



# MOUNTAIN VALLEY PIPELINE SOUTHGATE PROJECT

Draft Community Profile

North Carolina Department of Environmental Quality  
July 11, 2025

It is the policy of the North Carolina Department of Environmental Quality (NCDEQ) that no person shall, on the ground of race, ethnicity, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance, as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, the Rehabilitation Act of 1973, and all other pertinent nondiscrimination laws and requirements.

In conducting this analysis, the Community Engagement Program pursues NCDEQ's mission to "Provide science-based environmental stewardship for the health and prosperity of all North Carolinians."



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## Executive Summary

### Objective

The primary goal of this Community Profile is to encourage comments and suggestions from the surrounding community, industry, and environmental groups throughout the comment period for all relevant permit applications for the Mountain Valley Pipeline Southgate Project. Using available data from sources including the US Census Bureau, Environmental Protection Agency (US EPA), and Centers for Disease Control (CDC), the report provides recommendations for appropriate enhanced public outreach and engagement to facilitate public input. Specifically, this report highlights census tracts in proximity to the Mountain Valley Pipeline Southgate Project pipeline and the potential for community concerns.

### Key Findings

Based on this report's analysis and using NCDEQ Potentially Underserved Block Groups (on the basis of Race/Ethnicity and Poverty) and standard guidelines established by the US EPA and in the National Environmental Policy Act (NEPA) documentation, the potential concerns for particular populations within an area of interest of the Mountain Valley Pipeline Southgate Project have been identified as follows:

- **Race and Ethnicity:**
  - The following race/ethnic population categories:
    - Black or African American
    - Hispanic or Latino
    - Asian
    - Native Hawaiian or Other Pacific Islander
    - Two or more races
    - Some other race
- **Tribal Communities:**
  - Guilford Native American Association
- **Age and Sex:**
  - Populations of individuals 65 years or older in:
    - Rockingham County and Census Tracts 401.01 and 411
  - Populations of individuals 5 years or younger in:
    - Census Tract 402
- **Limited English Proficiency:** Spanish-speaking households with limited English proficiency in:
  - Census Tract 402
- **Disability:** Populations living with a disability in:
  - Rockingham County and Census Tracts 401.01, 402, and 411
- **Education:** Populations of individuals at least 18 years and older whose highest educational attainment is less than a high school education in:
  - Rockingham County and Census Tracts 401.01, 402, and 411
- **Poverty:** Populations experiencing poverty below 200% of the poverty level or below the poverty level in:
  - Rockingham County and Census Tracts 402 and 411
- **Cumulative Impacts:** Census Tract 402 has a “high” potential for cumulative impacts.

## Recommendations

Based on the sociodemographic indicator analysis, the Community Engagement Program recommends the following outreach and engagement activities during the public participation period for the Mountain Valley Pipeline Southgate Project permit applications:

- Develop public notices and one-page fact sheets with public comment and public hearing information.
- Consultation with community leaders about other outreach recommendations including known local American Indian-serving or related organizations and leaders.
- Mailed or emailed public notices and one-page fact sheets to local sensitive receptors and representatives of Rockingham County and the municipality of Eden.
- Evaluate options to distribute one-page fact sheets in high-traffic community areas.
- Arrange a voicemail line to receive public comments.

## 1. Introduction

The North Carolina Department of Environmental Quality (NCDEQ) and its Community Engagement Program maintains an ongoing interest in integrating protections for human health, vulnerable communities, the environment, and civil rights into its programs.

The Community Engagement Program at NCDEQ works to ensure 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, programs, and policies.

The US EPA defines overburdened communities as a minority, low-income, tribal or indigenous populations, or communities in the United States that potentially experience disproportionate environmental harms and risks.<sup>1</sup> Disproportionality can result in greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative environmental, health, economic, or social conditions within these populations or places.

The primary goal of this Community Profile is to encourage comments and suggestions from the surrounding community, industry, and environmental groups throughout the public participation period for the Mountain Valley Pipeline Southgate Project. Using available data from sources including the US Census Bureau, US EPA, and CDC, the report provides recommendations for appropriate enhanced public outreach and engagement to facilitate public input. Specifically, this report highlights demographic and health data for census tracts within the project area of the Mountain Valley Pipeline Southgate Project and the potential for community concerns.

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<sup>1</sup> 2020 Glossary. Environmental Protection Agency (US EPA). <https://www.epa.gov/caa-permitting/what-definition-overburdened-community-relevant-epa-actions-and-promising-practices>.

## 2. Evaluation Approach

NCDEQ has assessed the current permit conditions and the demographics of the communities in the area surrounding the facility. Accordingly, this Draft Community Profile includes:

- Permit information and facility history overview
- 2025 County Distress Ranking as determined by the NC Department of Commerce
- Sociodemographic analysis of census tracts within the project area and potential concerns based on a comparison of local area demographics to both county and statewide census data
- Presence or absence of state or federally recognized Tribes or Urban Indian Associations
- County health assessment from the County Health Rankings and Roadmaps and potential cumulative impacts
- Local sensitive receptors
- Conclusions and outreach recommendations

### 2.1 Sociodemographic Indicators

The Community Engagement Program examined the following sociodemographic indicators:

- Race and Ethnicity
- Age and Sex
- Disability
- Limited English Proficiency (LEP)
- Educational Attainment
- Poverty and Low-income
- Internet access

The sociodemographic indicators examined are in alignment with NCDEQ's policy that no person shall, on the grounds of race, color, Tribal affiliation, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of or be subjected to discrimination under Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Action of 1987, the Rehabilitation Act of 1973, and all other pertinent nondiscrimination laws and regulations.

Demographics for the state of North Carolina and its counties are compared to the census tracts on a local geographic scale using data available through the U.S. Census Bureau. Demographic data is assessed at a census tract level for all tracts within the following project areas defined for this report (see 4.1 for project area details):

- Water Resources 401 Permitting Area

See Appendix A for descriptions of all U.S. Census source data used in this report.

#### Race and Ethnicity

To analyze potential concerns based on race and ethnicity, the Community Engagement Program examined populations in the following U.S. Census-defined race (not Hispanic and Latino) and ethnicity categories:

- White (Not Hispanic)
- Black or African American



- Hispanic or Latino
- American Indian or Alaska Native
- Asian
- Native Hawaiian and Other Pacific Islander
- Some Other Race
- Two or More Races

#### Age and Sex

To analyze potential concerns based on age and sex, the Community Engagement Program examined populations of two different age categories for both males and females. The populations of greater than or equal to ( $\leq$ ) 5 years old and greater than or equal to ( $\geq$ ) 65 years old were examined because the Centers for Disease Control and Prevention (CDC) considers children and older adults to be vulnerable populations.<sup>2</sup>

#### Disability

To analyze potential concerns based on disability status, the total civilian non-institutionalized population with a disability was examined.

To analyze potential concerns regarding accessibility to public information and public hearings concerning public health or environmental impacts of programs, policies, and activities the types of difficulties experienced by the total population with a disability was also examined.

#### Limited English Proficiency

Eleven language categories with Limited English Proficiency (LEP; speak English “Less than Very Well”) <sup>3</sup> were analyzed. These LEP language categories are within the top LEP language categories in the state and are as follows:

- Spanish
- Chinese (including Mandarin and Cantonese)
- Vietnamese
- Arabic
- French (including Cajun)
- Korean
- Other Asian and Pacific Island Languages
- Russian, Polish or other Slavic Languages
- Other Indo-European Languages
- Tagalog (including Filipino)
- German or other West Germanic Languages

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<sup>2</sup> *Sensitive Populations and Chemical Exposure*. Centers for Disease Control and Prevention (CDC) and Agency for Toxic Substances Disease Registry (ATSDR). Archived September 27, 2024.

<https://web.archive.org/web/20240927202933/https://www.atsdr.cdc.gov/emes/public/docs/Sensitive%20Populations%20FS.pdf>

<sup>3</sup> *Table B16001 2021: ACS 5-Year Estimates*. U.S. Census Bureau.

<https://data.census.gov/table/ACSDT1Y2022.B16001?t=Language+Spoken+at+Home&g=040XX00US37>

To analyze potential concerns regarding accessibility to public information concerning public health or environmental impacts of programs, policies, and activities, these identified populations with LEP were examined.

#### Educational Attainment

To analyze potential concerns based on socioeconomic status, populations with the highest level of level of educational attainment being a high school graduate or equivalent or lower were examined for adults of 25 years or older. Populations where the highest level of educational attainment being high school graduate or lower were also examined for populations between 18 and 24 years old.

#### Poverty and Low-income

To analyze potential concerns based on income levels, populations below the poverty level and “low income” populations were examined. Poverty status is determined by annual income relative to the number of individuals and dependents living in a household. The poverty level for 2023 was defined as having a household income less than \$15,480 for a household with one individual or having a household income of less than \$31,200 for a household with four individuals. The U.S. Census Bureau considers a household to be all individuals that occupy a housing unit as their usual place of residence. Analyzed poverty data from the U.S. Census Bureau considered total populations in poverty as a count of individuals, which was determined on a household level according to these guidelines.

The US EPA assesses income and poverty conditions using the threshold of “low income.” Low income is defined as a household income below twice the federal poverty level.<sup>4</sup> The low-income level for 2023 was defined as having a household income less than \$30,960 for a household with one individual or having a household income of less than \$62,400 for a household with four individuals. The US Census Bureau measures this value as “below 200% of the poverty level.”

### 3. Permitting Information

#### 3.1 Project Details

The Mountain Valley Pipeline Southgate Project intends to alter or construct pipeline infrastructure, including transmission pathways, that may require additional environmental permitting. **Table 1** describes the types of permit applications submitted to NCDEQ related to the Mountain Valley Pipeline Southgate Project’s projected workplan.

This assessment will focus on permits administered by the Division of Water Resources that will go through a public participation process.

**Table 1:** Overview of environmental permits required by NCDEQ for the Mountain Valley Pipeline Southgate Project

PERMITTING DIVISION	PERMIT TYPE	DESCRIPTION
Division of Water Resources	404 Water Quality Certification	<a href="#">Section 404 of the Clean Water Act</a> (CWA) establishes a program to regulate the discharge of <a href="#">dredged</a> or <a href="#">fill</a> material

<sup>4</sup> U.S. Department of Energy. (2024). *Weatherization assistance for low-income persons*, 10 C.F.R. § 440.3. <https://www.ecfr.gov/current/title-10/chapter-II/subchapter-D/part-440/section-440.3>

		into <a href="#">waters of the United States</a> , including wetlands. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is <a href="#">exempt from Section 404 regulation</a> (e.g., certain farming and forestry activities).
Division of Energy, Mineral, and Land Resources	NG01 Construction Stormwater permit	Construction activities that disturb more than an acre of land are required to get an approved Erosion and Sedimentation Control Plan (E&SC) and coverage under the Construction General Stormwater Permit (NCG01)

### 3.2 Water Quality Permit Details

Mountain Valley Pipeline LLC (MVP) has applied to the North Carolina Department of Environmental Quality Division of Water Resources for a Clean Water Act Section 401 Individual Water Quality Certification in connection with the proposed construction of a pipeline known as the MVP Southgate Project: Application.

The pipeline is proposed as a high-pressure steel 30-inch diameter natural gas transmission pipeline between Pittsylvania County, Virginia and Rockingham County, North Carolina. Approximately 5.2 miles of the pipeline is proposed to be located in North Carolina.

According to the application, the pipeline is proposed to provide natural gas to meet specific requests for natural gas to Enbridge Gas North Carolina and Duke Energy Carolinas to meet growing supply and resiliency needs. The pipeline is located between a proposed interconnect in Pittsylvania County, VA and a proposed receipt interconnect point near Eden in Rockingham County, NC.

Along the route of the pipeline in North Carolina, the proposed pipeline project would permanently impact 52 linear feet of jurisdictional intermittent streams; and temporarily impact 722 linear feet of jurisdictional streams and 2.95 acres of 404 jurisdictional wetlands related to the construction.

