



WNC Bridge Pilot Project

Report compiled by:

Dr. Stephen J. Sills

Senior Vice President

Research, Policy, & Impact Center

National Institute of Minority Economic Development



Volunteers work together to build the rail for a wheelchair ramp to make a home more accessible.
Photo courtesy of Jared Putnam <https://www.heart.org/en/news/2020/06/26/appalachia-volunteers-make-homes-safe-affordable-and-healthy>

WNC Bridge Pilot Project

Contents

| | |
|---|----|
| Tables | iv |
| Figures | iv |
| Background | 1 |
| Clay County Profile | 2 |
| Key Demographics | 3 |
| Economics | 5 |
| Affordability | 5 |
| Health | 5 |
| Quality of Life | 5 |
| Cherokee County Profile | 6 |
| Key Demographics | 7 |
| Economics | 9 |
| Affordability | 9 |
| Health | 9 |
| Quality of Life | 9 |
| Hinton Safe and Healthy Homes Checklist Results | 10 |
| Home Type & Ownership | 10 |
| Interior Inspections | 11 |
| Heating Source | 12 |
| Weatherization & Energy Efficiency | 13 |
| Water & Sewer | 14 |
| Internet Access | 14 |
| Accessibility | 14 |
| Resident Health & Safety Issues | 16 |
| Environmental Hazards | 16 |
| Falls & Unintentional Injuries | 17 |
| Home Security | 17 |
| Fire Safety | 17 |
| Child Safety | 17 |
| Firearms | 19 |
| Exterior Inspection | 19 |
| Exterior Conditions | 19 |
| Roof & Gutters | 19 |
| Steps, Stairs, & Lighting | 20 |
| Client Interviews | 21 |
| Summary & Conclusions | 23 |
| Appendix A - Safe & Healthy Homes Checklist | 25 |
| Appendix B - Interview Script | 31 |
| Appendix C - NC Housing Coalition Clay County Profile | 34 |

WNC Bridge Pilot Project

Tables

| | |
|--------------------------------|----|
| Table 1 – Heating Source | 12 |
|--------------------------------|----|

Figures

| | |
|---|----|
| Figure 1 - Population Distribution Clay County 2021..... | 2 |
| Figure 2 - Population Distribution Cherokee County 2021 | 6 |
| Figure 2 - Type of Home..... | 10 |
| Figure 3 – Year Built | 11 |
| Figure 10 - Using Energy Efficient Bulbs | 13 |
| Figure 4 – Water Source | 14 |
| Figure 8 – Grab Bars..... | 15 |
| Figure 9 – Accessibility Ramp..... | 15 |
| Figure 5 – Radon Testing..... | 16 |
| Figure 6 - Clips on Cabinets (if children are present)..... | 18 |
| Figure 7 - Child Gate on Stairs (if needed) | 18 |
| Figure 11 - Roof in Good Condition | 19 |
| Figure 12 - Gutters Present..... | 20 |
| Figure 13 - Adequate Exterior Lighting | 20 |

WNC Bridge Pilot Project

Background

The Hinton Rural Life Center is a United Methodist retreat and conference center in the Appalachian Mountains of Western North Carolina, where guests can come to retreat, reflect, and renew. Hinton is also a mission agency, with year-round opportunities for individual volunteers and mission teams to work in Safe and Healthy Home Repair ministry. With its outreach focus, Hinton seeks to enhance the long-term quality of life in the rural area of Clay and Cherokee counties in North Carolina, as well as Towns County, Georgia. In these three counties, an average of 18% of residents live in poverty. Many of the residents they serve are single parents, elderly, individuals with a disability, or people who are unemployed.

The goals of the project were to remediate and repair the homes of five (5) patients experiencing mobility difficulty, falls, respiratory illnesses or other issues that could be made worse by environmental conditions in the home. Modifications included such items as access ramps, grab bars, levered door handles, and Americans with Disabilities Act (ADA) compliant bathrooms, as well as other repairs as needed to decrease environmental hazards. These modifications will permit the resident to age more gracefully and safely in place avoiding falls, and respiratory triggers, and increasing mobility in and out of the home thus improving quality of life. This project was supported by the Western North Carolina (WNC) Bridge Foundation.

Technical assistance provided by the consultant included reviewing the existing Hinton Safe and Healthy Homes Checklist and Star Rating system bringing it closer to U.S. Department of Housing and Urban Development Housing Quality Standards (HQS) Inspection; providing updated socio-economic and demographic data for Clay and Cherokee Counties; and documenting the activities and efforts of the Hinton project as they inspected and remediated issues with homes.



A volunteer from the Hinton Rural Life Center. (Photo courtesy of Jared Putnam)

WNC Bridge Pilot Project

Clay County Profile

Clay County is located in the mountains of the southwestern region of the state. Formed in 1861, Clay County was named for Henry Clay. It has a total area of 221 square miles. Early inhabitants of the area included indigenous members of the Cherokee tribe and Scotch-Irish and English settlers.

According to Data USA, the largest industries in Clay County, NC are Health Care & Social Assistance (775 people), Retail Trade (697 people), and Construction (607 people), and the highest paying industries are Transportation & Warehousing (\$77,702), Professional, Scientific, & Technical Services (\$65,000), and Finance & Insurance (\$52,125). The most common job groups, by number of people living in Clay County, NC, are Construction & Extraction Occupations (522 people), Sales & Related Occupations (435 people), and Office & Administrative Support Occupations (429 people).

According to the American Community Survey (2021), Clay County had a population of 11,045 living in 5,383 households. The median age was 52.20 years old with 29.43% of the population 65 years or older and 16.93% being children under 18. The population was mostly White (95.23%), with 3.15% African American and 3.47% identifying as Hispanic. About 9.94% of the population are veterans (ACS 2021) and 6.51% of the population 18 years old to 64 years old are disabled (ACS 2019).

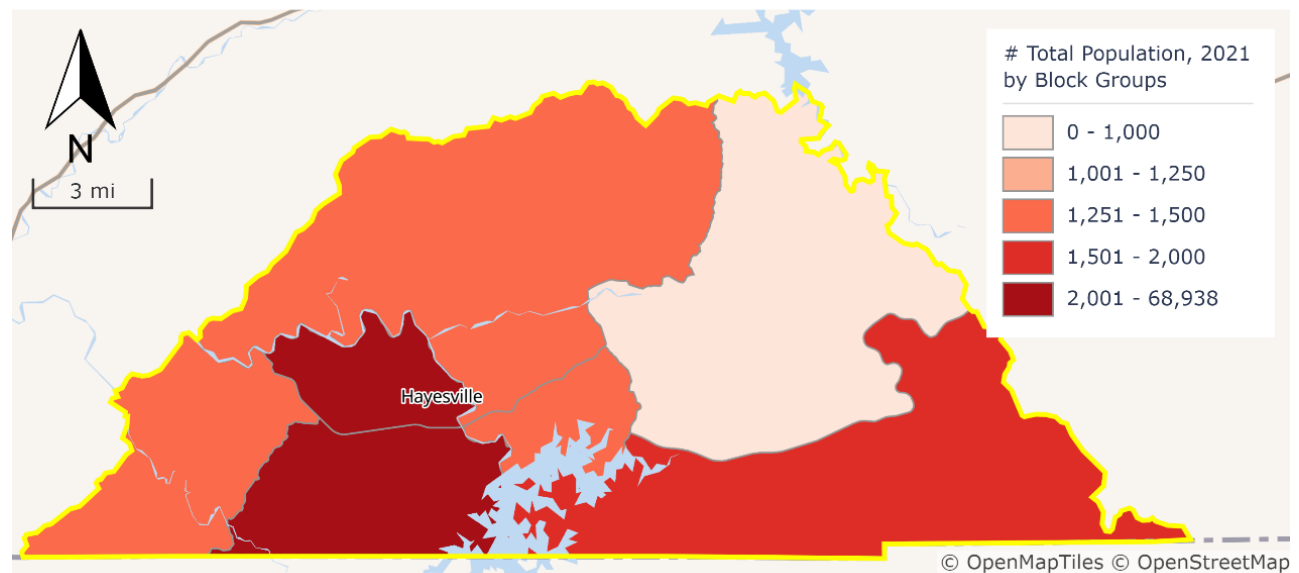


Figure 1 - Population Distribution Clay County 2021

WNC Bridge Pilot Project

Key Demographics

| | Clay County, NC | | North Carolina | |
|--|-----------------|--------|----------------|--------|
| POPULATION & SEX | | | | |
| Total Population | 11,045 | | 10,474,324 | |
| Male | 5,248 | 47.51% | 5,096,377 | 48.66% |
| Female | 5,789 | 52.41% | 5,372,609 | 51.29% |
| AGE | | | | |
| Under 5 years | 351 | 3.18% | 607,062 | 5.80% |
| 5 to 9 years | 632 | 5.72% | 627,491 | 5.99% |
| 10 to 14 years | 732 | 6.63% | 665,579 | 6.35% |
| 15 to 17 years | 155 | 1.40% | 413,880 | 3.95% |
| 18 and 19 years | 167 | 1.51% | 308,361 | 2.94% |
| 20 to 24 years | 591 | 5.35% | 752,241 | 7.18% |
| 25 to 34 years | 1,039 | 9.41% | 1,372,790 | 13.11% |
| 35 to 44 years | 1,103 | 9.99% | 1,269,280 | 12.12% |
| 45 to 54 years | 1,179 | 10.67% | 1,337,650 | 12.77% |
| 55 to 64 years | 1,740 | 15.75% | 1,320,877 | 12.61% |
| 65 to 74 years | 1,971 | 17.85% | 1,018,456 | 9.72% |
| 75 to 84 years | 1,119 | 10.13% | 492,956 | 4.71% |
| 85 years and over | 161 | 1.46% | 182,989 | 1.75% |
| RACE & ETHNICITY | | | | |
| White alone | 10,518 | 95.23% | 7,051,555 | 67.32% |
| Black or African American alone | 348 | 3.15% | 2,238,521 | 21.37% |
| American Indian and Alaska Native alone | 66 | 0.60% | 138,665 | 1.32% |
| Asian alone | 33 | 0.30% | 335,521 | 3.20% |
| Native Hawaiian and Other Pacific Islander alone | 26 | 0.24% | 9,917 | 0.09% |
| Some other race alone | 0 | 0.00% | 372,201 | 3.55% |
| Two or more races | 45 | 0.41% | 317,306 | 3.03% |
| Not Hispanic or Latino | 10,657 | 96.49% | 9,417,251 | 89.91% |
| Hispanic or Latino | 383 | 3.47% | 1,052,522 | 10.05% |
| INCOME | | | | |
| Median Household Income | \$41,481.21 | | \$55,073.81 | |
| Per Capita Income | \$28,930.79 | | \$31,107.91 | |
| Households | 5,383 | | 4,042,988 | |
| Less than \$10,000 | 379 | 7.04% | 234,191 | 5.79% |
| \$10,000 to \$19,999 | 684 | 12.71% | 383,874 | 9.49% |
| \$20,000 to \$29,999 | 647 | 12.02% | 398,800 | 9.86% |
| \$30,000 to \$39,999 | 886 | 16.46% | 398,130 | 9.85% |
| \$40,000 to \$49,999 | 710 | 13.19% | 368,449 | 9.11% |
| \$50,000 to \$59,999 | 290 | 5.39% | 319,699 | 7.91% |
| \$60,000 to \$74,999 | 447 | 8.30% | 388,439 | 9.61% |
| \$75,000 to \$99,999 | 650 | 12.08% | 495,093 | 12.25% |
| \$100,000 to \$124,999 | 268 | 4.98% | 336,689 | 8.33% |
| \$125,000 to \$149,999 | 35 | 0.65% | 216,467 | 5.35% |
| \$150,000 to \$199,999 | 145 | 2.69% | 224,724 | 5.56% |
| \$200,000 or more | 198 | 3.68% | 241,345 | 5.97% |

