*Chatham Park (under construction) at night.
Chatham County Public Information Officer*

Area 5

Displacement & Gentrification

Chatham's Changing Landscape

Natural and working lands make up the majority of the land area in Chatham County. The natural scenery, clean water, forests, and wildlife form a backdrop and give the County its rural character. Open space, mostly surrounding the Jordan Lake State Recreation Area, creates a sizable portion of the County's land area, comprising over 9% of total land use. Unmanaged growth can threaten the natural environment with impacts such as loss of habitat and number of species, fragmentation of forests, and increases in stormwater runoff and may also impact farmland, which is vital for producing food. It will be increasingly important to preserve natural areas as resources that provide the County with long-term value and benefit.

Chatham County is large and diverse with approximately 708 square miles in area and is the second fastest growing county in the state of North Carolina. A recent [report](#) by the North Carolina Sustainable Energy Association states that low-density residential development comprises the bulk of agricultural redevelopment with 78% of total area loss. *Plan Chatham* states that between 2000 and 2014, the number of housing units increased by 37%, or 7,395 units. Such a fast pace of growth can mean rapid change is inevitable for portions of the County and the identity and character of communities can be affected by this change.

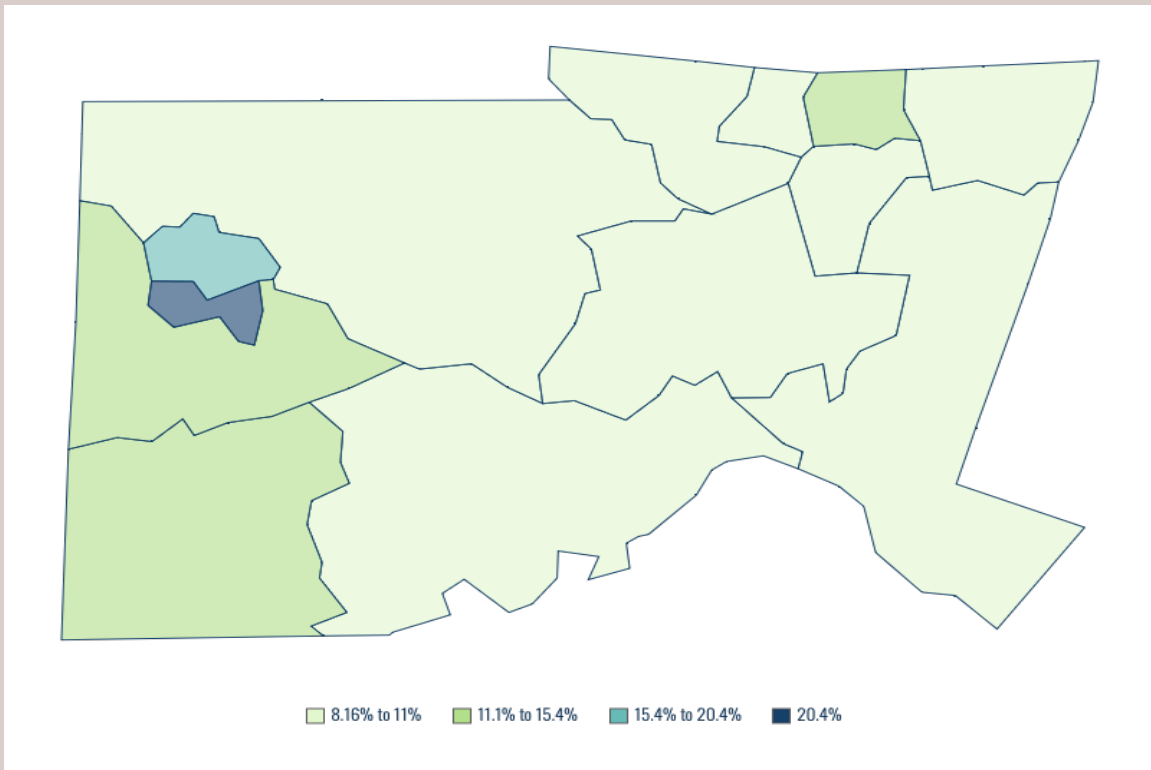
However, even a growing economy will mean different things for different parts of the County. Disparities and wealth gaps make it more difficult for some households or individuals to attain housing and create instability within affected neighborhoods. In some instances, rising land values and housing costs associated with growth trends could mean households are either displaced from their residence because they can no longer afford to rent or own. In turn, residents are forced to consider alternative locations offering more affordable living conditions.

The demographic make-up of the County is gradually shifting as new jobs and residential development are introduced across the County. The population of Chatham County has tended to be older individuals, more educated, and affluent in comparison to other counties in North Carolina, but the age make-up is slightly different across the County. For example, the northeast portion of the county is an older demographic compared to areas in the western portion near Siler City.

Transportation to and from work is a key determinant affecting household budgets. The [2021 Chatham County Community Assessment](#) reports 55.6% of employed residents work outside of the County, compared to 28.5% of North Carolina workers overall who work outside of their home counties. The added cost of commuting to and from work is a considerable burden to vulnerable communities. During the COVID-19 pandemic, working from home became crucial to support the economic viability of businesses while keeping safe distance to prevent the spread of the virus. Many businesses transitioned into private homes which forced local governments to adapt to more flexible regulations to support local at-home business operations resulting in less demand for commuting.

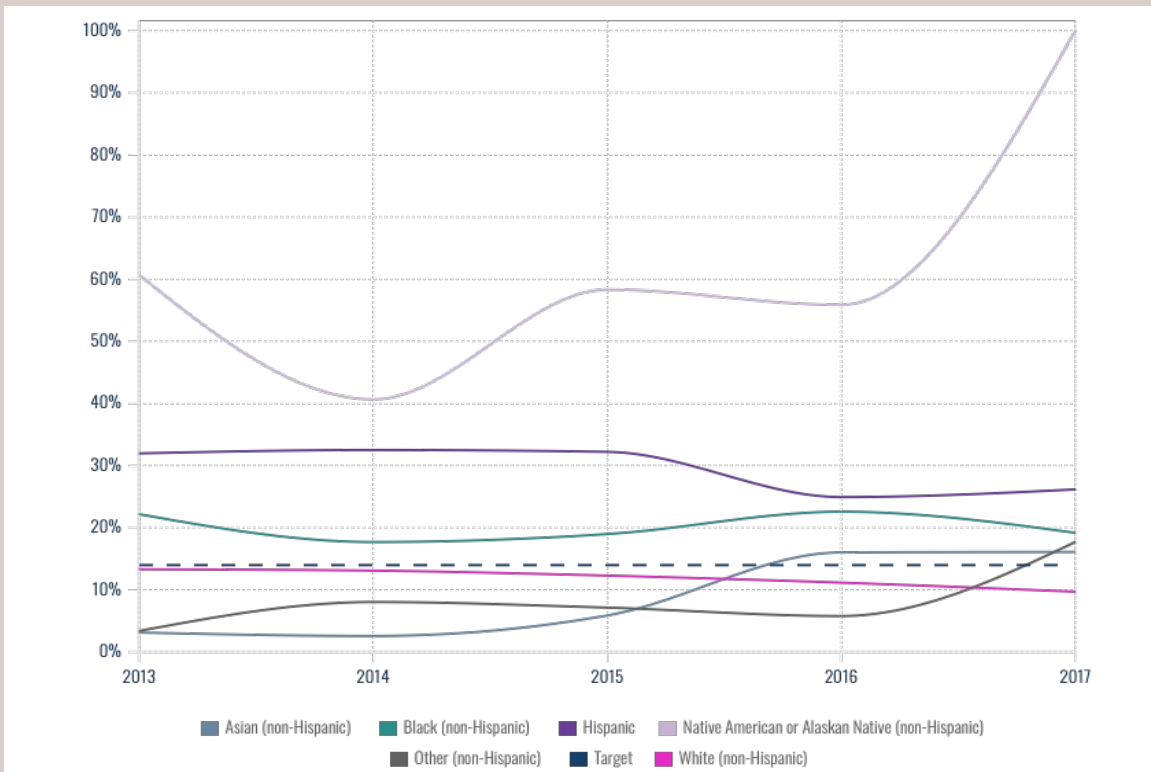
The availability of existing housing stock to the full County population is another key factor in the equation. The majority of housing in the County is single-family detached homes, which comprise 75% of the market. Manufactured homes make up the next largest portion at 14% of the market, which serve as the County's predominant form of affordable housing. A smaller portion of the market is made up of townhomes and apartment units, which may offer lower cost housing options. As new growth occurs, the diversity and range of housing options becomes more urgent to support a diverse and thriving economy that accommodates a range of individuals and incomes.

FIGURE 5.1: Rate of Population with Severe Housing Problems by Census Tract



Source: Cape Fear Collective North Carolina Severe Housing Problems Model Data

FIGURE 5.2: Regional Household Problems by Race and Ethnicity



Source: Cape Fear Collective North Carolina Severe Housing Problems Model Data

The costs associated with maintaining housing is another key factor of homeownership. Housing quality can greatly affect health and safety. Poor housing quality can lead to health risks such as respiratory infections, asthma, lead poisoning, injuries, and poor mental health, according to the County's 2021 [Community Assessment](#).

H.U.D. measures quality of homes in four areas, including incomplete kitchen facilities, incomplete plumbing facilities, more than one person living in a room per household, and cost burden greater than 50% (a ratio of housing costs compared to household income). Just over 15% of Chatham County residents rated their own house condition as “fair” and 1.4% of residents rated their house condition as “poor.” Figure 5.1 shows that Siler City residents were more likely to report housing issues, and a 2019 report claims many neighborhoods, up to 21% of units surveyed in Siler City, as being in “poor” or “unsound” condition, compared to just 6% in the County overall. Figure 5.2 shows Native American or Alaskan Native (non-Hispanic), Hispanic, and Black (non-Hispanic) households experience household problems at higher rates than White (non-Hispanic) and Asian (non-Hispanic).



If residential growth and development pushes further into rural areas, it becomes a burden on the farming industry and communities. Impending growth is a key concern among farmers, according to a *Plan Chatham* Agricultural Survey. Encroaching development threatens land prices and eats up dedicated farmland area, taking away from the overall availability of agricultural land. Such financial burdens are challenging to farmers and Chatham County's farming industry. Briar Chapel and Fearington Village along the U.S. 15-501 corridor are prime examples of the changing face of the County from agricultural land to rural village-like communities, developed under the Compact Communities Ordinance. And Chatham Park is another example of significant land transformation near Chatham County's natural open space and water features. On one hand, it is critical the County protect and preserve farmland, agriculture, and forests as part of its overall land use portfolio. On the other hand, the County must be prepared with tools and guiding principles for how new growth and development will accommodate a future mix of housing types, amenities, services, and open space for all households and individuals regardless of income.



**KEY INDICATORS OF
DISPLACEMENT AND
GENTRIFICATION:**

- » Demographics
- » Housing code complaints
- » Homeownership and renters in neighborhoods
- » Number of jobs
- » Commuting statistics
- » Number of small, minority-owned, women-owned, and veteran-owned businesses

Area 5 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Housing Safety & Security

1. **Reasonable Accommodation.** Strengthen the minimum housing code requirements and address concerns over substandard housing. Consider allowing administrative approval of “Reasonable Accommodation” for persons experience disabilities to avoid unnecessary lengthy variance processes.