Two stream crossings are proposed to be installed underneath large stream channels using the horizontal directional drill or conventional bore methods. These types of installations avoid impacts to the surface water.

In all locations, MVP is proposing that once construction is complete, the ground surface, streams, and wetlands would be restored as near as practical to their pre-construction condition.

Projects that require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers must also receive a 401 Water Quality Certification from the State in order for the federal permit to be valid. For a project to be issued a Certification, it must meet the following criteria:

1. Minimizes adverse impacts to surface waters and wetlands based on consideration of existing topography, vegetation, fish and wildlife resources, and hydrological conditions
2. Does not result in the degradation of groundwaters or surface waters
3. Does not result in secondary or indirect impacts, that cause or will cause a violation of downstream water quality standards and
4. Provides for replacement of permanent impacts through mitigation

The Division received MVP's current application for Certification and Authorization on June 5. On July 11, 2025, the Division issued a public notice announcing a public hearing would be held on August 12, 2025. The public comment period for written comments will remain open until September 12, 2025. The Director of the Division will make a final decision on the application in accordance with the timelines established in Session Law 2023-137.

## 4. Geographic Area

### 4.1 Project Area

The proposed route for the Mountain Valley Pipeline Southgate Project in North Carolina runs through three census tracts in Rockingham County. The scope of potential environmental impacts of the project depends on the type of permitted activities occurring at a location. To capture the range of activities occurring across the pipeline route, this report will define different project areas for type of permit to be issued.

The Division of Water Resources is responsible for permitting at stream and wetland crossings along the pipeline route. Due to the frequency of stream and wetland crossings along the entire route of the pipeline, the length of the pipeline will be considered the Water Resources Project Area.

Demographics for the census tracts intersecting the project area were analyzed for this report. **Table 2** and **Figure 1** summarize the geographic area and census tracts that intersect the Mountain Valley Pipeline Southgate Project route.

**Table 2:** Geographic area summary of Mountain Valley Pipeline Southgate Project pipeline route

GEOGRAPHIC AREA SUMMARY – MVP SOUTHGATE PROJECT ROUTE		
Counties and census tracts intersecting the pipeline route	Rockingham County	401.01
		402
		411

### 4.2 Community Geography

#### NCDEQ Potentially Underserved Communities

NCDEQ defines a Potentially Underserved Community by examining the race/ethnicity and poverty criteria for each block group. The block group is then compared to both the county and the state and is classified by the Department as a Potentially Underserved Block Group if it meets the following criteria for race/ethnicity and poverty:

- **Race/Ethnicity:** Share of nonwhites and Hispanic or Latino (of any race) is over fifty percent OR Share of nonwhites and Hispanic or Latino (of any race) is at least ten percent higher than County or State share.

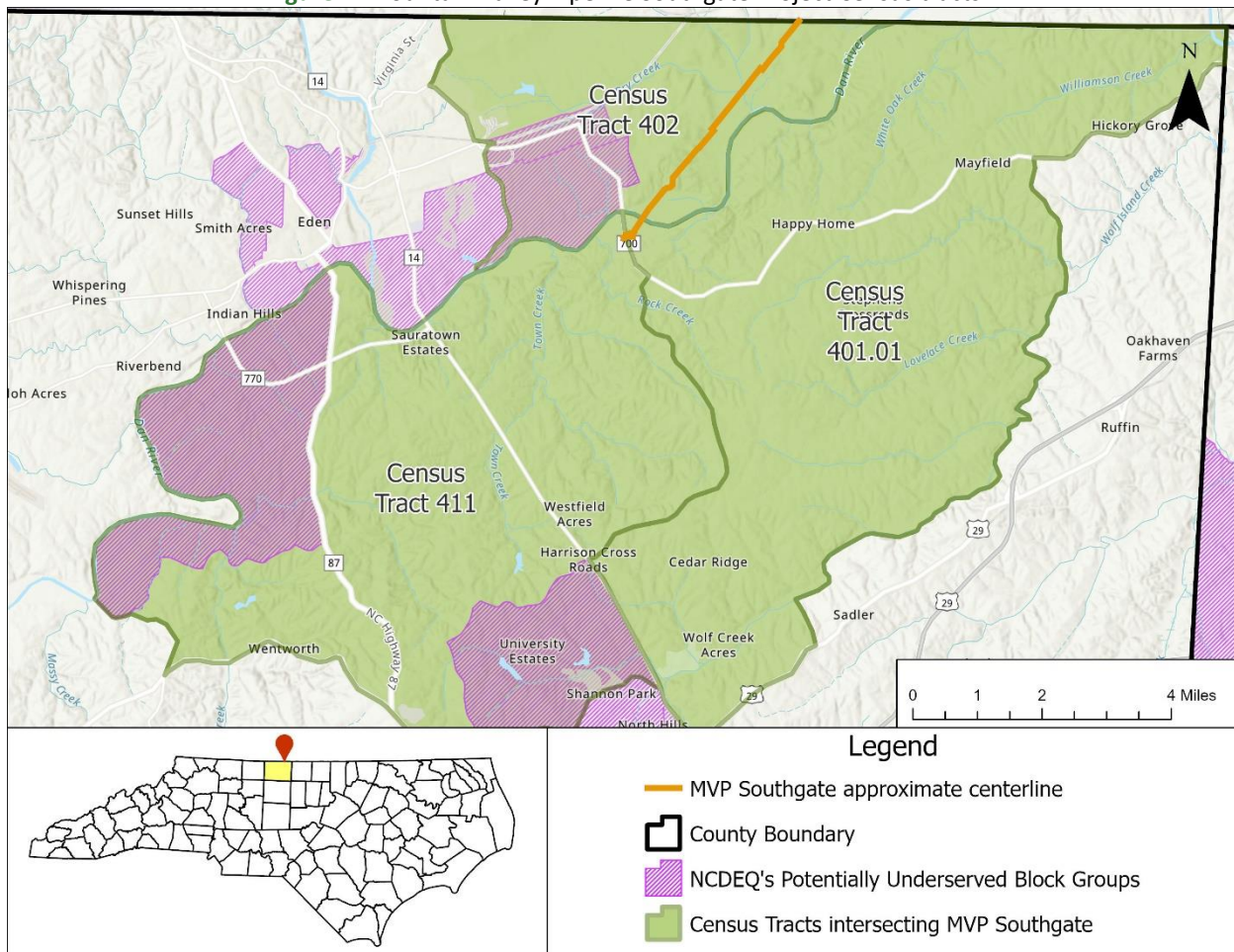
**AND**

- **Poverty:** Share of population experiencing poverty is over twenty percent OR Share of households in poverty is at least five percent higher than the County or State share.

These selections occur on a block group level and this dataset is a selection of the 2023 American Community Survey (ACS) data from the data tables B03002—Hispanic or Latino Origin by Race—and S1701—Poverty Status in the Past 12 Months. Learn more about [NCDEQ's Potentially Underserved Block Groups 2024 - Overview](#).

The Mountain Valley Pipeline Southgate Project is located in areas of Rockingham County. The project area does not intersect with any census block group that are considered Potentially Underserved Block Groups by NCDEQ's definition. (**Figure 1**).

**Figure 1:** Mountain Valley Pipeline Southgate Project Census tracts



### County Distress Rankings

According to the NC Department of Commerce 2025 County Tier Designations for County Distress Rankings, Rockingham County has a Tier 1 ranking (on a scale of Tiers 1-3), which is categorized as most distressed. Rockingham County has an economic distress rank of 28 out of 100). A rank of 1 is considered the most economically distressed and a rank of 100 is considered the least economically distressed.

County tiers in the state are calculated by the NC Department of Commerce using four factors: average unemployment rate, median household income, percentage growth in population, and adjusted property tax base per capita. Tier 1 encompasses the 40 most distressed counties, Tier 2 encompasses the next 40, and Tier 3 encompasses the 20 least distressed counties. Visit the [NC Department of Commerce's County Distress Rankings](#) for more details on county tier calculations.

### Tribal Communities

There are 8 Tribes (seven state recognized and one federally recognized) in North Carolina and 4 Urban Indian Organizations serving multiple counties in NC. Tribal Presence was assessed Based on NC DOA's [NC Tribal and Urban Communities map](#).

The Guilford Native American Association serves Native Americans/Indigenous individuals in Rockingham County. Communication with the Guilford Native American Association on outreach and engagement methods and other relevant information is recommended.

## 5. Sociodemographic Analysis

Using standard guidelines developed by the U.S. Environmental Protection Agency (US EPA) and pursuant to the National Environmental Policy Act (NEPA), the following conditions are highlighted as communities with the potential for concerns:

1. A 10% or more difference when compared to the county or state for race or ethnicity, age and sex, disability, and educational attainment (up to high school or equivalent level);
2. A 50% or more population of color;
3. Share of population experiencing poverty is 20% or more;
4. Share of low-income population is 20% or more;
5. Percentage increase of 5% or more compared to the county or state average for poverty or low-income;
6. At least 5% of the population or 1,000 people (whichever is smaller) speaks English less than very well.

The U.S. Census Bureau uses and provides margins of error as an indicator of potential sampling errors and relative reliability. A larger margin of error corresponds to a higher degree of uncertainty. Estimates, margins of error, NCDEQ-calculated confidence intervals for sociodemographic indicators are provided in Appendix C (as available through the U.S. Census Bureau).

### Race and Ethnicity

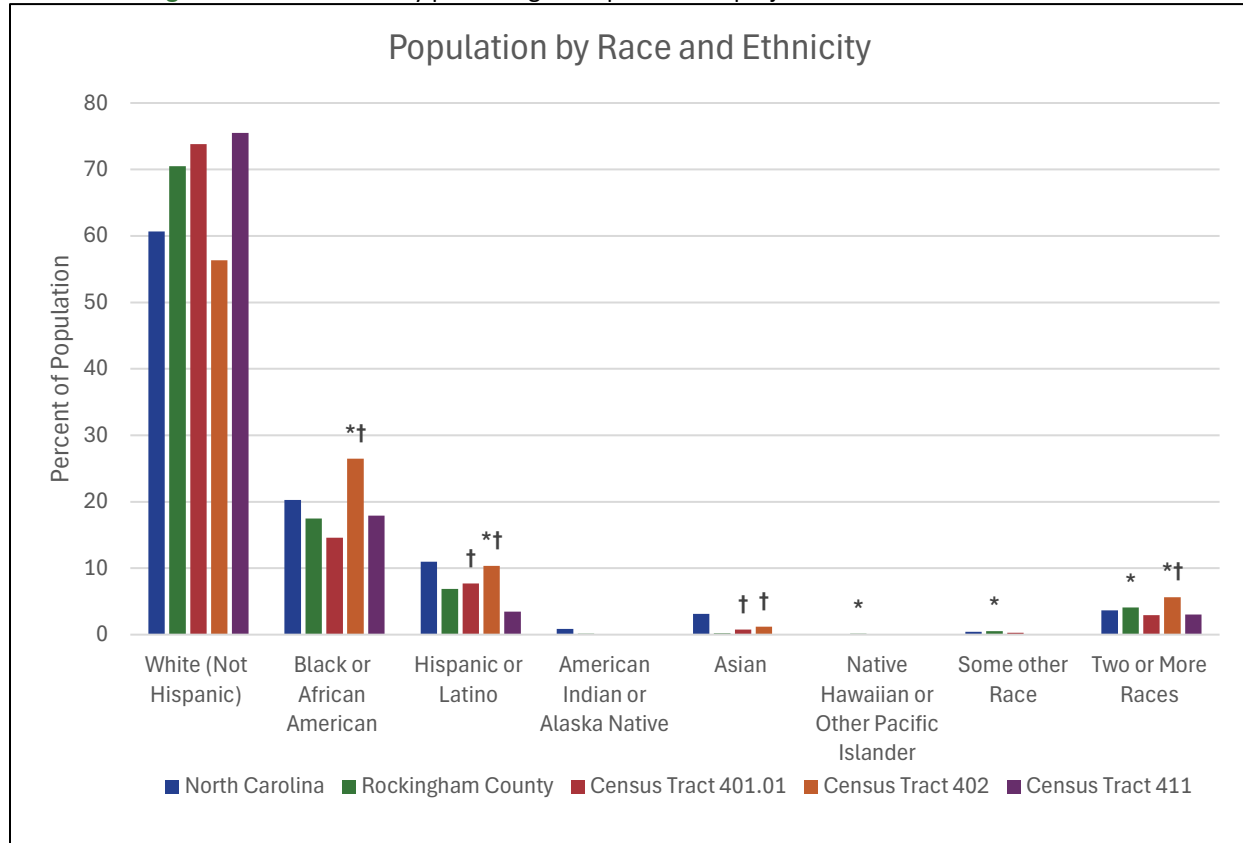
- Census Tract 402 has a people of color population that is greater than 10% higher than the county and state.