WNC Bridge Pilot Project

| EDUCATION | | | | |
|--|--------|--------|------------|--------|
| Population 25 years and over | 8,620 | | 7,183,805 | |
| Less than high school diploma | 1,172 | 13.60% | 944,790 | 13.15% |
| High school graduate (includes equivalency) | 2,932 | 34.01% | 1,721,424 | 23.96% |
| Some college | 1,462 | 16.96% | 1,474,759 | 20.53% |
| Associate's degree | 877 | 10.17% | 697,915 | 9.72% |
| Bachelor's degree | 1,214 | 14.08% | 1,433,191 | 19.95% |
| Master's degree | 565 | 6.55% | 608,356 | 8.47% |
| Professional school degree | 251 | 2.91% | 137,302 | 1.91% |
| Doctorate degree | 78 | 0.90% | 107,093 | 1.49% |
| LANGUAGE | | | | |
| Speak only English | 10,392 | 97.23% | 8,616,954 | 87.27% |
| Spanish | 163 | 1.53% | 766,248 | 7.76% |
| French, Haitian, or Cajun | 36 | 0.34% | 42,381 | 0.43% |
| German or other West Germanic languages | 22 | 0.21% | 31,493 | 0.32% |
| Russian, Polish, or other Slavic languages | 0 | 0.00% | 29,914 | 0.30% |
| Other Indo-European languages | 0 | 0.00% | 107,337 | 1.09% |
| Korean | 0 | 0.00% | 19,122 | 0.19% |
| Chinese (incl. Mandarin, Cantonese) | 0 | 0.00% | 44,921 | 0.45% |
| Vietnamese | 37 | 0.35% | 27,766 | 0.28% |
| Tagalog (incl. Filipino) | 0 | 0.00% | 17,292 | 0.18% |
| Other Asian and Pacific Island languages | 34 | 0.32% | 92,105 | 0.93% |
| Arabic | 0 | 0.00% | 29,165 | 0.30% |
| Other and unspecified languages | 0 | 0.00% | 43,569 | 0.44% |
| CITIZENSHIP | | | | |
| Total population in the United States | 11,045 | | 10,473,467 | |
| U.S. citizen, born in the United States | 10,737 | 97.21% | 9,463,475 | 90.36% |
| U.S. citizen, born in Puerto Rico or U.S. Island Areas | 0 | 0.00% | 43,232 | 0.41% |
| U.S. citizen, born abroad of American parent(s) | 1 | 0.01% | 100,807 | 0.96% |
| U.S. citizen by naturalization | 122 | 1.10% | 358,424 | 3.42% |
| Not a U.S. citizen | 183 | 1.66% | 503,510 | 4.81% |
| HOUSING | | | | |
| Housing Units | 7,435 | | 4,734,376 | |
| Occupied | 5,383 | 72.40% | 4,042,988 | 85.40% |
| Vacant | 2,047 | 27.53% | 686,593 | 14.50% |
| Owner occupied | 4,177 | 77.60% | 2,627,718 | 64.99% |
| Renter occupied | 1,199 | 22.27% | 1,409,723 | 34.87% |

WNC Bridge Pilot Project

Economics

The unemployment rate was 4% in Clay County (Bureau of Labor Statistics, Jul 2022). According to the 2019 American Community Survey, the median household income in Clay County was \$41,481.21 and the per capita income was \$28,930.79. More than one-in-seven (14.17%) were in poverty (ACS 2017-2021.). There are an estimated 11.21% of the people in Clay County had no health insurance (ACS 2021). Educational attainment in Clay County was 34.01% of adults completing only high school or a GED and 24.45% of adults have a higher education degree (bachelor's, master's, or doctorate; ACS 2021). The average freshman high school graduation rate in the 2020-2021 school year was 89.1% (EducationNC). There is one head start center in the county (Head Start 2019).

Affordability

About 648 households (12.97% of households) receive public assistance income/food stamps/SNAP. About one-in-five (21.22%) homeowners and more than a quarter (31.3%) of renters are cost burdened, spending more than 30% of income on housing-related costs (ACS 2017-2021). The average household spent \$11,577.65 on transportation costs in 2022 (Consumer Expenditures Database, 2019) and 3.53% of households do not have a vehicle (ACS 2019). The average household spent \$4,751.10 on utilities in 2022 (Consumer Expenditures Database, 2022).

Health

There are no hospitals or Federally Qualified Health Centers in Clay County however there is one mental health facility that also provides drug and alcohol treatment (Appalachian Community Service). All census tracts in Clay County have been designated as Medically Underserved Areas for having too few primary care providers, high infant mortality, high poverty, and/or a high elderly population by the Health Resources and Services Administration (HRSA 2022). One-in-six residents (15.6%) self-report poor physical health and one-in-seven (13.5%) report poor mental health in the past 30 days (CDC BRFSS, 2019).

Quality of Life

In Clay County, 21.56% of households do not have broadband internet subscriptions. Clay County ranked “very low” in terms of social vulnerability, which was a variable that considers four categories: socioeconomic (ranked as “low”); and household composition (ranked as “low”); minority and language (ranked as “very low”); and housing and transportation (ranked as “very low”; CDC 2018). The rate of crime in Clay County is 41.07 per 1,000 residents during a standard year.¹ While violent crime is quite low, property crimes like theft and burglary are higher. Most people in Clay County drove alone to work, and the average commute time was 22.8 minutes. The average car ownership in was 2 cars per household.

¹ <https://crimegrade.org/safest-places-in-clay-county-nc/>

WNC Bridge Pilot Project

Cherokee County Profile

Cherokee County is the westernmost county in the U.S. state of North Carolina. It borders Tennessee to its west and Georgia to its south. Cherokee County was formed in 1839 from the western part of Macon County. It was named for the Cherokee Native Americans, of whom many live in the area. It has a total area of 467 square miles.

According to Data USA, the largest industries in Cherokee County, NC are Retail Trade (1,764 people), Health Care & Social Assistance (1,507 people), and Construction (1,357 people). The highest paying industries are Utilities (\$56,771), Transportation & Warehousing, & Utilities (\$54,961), and Transportation & Warehousing (\$53,633).

According to the American Community Survey (2021), Cherokee County had a population of 28,362. The median age was 51.5 years old with 28.36% of the population 65 years or older and 17.65% being children under 18. The population was mostly White (92.38%) and Hispanic (3.38%). About 12.17% of the population are veterans (ACS 2021) and 7.88% of the population 18 years old and older are disabled (ACS 2019). Notably, the Eastern Band of Cherokee Indians has a total of 14,000 tribal members. According to the U.S. Census, the population of the reservation is approximately 9,600 people, and is 77% American Indian and 23% non-Indian.