B. Essential Workforce & Businesses

1. **Vulnerable Businesses.** Support and assist businesses that are historically underutilized and lack adequate access to opportunities with tools and resources to promote growth. Potentially vulnerable businesses could include Minority-Owned Businesses, Women-Owned Businesses, Veteran-Owned Businesses, and Small Business Owners.
 - a. Consider historical or cultural overlay districts where business districts have traditionally served and established a shared community identity.
 - b. Consider reducing parking and sign regulations, which are cost-prohibitive for new businesses.
2. **At-Home Businesses.** Review and expand the number of permitted at-home business land uses.

C. Housing Diversity & Choice

1. **Manufactured & Mobile Housing.** Evaluate zoning districts and land use regulations to maintain current manufactured or mobile housing, and support future manufactured and mobile home areas with enhanced qualities for open space and amenity areas in future zoning districts to mitigate the potential deterioration and loss of these areas over time.
2. **Zoning Intensity.** Evaluate existing zoning districts and consider new zoning districts that implement the following policies.
 - a. Avoid the use of exclusively single-family zoning districts.

- b. Reduce or eliminate minimum lot size requirements, if possible, based on water/wastewater services, and minimum dwelling unit size standards and maximum Floor Area Ratio (FAR) limits that effectively require construction of more expensive homes. Encourage districts with a greater diversity of housing form and use.
 - c. Permit a range of housing types in low-intensity zoning districts that are compatible with neighborhoods.
 - d. Establish mixed-use zoning districts or allow a wider mix of uses within existing zoning districts to increase opportunities for historically disadvantaged and vulnerable populations to live closer to sources of employment and needed services.
3. **Complete Neighborhoods.** Establish mixed-use zoning districts or allow a broader mix of uses within existing zoning districts to increase opportunities for historically disadvantaged and vulnerable populations to live closer to sources of employment and needed services.
- a. Existing neighborhoods with non-conforming commercial structures.
 - b. Neighborhood-friendly corner stores.
 - c. See Strong Towns article on [mixed-use neighborhoods](#).
 - d. See Minneapolis goal for [Complete Neighborhoods](#).
 - e. See Portland Plan for [Complete Neighborhoods](#).
 - f. See C40 article on [15-minute Cities](#).
4. **Density Allowances.** Increase density allowances in areas near high-frequency transit corridors, employment hubs, and activity centers. Reduce or remove limits on multi-household development density, minimum dwelling unit sizes, or maximum dwelling units per acre that tend to force construction of fewer, larger, or more expensive dwelling units within buildings.
5. **Minimum Lot Sizes and Setbacks.** Review lot size and setback requirements and remove zoning barriers that prevent duplexes or other gradual density.
6. **Middle Housing.** Look for equitable ways to increase housing density options beyond detached single-family houses to include duplexes, townhouses, cottage courts, and other housing options that promote affordability among and appeal to a wide range of homeowners. See Durham, NC example – [Expanding Housing Choices](#)

7. **Senior Housing.** Consider compatibility and lifestyle differences of senior housing with other housing types and land uses. Treat assisted living facilities, congregate care communities, retirement villages, and supportive housing types as residential and not commercial uses and allow them in a wide variety of residential zoning districts. Introduce uses such as adult day care, continuing care retirement community (CCRC), and long-term care facilities. Consider aging-in-place need. Refer to [Chatham Council on Aging](#), which has a Senior Housing Subcommittee.
8. **Accessory Dwelling Units.** Examine areas in single-family zoning to allow accessory dwelling units by-right, without the need for a public hearing, that would promote affordability, support multi-generational families, reuse existing housing stock, increase diversity and density of an area without disrupting the residential neighborhood, and increase rental housing stock.
9. **Vacant Lots & Housing.** Reinforce complete neighborhoods by leveraging existing lots, existing building stock, and encouraging infill and adaptive reuse.
 - a. Incentivize redevelopment of empty lots through “gentle density” approaches such as allowing detached accessory dwelling units, duplexes, and courtyard housing.
 - b. Allow temporary uses such as community gardens or neighborhood pocket parks.
 - c. The County can purchase and utilize vacant property to address goals of housing and sustainability.
10. **Supportive Housing.** Support those with physical and mental disabilities protected by the federal Fair Housing Amendments Act (FHAA). Evaluate zoning to include small group homes where single-household homes are permitted and allow large group homes wherever multi-family housing of the same size is permitted.¹

¹ APA (n 12).

Area 5 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Employment Diversity.** Strengthen diversity of employment options and prioritize workforce development across all sectors, including healthcare workforce development to reduce the risk of job vulnerability and housing uncertainty.
2. **Essential Workforce.** Assess ways to further support essential workforce, including emergency responders, nurses, and construction workers, whose skills are especially needed in times of vulnerability, such as floods, droughts, pandemics, and severe storms.
3. **Opportunity Zones for Minority-Owned Legacy Businesses.** Leverage Opportunity Zones for small businesses that are minority owned. See [IRS Opportunity Zone Fact Sheet](#).
4. **Financial Literacy Programs.** Create educational opportunities or programs to assist vulnerable communities and communities of color toward personal financial resilience.
5. **Neighborhood Housing Assessment.** Conduct a neighborhood housing assessment and mark conditions of housing on foot. Assemble stakeholders to have dialogue and further develop strategies.
6. **Fair Housing Education.** Partner with the [Chatham Housing Authority](#) and other jurisdictions to offer fair housing training and education.
7. **Housing Code.** Strengthen the minimum housing code requirements and address concerns over substandard housing. Address concerns that any affordable housing building has long-term maintenance standards requirements, inspections, and commitments. See APA [Housing Policy Guide](#).
8. **Housing Assistance Programs.** Maintain partnerships between the County, cities, and social service organizations to provide outreach and discussions with residents to better understand housing barriers.
9. **Weatherization Programs.** Coordinate weatherization and rehabilitation efforts to address properties requesting assistance with utilities and weatherization.
10. **Rebuild & Repair Efforts.** Support efforts of nonprofits, such as [Rebuilding Together](#), Salvation Army of Chatham County, and Central Piedmont Community Action, that work to preserve affordable homeownership and revitalize neighborhoods by providing home repair and renovation services free of charge to those in need.



Chatham school kids.
Source: Chatham County

Area 6

Access to Health Care & Early Childhood Development

General Welfare and Well-Being

Access to health care is not only vital for Individuals, households, and children on a day-to-day basis, but is critical in times of crisis when health care is urgently required. Lack of access due to cost, insurance status, language, or other barriers ranging from complex referral systems to lack of available services altogether can prevent many from attaining their best health.

Children, persons, and families with a form of adversity or disparity when it comes to access to health care may experience unnecessary burden and trauma. It is important the County ensure the same level of high-quality care is available and distributed across the community so that individuals have resources when they need it, as well as provide necessary resources for prevention and treatment to mitigate negative health outcomes.

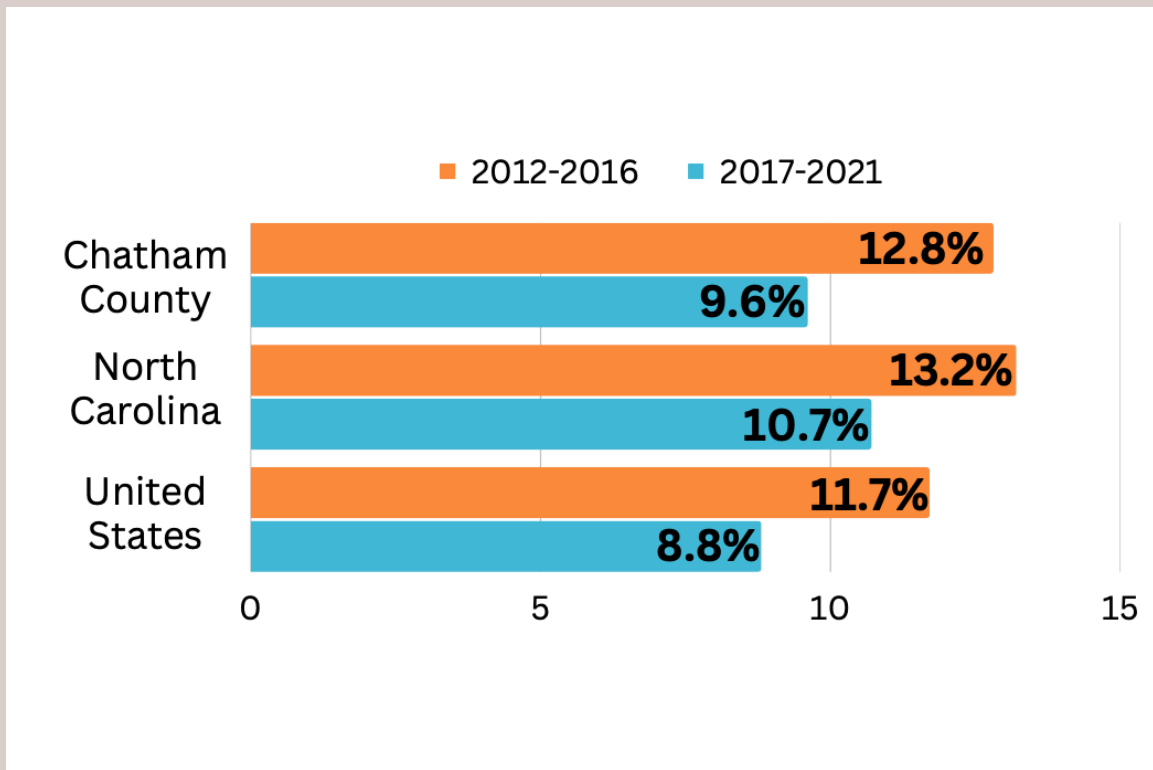
The [2021 Chatham County Community Assessment](#) reports that more than 3 in 10 Chatham County households (30.9%) face some form of barrier to health services. Barriers to health care might include transportation access, technology access, physical access, insufficient outreach, communication access, information access, and prioritization challenges. The [Justice 40](#) initiative measures disadvantaged communities nationwide and has identified [Census tracts](#) in and around Siler City as being disadvantaged. A community is determined as being disadvantaged if they are at or above the 90th percentile for asthma or diabetes or heart disease or low life expectancy, at or above the 65th percentile for low income, and 80% or more of individuals 15 or older are not enrolled in higher education.

The COVID-19 pandemic elevated and highlighted the adversities and disparities among North Carolina’s and Chatham County’s residents. The health burdens during the pandemic lead to negative health-related outcomes such as elevated stress, anxiety, and use of drugs or alcohol. The County’s [2021 Community Assessment](#) reports 7% of adults in the county reported increased use of drugs or alcohol because of the COVID-19 pandemic. Several other indicators also increased over the course of the pandemic, such as those experiencing “high” day-to-day stress levels, “poor” or “fair” mental health, and having anxiety or depression. Historically Marginalized Populations especially felt the burden of the COVID-19, and the Governor of North Carolina issued an [Executive Order No. 143](#) addressing the disproportionate impact of COVID-19 on communities of color.