- Census Tract 402 has a Black or African American population that is greater than 10% higher than the county and state.
- Census Tracts 401.01 and 402 have a Hispanic or Latino population that is greater than 10% higher than the county.
- Census Tracts 401.01 and 402 have an Asian population that is greater than 10% higher than the county.
- Rockingham County has a Native Hawaiian or Other Pacific Islander population that is greater than 10% higher than the state.
- Rockingham County has a “some other race” population that is greater than 10% higher than the state.
- Rockingham County and Census Tract 402 have a population of two or more races that is greater than 10% higher than the state or county.

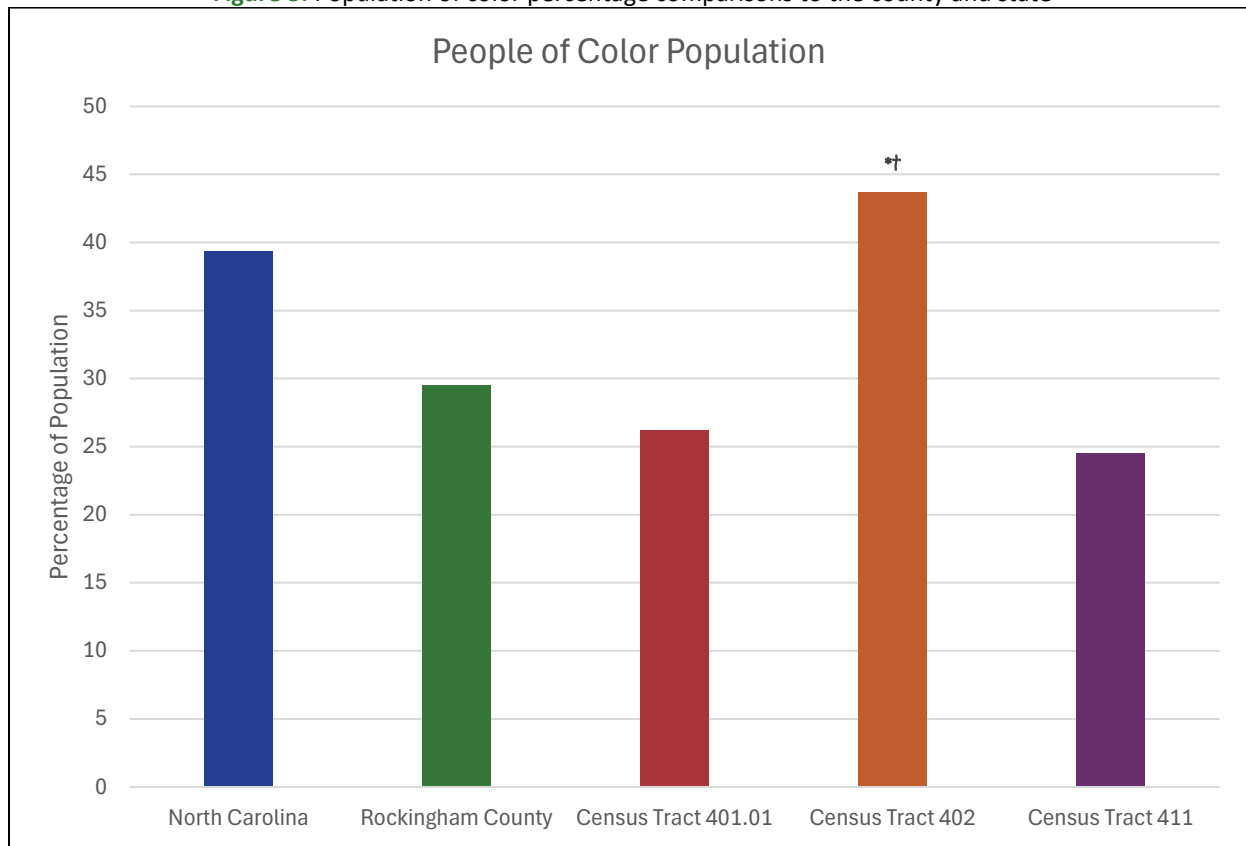
**Table 3:** Race & Ethnicity percentage comparisons in Rockingham County and the state

RACE & ETHNICITY (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
White (Not Hispanic)	60.65	70.51	73.81	56.35	75.49
Black or African American	20.29	17.45	14.16	<b>26.46*†</b>	17.89
Hispanic or Latino	10.95	6.89	<b>7.70†</b>	<b>10.35†</b>	3.44
American Indian or Alaska Native	0.85	0.16	0.00	0.00	0.02
Asian	3.12	0.19	<b>0.78†</b>	<b>1.19†</b>	0.00
Native Hawaiian or Other Pacific Islander	0.05	<b>0.15*</b>	0.00	0.00	0.05
Some other Race	0.44	<b>0.53*</b>	0.30	0.00	0.10
Two or More Races	3.66	<b>4.11*</b>	2.95	<b>5.65*†</b>	3.03
Total Population	10,584,340	91,585	3,727	3,537	6,278
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more for non-white populations in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more for non-white populations in the census tract when compared to the <b>county</b> .					

**Figure 2:** Race & Ethnicity percentage comparisons to project area counties and the state**Table 4:** Population of color percentage comparisons in Rockingham County and the state

POPULATION OF COLOR (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
Population of Color	39.35	29.49	26.19	<b>43.65*†</b>	24.51
Total Population	10,584,340	91,585	3,727	3,537	6,278
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more for non-white populations in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more for non-white populations in the census tract when compared to the <b>county</b> .					



**Figure 3:** Population of color percentage comparisons to the county and state

#### Age & Sex

- Rockingham County and Census Tracts 401.01 and 411 have a proportionate population above 65 years old that is greater than 10% higher than the state.
- Census Tract 402 has a proportionate population below 5 years old that is greater than 10% higher than the state and county.

**Table 5:** Median Age & Sex for North Carolina and Rockingham County

MEDIAN AGE & SEX						
	NORTH CAROLINA (n=2672)			ROCKINGHAM COUNTY (n=22)		
	Male	Female	Both	Male	Female	Both
<b>Median Age</b>	37.7	40.4	39.1	43.10	46.10	44.70
<b>Total (%)</b>	48.92	51.08		48.90	51.10	
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate						
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county compared to the <b>state</b> .						

**Table 6:** Median Age & Sex for project area census tracts

MEDIAN AGE & SEX									
	CENSUS TRACT 401.01			CENSUS TRACT 402			CENSUS TRACT 411		
	Male	Female	Both	Male	Female	Both	Male	Female	Both
<b>Median Age</b>	47.70	53.50	49.90	39.10	45.30	41.00	48.60	42.50	45.60
<b>Total (%)</b>	51.81	48.19		53.38	46.62		46.43	53.57	
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate									
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county compared to the <b>state</b> .									
All cells <b>bolded†</b> indicate a percentage increase of 10% or more for non-white populations in the census tract when compared to the <b>county</b> .									

**Table 7:** Age percentage comparisons to Rockingham County and state

AGE (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
<b>Below 5 Years Old</b>	5.65	5.00	3.94	<b>7.58*†</b>	3.58
<b>Above 65 Years Old</b>	16.88	<b>20.75*</b>	<b>21.14*</b>	16.43	<b>24.50*†</b>
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more in the census tract when compared to the <b>county</b> .					

## Disability

- The population living with a disability in Rockingham County and Census Tracts 401.01, 402, and 411 is greater than 10% higher when compared to the state or county.

**Table 8:** Disability percentage comparisons to Rockingham County and state

DISABILITY (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
Population with a Disability	13.37	<b>17.75*</b>	<b>15.43*</b>	<b>21.23*†</b>	<b>19.40*</b>
Type of Difficulty					
Hearing	27.67	29.21	<b>44.35*†</b>	16.91	26.44
Vision	18.85	18.98	9.91	6.52	18.80
Cognitive	38.59	41.21	20.17	40.08	26.52
Ambulatory	50.26	53.79	48.52	<b>57.92*</b>	43.51
Self-care	18.19	<b>20.40*</b>	<b>20.52*</b>	15.98	10.67
Independent Living	33.65	<b>38.55*</b>	21.91	<b>49.80*†</b>	33.74
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more in the census tract when compared to the <b>county</b> .					

### Limited English Proficiency

- The proportion of Spanish-speaking persons with limited-English proficiency in Census Tract 402 is greater than 5% higher when compared to the state and county.

**Table 9:** Limited English Proficiency percentage comparisons to Rockingham County and state

LIMITED ENGLISH PROFICIENCY (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
Speak only English	86.98	<b>94.27*</b>	91.06	89.51	<b>95.21*</b>
Spanish	3.47	2.24	0.59	<b>4.80*†</b>	0.12
French, Haitian, or Cajun	0.10	0.06	0.00	0.00	0.00
German or other West	0.04	0.01	0.00	0.00	0.00

Germanic languages					
Russian, Polish, or other Slavic languages	0.10	0.02	0.00	0.00	0.00
Chinese (including Mandarin, Cantonese)	0.16	0.00	0.00	0.00	0.00
Vietnamese	0.16	0.04	0.00	0.00	0.00
Korean	0.08	0.00	0.00	0.00	0.00
Tagalog (including Filipino)	0.04	0.01	0.00	0.00	0.00
Other Asian and Pacific Island Languages	0.27	0.00	0.00	0.00	0.00
Other Indo-European Languages	0.27	0.03	0.00	0.00	0.00
Arabic	0.11	0.03	0.00	0.00	0.00
<b>Total Population 5 Years and over</b>	9,986,027	87,003	3,580	3,269	6,053
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 5% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 5% or more in the census tract when compared to the <b>county</b> .					

### Educational Attainment

- The proportion of the population 18-24 years old with less than a high school education in Rockingham County and Census Tracts 401.01, 402, and 411 is greater than 10% higher when compared to the state or county.
- The proportion of the population 25 and over with less than a 9th grade education in Census Tract 402 is greater than 10% higher when compared to the state or county.

- The population 25 and over with a 9th to 12th grade education and no diploma in Rockingham County and Census Tracts 401.01 and 402 is greater than 10% higher when compared to the state or county.

**Table 10:** Educational Attainment percentage comparisons to Rockingham County and state (Populations between 18-24 years)

EDUCATIONAL ATTAINMENT (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
Less than High School Graduate	11.44	<b>15.65*</b>	<b>44.28*†</b>	<b>16.56*</b>	<b>25.93*†</b>
High school graduate (includes equivalency)	34.20	<b>39.46*</b>	30.63	36.31	22.69
Population age 18-24 years	999,707	6,615	271	157	432
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more in the census tract when compared to the <b>county</b> .					