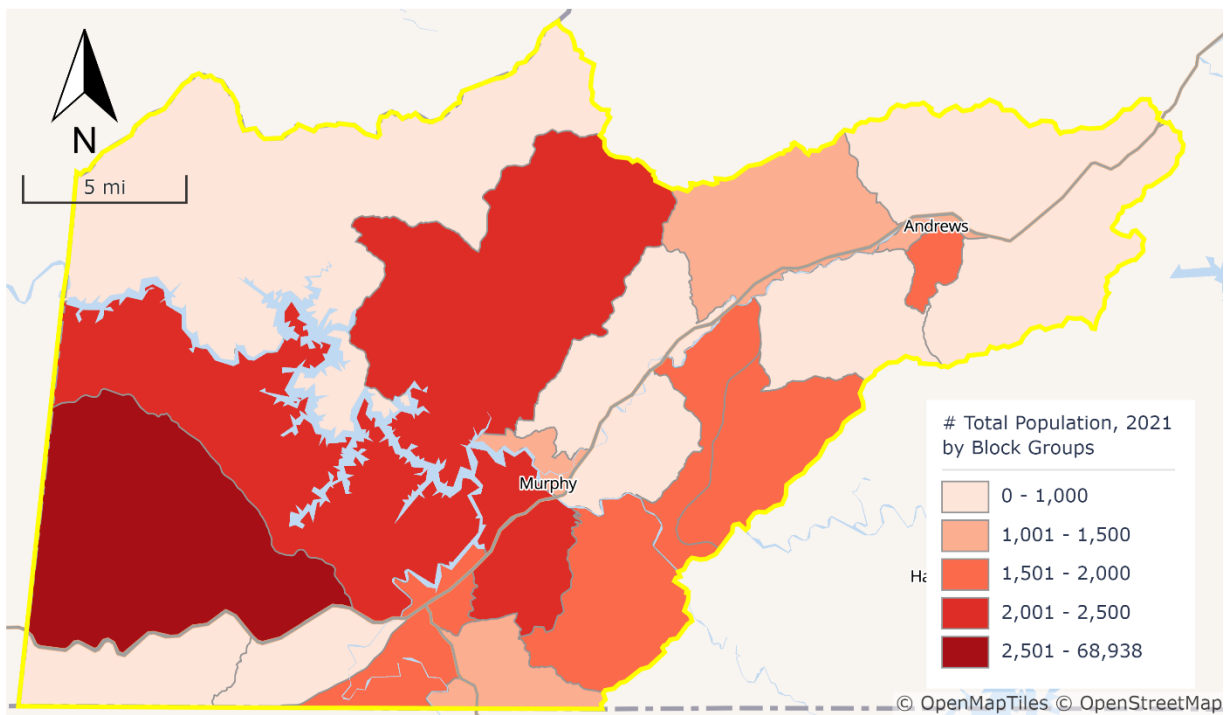


Figure 2 - Population Distribution Cherokee County 2021

WNC Bridge Pilot Project

Key Demographics

| | Cherokee County, NC | | North Carolina | |
|--|---------------------|--------|----------------|--------|
| POPULATION & SEX | | | | |
| Total Population | 28,362 | | 10,474,324 | |
| Male | 13,934 | 49.13% | 5,096,377 | 48.66% |
| Female | 14,412 | 50.81% | 5,372,609 | 51.29% |
| AGE | | | | |
| Under 5 years | 1,141 | 4.02% | 607,062 | 5.80% |
| 5 to 9 years | 1,223 | 4.31% | 627,491 | 5.99% |
| 10 to 14 years | 1,632 | 5.75% | 665,579 | 6.35% |
| 15 to 17 years | 1,011 | 3.56% | 413,880 | 3.95% |
| 18 and 19 years | 546 | 1.93% | 308,361 | 2.94% |
| 20 to 24 years | 1,330 | 4.69% | 752,241 | 7.18% |
| 25 to 34 years | 2,483 | 8.75% | 1,372,790 | 13.11% |
| 35 to 44 years | 2,684 | 9.46% | 1,269,280 | 12.12% |
| 45 to 54 years | 3,395 | 11.97% | 1,337,650 | 12.77% |
| 55 to 64 years | 4,518 | 15.93% | 1,320,877 | 12.61% |
| 65 to 74 years | 4,830 | 17.03% | 1,018,456 | 9.72% |
| 75 to 84 years | 2,456 | 8.66% | 492,956 | 4.71% |
| 85 years and over | 758 | 2.67% | 182,989 | 1.75% |
| RACE & ETHNICITY | | | | |
| White alone | 26,202 | 92.38% | 7,051,555 | 67.32% |
| Black or African American alone | 304 | 1.07% | 2,238,521 | 21.37% |
| American Indian and Alaska Native alone | 439 | 1.55% | 138,665 | 1.32% |
| Asian alone | 284 | 1.00% | 335,521 | 3.20% |
| Native Hawaiian and Other Pacific Islander alone | 11 | 0.04% | 9,917 | 0.09% |
| Some other race alone | 368 | 1.30% | 372,201 | 3.55% |
| Two or more races | 717 | 2.53% | 317,306 | 3.03% |
| Not Hispanic or Latino | 27,390 | 96.57% | 9,417,251 | 89.91% |
| Hispanic or Latino | 959 | 3.38% | 1,052,522 | 10.05% |
| INCOME | | | | |
| Median Household Income | \$42,315.19 | | \$55,073.81 | |
| Per Capita Income | \$24,385.10 | | \$31,107.91 | |
| Households | 13,285 | | 4,042,988 | |
| Less than \$10,000 | 675 | 5.08% | 234,191 | 5.79% |
| \$10,000 to \$19,999 | 1,848 | 13.91% | 383,874 | 9.49% |
| \$20,000 to \$29,999 | 1,620 | 12.19% | 398,800 | 9.86% |
| \$30,000 to \$39,999 | 1,818 | 13.68% | 398,130 | 9.85% |
| \$40,000 to \$49,999 | 1,320 | 9.94% | 368,449 | 9.11% |
| \$50,000 to \$59,999 | 970 | 7.30% | 319,699 | 7.91% |
| \$60,000 to \$74,999 | 1,360 | 10.24% | 388,439 | 9.61% |
| \$75,000 to \$99,999 | 1,715 | 12.91% | 495,093 | 12.25% |
| \$100,000 to \$124,999 | 942 | 7.09% | 336,689 | 8.33% |
| \$125,000 to \$149,999 | 401 | 3.02% | 216,467 | 5.35% |
| \$150,000 to \$199,999 | 331 | 2.49% | 224,724 | 5.56% |
| \$200,000 or more | 157 | 1.18% | 241,345 | 5.97% |

WNC Bridge Pilot Project

| EDUCATION | | | | |
|--|--------|--------|------------|--------|
| Population 25 years and over | 22,026 | | 7,183,805 | |
| Less than high school diploma | 2,943 | 13.36% | 944,790 | 13.15% |
| High school graduate (includes equivalency) | 7,247 | 32.90% | 1,721,424 | 23.96% |
| Some college | 4,559 | 20.70% | 1,474,759 | 20.53% |
| Associate's degree | 2,893 | 13.13% | 697,915 | 9.72% |
| Bachelor's degree | 2,213 | 10.05% | 1,433,191 | 19.95% |
| Master's degree | 1,524 | 6.92% | 608,356 | 8.47% |
| Professional school degree | 233 | 1.06% | 137,302 | 1.91% |
| Doctorate degree | 203 | 0.92% | 107,093 | 1.49% |
| LANGUAGE | | | | |
| Population 5 years and over | 27,307 | | 9,874,041 | |
| Speak only English | 26,344 | 96.47% | 8,616,954 | 87.27% |
| Spanish | 600 | 2.20% | 766,248 | 7.76% |
| French, Haitian, or Cajun | 1 | 0.00% | 42,381 | 0.43% |
| German or other West Germanic languages | 0 | 0.00% | 31,493 | 0.32% |
| Russian, Polish, or other Slavic languages | 60 | 0.22% | 29,914 | 0.30% |
| Other Indo-European languages | 93 | 0.34% | 107,337 | 1.09% |
| Korean | 77 | 0.28% | 19,122 | 0.19% |
| Chinese (incl. Mandarin, Cantonese) | 31 | 0.11% | 44,921 | 0.45% |
| Vietnamese | 52 | 0.19% | 27,766 | 0.28% |
| Tagalog (incl. Filipino) | 3 | 0.01% | 17,292 | 0.18% |
| Other Asian and Pacific Island languages | 1 | 0.00% | 92,105 | 0.93% |
| Arabic | 0 | 0.00% | 29,165 | 0.30% |
| Other and unspecified languages | 30 | 0.11% | 43,569 | 0.44% |
| CITIZENSHIP | | | | |
| Total population in the United States | 28,362 | | 10,473,467 | |
| U.S. citizen, born in the United States | 27,029 | 95.30% | 9,463,475 | 90.36% |
| U.S. citizen, born in Puerto Rico or U.S. Island Areas | 136 | 0.48% | 43,232 | 0.41% |
| U.S. citizen, born abroad of American parent(s) | 337 | 1.19% | 100,807 | 0.96% |
| U.S. citizen by naturalization | 450 | 1.59% | 358,424 | 3.42% |
| Not a U.S. citizen | 397 | 1.40% | 503,510 | 4.81% |
| HOUSING | | | | |
| Housing Units | 18,571 | | 4,734,376 | |
| Occupied | 13,285 | 71.54% | 4,042,988 | 85.40% |
| Vacant | 5,271 | 28.38% | 686,593 | 14.50% |
| Owner occupied | 10,431 | 78.52% | 2,627,718 | 64.99% |
| Renter occupied | 2,835 | 21.34% | 1,409,723 | 34.87% |

WNC Bridge Pilot Project

Economics

The unemployment rate was 3.9% in Cherokee County (Bureau of Labor Statistics, Jul 2022). According to the 2021 American Community Survey, the median household income in Cherokee County was \$42,315.19 and the per capita income was \$24,385.10. Nearly one-in-seven (14.51%) were in poverty (ACS 2021). There are an estimated 13.66% of the people in Cherokee County had no health insurance (ACS 2021). Educational attainment in Cherokee County was 32.90% of adults completing only high school or a GED and 18.95% of adults have a higher education degree (bachelor's, master's, or doctorate; ACS 2021). The average freshman high school graduation rate in the 2020-2021 school year was 86.9% (EducationNC). There are two head start center in the county (Head Start 2022).

Affordability

About 1,637 households (12.32% of households) receive public assistance income/food stamps/SNAP. About one-in-five (19.44%) homeowners and more than 41.09% of renters are cost burdened, spending more than 30% of income on housing-related costs (ACS 2017-2021). The average household spent \$9,388.69 on transportation costs in 2022 (Consumer Expenditures Database, 2019) and 3.93% of households do not have a vehicle (ACS 2017-2021). The average household spent \$4,552.43 on utilities in 2022 (Consumer Expenditures Database, 2022).

Health

There is one hospital (Murphy Medical Center) and Eight Federally Qualified Health Centers in Cherokee County. There are two mental health facility that also provides drug and alcohol treatment (Appalachian Community Service and Meridian BH Services). All census tracts in Cherokee County have been designated as Medically Underserved Areas for having too few primary care providers, high infant mortality, high poverty, and/or a high elderly population by the Health Resources and Services Administration (HRSA 2022). One-in-six residents (16.4%) self-report poor physical health and one-in-seven (14.3%) report poor mental health in the past 30 days (CDC BRFSS, 2019).

Quality of Life

In Cherokee County, 19.37% of households do not have broadband internet subscriptions. Cherokee County ranked “low” in terms of social vulnerability, which was a variable that considers four categories: socioeconomic (ranked as “moderate”); and household composition (ranked as “low”); minority and language (ranked as “low”); and housing and transportation (ranked as “low”; CDC 2018). The rate of crime in Cherokee County is 43.96 per 1,000 residents during a standard year.² While violent crime is quite low, property crimes like theft and burglary are moderate. Most people in Cherokee, NC drove alone to work, and the average commute time was 12.5 minutes. The average car ownership in Cherokee, NC was 1 car per household.

² <https://crimegrade.org/safest-places-in-chokeee-county-nc/>

WNC Bridge Pilot Project

Hinton Safe and Healthy Homes Checklist Results

After a process of review and assessment, the UNCG Center for Housing and Community Studies, along with Mr. Brett Byerly (former home inspector, former Executive Director of the Greensboro Housing Coalition, and licensed general contractor), made recommendations for the revision of the existing Hinton Safe and Healthy Homes Checklist. The new checklist (see Appendix A) takes into consideration issues with a home that may compromise the health and safety of residents and also aligns the inspection instrument with the U.S. Department of Housing and Urban Development Housing Choice Voucher Program Inspection Checklist. The goal is that this assessment would balance the need for ease of use with volunteer home assessors with the rigor of a comprehensive tool to ascertain the condition of the home.

A total of 55 Hinton Safe and Healthy Homes Checklists were completed during 2022. Copies were relayed to researchers who captured the data using a Qualtrics online survey software and then saved the data into IBM Statistical Package for the Social Sciences (SPSS 28.0.1) for descriptive analysis.

Home Type & Ownership

Of the homes inspected, 95.6% were owner occupied. Nearly two-thirds (62.3%) of the homes were single-family detached, stick built/wood/brick construction. A third of homes (35.8%) were mobile homes. Finally, one home inspected was indicated to be a modular manufactured home. Homes ranged drastically in age with the oldest being built in 1874 and the newest in 2014. The average (mean) year built was 1980.