The number of residents possessing health insurance is a key indicator for health professionals to measure one’s likely health outcome. The effects of living without health insurance may include lack of having a health care provider, delayed care, higher health costs, and/or worse health outcomes. Figure 6.1 shows the percent of residents in the County that do not maintain health insurance. According to the County’s [2021 Community Assessment](#),

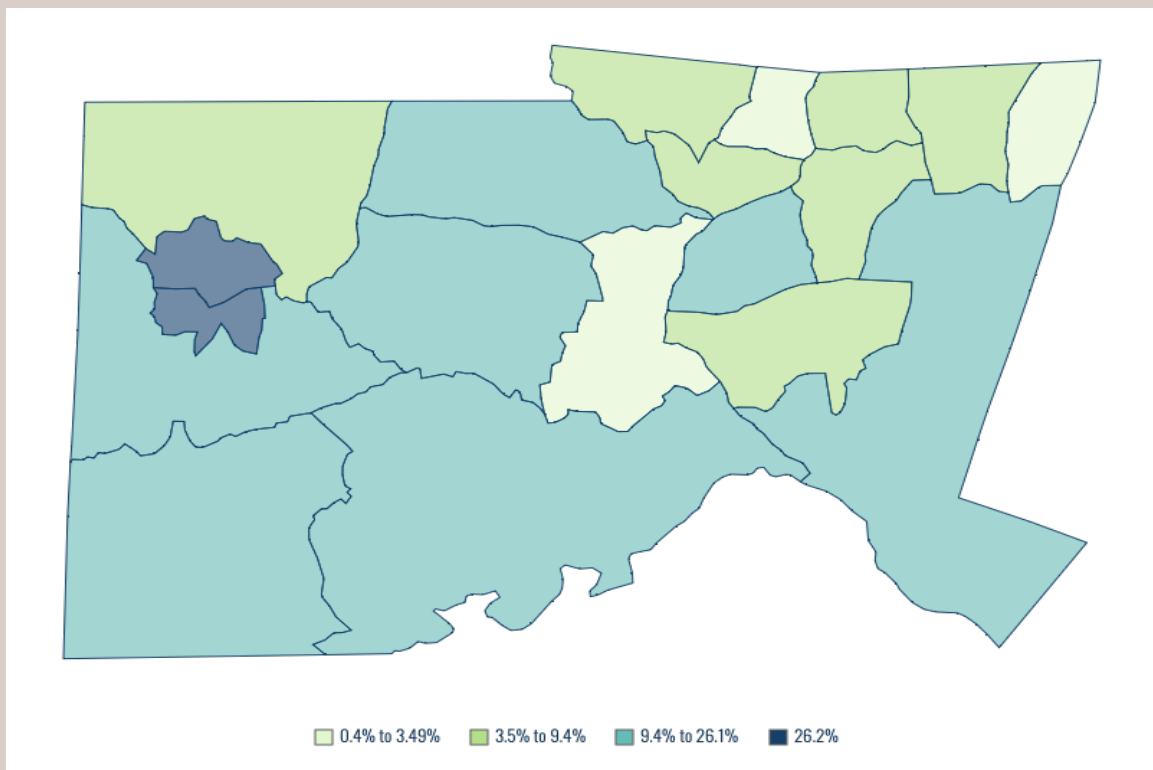


FIGURE 6.1: Percent of Residents Not Having Health Insurance, by Region



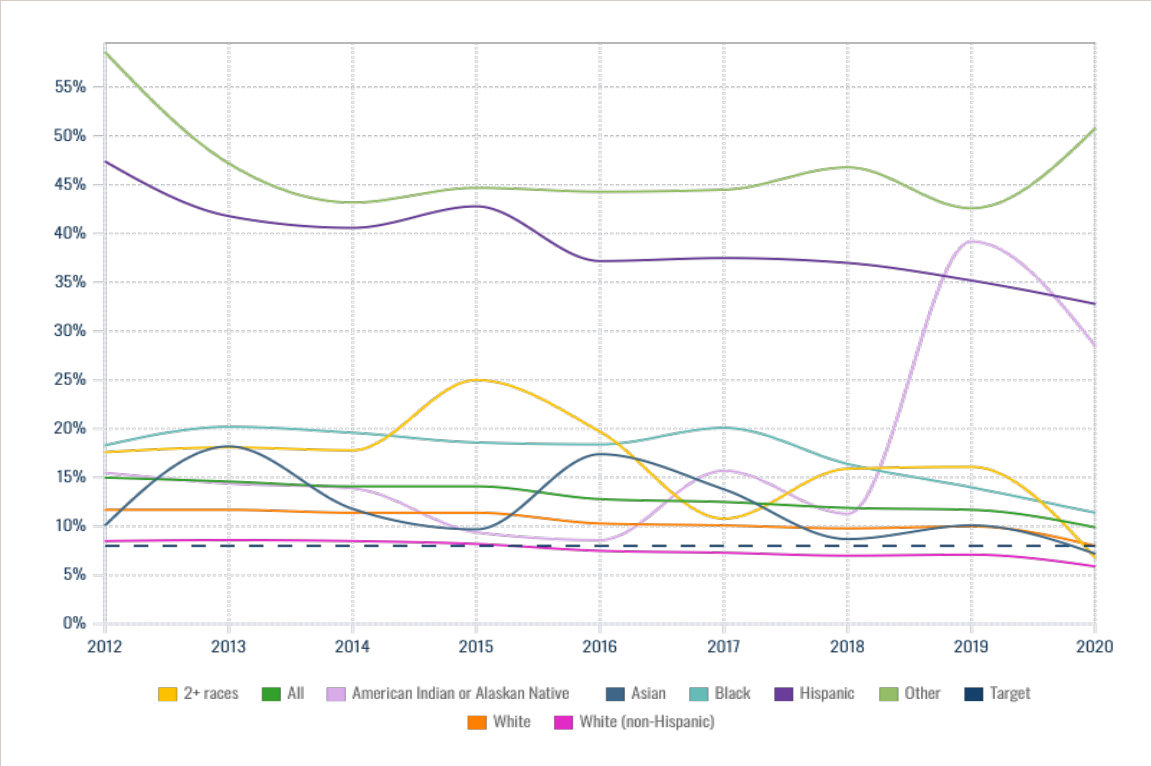
Source: 2020 U.S. Census Bureau

FIGURE 6.2: Uninsured Rate by Census Tract



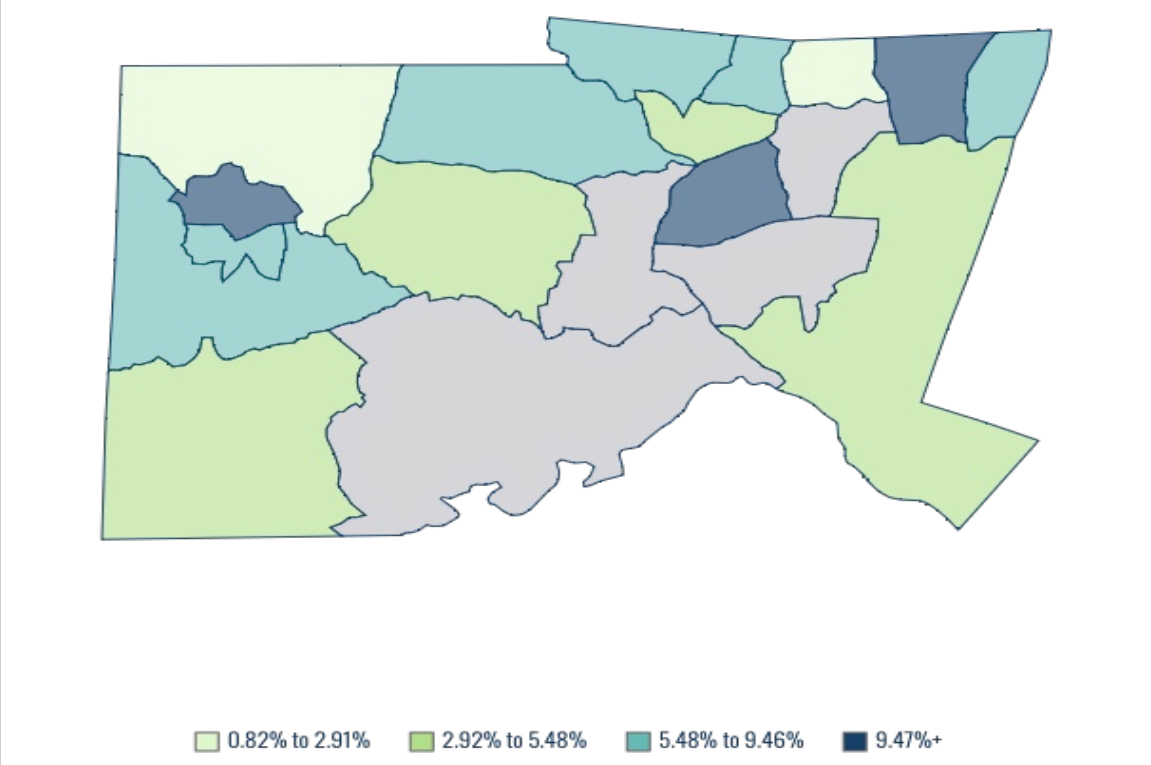
Source: 2020 U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (C27001A-1)

FIGURE 6.3: Uninsured Rate by Race and Ethnicity



Source: 2020 U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (C27001A-1)

FIGURE 6.4: Unemployment Rate by Census Tract



Source: 2020 Census Bureau American Community Survey 5-year Estimates Subject Tables (S301)

9.9% of all Chatham County residents and 11.2% of Chatham County adults do not have health insurance. In some areas, these percentages are much higher. The American Community Survey (ACS) estimates between 19.4% to 26.1% of the population clustered around Siler City is living without health insurance. Figure 6.2 identifies census tracts with high uninsured population rates. In addition, lack of health insurance can be identified in certain groups. It is estimated that 58.2% of non-citizens, 39.0% of foreign-born residents, 32.8% of Hispanic/Latinx residents, 25.6% of those living in poverty, and 25.3% of those who worked less than full time do not have health coverage. Figure 6.3 depicts uninsured rate by ethnicity and race.

Unemployment is another determinant in access to health care and health insurance. Financial well-being of households can affect the level of care received. In 2020, the unemployment rate in Chatham County was 4.4% and the tracts with the highest unemployment rate in Chatham County is indicated in the Census tract just north of Pittsboro at 11.5% as shown in Figure 6.4. Higher rates of unemployment in 2020 are found around Pittsboro, Siler City, and in the southwestern region of the County. As shown in figure 6.5, the population in 2020 with the highest unemployment rate by race and ethnicity in Chatham County was: Other (11.8%), Asian (7.72%), and Black (6.6%).