**Table 11:** Educational Attainment percentage comparisons to Rockingham County and state (Populations age 25 years and over)

EDUCATIONAL ATTAINMENTS (%)					
	NORTH CAROLINA (n=2672)	ROCKINGHAM COUNTY (n=22)	CENSUS TRACT 401.01	CENSUS TRACT 402	CENSUS TRACT 411
Less than 9th grade	3.97	4.34	3.27	<b>12.03*†</b>	2.88
9th to 12th grade, no diploma	6.28	<b>11.27*</b>	<b>8.84*</b>	<b>13.37*†</b>	4.42
High school graduate (includes equivalency)	24.96	<b>34.61*</b>	<b>39.89*†</b>	<b>34.05*</b>	<b>33.25*</b>

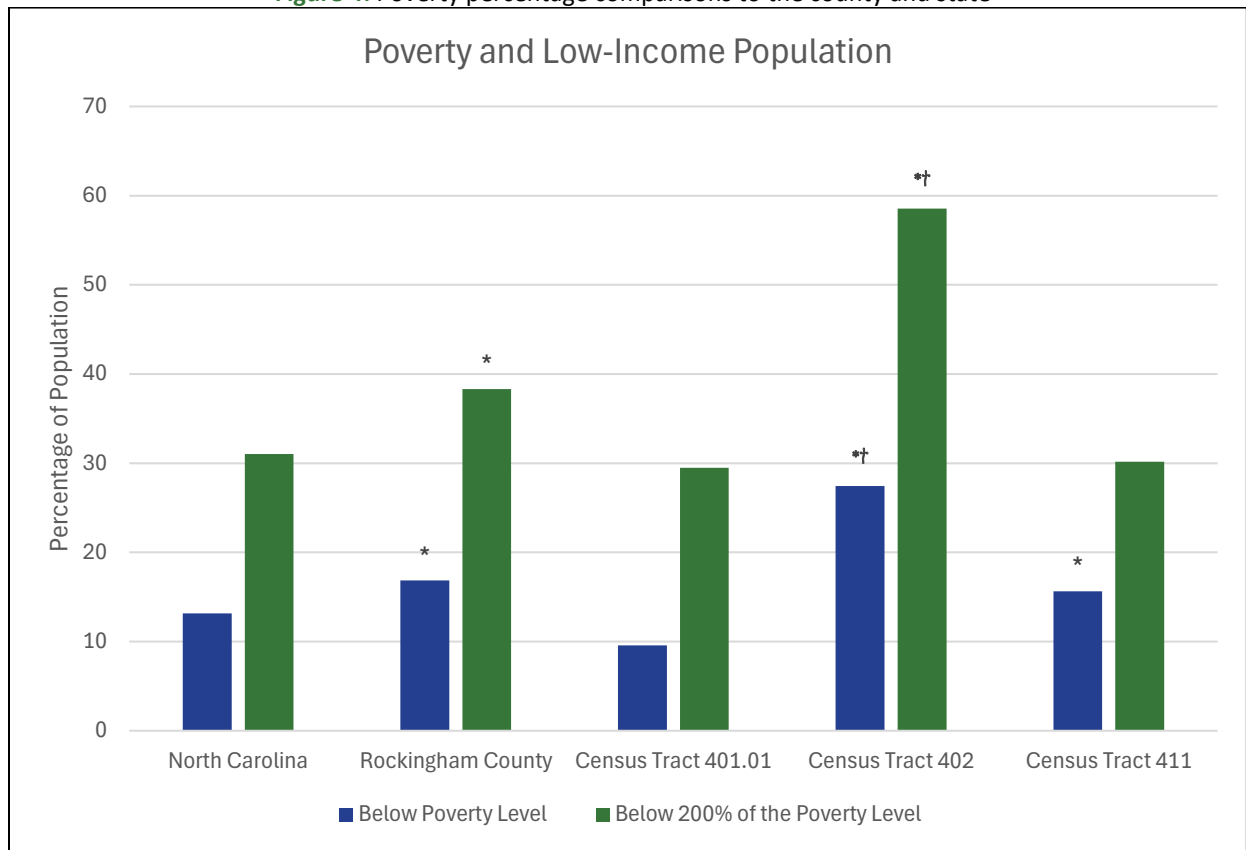
<b>Bachelor's degree</b>	34.72	16.13	7.22	10.40	15.94
<b>Population age 25 years and over</b>	7,261,810	66,238	2,963	2,693	4,548
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 10% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 10% or more in the census tract when compared to the <b>county</b> .					

### Poverty and Low Income

- Rockingham County and Census Tract 402 has a proportionate population below 200% of the poverty level that is greater than 5% higher than the state and county.
- Rockingham County and Census Tracts 402 and 411 have a proportionate population below the poverty level that is greater than 5% higher than the state or county.

**Table 12:** Poverty percentage comparisons to Rockingham County and state

<b>POVERTY (%)</b>					
	<b>NORTH CAROLINA (n=2672)</b>	<b>ROCKINGHAM COUNTY (n=22)</b>	<b>CENSUS TRACT 401.01</b>	<b>CENSUS TRACT 402</b>	<b>CENSUS TRACT 411</b>
<b>Below Poverty Level</b>	13.17	<b>16.85*</b>	9.57	<b>27.45*†</b>	<b>15.65*</b>
<b>Below 200% of the Poverty Level</b>	31.03	<b>38.32*</b>	29.48	<b>58.55*†</b>	30.17
<b>Total Population for whom Poverty Status is Determined</b>	10,297,193	89,541	3,721	3,537	6,251
<b>Source:</b> US Census Bureau, 2023 American Community Survey (ACS) 5-year estimate					
All <b>bolded*</b> cells indicate a percentage increase of 5% or more in the county or census tract compared to the <b>state</b> .					
All cells <b>bolded†</b> indicate a percentage increase of 5% or more in the census tract when compared to the <b>county</b> .					

**Figure 4:** Poverty percentage comparisons to the county and state

## 6. Health & Cumulative Impacts

### 6.1 County Health Outcome Ranks

For this report, the Community Engagement Program examined how sensitive populations in the county identified in Section 4 compared to the rest of the state’s population health and well-being and community conditions. The University of Wisconsin Population Health Institute, in collaboration with the Robert Wood Johnson Foundation, calculated County Health Rankings for all the states in the United States ([www.countyhealthrankings.org](http://www.countyhealthrankings.org)). This 2025 County Health Rankings National Data is based on population health and well-being (measured by indicators such as lifespan and self-reported health status) and community conditions (such as environmental, social, and economic conditions).

**Figure 5 5** and **Figure 6** display rankings for all 100 counties in North Carolina on a scale from “least healthy” to “healthiest”.

Rankings are provided as a z-score value between –2 (healthiest) and 2 (least healthy), which are sorted into ranges. Rockingham County has a population health and well-being score of 0.51 and a community conditions score of 0.25. The population health and well-being score for Rockingham County is not within the two least healthy ranges for the state. The community conditions score for Rockingham County is also not within the two least healthy ranges for the state.

Figure 5: NC County Population Health and Well-being Ranks for 2025

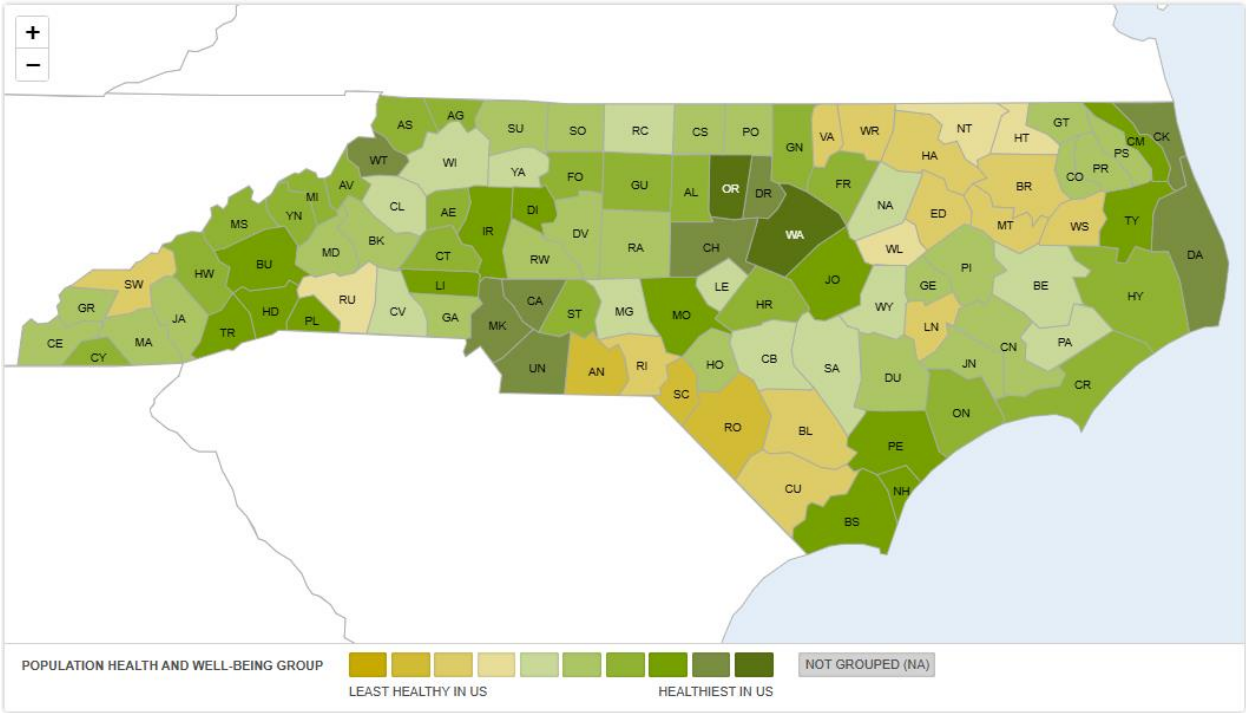
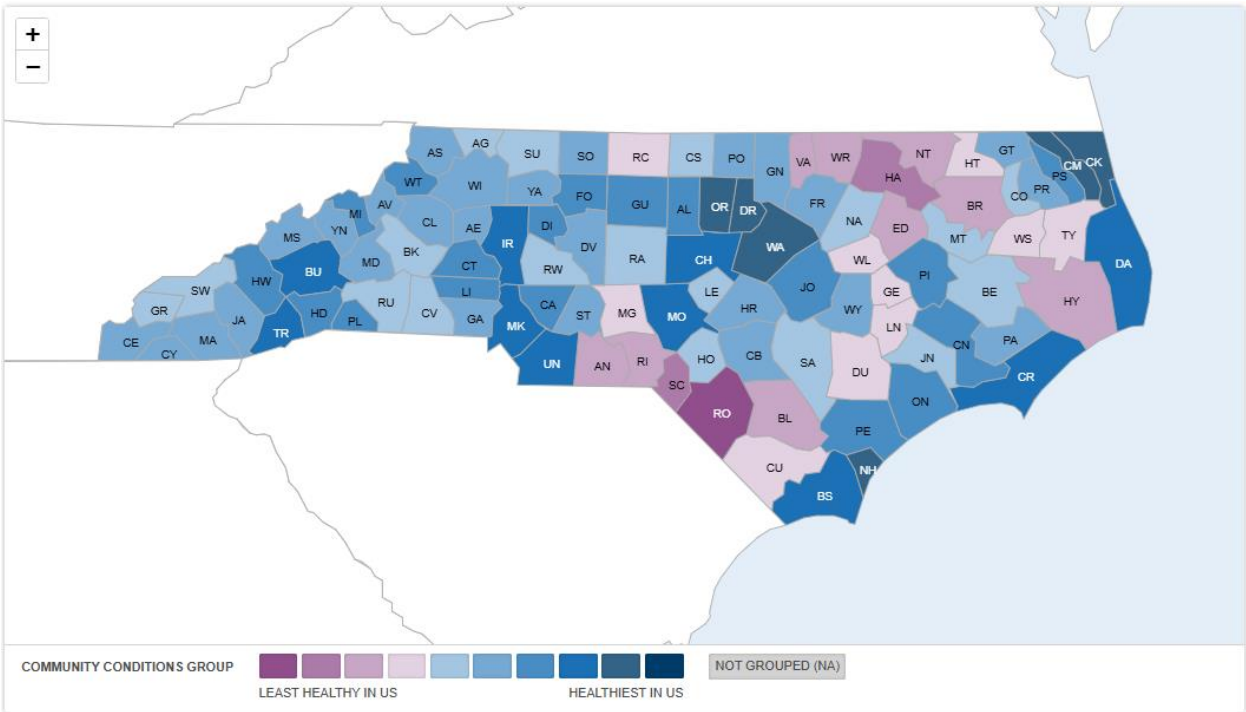


Figure 6: NC County Community Conditions Ranks for 2025





## 6.2 CDC/ATSDR

Cumulative impacts are the combined, environmental burdens, pre-existing health conditions, and social factors which may harm human health.<sup>5</sup> At this time, there is no formal, standardized method to assess cumulative impacts. However, cumulative impacts that may affect public health and quality of life are a frequently raised concern among communities across the nation.