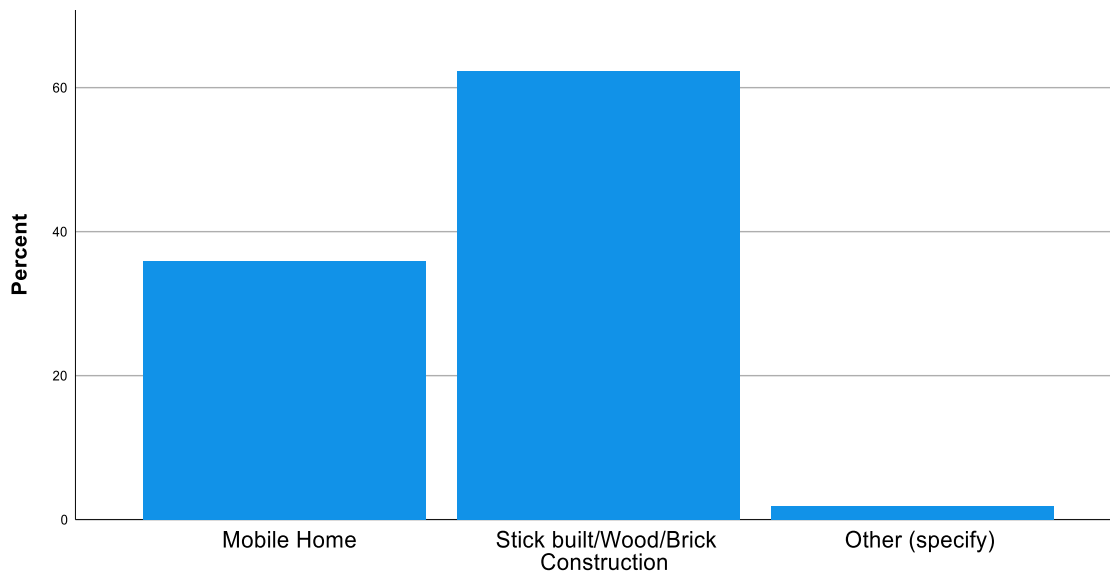


Figure 3 - Type of Home

WNC Bridge Pilot Project

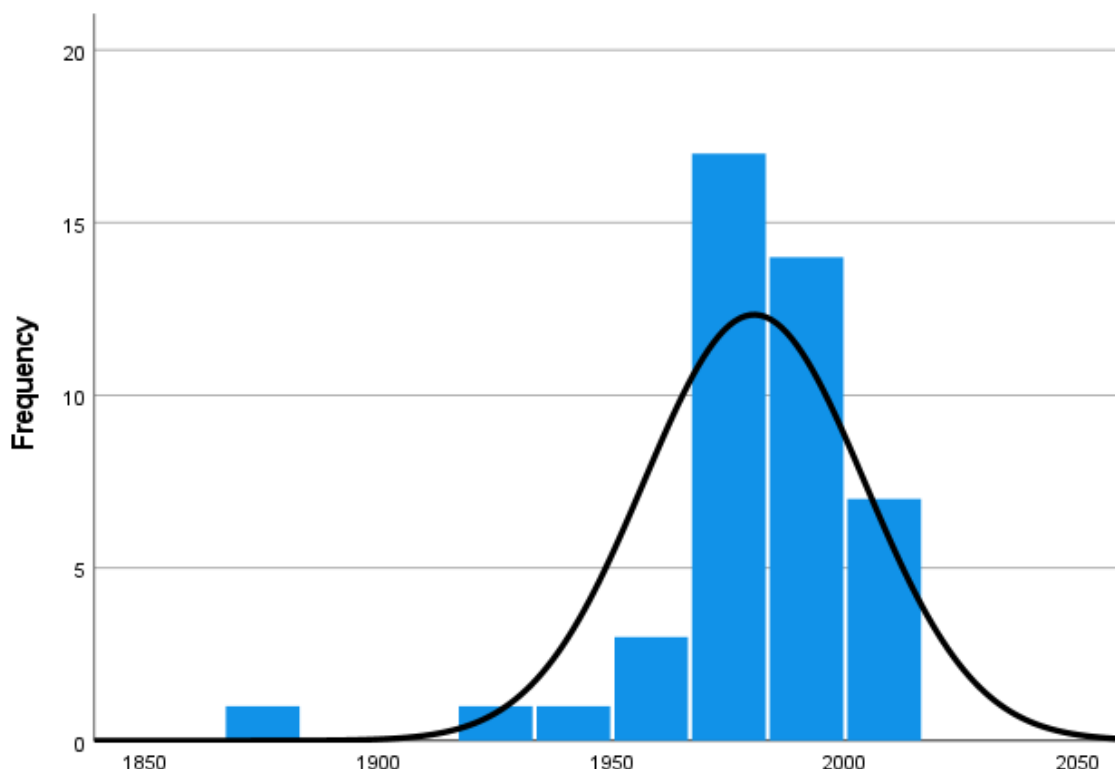


Figure 4 – Year Built

Interior Inspections

Interior inspections were completed by volunteers and staff looking for areas of concern or issues that may post a risk to health or safety of occupants. Most (87.5%) indicated that the floors, walls, windowsills, etc. were dry and free of decay or rot. In those homes that did indicate issues, the most common was water damage to window trim or windowsills.

Nearly all (92.9%) walls and ceilings were in good condition without holes or major cracks and 91.7% said paint on walls and ceilings was in good condition. Similarly, 88.0% agreed that the floors were clean and in good repair and 72.2% said the floors did not have weak or springy spots. However, in those homes where floors were an issue, notes indicate that the problems were extensive and throughout the homes rather than isolated to particular areas. Also, 40.0% of homes had chipped or peeling paint on windowsills and/or doorways. In older homes, this could pose a potential lead contamination risk for small children. Nearly a quarter of homes (23.1%) inspected showed evidence of active leaks on the ceiling and 25% showed evidence of past leaks or staining.

WNC Bridge Pilot Project

Importantly for prevention of respiratory issues and proper functioning of equipment, the HVAC filters were clean in 91.7% of homes and 88.9% of refrigerator coils were clean. More than a quarter of homes (27.3%), however, showed evidence of pests or rodents. According to the CDC, Rats and mice are known to spread many diseases. Likewise, the National Center for Healthy Housing says that “cockroaches in the home environment are a health hazard not only because of the risks posed by cockroach antigens to asthma sufferers, but also because they can carry disease-causing germs and because some of the methods traditionally used to eliminate them cause additional health hazards.”³

Nearly all kitchens (95.2%) and bathrooms (95.7%) had both hot and cold running water. Likewise, 93.3% of toilets were securely mounted and had no evidence of leaks. Loose or damaged wax-ring toilet seal may leak very slowly and present a health and safety hazard. Notes on bathrooms included leaking faucets, toilets that run continuously and need new flappers, leaking wax rings, and unsecured toilets.

About half (45.5%) of homes had potential evidence of asbestos containing materials. From the 1930s through the 1970s, asbestos was included in building materials including shingles, flooring, ceiling tiles, insulation, HVAC supply, etc. According to the CDC, asbestos exposure can cause lung cancer and mesothelioma as well as cancer of the larynx and ovary.⁴ Thorough inspection by asbestos abatement professionals is warranted in homes with suspected materials.

Heating Source

Electric heat (baseboard and heat pump) was the predominant heat source with 62.0% of homes versus natural gas/propane for 20.0% of homes, and fire/woodstoves in 6.0% of homes. There were six homes that used other primary heat sources including kerosine heaters or oil furnaces.

Table 1 – Heating Source

| Source | | Frequency | Percent | Valid Percent |
|---------|-----------------|-----------|---------|---------------|
| Valid | Electric | 31 | 56.4 | 62.0 |
| | Gas | 10 | 18.2 | 20.0 |
| | Fire/Woodstove | 3 | 5.5 | 6.0 |
| | Other (specify) | 6 | 10.9 | 12.0 |
| | Total | 50 | 90.9 | 100.0 |
| Missing | System | 5 | 9.1 | |
| Total | | 55 | 100.0 | |

³ <https://nchh.org/information-and-evidence/learn-about-healthy-housing/health-hazards-prevention-and-solutions/cockroaches/>

⁴ https://www.atsdr.cdc.gov/asbestos/health_effects/asbestos.html

WNC Bridge Pilot Project

Weatherization & Energy Efficiency

Most homes (84.2%) had insulation in the attic and 92.9% of homes indicated that Windows have a good seal. However, 19.0% had windows with broken/ missing panes of glass and 21.7% had doors with poor seals. Weather-stripping, caulking, and spray foam or other insulation may be used to reduce energy loss from around windows and doors.

Many homes (60.0%) were using energy saving light bulbs and 70.6% had insulated water heaters and pipes. A few homes (9.5%) said floor ducts were not working properly, and 30.0% said there are cold spots or rooms that don't have heating or cooling sources. Half of mobile homes had skirting. Skirting helps prevent critters from getting underneath the home and retains heat in the winter. Some residents may be eligible for free energy assessment and energy-saving products installed at no cost by Duke Energy's Neighborhood Energy Savers Program.⁵

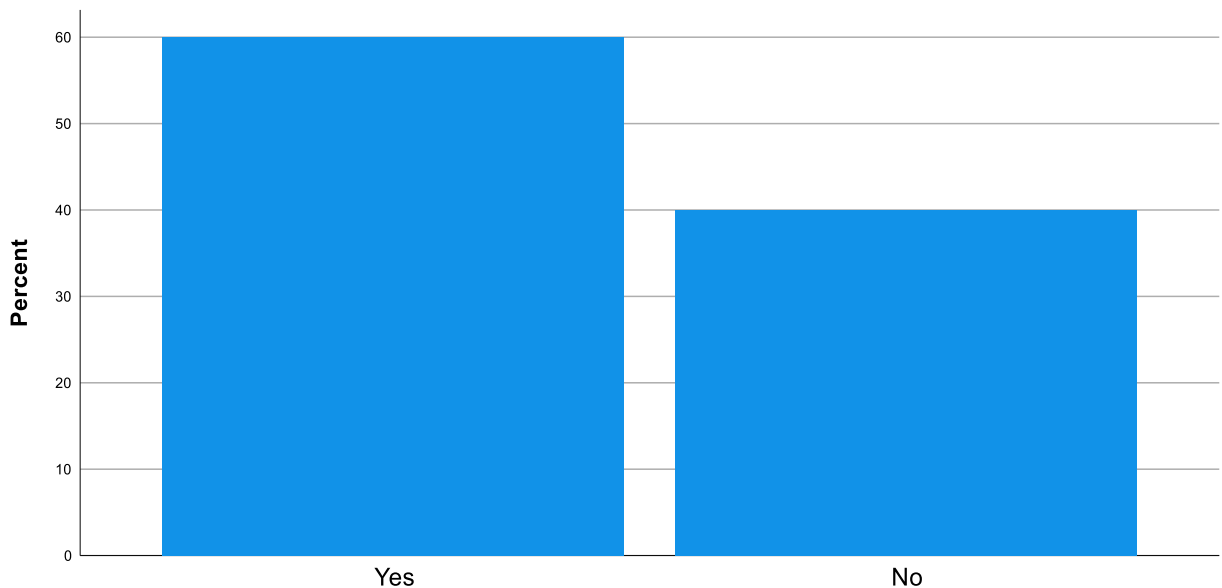


Figure 5 - Using Energy Efficient Bulbs

⁵ https://www.epa.gov/sites/default/files/2017-06/documents/duke_energy_profile_508.pdf

WNC Bridge Pilot Project

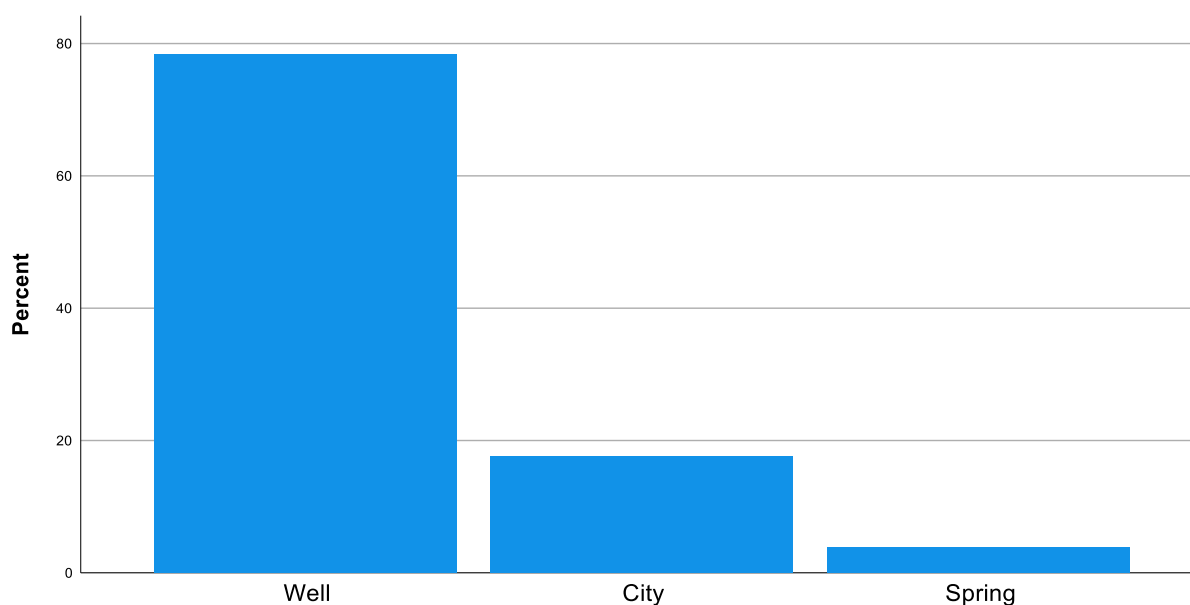


Figure 6 – Water Source

Water & Sewer

The majority of homes inspected (78.4%) rely on well water with 17.6% on municipal water supply and two homes that utilize a spring for water. Unfortunately, none of the homes indicated having had any well water testing. It is recommended by the CDC that wells are tested once each year for total coliform bacteria, nitrates, total dissolved solids, and pH levels.⁶ Nearly all homes (94.1%) assessed utilize septic systems. According to the EPA, the average household septic system should be inspected at least every three years by a septic service professional.⁷

Internet Access

Nearly three-quarters (72.3%) of homes had internet access while another 17% indicated that while there was access to internet, they chose not to have it. One-in-ten (10.6%) do not have internet available.