Many communities experience disparity and have a disproportionate quality of health care services and access. For instance, rural communities appear to have a disproportionate quality of health care than urban areas. It is documented that rural areas generally perform lower in comparison to metro areas on many health measures, such as mortality rate, suicide rate, drug and alcohol use, access to exercise, and teen birth, among many other factors. In addition, funding resources in predominately rural areas have declined, slowed, or been depleted entirely due to hospital closures over the years.

Limited-English Proficiency is another factor that affects access to health care, making it more difficult to communicate and creating a barrier between households and health care providers. 12.5% to 13.8% of households in Siler City are estimated to have limited English proficiency.

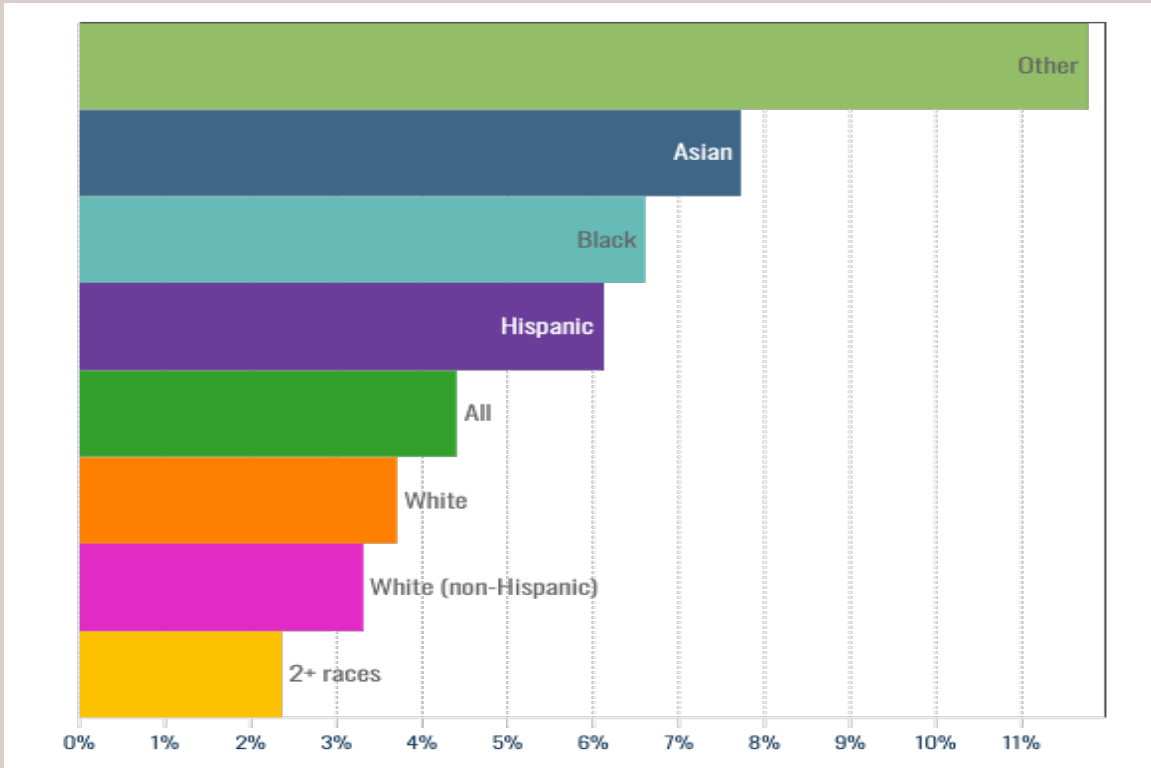
Chatham's Youth

Early childhood lays the foundation for one's future health, growth, and learning. Ensuring quality childcare and early childhood education (ECE) opportunities and securing safe, stable, and nurturing settings for children is a priority of Chatham County's planning efforts.

However, children are subject to varied conditions and settings which often impact their well-being. For instance, it is reported that children living in poverty or in lower-income households face significant health constraints compared to their wealthier counterparts, often cited as having higher risks of low birth weight, higher rates of heart conditions, hearing problems, and intestinal disorders. In 2020, the groups with the highest percentage of individuals below the 100% federal poverty level were Hispanic/Latinx (30%) and young females, 5 years of age (34.7%). Figures 6.6 and 6.7 outline the percentages of children among population groups.

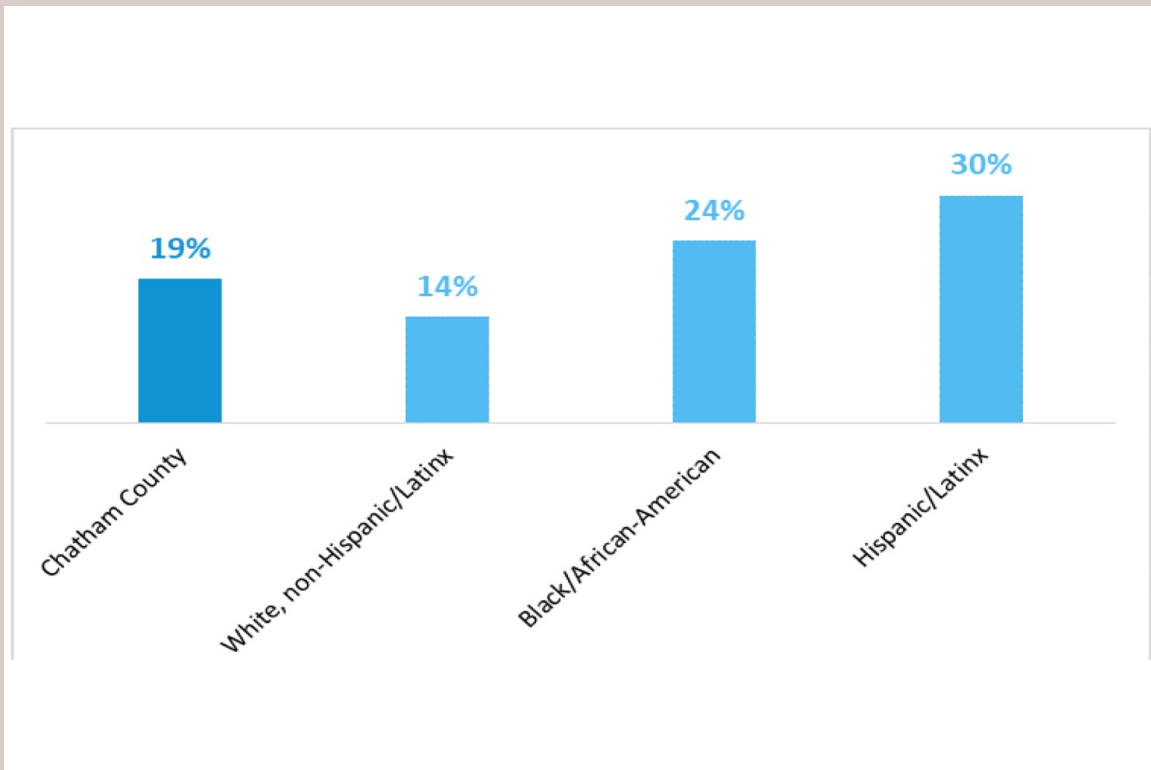


FIGURE 6.5 Unemployment Rate by Race and Ethnicity



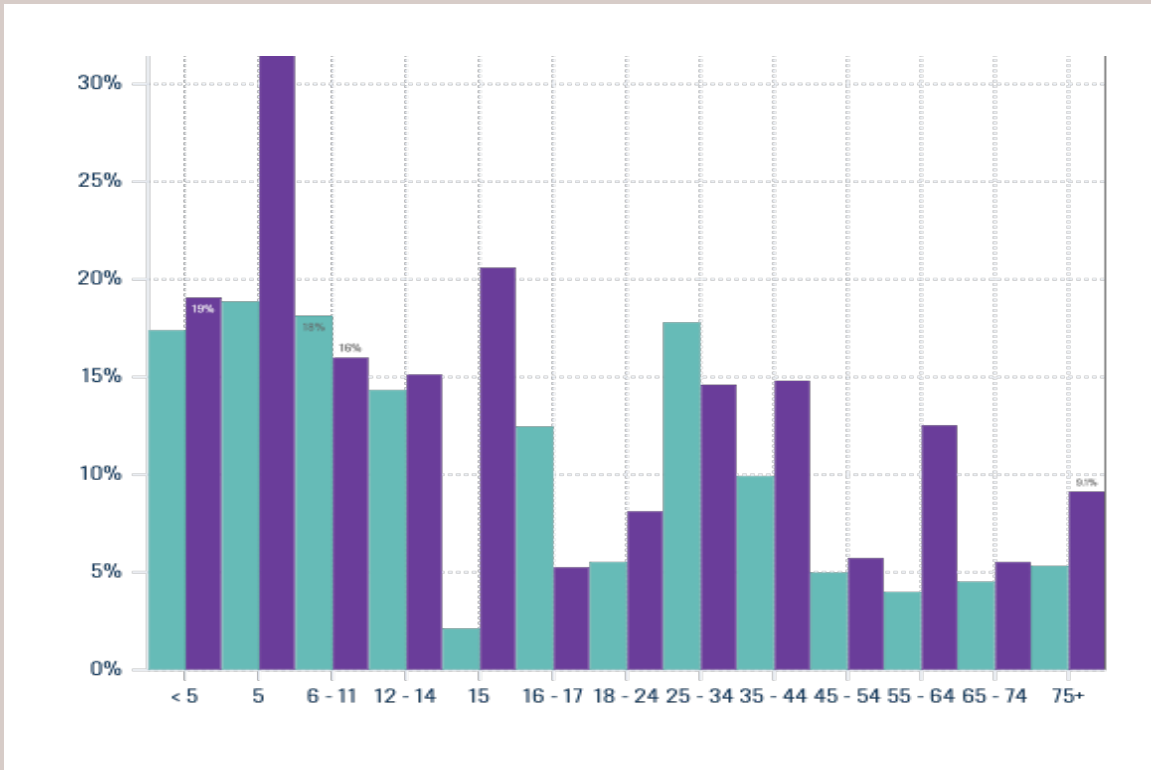
Source: 2020 U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (S301)