[CDC/ATSDR Index](#) (CDC Index) scores were sourced from the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR; See Appendix E for more information on the CDC Index score and model).<sup>13</sup> CDC Index and **Figure 7** and **Table 13** were sourced from the CDC (See Appendix B).

The Index delivers a single score ranging from 0.0 – 1.0 with a score of 1.0 representing a community with the highest environmental burdens for each census tract. The composite score is calculated from a variety of social, environmental, and health indicators. The CDC considers census tracts with an Index score between 0.75 – 1.0 to be highly burdened areas. The CDC estimates that 13.7% of North Carolina residents live in highly burdened areas.

The Mountain Valley Pipeline Southgate Project route crosses through 3 census tracts in Rockingham County (401.01, 402, and 411). Index scores for census tracts along the route range from 0.58 to 0.93 and are shown in **Table 13**. Among these 3 census tracts, Census Tract 402 is considered highly burdened according to the CDC definition and is ranked among the top 10% in the United States.

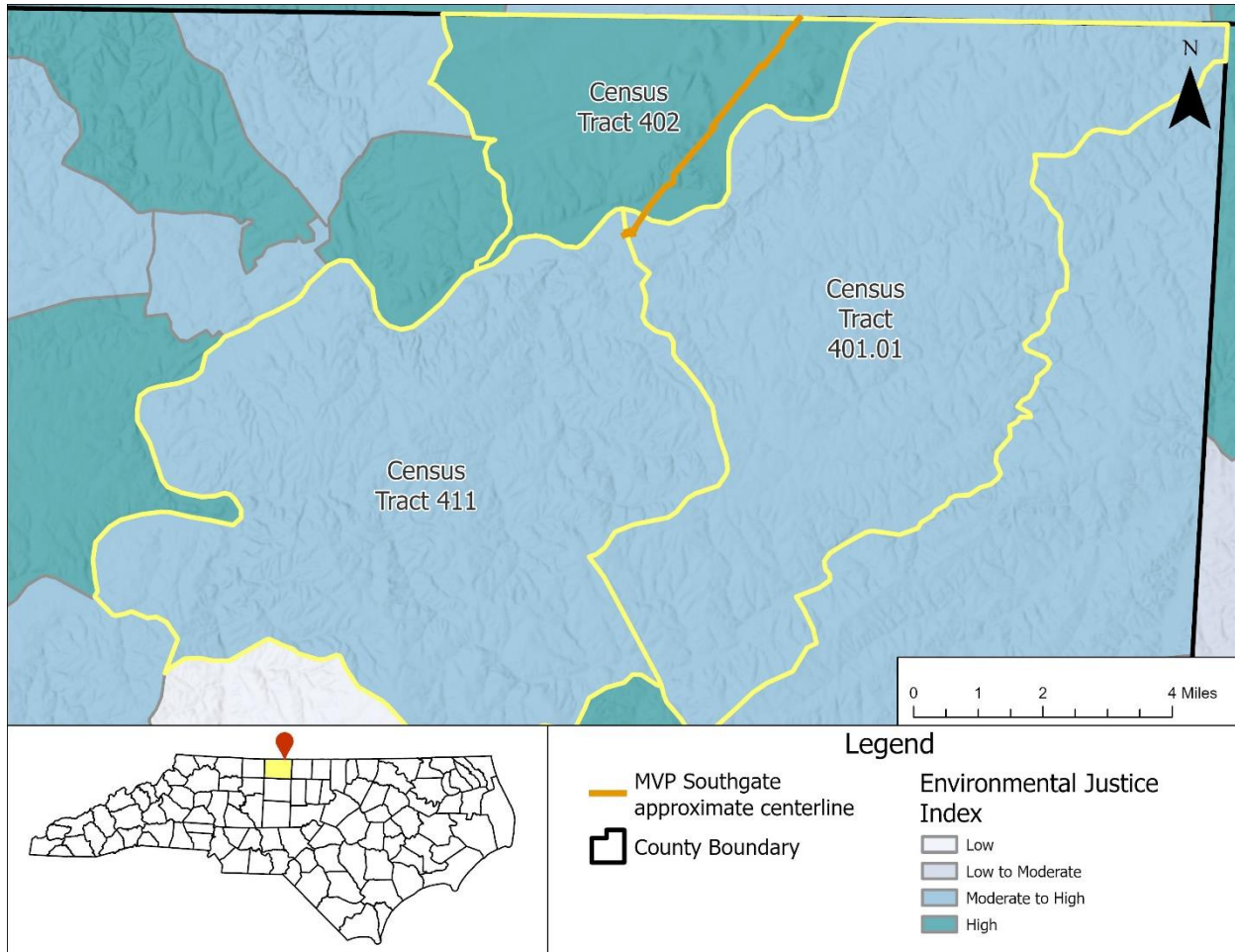
In Rockingham County, 8 out of 22 census tracts are considered highly burdened, which account for 34.6% of residents in the county (see Appendix E).

**Table 13:** Census tracts that intersect with the Mountain Valley Pipeline Southgate Project pipeline route and corresponding CDC Index scores

County	Census Tract	CDC Index Score	National Percentile	Overall CDC Index Rank
Rockingham	<b>401.01</b>	0.58	58%	Moderate-High
	<b>402</b>	<b>*0.93</b>	<b>*93%</b>	<b>*High – top 10%</b>
	<b>411</b>	0.58	58%	Moderate-High
A <b>*bold</b> value indicates a <b>high</b> overall CDC Index Rank (within the nation's top 25 <sup>th</sup> percentile)				

<sup>5</sup> *Federal Health Agencies Unveil National Tool to Measure Health Impacts of Environmental Burdens*. (2022). Centers for Disease Control and Prevention (CDC). <https://www.cdc.gov/media/releases/2022/p0810-environmental-burdens.html>.

**Figure 7:** Census tracts that intersect with the Mountain Valley Pipeline Southgate Project route and corresponding CDC Index scores



## 7. Local Sensitive Receptors

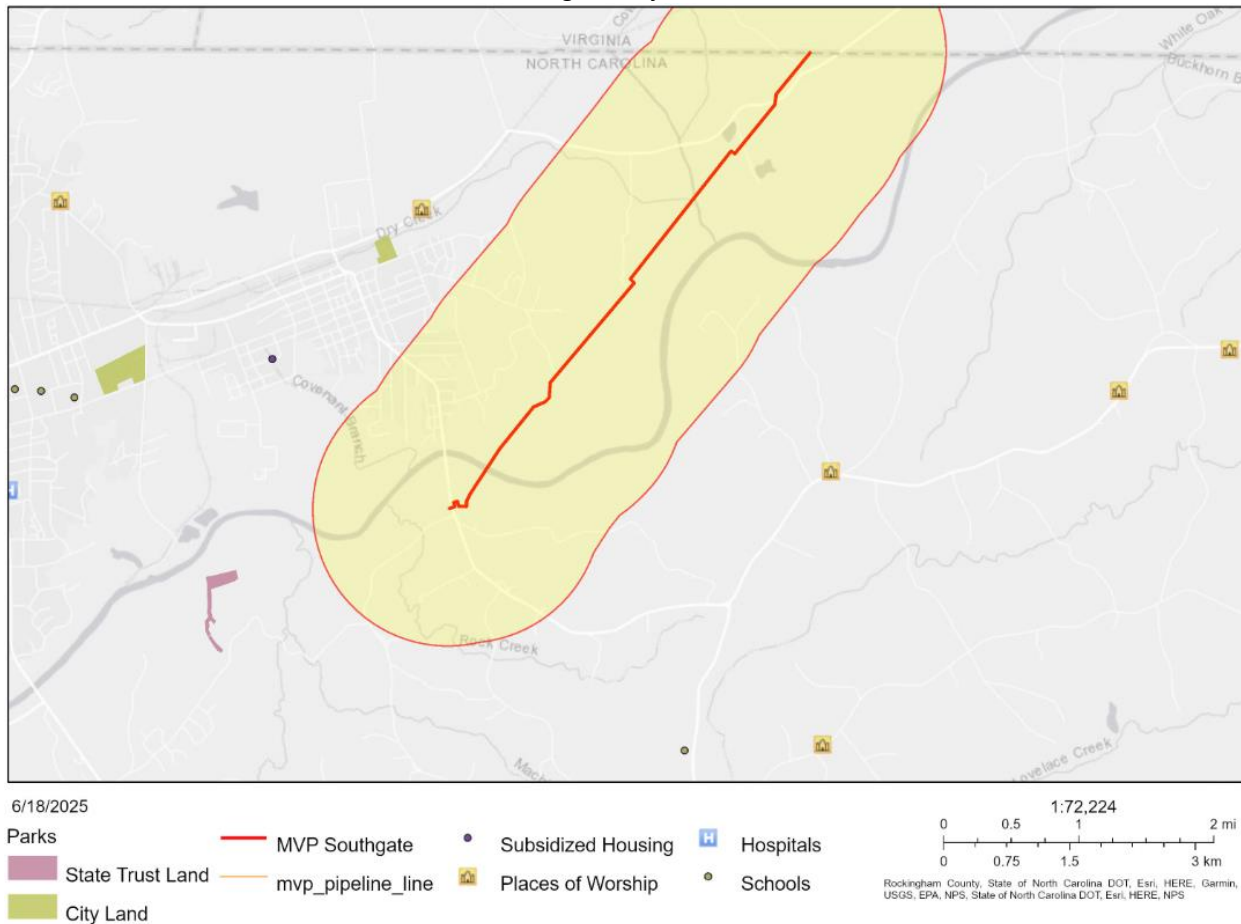
The U.S. Environmental Protection Agency suggests that sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing, and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas recognized as sensitive receptors. For instance, children and the elderly may have a higher risk of developing asthma from elevated levels of certain air pollutants than healthy individuals aged between 18 and 64.

Within and near the one-mile radius surrounding the Mountain Valley Pipeline Southgate Project pipeline route, the following US EPA identified and NCDEQ-identified sensitive receptors are listed below (Table 14; Figure 8).

**Table 14:** List of potential sensitive receptors within one mile of the Mountain Valley Pipeline Southgate Project route

Sensitive Receptor Type	Name
PLACES OF WORSHIP	Crystal Life Ministries
	Victory Baptist Church

Additional sensitive receptors may be identified during the remainder of the permit application process.

**Figure 8:** US EPA Snapshot of potential sensitive receptors within one mile of the Mountain Valley Pipeline Southgate Project route

## 8. Conclusion

If an affected community has a large percentage of LEP individuals (typically greater than 5%), NCDEQ will implement appropriate LEP measures. These measures may include having a bilingual NCDEQ staff member or interpreter present at public hearings or information sessions, disseminating NCDEQ information sheets or public notices in multiple languages, distributing media notices in different languages, or communicating with community organizations and leaders to determine other appropriate measures to reach LEP individuals.

## Key Findings

Based on this report's analysis and using NCDEQ Potentially Underserved Block Groups (on the basis of Race/Ethnicity and Poverty) and standard guidelines established by the US EPA and in the National Environmental Policy Act (NEPA) documentation, the potential concerns for particular populations within an area of interest of the Mountain Valley Pipeline Southgate Project have been identified as follows:

- **Race and Ethnicity:**
  - The following race/ethnic population categories:
    - Black or African American
    - Hispanic or Latino
    - Asian
    - Native Hawaiian or Other Pacific Islander
    - Two or more races
    - Some other race
- **Tribal Communities:**
  - Guilford Native American Association
- **Age and Sex:**
  - Populations of individuals 65 years or older in:
    - Rockingham County and Census Tracts 401.01 and 411
  - Populations of individuals 5 years or younger in:
    - Census Tract 402
- **Limited English Proficiency:** Spanish-speaking households with limited English proficiency in:
  - Census Tract 402
- **Disability:** Populations living with a disability in:
  - Rockingham County and Census Tracts 401.01, 402, and 411
- **Education:** Populations of individuals at least 18 years and older whose highest educational attainment is less than a high school education in:
  - Rockingham County and Census Tracts 401.01, 402, and 411
- **Poverty:** Populations experiencing poverty below 200% of the poverty level or below the poverty level in:
  - Rockingham County and Census Tracts 402 and 411
- **Cumulative Impacts:** Census Tract 402 has a "high" potential for cumulative impacts.