Accessibility

About two-in-five (39.1%) of homes had grab bars in the tub/shower/other places, as needed. Similarly, 41.7% of homes had accessibility ramp, though 60% of ramps were indicated to not be installed properly with 1 inch per foot of slope. A majority (60.0%) of respondents indicated need for additional home modification for accessibility and mobility.

⁶ <https://www.cdc.gov/healthywater/drinking/private/wells/testing.html>

⁷ <https://www.epa.gov/septic/how-care-your-septic-system>

WNC Bridge Pilot Project

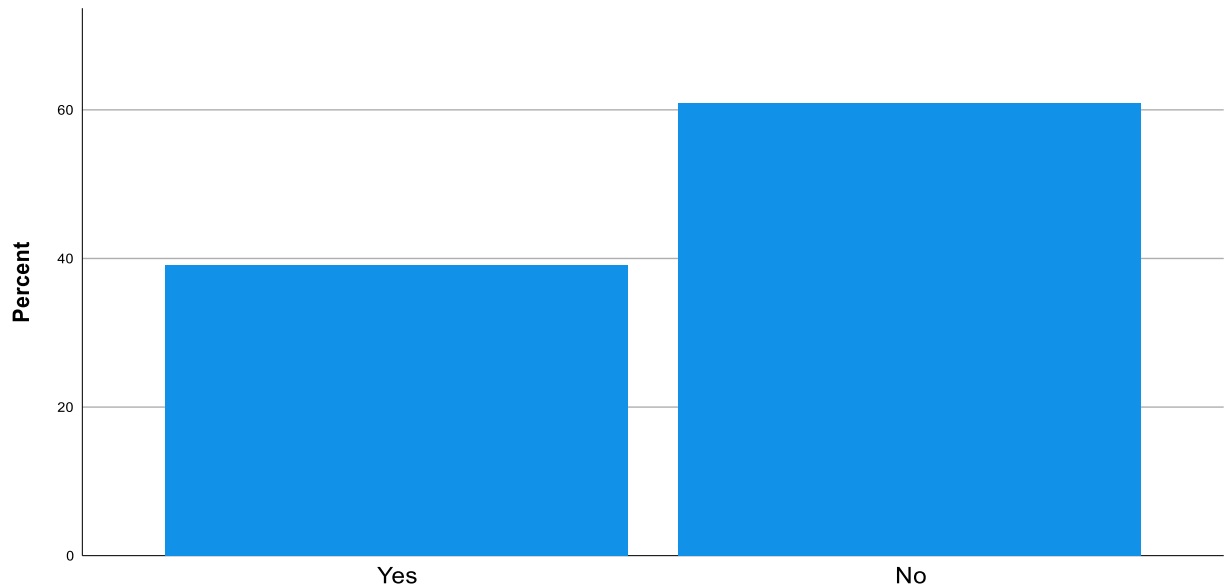


Figure 7 – Grab Bars

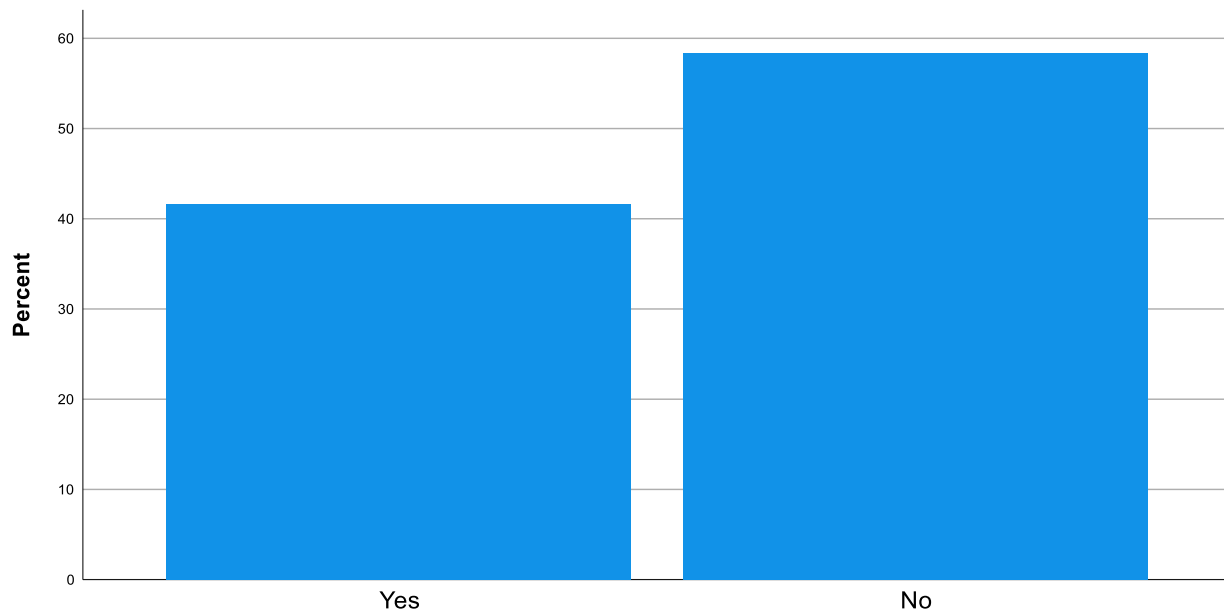


Figure 8 – Accessibility Ramp

WNC Bridge Pilot Project

Resident Health & Safety Issues

Studies have shown that substandard housing is clearly related to increased likelihood of health concerns and mental health issues. Specific health hazards of substandard housing include: frequent changes of residence (community instability), mold from excessive moisture, exposure to lead, exposure to allergens that may cause or worsen asthma, rodent and insect pests, pesticide residues, and indoor air pollution.

Environmental Hazards

More than a quarter (28.9%) of residents indicated that a member of their household had been diagnosed with asthma. Likewise, 6.7% of respondents indicated that a member of the household had been diagnosed with lung cancer. Lung cancer is by far the leading cause of cancer death in the US, accounting for about 1 in 5 of all cancer deaths.

Of the nine homes built before 1970, eight indicated that they had not been tested for lead-based paint. Lead inspections and lead risk assessments should be completed for all homes built before 1978. Only five homes (10.4%) had tested for radon. While the average national indoor radon level is 1.3 pCi/L, the average indoor radon levels of Clay County is 4 pCi/L. Radon is the leading cause of lung cancer among non-smokers. Every year, 450 North Carolinians are estimated to die due to radon-induced lung cancer.

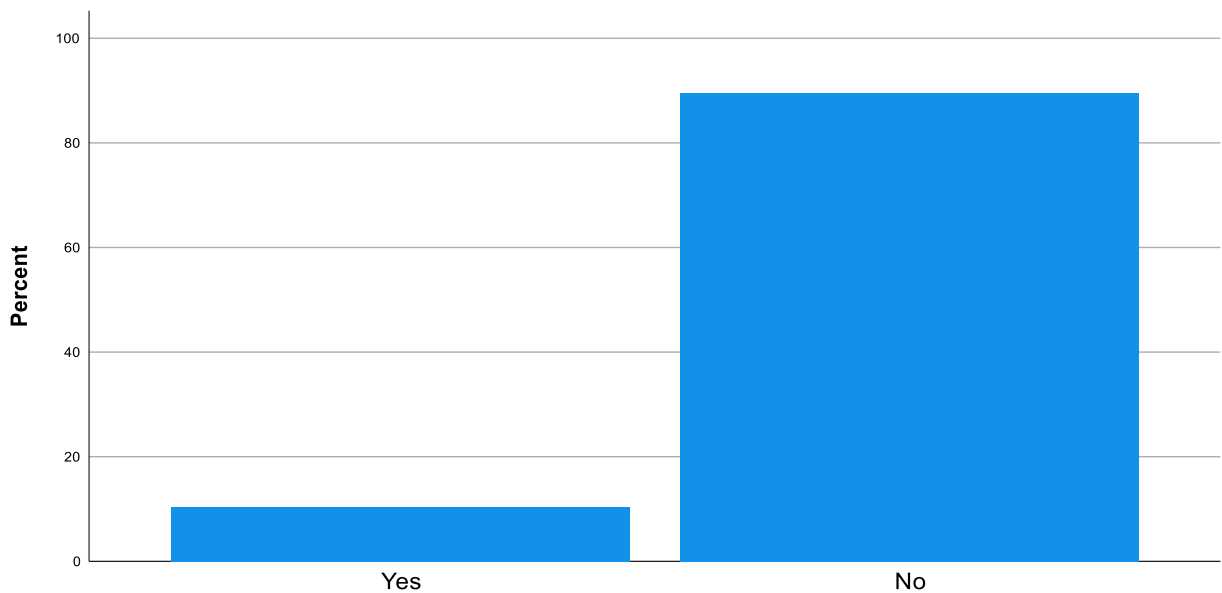


Figure 9 – Radon Testing

WNC Bridge Pilot Project

Falls & Unintentional Injuries

About 8.5% of respondents noted that they had an unintentional injury because of unsafe housing conditions such as unsafe stairs. Unintentional injuries due to falls, poisoning, burns, and other causes is greater among older adults.⁸ About half of homes (50.0%) had fall or tripping hazards like uneven areas in the floors, buckled flooring, holes in floors or changes in the level of the floors. Of two-story homes, 25.0% did not have sturdy handrails on the stairs and 22.2% did not have light switches at top and bottom of stairs. Also, 50.0% of homes with basements did not have doors that open in the opposite direction from the steps.

Home Security

Some homes (13.6%) had inoperable windows which present a potential problem for egress and 8.7% had windows that did not lock. Similarly, 13.6% had exterior doors that did not open and 13.0% had doors that did not lock. One-in-five homes (21.1%) had no clear pathways to exits without clutter impeding movement.

Fire Safety

Importantly, 29.0% of homes did not have working fire extinguisher and 18.2% didn't have a smoke detector in proper locations, such as bedrooms or just outside of bedrooms. Smoke detectors are only effective if functional and having good batteries, 25.0% smoke detector do not beep when the test button is pressed. Also, 42.3% of homes did not have working carbon monoxide detector.

One-quarter (25.0%) of homes with fireplaces/woodstoves did not have a clean flue, posing potential fire hazard. Electrical systems/lighting equipment are the third leading cause of intentional fires behind cooking and heating. Electrical breakers play an important role in reducing the chances of overheating wiring. Nonetheless, 9.5% homes had breakers that were not accessible and 13.6% said breakers are not working properly. Importantly, 45.5% said there was exposed electrical wiring, 11.1% had light switch covers that were not intact or covering the outlet, and 10.0% said outlet covers were not intact and covering the electrical outlets.