FIGURE 6.6: Percentage of Children Living in Poverty in Chatham County



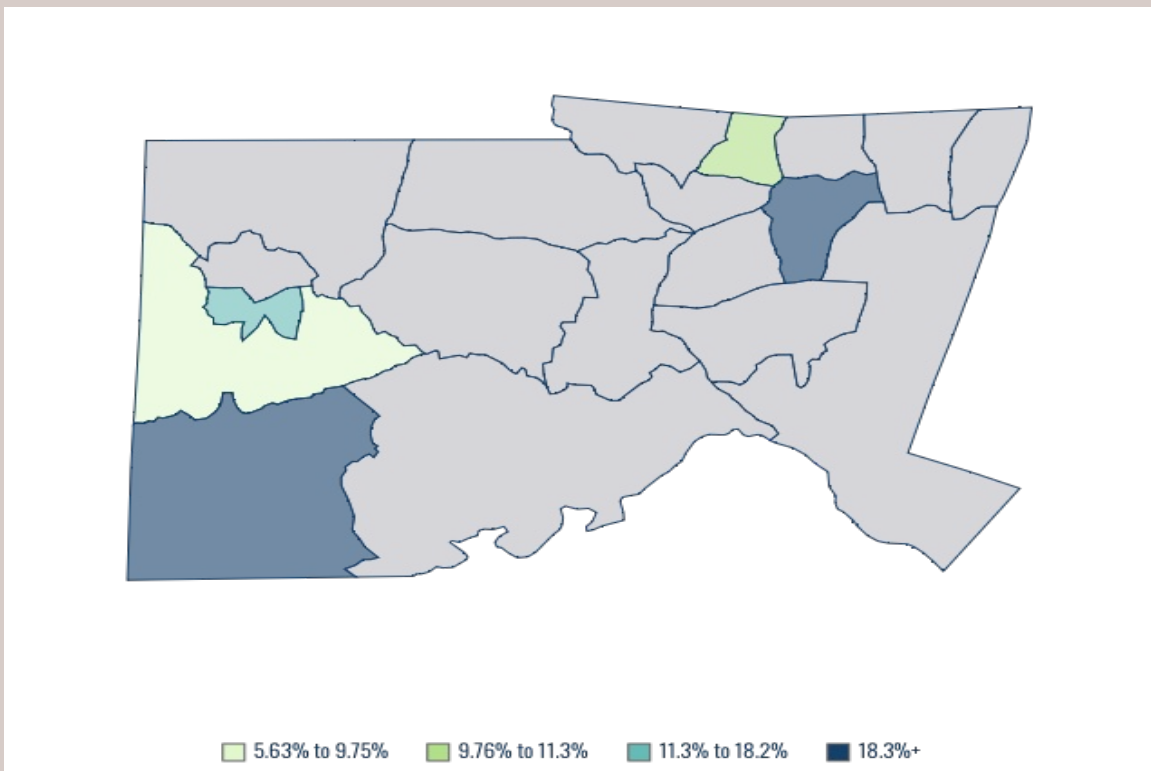
Source: American Community Survey Table B17020.

FIGURE 6.7: Individuals Below 100% Federal Poverty Level by Age and Sex



Source: 2020 U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (S1701)

FIGURE 6.8: Percentage of the Population Ages 16 to 19 neither in School nor Working by Census Tract



Source: 2020 U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (B14005)

The COVID-19 pandemic exacerbated the issue of limited supply of childcare centers. Some shut down and others were in short supply forcing parents to find care for their children as they return to work post-pandemic.

It is also unfortunate that many children face adverse childhood experiences (ACEs). Such experiences might include one or more of the following: living with household alcohol or drug addictions; living with anyone mentally ill, suicidal, or depressed; hard to get by on money; violence in the home; parent/guardian divorced or separated; parent/guardian died; parent/guardian served time in jail; witness to neglect, harassment, or trauma. Such experiences affect a child's well-being and performance in other aspects of life.

Single-parent households, those with children but with no spouse, face greater economic hardships and less household resources. For example, Northern Siler City Census tracts comprise the most single-parent households in the County with 56.8% of households led by a single parent. More single-parent households are located in the southeast region of the County, where nearly half of all households are headed by single parents.¹

Adversity within the household is also be linked to school readiness, behavior, and performance. The number of disconnected youths provides insight into those experiencing ACEs. In 2020, the percent of the population ages 16 to 19 that was neither in school nor working in Chatham County was 4.24%, as indicated in Figure 6.8. The Census tract with the highest percentage of the population ages 16-19 that was neither in school nor working was Chatham Tract 205 (19.1%), while the tract with the lowest was Chatham Tract 203 (5.63%).

¹ Social Determinant of Health (SDOH) Index.



KEY INDICATORS OF ACCESS TO HEALTH CARE AND EARLY CHILDHOOD DEVELOPMENT:

- » Health Insurance/ Uninsured
- » Poverty Rate
- » Unemployment
- » Infant Mortality
- » Youth Tobacco Use
- » English Proficiency
- » Third Grade Reading Proficiency
- » Number of Single-Parent Households

Area 6 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Health & Human Services

1. **Day Care.** Expand opportunities for early childhood education (ECE) facilities.
 - a. Allow small-scale child and elder care and outpatient medical and health support facilities in a wide variety of zoning districts to allow convenient access by all residents.
 - b. Review home occupation regulations to expand In-home, small-scale operations such as addiction services and outpatient treatments.
 - c. Allow such uses by-right where possible and remove barriers including but not limited to unnecessary conditional use regulations, high fees, public hearing processes for childcare center providers.
2. **Home-Based Childcare Centers.** Allow in-home childcare centers in residential zoning districts to allow tutoring and after-school care.
3. **Caregiver Homes.** Explore opportunity to include caregiver facilities in residential zoning districts. Caregiver homes include foster or kinship homes, adoptive homes, or small group homes. See [Placement First pilot program](#).
4. **Temporary Mobile Clinics.** Ensure zoning and land use permits temporary mobile clinics, particularly near vulnerable populations, underserved areas, public facilities, and/or transit stations.
5. **Mixed-Income Communities.** Allow lower- to moderate-income children and households to live in middle- and upper-income communities to provide opportunity to positive educational outcomes at better performing schools.
6. **Tobacco-Related Products & Youth.** Consider decreasing or mitigating certain land uses that threaten negative health outcomes in youth and younger adults. Specifically, tobacco-related products such as vaping, tobacco, and cannabidiol (CBD), may be addressed through spacing or adjacency requirements or limiting retail density. Additionally, mitigation techniques may be employed to address signage and building modification tactics commonly used to attract teens. In Wake County, the towns of [Zebulon](#) and [Apex](#) both have such regulations

in place within their respective Unified Development Ordinance that impact local tobacco density.

7. **Tobacco and Alcohol Retailer Density.** Evaluate place-based strategies for restricting tobacco retailer density, location, and type. Approaches could include capping the number of retailers, limiting proximity to other retailers, schools, and/or youth areas, prohibiting tobacco product sales at pharmacies and other health institutions. Such approaches could be undertaken through licensing or land-use regulations such as zoning and special use permits.²
8. **Household Definition.** Replace all references to “family” with “household” to acknowledge and inclusively define various forms of living composition and arrangements, such as but not limited to multi-generational living, joint families, adopted persons or foster care, unrelated individuals living as single households and cooperative communities.³

2 ChangeLabSolutions. *Tobacco Retailer Density: Place-Based Strategies to Advance Health and Equity*. 2019.

3 APA (n 12).

Area 6 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Chatham Health Alliance.** Support efforts of the [Chatham Health Alliance](#) to bring organizations and residents together to work on issues affecting health in Chatham County.
2. **Information Access to Health Services.** Work with faith-based and community-based organizations to share information, host events, and address needs of the community. See Chatham's Equity Ambassadors.
3. **Physical Access to Health Services.** Work with disability advocacy organizations to address accessibility concerns. Evaluate health care sites and means and methods of accessing these sites to ensure accessibility for individuals with disabilities.
4. **Behavior & Trauma Resources.** Expand available community resources to combat and deal with trauma, behavioral health, parenting, and finance.
5. **Children's Health Literacy Programs.** Use literacy programs linked to health care. See [Reach Out and Read](#).
6. **Health Services Outreach & Distribution Plan.** Develop and implement a transparent, equitable, and accessible distribution plan that includes historically marginalized populations. This could include highly accessible host events, mobile clinics, mobile crisis intervention teams, or drive-thru clinics in or near vulnerable populations, underserved areas, public facilities, and/or transit stations. The plan should support and identify opportunities to increase the number of minority health professionals servicing communities of color and encourage increased cultural competence. See Chatham's [Community Resource Hub](#).
7. **Telehealth Services.** Promote and increase access to telehealth and broadband internet-based medical treatment. See North Carolina's [NCCARE360](#) program.
8. **Transit to Health Services.** Promote transportation assistance to health care services available through local transit agencies.
9. **Insurance Coverage.** Monitor and assess needs for adequate insurance coverage.

10. **Health Communication & Outreach.** Provide materials and resources in ways others may understand (i.e., Spanish resources, American Sign Language interpreters, Telecommunication Devices for the Deaf, etc.).
 - a. See [Medical Home Network](#) approach to providing comprehensive, family-centered, and culturally-competent care that meets the social, cultural, and linguistic needs of all North Carolinians.
11. **Health Equity Grants.** Explore grant opportunities for health burdened communities, especially those Census tracts identified in the [Justice 40](#) initiative.
12. **Historically Marginalized Population (HMP) Advisory Group.** Establish an HMP Advisory Group for the purpose of connecting with and forming partnerships with strategic organizations, networking and representing a collective voice of HMPs, and communicating local priorities and needs.
 - a. See [NC DHHS HMP Workgroup](#) as an example.
 - b. Coordinate with the [Andrea Harris Equity Task Force](#) to further economic development of disadvantaged communities, improve health and wellness outcomes in underserved communities, and advance equitable and inclusive practices within state agencies.
13. **Minimum Wage.** Advocate for increasing the minimum wage to attract, recruit, and retain highly qualified workforce and promote higher level incomes.
14. **Early Learning Programs.** Expand access to NC Pre-K, 4-k, and 5-star early learning programs, particularly for those children experiencing homelessness, in foster care, in immigrant families, and people of color.



*Bellemont Point Apartments.
Photo provided by North Carolina Housing Finance Agency*

Area 7

Access to Affordable Housing

What is Housing Affordability?

Housing is considered affordable when it comprises no more than 30% of a low-income household's budget, including costs such as energy and utilities. Those households spending more than 30% of their budget on housing costs are considered cost-burdened because spending more than 30% on household costs may prevent spending on other necessities such as health care, healthy food, and education. As an example, 2021 ACS data identifies 33.7% of renters, 26.3% of owner-occupied households, and 29.9% of total occupied households in Siler City census tracts as cost-burdened. In comparison, 43.2% of renters in Pittsboro are identified as cost-burdened. Meanwhile, 24.3%, of all Chatham County, or 7,351 households, are considered cost burdened.¹

Everyone Requires Affordable Housing

Housing costs typically account for the largest expense item in individual and household budgets. When the costs of housing become excessive, individuals and families are forced to cut costs elsewhere, affecting critical everyday needs and choices such as transportation, education, and food. Every single person requires shelter, and everyone deserves to feel secure in attaining an affordable place to live. However, when the cost of housing becomes too burdensome, the consequences can be detrimental to the quality of life of communities, families, and individuals.

Plan Chatham notes that much of the strain of affordability is felt in the lack of existing and planned future building stock dedicated to affordable housing. According to recent U.S. Census Bureau estimates, most of the housing in the County is single-family detached homes comprising 78.6% of the housing market. Manufactured and mobile homes make up the next largest portion at

¹ U.S. Census Bureau. (2022). *2017-2021 American Community Survey 5-year Public Use Microdata Estimates*. Retrieved from www.data.census.gov.

10% of the market, which serve as the County’s predominant form of naturally occurring affordable housing. A significantly smaller portion of the market is made up of townhouse and apartment units. *Plan Chatham* estimates that some of the manufactured and mobile home parks may be redeveloped in the future as rising land costs may force land sales. It is therefore critical to remove any zoning barriers preventing the construction of such housing and accommodate a wider range of housing types that can be applied in areas of Chatham County.