## Recommendations

Based on the sociodemographic indicator analysis, the Community Engagement Program recommends the following outreach and engagement activities during the public participation periods for the Mountain Valley Pipeline Southgate Project permit application:

- Develop public notices and one-page fact sheets with public comment and public hearing information.
- Consultation with community leaders about other outreach recommendations including known local American Indian-serving or related organizations and leaders.

- Mailed or emailed public notices and one-page fact sheets to local sensitive receptors and representatives of Rockingham County and the municipality of Eden.
- Evaluate options to distribute one-page fact sheets in high-traffic community areas.
- Arrange a voicemail line to receive public comments.

## Appendix

### Appendix A: U.S. Census Data Sources

All data for this report accessed from data.census.gov and collected at a census tract level for all tracts in North Carolina. Data is from 2023 American Community Survey (ACS) 5-year estimates.

Dataset ID	Name
<b>B03002</b>	"Hispanic or Latino Origin by Race"
<b>S0101</b>	"Age and Sex"
<b>S1810</b>	"Disability Characteristics"
<b>C16001</b>	"Language Spoken at Home for the Population 5 Years and Older"
<b>S1501</b>	"Educational Attainment"
<b>S1701</b>	"Poverty Status in the Last 12 Months"

### Appendix B: Additional Data Sources

DATA SOURCES			
Organization	Source	Date Accessed	Year Published
NC Department of Commerce	<a href="#">2025 County Distress Rankings</a>	6/6/25	2025
University of Wisconsin Population Health Institute	<a href="#">2025 County Health Rankings National Data</a>	6/6/25	2025
CDC/ATSDR	<a href="#">CDC Index</a>	6/7/25	2025

### Appendix C: Sociodemographic Indicators

The tables below display estimates and margins of error as available from the U.S. Census Bureau 2023 ACS 5-year estimates and calculations performed for each sociodemographic indicator. Calculations are displayed as averages and upper and lower confidence intervals.

#### Race & Ethnicity

RACE & ETHNICITY					
	NORTH CAROLINA (n=2672)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
<b>White</b>	6,419,285	3,661	2402.43	2348.06	2456.80
<b>Black or African American</b>	2,147,308	6,402	803.63	770.70	836.56
<b>Hispanic or Latino</b>	1,158,750	*****	433.66	415.32	452.01
<b>American Indian and Alaska Native</b>	89,481	1,201	33.49	25.60	41.38

Asian	330,720	2,729	123.77	112.40	135.15
Native Hawaiian and other Pacific Islander	5,548	614	2.08	1.62	2.53
Some Other Race	46,117	3,192	17.26	15.63	18.89
Two or More Races	387,131	7,694	144.88	139.59	150.18
Total Population	10,584,340				

RACE & ETHNICITY					
	ROCKINGHAM COUNTY (n=22)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
White	64,579	376	2935.41	2397.96	3472.85
Black or African American	15,986	502	726.64	509.35	943.92
Hispanic or Latino	6,308	0	286.73	177.99	395.46
American Indian and Alaska Native	145	80	6.59	1.68	11.50
Asian	177	130	8.05	1.39	14.70
Native Hawaiian and other Pacific Islander	138	118	6.27	-1.25	13.79
Some Other Race	488	359	22.18	-6.94	51.30
Two or More Races	3,764	549	171.09	89.66	252.53
Total Population	91,585				

RACE & ETHNICITY						
	CENSUS TRACT 401.01		CENSUS TRACT 402		CENSUS TRACT 411	
	Estimate	MOE (+/-)	Estimate	MOE (+/-)	Estimate	MOE (+/-)
White	2,751	393	1,993	291	4,739	437

<b>Black or African American</b>	539	337	936	245	1,123	386
<b>Hispanic or Latino</b>	287	183	366	270	216	187
<b>American Indian and Alaska Native</b>	0	14	0	14	1	4
<b>Asian</b>	29	49	42	83	0	19
<b>Native Hawaiian and other Pacific Islander</b>	0	14	0	14	3	6
<b>Some Other Race</b>	11	19	0	14	6	9
<b>Two or More Races</b>	110	106	200	123	190	113
<b>Total Population</b>	3,727	535	3,537	518	6,278	573

## Age &amp; Sex

AGE					
	NORTH CAROLINA (n=2672)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
≤5 Years	598,313	714	223.92	217.62	230.21
≥65 Years	1,787,027	840	654.32	654.32	683.27
SEX					
Male	5,177,887	1,414	1937.83	1903.20	1972.46
Female	5,406,453	1,484	2023.37	1987.97	2058.78

AGE					
	ROCKINGHAM COUNTY (n=22)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
≤5 Years	4,582	32	208.27	151.88	264.66



<b>≥65 Years</b>	19,008	92	864.00	725.84	1002.16
<b>SEX</b>					
<b>Male</b>	44,782	185	2035.55	1688.76	2382.33
<b>Female</b>	46,803	185	2127.41	1785.69	2469.13

<b>AGE</b>						
	<b>CENSUS TRACT 401.01</b>		<b>CENSUS TRACT 402</b>		<b>CENSUS TRACT 411</b>	
	<b>Estimate</b>	<b>MOE (+/-)</b>	<b>Estimate</b>	<b>MOE (+/-)</b>	<b>Estimate</b>	<b>MOE (+/-)</b>
<b>≤5 Years</b>	147	94	268	152	225	125
<b>≥65 Years</b>	788	147	581	92	1,538	258
<b>SEX</b>						
<b>Male</b>	1,931	390	1,888	353	2,915	346
<b>Female</b>	1,796	231	1,649	233	3,363	406

## Disability

<b>DISABILITY</b>					
	<b>NORTH CAROLINA (n=2672)</b>				
	<b>Estimate</b>	<b>MOE (+/-)</b>	<b>Average</b>	<b>95% CI (+/-)</b>	
				<b>Lower</b>	<b>Upper</b>
<b>Population with a Disability</b>	1,386,506	10,541.00	518.90	508.16	529.65
<b>Type of Difficulty</b>					
<b>Hearing</b>	383,698	5,572.00	143.60	139.79	147.41
<b>Vision</b>	261,386	5,645.00	97.82	94.63	101.01
<b>Cognitive</b>	535,055	7,066.00	200.25	195.06	205.43
<b>Ambulatory</b>	696,828	6,705.00	260.79	254.52	267.06
<b>Self-care</b>	252,232	4,769.00	94.40	91.38	97.41
<b>Independent Living</b>	466,517	5,807.00	174.59	170.02	179.17

<b>Total civilian noninstitutionalized population</b>	10,366,704	2,441.00	3,879.75	3,812.38	3,947.13
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DISABILITY					
	ROCKINGHAM COUNTY (n=22)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
<b>Population with a Disability</b>	16,078	970.00	730.82	607.30	854.34
<b>Type of Difficulty</b>					
Hearing	4,697	555.00	213.50	174.71	252.29
Vision	3,052	474.00	138.73	105.44	172.01
Cognitive	6,625	736.00	301.14	232.36	369.91
Ambulatory	8,649	780.00	393.14	324.27	462.00
Self-care	3,280	444.00	149.09	111.91	186.27
Independent Living	6,198	614.00	281.73	224.67	338.79
<b>Total civilian noninstitutionalized population</b>	90,567	58.00	4,116.68	3,446.32	4,787.05

DISABILITY						
	CENSUS TRACT 401.01		CENSUS TRACT 402		CENSUS TRACT 411	
	Estimate	MOE (+/-)	Estimate	MOE (+/-)	Estimate	MOE (+/-)
<b>Population with a Disability</b>	575	174.00	751	207.00	1,218	267.00
<b>Type of Difficulty</b>						
Hearing	255	113.00	127	60.00	322	126.00
Vision	57	60.00	49	37.00	229	122.00
Cognitive	116	64.00	301	141.00	323	140.00
Ambulatory	279	120.00	435	159.00	530	183.00
Self-care	118	62.00	120	90.00	130	88.00
Independent Living	126	67.00	374	166.00	411	189.00
<b>Total civilian noninstitutionalized population</b>	3,727	535.00	3,537	518.00	6,277	572.00

## Limited English Proficiency

LIMITED ENGLISH PROFICIENCY					
	NORTH CAROLINA (n=2672)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
Speak only English	8,685,846	10,932	3250.69	3195.41	3305.97
Spanish	346,393	6,442	129.64	121.65	137.62
French, Haitian, or Cajun	9,907	1,591	3.71	2.90	4.52
German or other West Germanic languages	3,643	714	1.36	0.96	1.77
Russian, Polish, or other Slavic languages	10,007	1,187	3.75	3.09	4.40
Chinese (including Mandarin, Cantonese)	16,417	1,301	6.14	5.20	7.09
Vietnamese	15,622	1,792	5.85	4.56	7.13
Korean	7,532	741	2.82	2.26	3.38
Tagalog (including Filipino)	4,281	646	1.60	1.27	1.93
Other Asian and Pacific Island Languages	26,602	1,464	9.96	8.73	11.18
Other Indo-European Languages	26,989	2,016	10.10	8.77	11.43
Arabic	10,907	1,339	4.08	3.31	4.86
Total Population 5 Years and over	9,986,027	714	3737.29	3673.60	3800.97

LIMITED ENGLISH PROFICIENCY				
	ROCKINGHAM COUNTY (n=22)			
	Estimate	MOE (+/-)	Average	95% CI (+/-)

				Lower	Upper
<b>Speak only English</b>	82,018	595	3728.09	3130.73	4325.46
<b>Spanish</b>	1,953	347	88.77	54.40	123.15
<b>French, Haitian, or Cajun</b>	50	63	2.27	-0.93	5.48
<b>German or other West Germanic languages</b>	5	20	0.23	-0.22	0.67
<b>Russian, Polish, or other Slavic languages</b>	19	35	0.86	-0.83	2.56
<b>Chinese (including Mandarin, Cantonese)</b>	0	32	0.00	0.00	0.00
<b>Vietnamese</b>	32	32	1.45	0.00	0.00
<b>Korean</b>	0	32	0.00	0.00	0.00
<b>Tagalog (including Filipino)</b>	5	9	0.23	-0.22	0.67
<b>Other Asian and Pacific Island Languages</b>	0	32	0.00	0.00	0.00
<b>Other Indo-European Languages</b>	23	26	1.05	-0.60	2.69
<b>Arabic</b>	28	42	1.27	-1.22	3.77
<b>Total Population 5 Years and over</b>	87,003	32	3954.68	3310.31	4599.06

LIMITED ENGLISH PROFICIENCY						
	CENSUS TRACT 401.01		CENSUS TRACT 402		CENSUS TRACT 411	
	Estimate	MOE (+/-)	Estimate	MOE (+/-)	Estimate	MOE (+/-)
<b>Speak only English</b>	3,260	400	2,926	369	5,763	520
<b>Spanish</b>	21	23	157	143	7	14

French, Haitian, or Cajun	0	14	0	14	0	19
German or other West Germanic languages	0	14	0	14	0	19
Russian, Polish, or other Slavic languages	0	14	0	14	0	19
Chinese (including Mandarin, Cantonese)	0	14	0	14	0	19
Vietnamese	0	14	0	14	0	19
Korean	0	14	0	14	0	19
Tagalog (including Filipino)	0	14	0	14	0	19
Other Asian and Pacific Island Languages	0	14	0	14	0	19
Other Indo-European Languages	0	14	0	14	0	19
Arabic	0	14	0	14	0	19
<b>Total Population 5 Years and over</b>	3,580	512	3,269	443	6,053	539