Child Safety

While 92.6% of homes "appear safe" for children, there were some potential concerns. According to the CDC, "Every day, 374 children in the United States ages 0 to 19 are treated in an emergency department, and two children die, as a result of being poisoned."⁹ Accidental poisonings occur most frequently by ingestion of household medications and cleaning products, especially among children under 4 years-old. Most (80.0%) homes with children indicated no locking clips for cabinets, 14.3% lacked safe storage for medicine, and 9.5% did not have safe storage for chemicals. Also, 60.0% of homes with children indicated no child gates for stairs.

⁸ <https://pubmed.ncbi.nlm.nih.gov/15626560/>

⁹ https://www.cdc.gov/injury/pdfs/fact_sheets/poisoning-fact-sheet-a-1.pdf

WNC Bridge Pilot Project

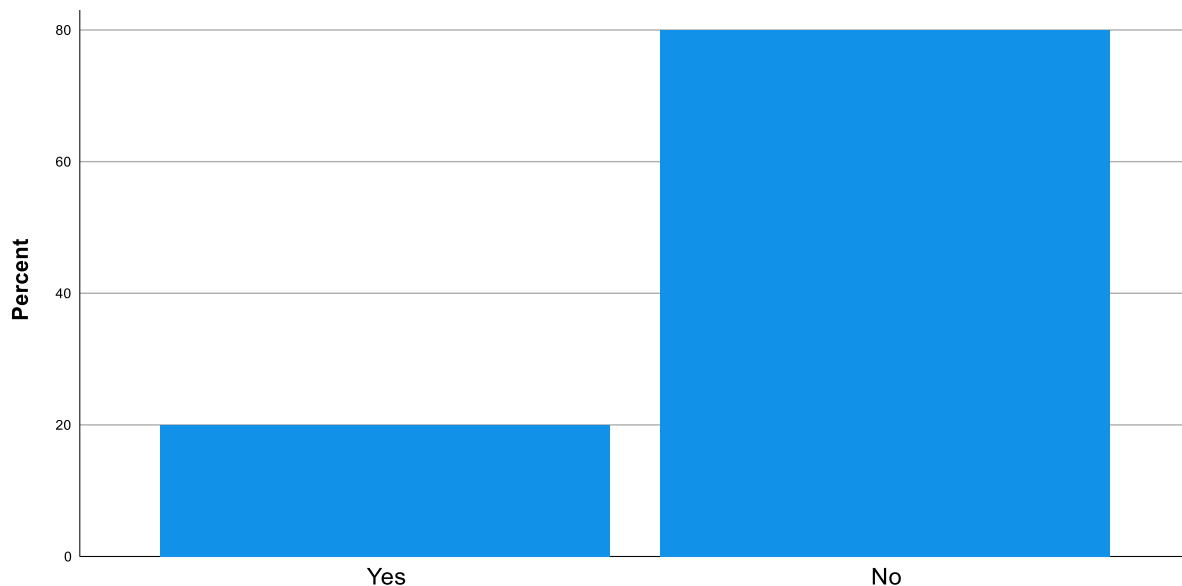


Figure 10 - Clips on Cabinets (if children are present)

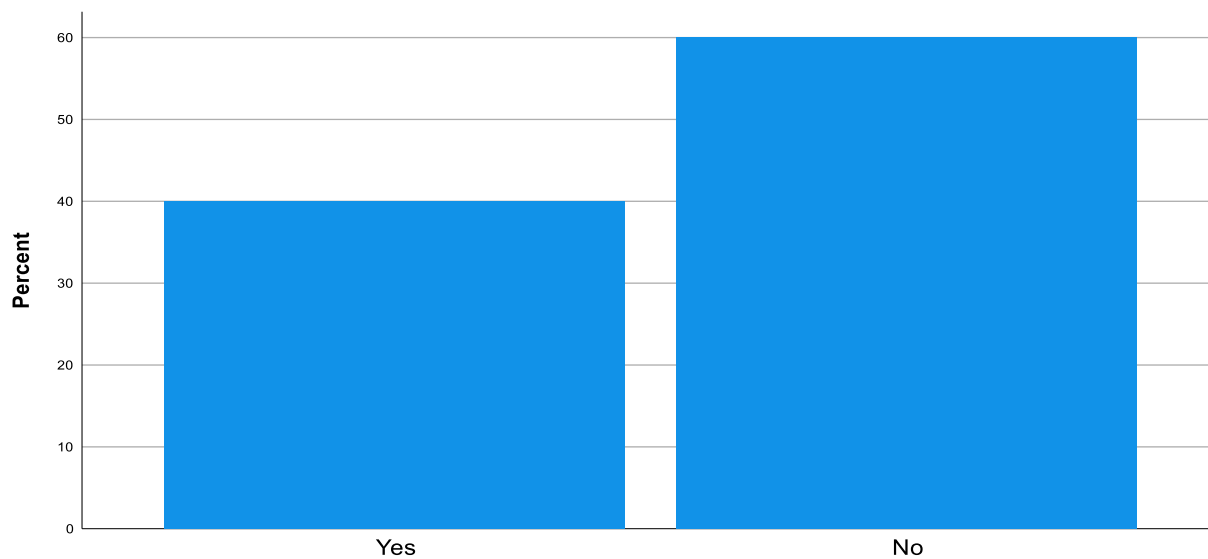


Figure 11 - Child Gate on Stairs (if needed)

WNC Bridge Pilot Project

Firearms

Preventable deaths related to firearms have increased in recent years after decreasing between 2011 and 2020.¹⁰ Gun-related deaths from preventable, intentional, and undetermined causes totaled 45,222 in 2020, an increase of 13.9% from 39,707 deaths in 2019. Suicides account for 54% of deaths related to firearms, while 43% were homicides, and about 1% were preventable/accidental. Nearly half of respondents (47.7%) were aware of free gun locks provided by the sheriff's office.

Exterior Inspection

Exterior Conditions

Most (69.2%) exterior walls and siding were free from cracks and holes. Most homes (81.0%) had dryer exhaust venting to the exterior of home and of those 83.3% had a cover on the exhaust vent to prohibit rodents or other pests. A third of those (33.3%) had lint build-up creating a potential fire hazard. A third (33.3%) also reported sewage leaks or that the piping is not connected to a proper system and 50% had excessive trash/ garbage/ debris present on the grounds.

Roof & Gutters

Most roofs (98.05) appeared to be in good condition from the ground. Yet, a quarter (25.0%) of homes lacked gutters, allowing water to run off of roofs and potentially into the foundation. Of those homes with gutters, 25.0% had damage and/or visible leaves and vegetation growing. Also, of those homes with gutters, 15.0% had issues with the downspouts effectively moving water away from foundation and exterior walls.

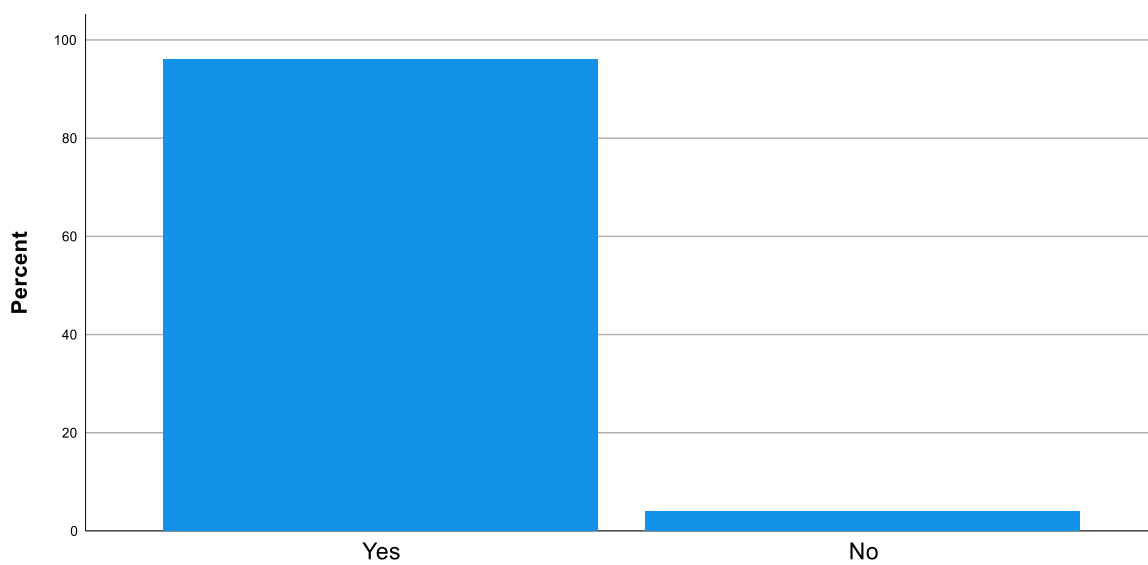


Figure 12 - Roof in Good Condition

¹⁰ <https://injuryfacts.nsc.org/home-and-community/safety-topics/guns/>

WNC Bridge Pilot Project

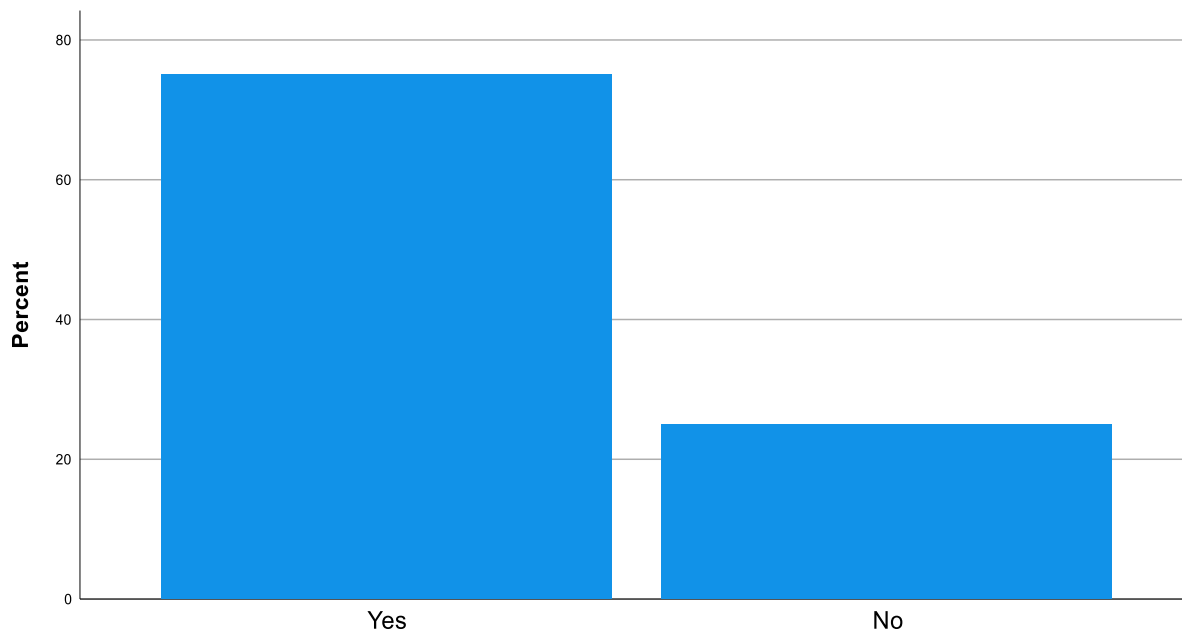


Figure 13 - Gutters Present

Steps, Stairs, & Lighting

Most (84.2%) of the steps/ decks/ porches/ramps were sturdy and safe, and free from mildew and 93.1% had handrails for the outside stairs. Likewise, 88.2% of porches/ steps and decks more than 36" off the ground had railings that have pickets or something to block small children from falling through. While 87.5% of homes had adequate outdoor lighting for safe use of all steps, only 41.7% said there adequate outside lighting overall.