Not only is there a general lack of building stock in the development pipeline, but the cost of housing is an issue. Area Median Income (AMI) levels are determined by the U.S. Department of Housing and Urban Development (HUD) for the Durham-Chapel Hill Metro Area (which Chatham is considered a part of) on an annual basis. HUD estimates the area’s median family income for the year 2023 is \$116,200.²

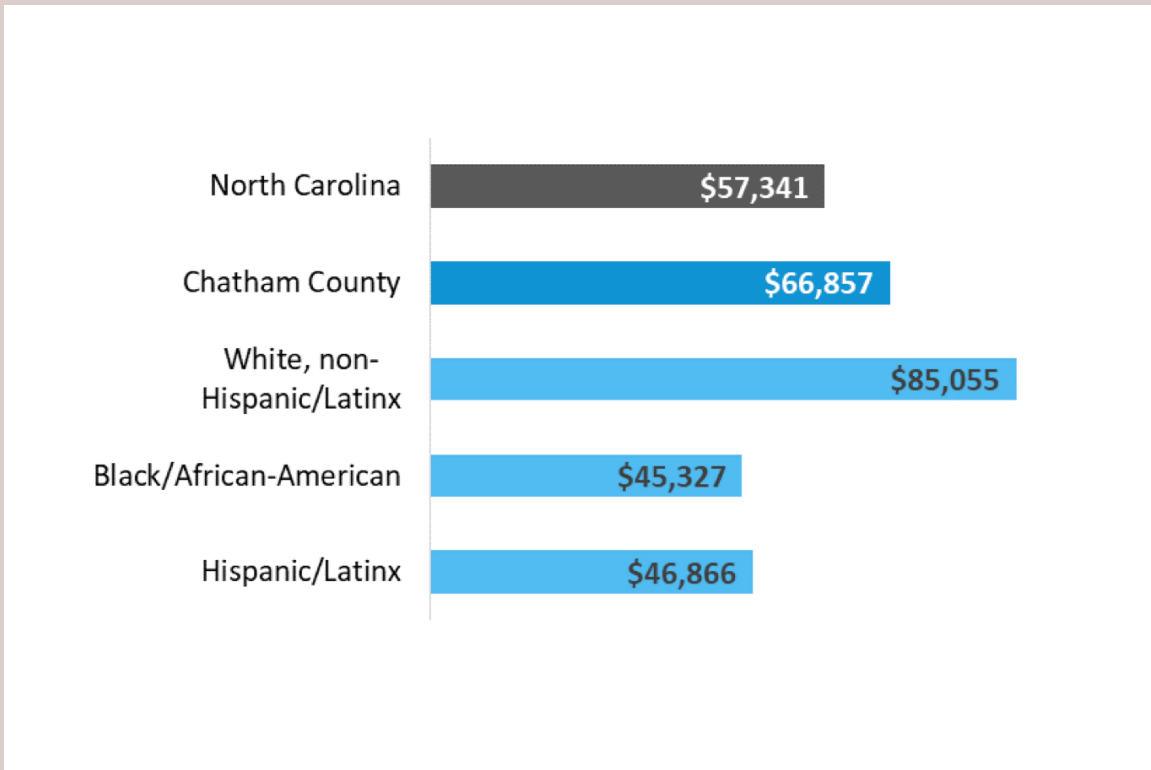
Rising home sale prices are compounding the burden of affordability for existing and potential homeowners. Redfin estimates the median home sale price in Chatham County of \$650,000 in October 2023. This is a significant increase compared to the estimated median home sale price of \$360,000 in October 2018, just a five year difference and shortly after the adoption of *Plan Chatham*. The County’s [2021 Community Assessment](#) reports home sale prices increased by 20.5% in 2020 alone. And a national report from the League of Cities states existing home sale prices are the highest in a decade. Figure 7.1 shows the median household income for White, non-Hispanic/Latinx residents is 1.6 to 2.7 times higher than other demographic groups in the County, according to the [2021 Community Assessment](#). Older adults, Black households, and Hispanic/Latinx households all had lower median incomes than the general population, according to the assessment.³ Additional supply and market conditions could curtail this issue, but zoning could also factor in to allow increased density and housing types where practicable.

The number of renter-occupied households is a key indicator of households that may be unable to attain homeownership. The Chatham County Affordable Housing Advisory Committee’s 2017 [Affordable Rental Housing Report and Strategy Toolbox](#) reports there is not enough supply of affordable housing units given the number of low-income households. The report shows there are 1,404 renter households making 30% or less of AMI, but only 335 rental units affordable to households making 30% or less of AMI. According to the [Justice 40](#) initiative, 62.1% of households in northern Siler City are renters and 35.5% of households in southern Siler City are renters. Throughout most of the County, the percentage of households that rent ranges between 17.9% to 22.9%.

2 HUD. (2022). *FY 2023 Income Limits Summary*. Retrieved from www.huduser.gov.

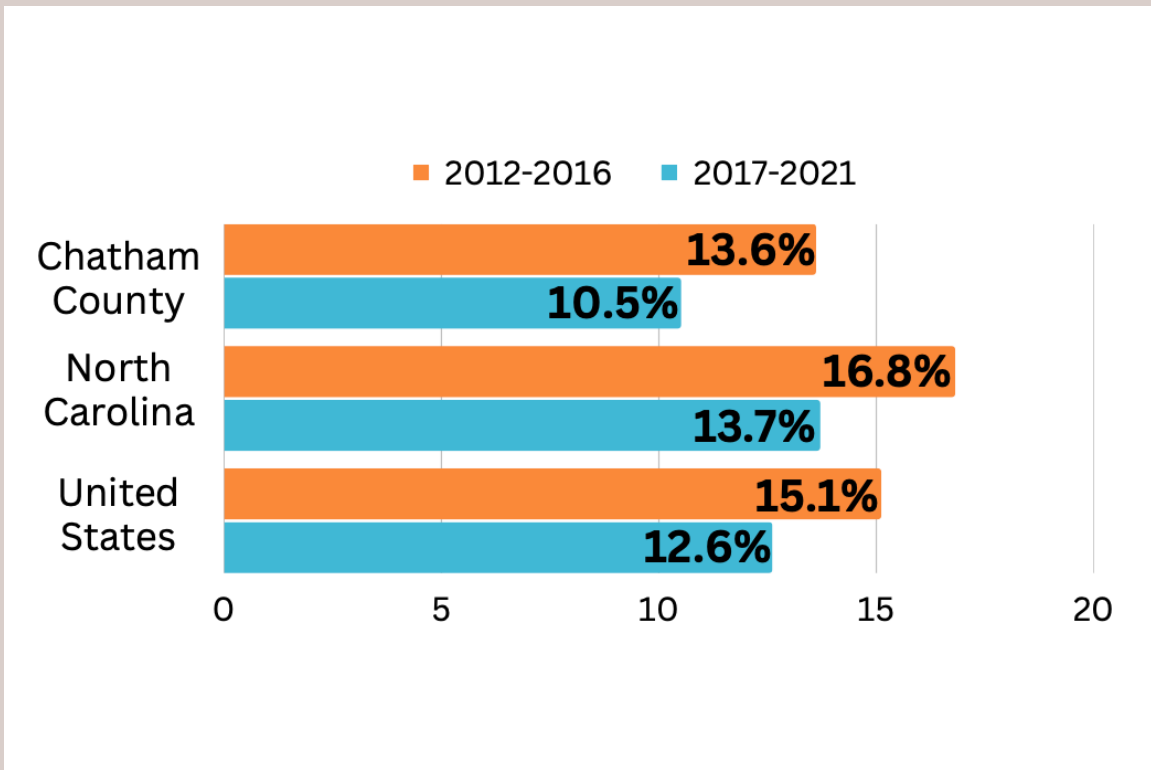
3 *Local Tools to Address Housing Affordability: A State-By-State Analysis*. National League of Cities, 2022 Update.

FIGURE 7.1: Median Household Income* in Chatham County



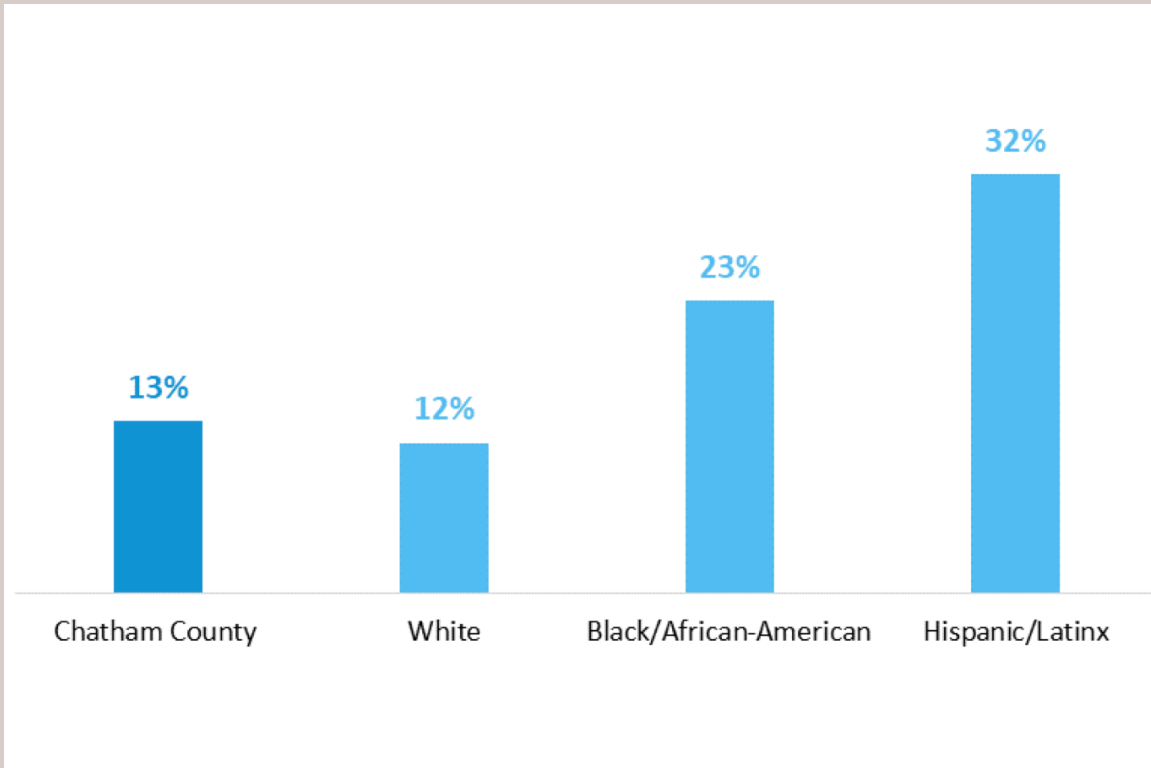
Source: American Community Survey Table B19013
*2019 1-year estimates, 2019 inflation-adjusted dollars