## Educational Attainment

EDUCATIONAL ATTAINMENT					
	NORTH CAROLINA (n=2672)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
Less than High School Graduate	114,342	2,700	42.79	40.86	44.73

High school graduate (includes equivalency)	341,857	4,141	127.94	120.27	135.61
Population age 18-24 years	999,707	1,313	374.14	355.30	392.98
Less than 9th grade	288,456	4,800	107.96	103.40	112.51
9th to 12th grade, no diploma	456,125	7,346	170.71	165.41	176.00
High school graduate (includes equivalency)	1,812,528	12,817	678.34	663.53	693.15
Bachelor's degree	2,521,353	18,699	943.62	913.88	973.36
Population age 25 years and over	7,261,810	1,386	2,717.74	2,671.99	2,763.50

EDUCATIONAL ATTAINMENT					
	ROCKINGHAM COUNTY (n=22)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
Less than High School Graduate	16	316	47.05	28.13	65.96
High school graduate (includes equivalency)	39	422	118.64	75.50	161.77
Population age 18-24 years	7	169	169.00	227.17	374.20
Less than 9th grade	4	500	500.00	97.48	163.70
9th to 12th grade, no diploma	11	655	655.00	255.62	423.28

High school graduate (includes equivalency)	35	1,069	1069.00	873.87	1210.32
Bachelor's degree	16	856	856.00	348.21	622.97
Population age 25 years and over	72	223	223.00	2551.87	3469.76

EDUCATIONAL ATTAINMENT						
	CENSUS TRACT 401.01		CENSUS TRACT 402		CENSUS TRACT 411	
	Estimate	MOE (+/-)	Estimate	MOE (+/-)	Estimate	MOE (+/-)
Less than High School Graduate	120	144	26	32	112	65
High school graduate (includes equivalency)	83	78	57	43	98	69
Population age 18-24 years	271	172	157	87	432	151
Less than 9th grade	97	55	324	172	131	102
9th to 12th grade, no diploma	262	127	360	138	201	91
High school graduate (includes equivalency)	1,182	302	917	234	1,512	327
Bachelor's degree	214	107	280	148	725	246
Population age 25 years and over	2,963	411	2,963	387	4,548	478

## Poverty &amp; Low Income

POVERTY					
	NORTH CAROLINA (n=2672)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
<b>Below Poverty Level</b>	1,355,827	16,940	507.42	492.22	522.62
<b>Below 200% of the Poverty Level</b>	3,195,199	26,486	1,195.81	1,167.73	1,223.89
<b>Total Population for whom Poverty Status is Determined</b>	10,297,193	2,274	3,853.74	3,785.91	3,921.57

POVERTY					
	ROCKINGHAM COUNTY (n=22)				
	Estimate	MOE (+/-)	Average	95% CI (+/-)	
				Lower	Upper
<b>Below Poverty Level</b>	15,086	1,733	685.73	529.20	842.26
<b>Below 200% of the Poverty Level</b>	34,309	2,009	1,559.50	1,282.46	1,836.54
<b>Total Population for whom Poverty Status is Determined</b>	89,541	493	4,070.05	3,413.73	4,726.36

POVERTY						
	CENSUS TRACT 401.01		CENSUS TRACT 402		CENSUS TRACT 411	
	Estimate	MOE (+/-)	Estimate	MOE (+/-)	Estimate	MOE (+/-)
<b>Below Poverty Level</b>	356	175	971	394	978	420
<b>Below 200% of the Poverty Level</b>	175	293	394	518	420	489

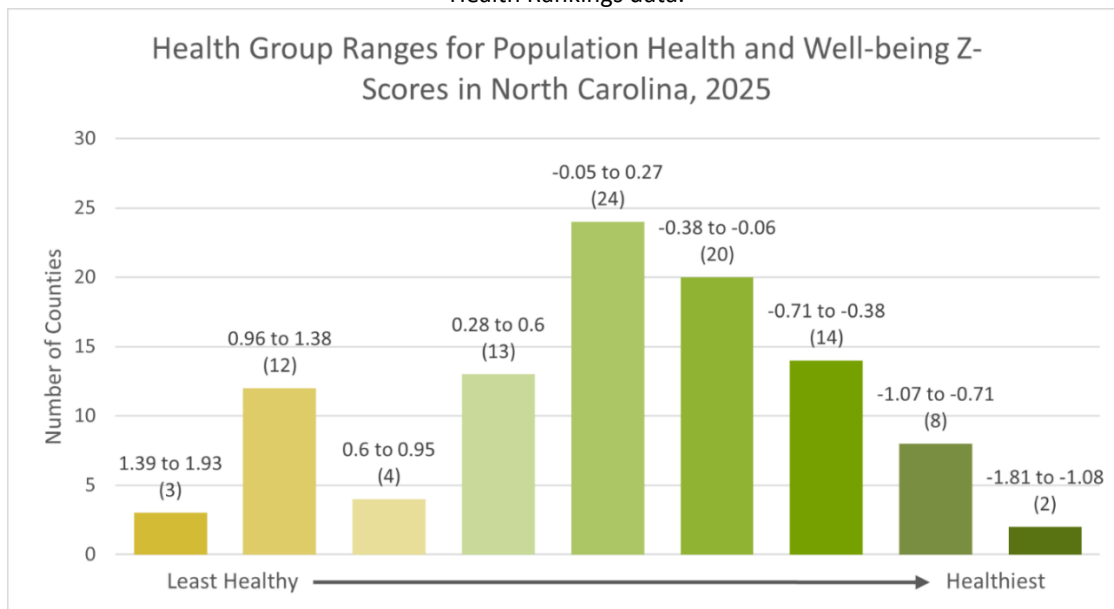


<b>Total Population for whom Poverty Status is Determined</b>	3,721	535	3,537	518	6,251	573
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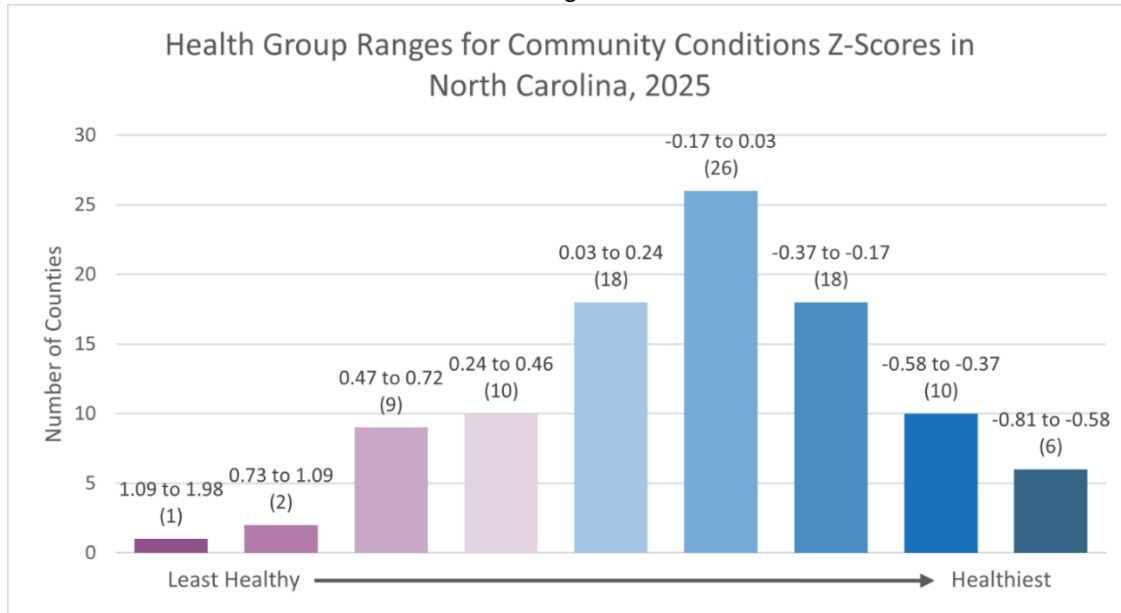
### Appendix D: County-Level Health Rankings

County health ranks and corresponding quartiles for both the health outcomes and health factors categories were taken from the University of Wisconsin Population Health Institute 2025 County Health Rankings National Data. Distributions of z-score ranges as reported by the 2025 County Health Rankings National Data for data present in the state of North Carolina for population health and well-being and community conditions are represented in **Figure 9** and **Figure 10**.

**Figure 9:** Histogram of population health and well-being ranges for national z-scores reported in 2025 County Health Rankings data.



**Figure 10:** Histogram of community conditions ranges for national z-scores reported in 2025 County Health Rankings data.



### Appendix E: CDC Index

The CDC Index is intended to evaluate the cumulative impacts to health by ranking census tracts based on combined social, environmental burden, and health vulnerability indicators. Social vulnerability indicators include racial/ethnic minority status, socioeconomic status, household characteristics, and housing type. Environmental burden indicators include air pollution, potentially hazardous and toxic sites, built environment, transportation infrastructure, and water pollution. Health vulnerability is determined based on pre-existing chronic disease burden. The CDC Index delivers a single score for each census tract to identify areas most at risk for the health impacts of environmental burden.

Ranking calculated by multiplying the sum of health vulnerability flags ( $n = 5$ ) by 0.2 to produce a number between 0 - 1. Note: Due to a lack of scientific evidence supporting a specific weighting scheme, all modules are weighted equally in calculating the Overall Index Score. This method of equal weighting for all modules aligns with established methods to assess cumulative impact and social vulnerability.<sup>6</sup> Overall Index Scores are percentile ranked to produce a final Index Ranking with a range of between 0 – 1.

The CDC Index County Map profile for the Rockingham County is included below.

<sup>6</sup> Sadd, J. L, et. al. (2011). Playing It Safe: Assessing Cumulative Impact and Social Vulnerability.... *International Journal of Environmental Research and Public Health*, 8(5), 1441-1459.  
<https://pubmed.ncbi.nlm.nih.gov/21655129/>

# Environmental Justice Index

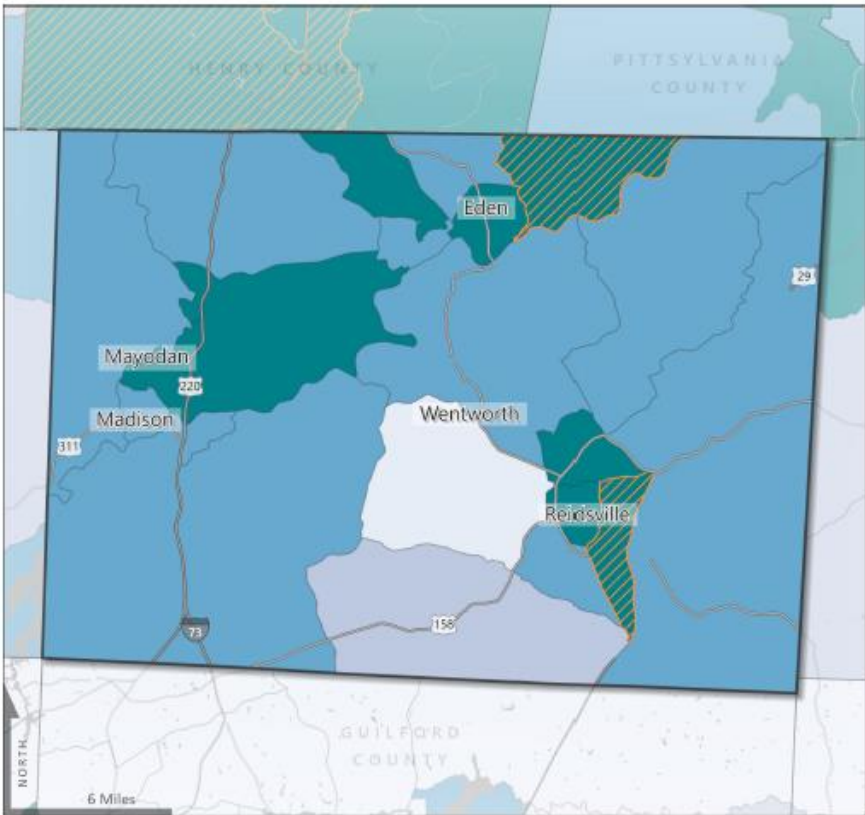
## Rockingham County, North Carolina

The **Environmental Justice Index (EJI)** measures the cumulative impacts of environmental injustice in communities across the United States. The EJI ranks are based on percentile rankings of all tracts in the contiguous United States<sup>1</sup>.