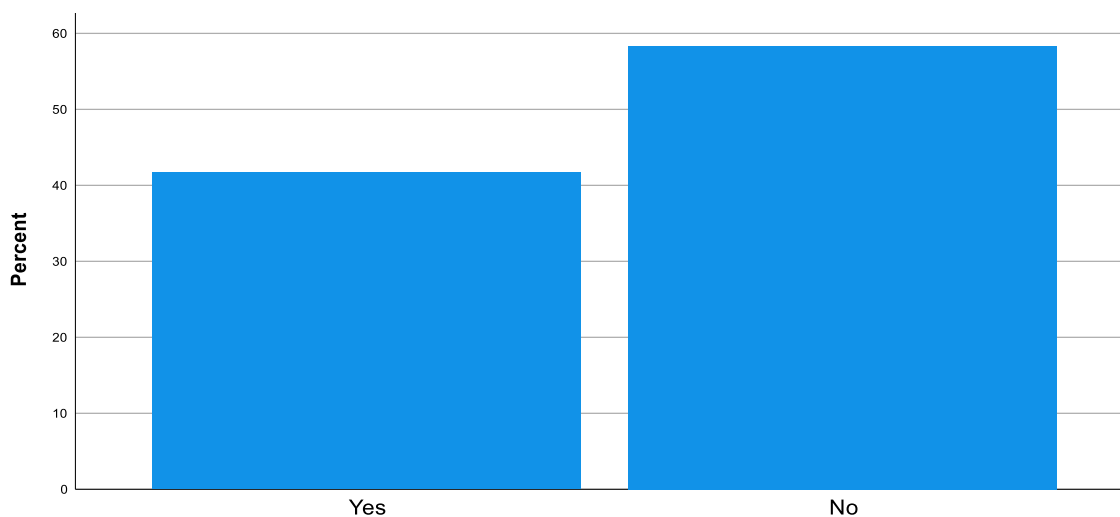


Figure 14 - Adequate Exterior Lighting

WNC Bridge Pilot Project

Client Interviews

Telephone interviews were completed with four of six residents (one refusal, one no answer, four completed interviews) who received services during the pilot of this project. Respondents were elderly individuals (80-90 years old) who had experienced falls in the home resulting in broken hips or other injuries. In each case, ramps had been constructed to allow for greater mobility and independence. One participant explained:

"Okay, it's very, very simple. I'm 80 years old and by myself. I do have some good neighbors, but they travel quite a bit. I don't drive, so I depend completely on transportation to take me places. I do have a friend who takes me to church. In April, I think it was, I fell and broke my hip. And I was in the hospital. I fell from my back porch which has high cement steps - four or five feet or whatever. When I came home, I was able to do things by myself. But, I did not use the steps in the back where I fell and the other was a side porch, it was wooden, it had steps, but they were still four or five feet high but not as dangerous as the others. So, somehow, a friend or someone knew about Hinton and they notified them and they came out. And a group of men, women and teenagers, wonderful, wonderful Christian group came out and built me the most wonderful ramp. Enormous, huge ramp so I wouldn't have to step down steps. And you know, I use the ramp when you know, whatever happens... They did that in like two and a half days. And at no cost whatsoever.... they [also] helped put in a step up to my shed for me and they cut some branches that was in some wires, to the telephone or to the house. And so, I've had very good service and very, very, I mean, they're very professional, they know what to do. I am very happy and very good people."

Another participant told a very similar story:

"They come out and build my daddy a ramp when he broke his hips ... Well, they come on Monday, and they finish it up on Wednesday. I don't know what [date] they come but they come on Monday and finished up on Wednesday.... They was real quick about building the ramp. And they was, you know, they, they said, whatever time they said they would be there, they was there on time. And you know, they tell us, they'd be back at eight or nine o'clock, and they would stay there, and they got it built within so many days. So, it was a quick, quick build and stuff."

Another interviewee shared that she first became acquainted with Hinton through having some routine maintenance done and that through an inspection process they identified additional health and safety issues to address

"The reason that I called them originally was that leaves had gathered in the gutter on the back of the house. And so, I called to see if they could, because I'm 79 and most of my friends are about the same age, and I don't want them getting on ladders. And, you know, cleaning the gutters out, and I'm not going to do it. And I had heard that Hinton Center helped seniors. And so, I called and Nick came out and cleaned the gutters. And while he was here, he noticed that I have a ramp. And he noticed that the ramp was getting, it was sitting on the dirt, and it was getting a little bit damaged. And so, he said that they might have somebody that could repair the ramp for me. And I said that

WNC Bridge Pilot Project

was great. And so then later on, they did send some people out to do that. And then also check the rails and there was a railing that needed repair. And another one, we had cleaned out some bushes and the side of my back porch was open. And they put a rail there. And they did a great job. And it was people that volunteered at the Hinton Center that came in did those plus they lost the side of the house.... And then they called me and said that they had gotten a grant with to do grab bars and bathroom. And I had mentioned that to Nick that. And I think there was another fellow that came by and talked to us about grab bars in the bathroom. And because of my age and stuff. I didn't have any and so they did come and put grab bars in the bathrooms and that was a big help to us."

Since having the ramps installed, the respondents indicate that they had experienced greater mobility and increased independence. As one said, *"he gets out on the porch. Like if we have to take him someplace, he walks down the ramp to get in the car. And every time, he's walking more with the walker out on the porch and stuff."* Similarly, another resident also had greater freedom and mobility and was able to leave her home using a walker:

"Well, I wouldn't go down the back steps because first of all, they're too steep. And they're cement the house is built in 1960. And with my hip, I was on initially on, after I go to the hospital I was on a walker. And so you know, how could I go down the steps with a walker? So, using the ramp, I was able to get down the steps and, and, I didn't go out that much until I was able to get some groceries with transportation. But initially, because of that, I would have to use a walker to go down the lot the ramp, I couldn't have used a walker to go down the back steps at all. So, I was able to get out of the house and do what I had to do... after that it took me still several months, I think before I would even of course was healed with my hip and I even tried to go down those back steps. I was still a little bit afraid to get to go down the back steps."

Participants were asked if there were other issues they needed help with in terms of repairs or modifications to the home. While two said there were no issues that needed to be addressed, one explained that further modifications would be desired in order to fully utilize her bathroom:

"I heard they had a new program that where in the bathtub, they had grab bars, I think they call them. I had two very nice men come and put one, install one in for me, which was very helpful getting in and out. I'm almost 99% healed as far as my hip is concerned. But, at 80 years old, my legs are getting weaker, and so, that it's not quite so easy to get around. So, that was very helpful and that was just within the last, I think month or so, and I've always been self-sufficient, of course, with my husband who died 10 years ago. So, I've been on my own, and I really don't like to help ask for help, but being 80 and not quite as strong as I used to be. There's just all kinds of small things around the house that needs to be done and everyone's situation... So, there's a few things that need to be done. One gentleman came out and made a list and because it was raining, and whatever, it was never done, but it was something that I can live without. So basically, right now, everything is, is fine as far as the house is concerned. I've got heat and I got air. You know, of course when it was below zero, the pipes froze, but they thawed out and so everything is going fine, day by day so far."

WNC Bridge Pilot Project

Another interviewee said she needed a fence for her daughter's therapy animal.

"Do they do they build a fence? Because we, we have a miniature horse? It's a therapy animal. Right? And if they could build a fence. Yeah, my daughter needed a therapy animal. And so, we got a miniature horse. And right now, we've got an electric fence around. But if they, if they could put a fence up, that would be wonderful. And I could help with the cost of the materials."

Residents were asked if they would recommend this program from Hinton to neighbors, friends, or others who were in similar circumstances. All agreed. One respondent elaborated:

"Anybody I know, whether they are in circumstances or not, I really praise Hinton and the other churches and Christian organizations other than the government who to get out and do what needs to be done, doesn't ask for anything. very joyful to be helping other people. And thankfully, they're getting some money in grants from other organizations or whatever. But most certainly everyone I've talked to, especially when they come to the house, and they see the ramp, they're just overjoyed and awed how beautiful the ramp is. And Hinton did that in two and a half days, and the very, very professional, very, very well done. So, every everyone I talked to, there's a lot of resources here in Haysville and, and all over the United States that people don't know about, and thankfully, they don't have to depend on the government for it. So, everyone I speak to, I certainly do recommend them and praise them to their professionalism, their joy in doing and helping and helping those in need you no matter what, at what circumstances you're in."

Another participant also said she tells everyone she can about the Center.

"Yeah, I've told some of my neighbors here that most of my neighbors are about, about my age, in fact, are exactly 79. And I'm 79. And I've told them about Hinton Center, how they, they helped with the gutters, and with the ramp, and the grab bars. I've told them another friend, my best friend. I've told her how good [Hinton is] and how much help they have."

Summary & Conclusions

Clay and Cherokee Counties are very rural, with low population densities outside of a few small towns, and a total population of about 40,000 individuals. The median income in these counties is about about 27% less (about \$15,000) less than NC median household income. The population is predominantly non-Hispanic white and native-born US citizens. While unemployment is low, employment options are limited. About one-in-five homes do not have broadband subscriptions and about 12% receive some form of public assistance. Around 78% of housing is owner occupied and about 20% of homeowners are cost burdened.

WNC Bridge Pilot Project

Home inspections were conducted on a total of 55 properties. More than a third of these homes were mobile homes. Nearly all homes were owner occupied. There were several key repair concerns observed with potential health implications:

- 60.0% indicated need for additional home modification for accessibility and mobility;
- 50.0% had fall or tripping hazards;
- 45.5% of homes had potential evidence of asbestos containing materials;
- 40.0% of homes had chipped or peeling paint on windowsills and/or doorways;
- 33.3% had lint build-up in dryer exhaust vents creating a potential fire hazard;
- 29.0% of homes did not have working fire extinguisher
- 27.3% showed evidence of pests or rodents;
- 23.1% of homes inspected showed evidence of active leaks on the ceiling;
- 21.7% had doors with poor seals;
- 19.0% had windows with broken/ missing panes of glass;
- 18.2% didn't have a smoke detector in proper locations;
- 10% of homes had been tested for radon; and
- None of the homes indicated having had any well water testing.

Interviews with homeowners who had repairs/modifications during the pilot project all showed great appreciation for the work that had been done. All indicated that the modifications will permit them to enter and leave their residences without concerns for falls thus increasing their overall mobility and improving the quality of life. Participants praised Hinton for its volunteers, for the timeliness of the installation of ramps, and for their generosity.

It is recommended that the program be expanded, additional points of referral sought after (including promoting the expansion of utilization of the NCCARE360 platform in other local agencies), and that funding be sought to tackle some of the remaining health and safety concerns in the homes. Additionally, continued utilization of and refinement in the checklist is encouraged.