FIGURE 7.2: Percent of Residents Living in Poverty, by Region



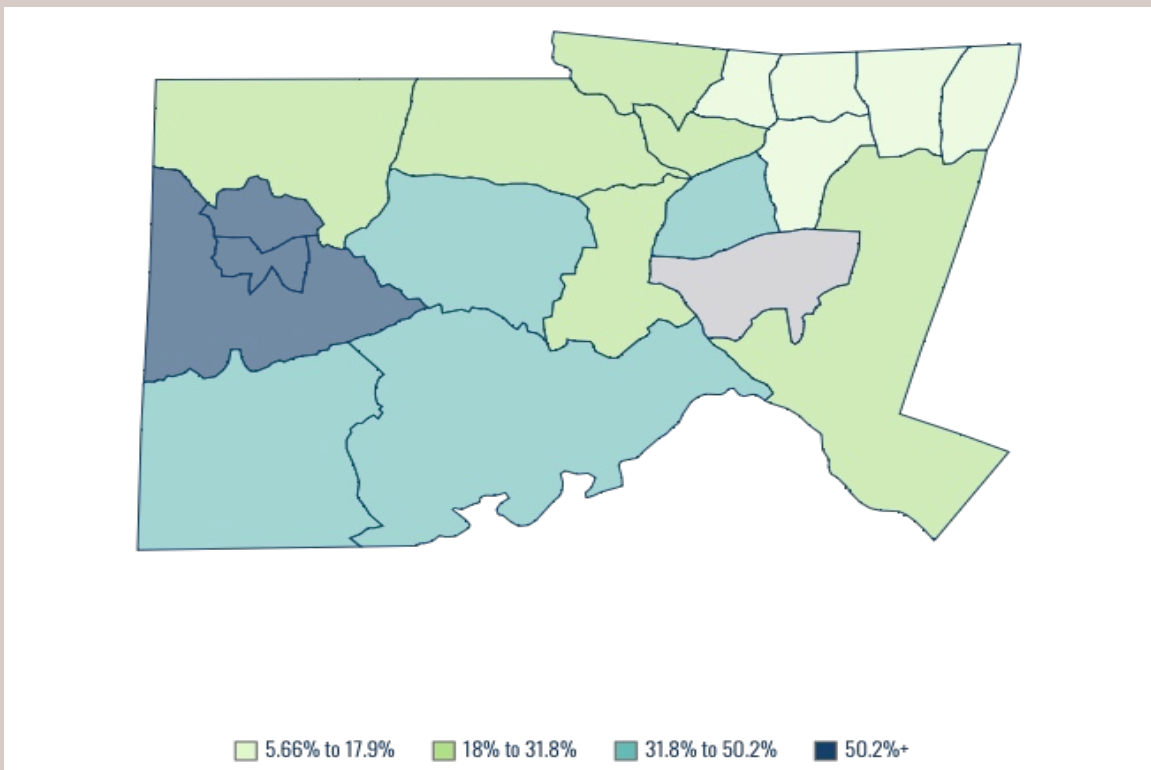
Source: U.S. Census Bureau

FIGURE 7.3: Percentage of Individuals Below the Poverty Line by Race/Ethnicity



Source: 2018 Chatham County Community Assessment

FIGURE 7.4: Rate of Individuals Below 200% Federal Poverty Level, by Tract



Source: U.S. Census Bureau American Community Survey 5-year Estimates Subject Tables (S1701)

The North Carolina Department of Health and Human Services (NCDHHS) notes that income level is another strong indicator of an individual's or family's access to resources and health status and that poverty is an issue that underlies many negative health outcomes.

The federal government defines poverty as the percent of individuals with incomes at or below 200% of the Federal Poverty Level (FPL), and the thresholds change annually. In North Carolina, the percent of individuals living below 200% FPL (2013-17) was 37%. The County's [2021 Community Assessment](#) reported 10.5% of residents in the County are living at or below the national poverty line, as shown in Figure 7.2. While this rate is lower than the state and national levels, people living in poverty have higher rates of chronic illness (e.g., obesity), lower access to healthcare resources, and are more likely to be uninsured among other risks.

Lower-income earners often face geographic constraints because they cannot afford to locate in more expensive areas near services and transportation or are in areas that are exposed to environmental risks such as mold. The [2021 Community Assessment](#) estimates that Black/African American households are two times more likely and Hispanic/Latinx households are three times more likely to be living in poverty when compared to White non-Hispanic/Latinx households, as shown in Figure 7.3. Figure 7.4 indicates that Siler City, in particular, has a high concentration of poverty, where it is estimated 35.5% of the population is at or below the federal poverty line. Poverty hinders families and individuals from attaining nutritious food, health care, education, and basic shelter.

Homelessness is when an individual or household lacks a fixed, regular, or adequate permanent residence. Conditions of homelessness are varied. It is estimated that Chatham County residents experience homelessness at a rate of 6.1 per 10,000 individuals and it is projected that the number of persons experiencing homelessness is on the rise throughout the County. In the 2022-2023 school calendar year, approximately 358 students were identified by [Chatham County Schools](#) for assistance through their respective schools (via the McKinney-Vento Homeless Assistance Act).

In conjunction with housing costs, transportation costs are an added burden. *Plan Chatham* estimates Chatham County residents spend a larger portion of their income on transportation compared to residents that live in Durham just north of the County. According to the Housing and Transportation Affordability Index for Chatham County, a typical household spends roughly 54% of its income on housing and transportation costs combined in comparison to the recommended 45%. When the costs of housing increase, it affects an individual or family's choice to pay for transportation to access daily needs such as healthcare, food, and education.

Additionally, essential workers such as police officers, teachers, and social workers do not generally earn enough income to access affordable for-sale or rental housing units. It is estimated that the income needed to afford a typical two-bedroom apartment equates to \$52,600, and many of Chatham County's workforce have difficulty affording that price point. 20% of all households have difficulty affording their homes compared to 47% of renters who have difficulty affording their homes.⁴ In comparison, North Carolina's cost-burden figures state that 20% of homeowners are cost-burdened and 47% of renter households are cost-burdened.⁵

Furthermore, geography is another key factor to consider with cost-burden. The Justice 40 initiative identifies Census tracts as disadvantaged if at or above the 90th percentile for low median income as a percentage of AMI, linguistic isolation, unemployment, or percentage of individuals in households is at or below 100% federal poverty level, and 10% or more of

4 North Carolina Housing Coalition. 2023, <https://nchousing.org>. Accessed 29 November 2023.

5 Norchi, Matthew. *Affordable Housing Toolkit for Local Governments*.



adults 25 or older have not attained a high school degree and 80% or more of individuals 15 or older are not enrolled in higher education. In effect, this criteria identifies various [Census tracts](#) in and around Siler City as disadvantaged.

Mapping of geography can also highlight areas that are disproportionate in comparison to other areas of the County. For instance, while the median income of Chatham County is 45% higher than the rest of North Carolina, income and poverty rates vary throughout the County. *Plan Chatham* points out Census tracts in the northeast portion of the County contain median incomes over \$100,000 while those in the west and southwest have median incomes under \$35,000.

While the federal government provides a substantial share of funding for affordable housing programs, state and local governments maintain innovative programs and are key players to implementing housing solutions. Chatham County has made affordable housing a county priority and the [Affordable Housing Advisory Committee](#) efforts have built momentum in recent years.



KEY INDICATORS OF ACCESS TO AFFORDABLE HOUSING

- » Number of Cost-Burdened Households
- » Number of Renter-Occupied Units (Available, Planned)
- » Household Income Level (Houseless Individuals; Below Federal Poverty Level; Low-Income Earners; etc.)
- » Poverty Rate
- » Number of Affordable Units (by type)

Area 7 UDO Action Items

The action items listed below are direct ways in which the Unified Development Ordinance can help close unnecessary gaps and mitigate barriers to achieving health equity.

A. Affordable Housing Funding & Resources

1. **Defining Affordability.** Maintain and utilize affordable housing terminology in the UDO that acknowledges the thresholds of affordability for various household income levels, including very- and extremely low-level incomes in addition to workforce and market-rate housing.
2. **Existing Structures Utilization.** Reconstitute and adaptively reuse existing structures, such as motels along transit corridors or houses within neighborhoods, to house individuals transitioning out of homelessness.

B. Incentivize Affordable Housing

1. **Development-Based Incentives.** Prioritize incentives focused on the development or housing products, such as the programs listed below, to attain affordable housing units with equal access to amenities, equal representation on homeownership associations (HOAs), and of similar design quality as market-rate housing.
2. **Density Bonus.** Allow an increase in density to offset the difference in rental income for developments that voluntarily provide a certain percentage of affordable housing.
 - a. See Wilmington – Article 2. Division 3. [Mixed-Use District Density Bonus](#).
3. **Height Bonus.** Allow an increase in height to help offset the difference in rental income for developments that voluntarily provide a certain percentage of affordable housing.
4. **Conditional Use Zoning.** Consider voluntary or conditional zoning pathways to secure affordable housing in large, planned developments.
 - a. See Chapel Hill – [Inclusionary Zoning Program](#).
 - b. See Davidson County – [Inclusionary Housing Program](#).
 - c. See Manteo – [Affordable Housing Program](#).
5. **Parking Reductions.** Reduce parking requirements for multi-family developments that are limited to persons of low- or moderate-income or the elderly, as residents of these units are less likely to own a car. Consider alternative transit options such as, but not limited to, adding a bus stop, shuttle routes, walking distance to amenities and services, and adjacency to available transportation modes.

6. **Rental Housing Mix & Type.** Increase the number and diversity of affordable rental options.
 - a. Incentivize the production of affordable housing units in a range of sizes, from studios to two-bedroom units, especially in areas with proximity to available transit, employment hubs, and schools. Consider such criteria as a rubric used in the Affordable Housing Trust Fund process.
 - b. See Charlotte – [Voluntary Mixed-Income Housing Development Program](#).
7. **Expedited Permitting.** Offer expedited permitting for developments that offer affordable housing.
8. **Impact Fee Reimbursement.** Chatham County currently maintains a policy offering reimbursement of impact fees in exchange for provision of affordable housing. At the time of writing this report, the impact fee reimbursement policy is under review to be expanded. See Chatham County File #182883 – [Impact Fee Reimbursement](#).

Area 7 Policy Objectives

The below objectives, while relevant, do not traditionally fall within the context of zoning and subdivision regulation. Nonetheless, these policy objectives present opportunities for government, non-profit agencies, and private organizations to collaborate and promote common goals in addition to the above UDO action items.