The EJI ranks communities on 36 indicators and 3 modules, which are then combined to create 1 overall EJI rank.



**31,555** | Number of Rockingham County Residents Living In **Highly Burdened Areas**



### Let's Compare!

What percent of residents are living in highly burdened areas?

**34.6%**  
Rockingham County

**13.7%**  
North Carolina



**22.9%**  
United States



Scan to learn more or visit <https://eji.cdc.gov>



<sup>1</sup>Alaska, Hawaii, and territories were not included due to data limitations.



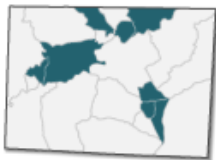
Geospatial Research, Analysis & Services Program (GRASP)  
Agency for Toxic Substances and Disease Registry (ATSDR)  
Centers for Disease Control and Prevention



# Environmental Justice Index

## Rockingham County, North Carolina

Indicator View



8 of 22 tracts are **Highly Burdened**

Highly burdened tracts for Rockingham County are tracts with EJI ranks of > 0.75. These are tracts that might need special attention or additional action when addressing environmental injustice and health inequities.

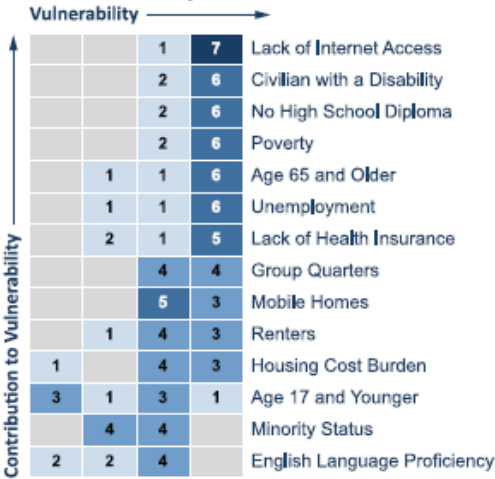
### Indicator Rank Distribution

Among these 8 tracts, which **environmental burden** and **social vulnerability** indicators are contributing the most to burden? The figures below display the number of tracts by categories of burden or vulnerability. Higher numbers to the right indicate more tracts experiencing high burden.

#### Environmental Burden

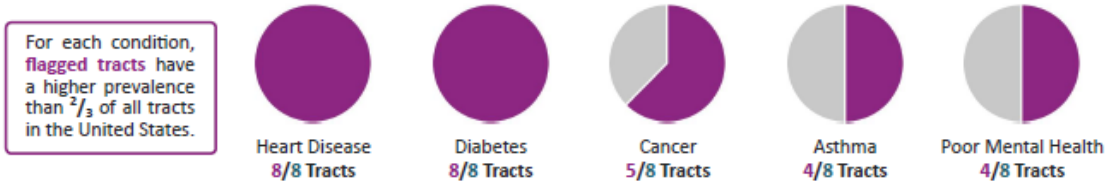


#### Social Vulnerability



#### Health Vulnerability

Among these 8 tracts, how many are **flagged for high prevalence** in the following **pre-existing chronic health conditions**?



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Agency for Toxic Substances and Disease Registry (ATSDR)  
Centers for Disease Control and Prevention

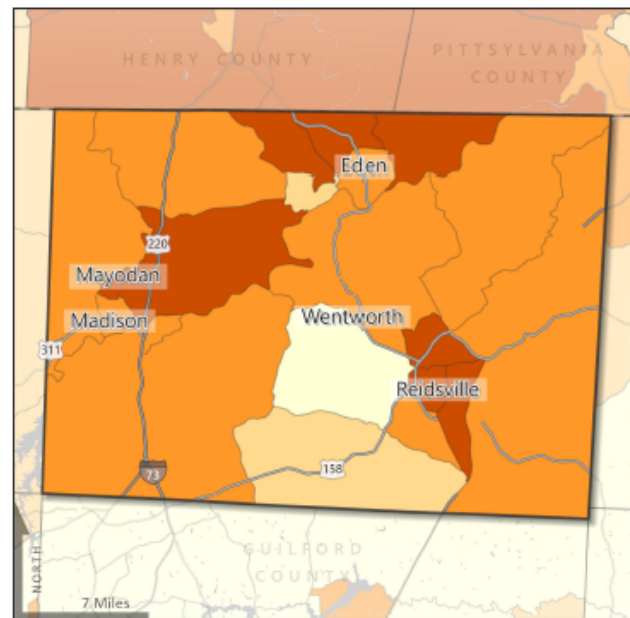
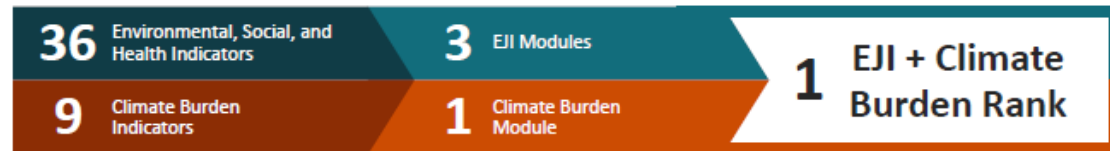


# Environmental Justice Index

## Rockingham County, North Carolina

EJI + Climate Burden

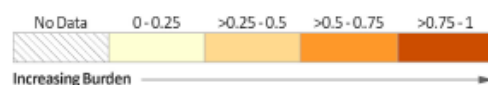
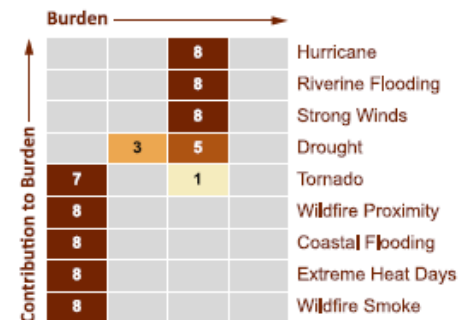
The **EJI + Climate Burden Rank** is a supplement to the base EJI Rank. The supplement measures cumulative impacts, including climate-related burdens, on the health of U.S. communities. **EJI + Climate Burden** is based on the ranks for all 3 base EJI Modules and the **EJI Climate Burden Module Rank**.

**8**

Highly burdened tracts for Rockingham County are tracts with **EJI + Climate ranks of > 0.75**. Climate burdens can add to existing burdens and stressors.

Among these **8** tracts, indicators are listed in order of contribution to burden. For each indicator, the figure displays the number of tracts that fall into progressively higher categories of burden or vulnerability.

### Climate Burden



**Questions?** Email [ejc\\_coordinator@cdc.gov](mailto:ejc_coordinator@cdc.gov) or visit <https://ejc.cdc.gov>

**Notes:** For more information on data selection, data sources, and on the methodology used to calculate indicators and EJI ranks, please see the EJI Technical Documentation located at: [https://www.atsdr.cdc.gov/placeandhealth/eji/technical\\_documentation.html](https://www.atsdr.cdc.gov/placeandhealth/eji/technical_documentation.html)

**Data Sources:** U.S. Census Bureau American Community Survey; U.S. Environmental Protection Agency: AirToxScreen, AQS, FR5, NWI, WSIO; U.S. Mine Safety and Health Administration Mine Data Retrieval System; U.S. Geological Survey PAD-US 4.0; U.S. Department of Transportation National Transportation Atlas Database; U.S. Department of Transportation National Highway System; OpenStreetMap; U.S. Centers for Disease Control and Prevention PLACES data; Agency for Toxic Substances and Disease Registry



**Geospatial Research, Analysis & Services Program (GRASP)**  
Agency for Toxic Substances and Disease Registry (ATSDR)  
Centers for Disease Control and Prevention



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## Appendix F: Limitations

### Census Data

Census data is collected at a national level every 10 years. Data used in this report was collected prior to 2023. For each sociodemographic indicator described, the most recent available data at a census tract level was utilized. Since not all data 2025 census data has been published, all data utilized was collected before 2023 to maintain comparability at the tract level. Specific data tables and years available are listed in Appendix A.

Furthermore, reporting affects sample size which then affects interpretation of data. The U.S. Census Bureau uses and provides margins of error which is used as an indicator of potential sampling errors and relative reliability. A larger margin of error corresponds to a larger degree of uncertainty. Margins of error for sociodemographic indicators are provided in Appendix C as available through the U.S. Census Bureau.

- Data available through US EPA is not compatible with all categories of data from U.S. Census Bureau data. Therefore, not all comparison tables contain the project area percentages or estimates.
- Data retrieved through US EPA is based on the US Census 2022 ACS 5-Year Estimates. As such, the evaluated populations will differ.
- A significantly smaller portion of some census tracts may be intersected by the Mountain Valley Pipeline Southgate Project compared to other intersecting census tracts. Despite this, the census tract is still included in the analysis as it is still within proximity of the facility.

For more information about census data collection methods and sources, please visit [www.data.census.gov](http://www.data.census.gov).

### Cumulative Impacts and Health

As previously mentioned, there is no standardized methodology to assess for cumulative impacts at this current time. This analysis does however examine the factors that may contribute to cumulative impacts. However, this analysis does not establish or imply any direct causal link between the environmental source exposures used in this analysis and health outcomes.

## Appendix G: Glossary

TERM	DEFINITION
Age	The length of time in completed years that a person has lived.
Block Group	A block is the smallest geographic unit for which the Census Bureau tabulates decennial census data. Statistical divisions of census tracts are generally defined to contain between 600 and 3,000 people and are used to present data and control block numbering. A block group consists of clusters of blocks within the same census tract that have the same first digit of their four-digit census block number.
Census Tract	A small, relatively permanent statistical subdivision of a county delineated by a local committee of census data users for the



	<p>purpose of presenting data. Census tracts ideally contain about 4,000 people and 1,600 housing units.</p> <p>Small, relatively permanent statistical subdivisions of a county or statistically equivalent entity that can be updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. Census tracts occasionally are split due to population growth or merged as a result of substantial population decline.</p>
Civil Rights Restoration Action of 1987	Amends several anti-discrimination laws, including the Civil Rights Act of 1964, to define the phrase "program or activity" and the term "program" to mean <i>all operations</i> of a (non-religious) entity that receives Federal financial assistance.
Disability	A long-lasting physical, mental, or emotional condition. This condition can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition can also impede a person from being able to go outside the home along or to work at a job or business.
Disproportionate Effects	Term used in Executive Order 12898 to describe situations of concern where there exists significantly higher and more adverse health and environmental effects on minority populations, low-income populations, or indigenous peoples.
Income	The money income received on a regular basis (exclusive of certain money receipts such as capital gains and lump-sum payments) before payments for personal income taxes, social security, union dues, Medicare deductions, etc.
Limited English Proficiency (LEP)	The language currently used by respondents at home, either "English only" or a non-English language which is used in addition to English or in place of English.
People of Color Populations	According to the U.S. Census Bureau, population of people who are not single-race white and not Hispanic. Populations of individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.
Title VI of the Civil Rights Act of 1964	Title VI of the Civil Rights Act of 1964 and the U.S. Environmental Protection Agency (US EPA) regulations prohibit discrimination on

	the basis of race, color, or national origin in any program or activity receiving federal financial assistance. NCDEQ is a recipient of financial assistance from the US EPA and is subject to the provisions of Title VI and US EPA's implementing regulations.
Race	A person's self-identification with one or more social groups. An individual can report [to the U.S. Census] as White, Black or African American, Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or some other race.
Sensitive Receptors	Areas where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing and convalescent facilities.
Sex	A person's biological sex.