WNC Bridge Pilot Project

Appendix A - Safe & Healthy Homes Checklist

SAFE & HEALTHY HOMES CHECKLIST



DIRECTIONS: Hinton has a goal of making homes safer and healthier. If it's okay with you, we'd be happy to conduct a safe and healthy evaluation to see if we can help make your home healthier and safer. In order to do this, we'll need to ask you a few questions and walk throughout your house and outside. You can come with us if you want. We'll review with you before taking any actions.

Questions for resident:

1. **Name:** First _____ Last _____
2. **Do you rent or own this home?** ☐ Own ☐ Rent
3. **Owner name (if renting):** _____
4. **Address:** _____
5. **Town:** _____ **State:** _____ 6. **Year house was built:** _____
7. **Type of Home:** ☐ Mobile Home ☐ Stick built/Wood/Brick Construction
☐ Camper ☐ Other (specify) _____
8. **Primary source of heat:** ☐ Heat pump ☐ Electric ☐ Gas
☐ Fire/Woodstove ☐ None ☐ Other (specify) _____
If fireplace/woodstove, interested in load of wood? ☐ Yes ☐ No
If fireplace/woodstove, date of last cleaning? _____ (year)
9. **Water Source:** ☐ Well ☐ City ☐ Spring ☐ None
If well or spring, when was the last time it was tested? _____ (year)
10. **Sewer Type:** ☐ City ☐ Septic
11. **Has the house been tested for lead-based paint?** ☐ Yes ☐ No ☐ N/A (built 1970+)
12. **Has the house been tested for radon?** ☐ Yes ☐ No
If yes, has radon remediation been done? ☐ Yes ☐ No

Optional Questions:

13. Currently or in the past, has any member of the household been diagnosed with...
 - Asthma : ☐ Yes ☐ No ☐ Prefer not to answer
 - COPD: ☐ Yes ☐ No ☐ Prefer not to answer
 - Lung Cancer: ☐ Yes ☐ No ☐ Prefer not to answer
14. Unintentional injury because of unsafe housing conditions (ex. Fall down rotted steps):
☐ Yes ☐ No ☐ Prefer not to answer
If yes, did injury cause visit to ☐ Primary Doctor ☐ Urgent Care ☐ ER
☐ Hospitalization? ☐ Prefer not to answer
15. Are you aware if you have guns in the home, the sheriff's department has free gun locks?
☐ Yes ☐ No – Can refer them to call 828-389-6354.
16. Do you have internet access? ☐ Yes ☐ No, not available ☐ No, available but choose not to have

SAFE & HEALTHY HOMES CHECKLIST



Interior Inspection:

| Interior Inspection Questions | | YES | NO | NOTES/ACTIONS TAKEN |
|-------------------------------|--|--------------------------|--------------------------|---------------------|
| HEALTH | 1. Floors, walls, windowsills, etc. are dry and free of decay or rot? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 2. Floors are clean and in good repair? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 3. Floors do not have 'weak' or springy spots? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 4. Paint on windowsills and doorways are not chipped or peeling? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 5. Ceiling does not show evidence of active leaks? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 6. Ceiling does not show evidence of past leaks or staining? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 7. Walls/ ceilings are in good condition without holes or major cracks? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 8. Paint on walls/ ceilings in good condition? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 9. Heating/ cooling system filters are clean? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 10. Refrigerator coils are clean? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 11. House does not show evidence of pests or rodents? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 12. Kitchen has running hot and cold water? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 13. Bathroom has running hot and cold water? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 14. Toilet seals are secure and no evidence of leaks? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 15. No evidence of asbestos containing materials? | <input type="checkbox"/> | <input type="checkbox"/> | |
| SAFETY | 16. Are there fall or tripping hazards like uneven areas in the floors, buckled flooring, holes in floors or changes in the level of the floors? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 17. Do windows open? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 18. Do windows lock? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 19. Do exterior doors open? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 20. Do exterior doors lock? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 21. Are there clear pathways to exits without clutter? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 22. Is there a working fire extinguisher? | <input type="checkbox"/> | <input type="checkbox"/> | |

SAFE & HEALTHY HOMES CHECKLIST



| | Interior Inspection Questions | YES | NO | NOTES/ACTIONS TAKEN |
|-------------------------|---|--------------------------|--------------------------|---------------------|
| | 23. Are smoke detectors in proper locations, such as bedrooms or just outside of bedrooms? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 24. Does smoke detector beep when you press test button? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 25. Is there a working carbon monoxide detector present, if necessary? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 26. Is there any exposed electrical wiring? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 27. Are light switch covers intact and covering the outlet? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 28. Are outlet covers intact and covering the outlet? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 29. Lock clips for cabinets, etc. (if children in the home)? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 30. Child gates for stairs (if needed)? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 31. Safe storage for medicine? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 32. Safe storage for chemicals? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 33. <i>If two-story</i> , are there sturdy handrails on the stairs? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 34. <i>If two-story</i> , are there light switches at top and bottom of stairs? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 35. <i>If there is a basement stairway</i> , does the door open in the opposite direction from the steps? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 36. <i>If a fireplace or woodstove</i> , is the flue clean? | <input type="checkbox"/> | <input type="checkbox"/> | |
| WEATHERIZATION & ENERGY | 37. Windows have a good seal? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 38. All windows intact with no broken/missing panes of glass? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 39. Exterior doors have a good seal? (Is daylight not visible around door when it is closed?) | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 40. Are energy saving light bulbs are being used? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 41. Are water heater and pipes are insulated? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 42. Is there insulation in the attic? If accessible, write depth in notes. | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 43. Floor ducts are working properly? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 44. Are there cold spots or rooms that don't have heating or cooling sources? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 45. If a mobile home, does it have skirting? | <input type="checkbox"/> | <input type="checkbox"/> | |

SAFE & HEALTHY HOMES CHECKLIST



Exterior Inspection:

| Exterior Inspection Questions | | YES | NO | NOTES/ACTIONS TAKEN |
|--|---|--------------------------|--------------------------|---------------------|
| HEALTH | 46. Does the roof appear in good condition from the ground? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 47. Are there gutters on the house? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 48. Are the gutters free from damage? Are there no visible leaves and vegetation growing in gutters? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 49. Do downspouts effectively move water away from foundation and exterior walls? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 50. Does dryer exhaust vent to exterior of home? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 51. Is there any lint build-up? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 52. Is there a cover on the exhaust vent to prohibit rodents or other pests? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 53. Any evidence of sewage leaks or that the piping is not connected to a proper system? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 54. Excessive trash/ garbage/ debris present on lot/ grounds? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 55. Exterior walls and siding are free from cracks and holes | <input type="checkbox"/> | <input type="checkbox"/> | | |
| SAFETY | 56. Are any steps/ decks/ porches/ramps sturdy and safe, and free from mildew? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 57. Are handrails present on all steps? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 58. Do porches/ steps and decks more than 36" off the ground have railings that have pickets or something to block small children from falling through? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 59. Adequate outdoor lighting for safe use of all steps? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 60. Is there additional adequate outside lighting? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 61. If a mobile home, does it have skirting? | <input type="checkbox"/> | <input type="checkbox"/> | |

SAFE & HEALTHY HOMES CHECKLIST



Final Inspection Observations:

62. Does the house appear safe for children? ☐ Yes ☐ No (specify) _____

63. Are there any other issues that you believe present a health or safety concern? _____

Additional Home Modification Questions, if needed:

64. Are there grab bars in the tub/shower/other places, as needed? ☐ Yes ☐ No ☐ N/A

Comments: _____

65. Is there an accessibility ramp, if needed? ☐ Yes ☐ No ☐ N/A

Comments: _____

If ramp is present, is it properly installed (1 in 12)? ☐ Yes ☐ No

66. Any additional home modification needs? ☐ Yes ☐ No

Comments: _____

Appendix B - Interview Script

WNC Bridge- Safe & Healthy Homes Assessment 2022 Interview Script

Date: _____

Person Interviewed: _____

Good Afternoon. My name is _____. I'm a _____ with the UNCG Center for Housing and Community Studies. We are assisting the Hinton Rural Life Center with assessing the impact of their Safe and Healthy Homes by speaking with homeowners who received their assistance. In particular, we are interested in learning about how changes they made in your home have impacted your quality of life, mobility, or health.

If it is okay with you, we will be recording this interview but only for internal transcription purposes. What we say will be kept confidential. We will report on what we learned today, and we will use quoted excerpts in our reporting, but we will not attribute any statement to you by name. We'll ask about a variety of topics; if in any instance you aren't familiar with the topic and don't have an answer, feel free to say so, and we'll move on to the next question.

Is it okay for us to record this interview?

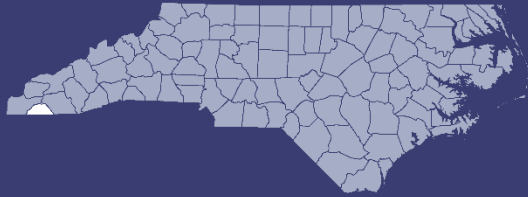
START RECORDING

1. To begin, tell me a little bit about your home, how long you've lived there, what you like and don't like about the place.
2. In your own words, what would you say were the issues were having with the home before the Hinton Center assisted you?
3. How did these issues affect you?
 - a. Did they limit your activity level?
 - b. Did they prevent you from getting in/out of the house easily?
 - c. Did they impact your health in any way? (please explain).
4. What modifications or improvements did Hinton make to your home?
5. Have these modifications improved your quality of life?
 - a. If so, please explain
 - b. If not, please explain
 - c. Were there any unintended consequences or unexpected results from these modifications?
 - d. What can you do today as a result of these modifications that you couldn't do before?
6. Have these modifications or improvements to your home impacted your health in any way?
 - a. If so, please explain
 - b. If not, please explain
 - c. Have these improvements resulted in fewer falls?
7. Have these modifications or improvements helped you to save money or reduce expenses in anyway?
 - a. If so, please explain – how much savings
 - b. If not, please explain
8. Are there other issues in your home that need to be resolved?
9. Would you recommend this program to others in similar circumstances?
10. Is there anything else you would like add that we have not already covered in this interview?

STOP RECORDING

Appendix C - NC Housing Coalition Clay County Profile

The 2023 Housing Need in Clay County



27%

of Clay County are
cost-burdened

1,280 households

Renters who have difficulty affording their homes:



52%

441 households

Homeowners who have difficulty affording their homes:



21%

839 households

Families that spend more than 30% are considered **cost-burdened**, more than 50%, are considered **severely cost-burdened**.



\$844 monthly Fair Market Rent*:

An income of **\$33,760 per year** is needed to afford the Fair Market Rent.



\$16.23 hour Housing Wage:

The hourly wage needed to afford a Fair Market Rent apartment.

Average Annual Salaries



Healthcare
\$28,200



Childcare
\$23,550



Police officer
\$40,190



Farming labor
\$24,290

**Fair Market Rents, regularly published by HUD, represent the cost to rent a moderately-priced dwelling unit in the local housing market. The above FMR is for a two-bedroom unit.*

When Housing Costs Too Much

When housing costs become too much, a family can lose their home. This takes an incredible toll not only on a family, but also on the entire community.



14 families in Clay County faced a foreclosure this year...

1.67% of all cost-burdened homeowners.



42 families in Clay County faced an eviction filing this year...

9.52% of all cost-burdened renters.

Ranks

#74

for evictions among renter households.

(1 = highest and 100 = lowest)

The mission of the North Carolina Housing Coalition is to lead a movement to ensure that every North Carolinian has a home in which to live in dignity and opportunity.

Join the movement:  @NCHCOnline | nchousing.org