1. **Affordable Housing Advisory Committee.** Continue efforts of the [Affordable Housing Advisory Committee](#) to develop additional recommendations and approaches to affordable options, including:
 - a. Further development of housing resources dashboard and/or website.
 - b. Tailor needs and priorities to geographic areas of the county.
 - c. Serving as a liaison between government agencies, not-for-profit organizations, and the development community
2. **Grants for Training & Workforce Development.** Explore grant application opportunities for training and workforce development, especially in areas disadvantaged in training and workforce development, such as those Census tracts identified in the [Justice 40](#) initiative. See various [NCWorks Workforce Development Grants](#).
3. **Low-Income Housing Tax Credits (LIHTC).** The Low-Income Housing Tax Credit (LIHTC) program is a federal program that provides incentives for the construction and rehabilitation of affordable rental housing for low-income households. It is the longest running national affordable rental housing program and is administered by the Internal Revenue Service (IRS) and implemented at the state level through State Housing Finance Agencies (HFAs). In North Carolina, the North Carolina Housing Finance Agency (NCHFA) is responsible for administering the LIHTC program. The Federal LIHTC is a common source of low-income housing tax credits for developers to utilize. It issues tax credits for the acquisition, rehabilitation, or construction of new rental housing targeted to households of low-income status.
 - a. Encourage developers to utilize 4% tax credit, which is non-competitive and readily available.
 - b. See [NC Housing Finance Agency](#).
 - c. See Housing and Urban Development's Office of Policy Development and Research [LIHTC Property Database](#).
 - d. See 2023 Congressional Research Service Report, [An Introduction to the Low-Income Housing Tax Credit](#).
 - e. See [Iberville Offsite Rehabilitation](#) project in Central City, Seventh Ward, and Treme neighborhoods of New Orleans.

4. **Community Development Block Grants (CDBG).** This program provides funding for the development of affordable housing, community development and public infrastructure projects in low-income communities.
 - a. See North Carolina [Community Development Block Grants](#).
5. **Rural Grants.** The Rural Grant Program administers several state-funded grant programs for building reuse, public infrastructure, and demolition. See North Carolina [Rural Grant Program](#).
6. **National Housing Trust Funds (HTFs).** HTFs are flexible forms of spending for affordable housing production and may provide support for transitional housing programs, down-payment subsidies, and assistance for low- and moderate-income homebuyers, weatherization and emergency repairs, loans to cover predevelopment costs incurred by nonprofit housing developers, housing education and counseling, and tenant-based rental assistance, grants to developers creating affordable housing, and more. HTFs operate under the local government and prioritize eligible project types, and projections of how the money from the fund will be allocated.
 - a. See [Chatham County's Housing Trust Fund](#)
 - i. It is intended to provide low interest loans to encourage development projects that preserve or create additional affordable and workforce housing within Chatham County with the overall goals of affirmatively furthering fair housing choice for all residents.
 - ii. It also provides small grants for reimbursement of fees or for studies or other housing related projects.
 - b. See [Charlotte's Housing Trust Fund](#).
 - c. See [Asheville's Housing Trust Fund](#).
7. **Article 46 Sales Tax Revenue.** In the 2007 state budget, the N.C. General Assembly enacted a number of stipulations, including giving counties the option to “levy a local sales and use tax at a rate of one-quarter percent.” Article 46 is the section in the state law where the rules for this tax are outlined. The funds go directly to the Chatham County government to allocate for services. Chatham Commissioners passed a resolution stating they would like the funds to be used for education, agriculture and land banking, affordable housing, and parks and recreation purposes. Other similar funding mechanisms are referenced below.
 - a. See Chapel Hill – [Penny for Housing](#). Chapel Hill institutes a “penny tax” for affordable housing, which equates to \$700,000 per year to fund affordable housing programs.

- b. See Charlotte – [2018 Housing Bonds](#). Voter-approved GO Bonds fund the city’s affordable housing efforts to increase and preserve housing for all income levels.
 - c. See Durham – [Dedicated Housing Fund](#). Durham instituted a bond referendum to build and preserve thousands of units of affordable housing.
8. **Community Land Trusts (CLTs)**. Continue and expand partnership with a Community Land Trust. CLTs are a method for organizations to create and maintain affordable housing. The CLT owns and holds land and leases the land to individual homeowners, who in turn own the improvements on the land via a ground lease.
 - a. See Durham - [Community Land Trust](#).
 - b. See Orange County – [Community Home Trust](#).
9. **Rental Quality**. Ensure the quality of affordable rental units are similar and equal to market-rate housing.
 - a. Enforce building codes, regular inspections, and establish an effective complaint process.
 - b. Evaluate minimum housing quality standards, including things like fire safety, accessibility and universal design, energy efficiency, and overall livability.
 - c. Partner with community and not-for-profits organizations.
10. **Heirs’ Property Services**. Utilize federal grant monies, such as the [Heirs’ Property Relending Program](#), and/or grant monies funneled through the nation’s Land Grant Universities to offer free consultation services to those affected by issues of heirs’ property.
11. **Housing Choice Voucher Program**. Expand outreach to potential landlords to increase properties that accept vouchers.
12. **Incentive Grants**. Encourage private sector investment and leverage federal incentives to build equitable, affordable housing. See [Asheville’s Land Use Incentive Grant](#), an incentive-based policy that awards grants equivalent to portions of property tax to developers who building affordable rental units.
13. **County-Owned Land Utilization**. Inventory, evaluate, and set aside County-owned land for the development of affordable housing. Development may be procured through request for proposals (RFPs), or with partners such as non-profit organizations and/or development agencies.
14. **Land Banks**. North Carolina does not have specific enabling legislation to support land banks. However, local governments

may perform the basic functions of a land bank where the local government operates as the bank and performs the major activities of a land bank. Meanwhile, local authorities and organizations may petition the state to enact legislation that support land banks in the future.⁶

15. **Naturally Occurring Affordable Housing (NOAH).** Maintain naturally occurring affordable housing stock with rents relatively low compared to the regional housing market and that are affordable but are not subsidized by any federal program.
16. **Pre-Approved Building Plans.** To support neighborhood infill and economic opportunities for locals, the County could produce or solicit a bid to secure a range of contextually appropriate plans to individuals and developers that are interested in pursuing new construction infill or accessory dwelling projects within Chatham's neighborhoods.
 - a. See the City of South Bend, Indiana, which adopted a [Pre-Approved Building Plan](#) catalog, application, and process.

6 [How a North Carolina Local Government Can Operate a Land Bank for Redevelopment](#). (2014). Coates' Canons NC Local Government Law. Accessed April 12, 2023.



Code Approaches

Health & Equity and the Unified Development Ordinance

During the development of this assessment, the County has been engaged in the development of major revisions to its zoning and subdivision codes, known as a “unified development ordinance,” or “UDO.” At the time this document was completed, the project was about one-third completed. Nonetheless, several code approaches had already been considered for inclusion in the draft UDO, including tobacco and motor fuel sales. That process is ongoing and will be informed by the findings in the assessment.

Based on the assessment and discussions in the UDO process to-date, the following table identifies a chapter-by-chapter summary of code sections that have been or may be revised in the UDO related to the health and equity objectives.

As each identified revision has been or is raised in the continuing code development process, the UDO team is vetting them with staff and relevant County agencies and boards for effectiveness and appropriateness to include in the draft UDO. These are being presented in their current form to the County and the “Health & Equity” section of the ReCode Chatham project website will include an evolving list of relevant revisions and a final overview as the UDO is completed.

1 – Introduction
2 – Zoning Districts
3 – Use Regulations
4 – Development & Design Standards
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8 – Watershed Protection
9 – Stormwater Management
10 – Soil Erosion & Sedimentation
11 – Flood Damage Prevention
12 – Add. Requirements for Subdivisions
13 – Procedures
14 – Review & Decision-Making Bodies
15 – Nonconformities
16 – Enforcement
17 – Rules of Interpretation & Measurement
18 – Definitions & Acronyms
19 – Submittal Requirements

Healthy Food Access																		
Cottage & Commissary Kitchens																		●
Food Pantries			●															●
Corner Store Availability			●															●
Healthy Food Retailers			●															●
Mobile Vendors			●															●
Healthy Land Uses			●															●
Agriculture Terminology																		●
Agricultural Land Uses			●															●
Equitable Access to Farmers' Markets						●												
Obesity & Inactivity																		
Universal Design			●	●	●							●						
Community Gathering Space			●	●	●							●						
Link Neighborhoods with Parks & Open Space			●	●	●							●						
Public Access to Parks			●	●	●							●						
Safe Active Areas			●	●	●							●						
Walkable Subdivisions					●							●						
Pedestrian-Oriented Design			●	●	●							●						
Flexible Public Space Standards			●	●	●							●						
Adaptive Reuse of Existing Assets			●															
Mobility & Multi-Modal Access																		
Complete Streets Implementation			●	●	●							●						
Rural Road Design			●	●	●							●						
Bicycle Facilities			●	●	●							●						
Bicycle Self-Service Repair Stations			●	●	●							●						
Reducing Speeds					●							●						

UNIFIED DEVELOPMENT ORDINANCE CODE APPROACHES
FINAL BOC DRAFT | UPDATED NOVEMBER 29, 2023

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Transit-Adjacent Development						●	●					●							
Transit-Oriented Development						●	●					●							
Universal Transit Station Design						●	●					●							
Home Occupation			●															●	
Compact Neighborhoods						●	●					●							
Sidewalk Network						●	●					●							
Pedestrian Paths						●	●					●							
Vehicular Circulation						●	●					●							
Environment & Pollution																			
Light Pollution				●															
Tree Canopy Equity					●	●													
Graywater Recycling						●		●											
Conserve Rural/Agriculture Areas		●				●													
Expand Open Space in New Developments				●		●													
Flexible & Effective Rezoning Processes													●						●
Environmental Impact Assessment																			●
Land Use Buffers				●															
Locally Unwanted Land Uses		●	●																
Equity in Zoning Map		●																	
Airport Flight Traffic Patterns		●										●							
Artisan Manufacturing Uses			●																●
Relief Shelters/Resiliency Hubs			●																●
Natural Sustainable Systems						●		●				●							
Clean Energy Incentives				●								●							
Microgrids				●								●							●
Responsible Solar Farms			●																
Transportation Electrification				●		●													

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Equitable Access to ZE & ZEV				●			●												
Solar-Ready Infrastructure				●			●												
Drought Tolerant Landscapes				●			●												
Displacement & Gentrification																			
Housing Code				●															
Vulnerable Businesses		●		●															
At-Home Businesses			●																●
Manufactured & Mobile Housing		●																	●
Zoning Intensity		●		●															
Complete Neighborhoods		●	●	●															●
Density Allowances		●		●															
Minimum Lot Size & Setbacks		●		●															
Middle Housing			●	●															●
Senior Housing			●																●
Accessory Dwelling Units			●	●															●
Vacant Lots & Housing			●	●															
Supportive Housing			●																●
Access to Health Care & Early Childhood Development																			
Day Care			●																
Home-Based Childcare			●																
Caregiver Homes			●																
Mixed-Income Communities		●	●																
Temporary Mobile Clinics		●	●																
Tobacco-Related Products & Youth			●																
Tobacco & Alcohol Retailer Density			●																
Household Definition																			●

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Access to Affordable Housing																			
Define Affordability																			●
Utilize Existing Structures			●																
Development-Based Incentives	●		●									●							●
Density Bonus	●		●									●							●
Height Bonus	●		●									●							●
Conditional Use Zoning			●									●							●
Parking Reductions			●																
Rental Housing Mix & Type			●									●							●
Expedited Permitting												●							●
Impact Fee Reimbursement												●							●



RECODE | **HEALTH &**
CHATHAM | **EQUITY**