SRPC FISCAL YEAR '24
DATA SNAPSHOT

ACCEPTED:

STRAFFORD
Regional Planning Commission

THE ROLE OF THE COMMISSION

Strafford Regional Planning Commission works with municipalities, statewide organizations and other partners to provide technical assistance with planning documents, outreach, projects and regulations. We create a space for our stakeholders to connect and share information, and we provide information to the public, offering opportunities for engagement with important planning initiatives.

We serve our communities in two additional designated roles, as a Metropolitan Planning Organization, and as an Economic Development District. We work closely with the NH Department of Transportation to implement data collection programs, assist and advocate for local transit agencies and municipal projects, and create long-range plans which address safety and quality of life. With guidance from our partners, we maintain a regional economic development strategy that includes economic trends and local priority projects. We also assist local communities with economic development strategies and facilitate regional discussion.

MUNICIPALITIES

Barrington	New Durham
Brookfield	Newmarket
Dover	Northwood
Durham	Nottingham
Farmington	Rochester
Lee	Rollinsford
Madbury	Somersworth
Middleton	Strafford
Milton	Wakefield

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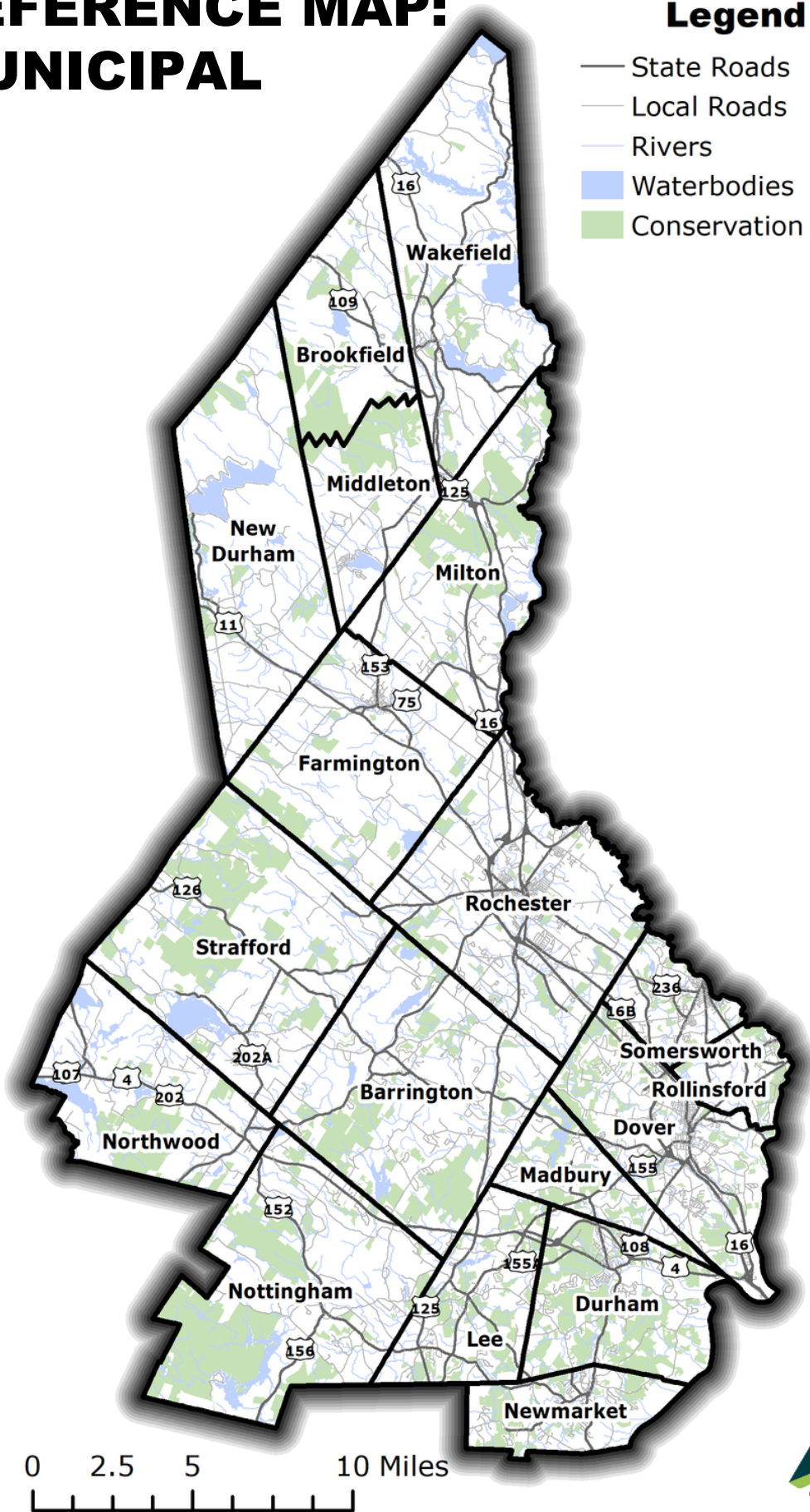|	
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REFERENCE MAP: MUNICIPAL

— State Roads
— Local Roads
— Rivers
■ Waterbodies
■ Conservation Lands

Wakefield

Brookfield

Middleton
125

New Durham

Milton

11

153

75

16

Farmington

126

Rochester

Strafford

236

16B

Somersworth

Rollinsford

202A

Dover

107

4

202

Barrington

155

Northwood

Madbury

152

108

4

16

Nottingham

125

155

Durham

156

Lee

Newmarket

N

0   2.5   5   10 Miles

3

REFERENCE MAP: TRACT

Legend

Tracts

Counties

Carroll

Rockingham

Strafford

9560

885

880

870.01

870.02

842.01

843.02

842.02

844 843.01

846

841

860

845

830.01

850.01

830.02

570

816

820

815

814

813

850.02

811.01

812

811.02

805

802.04

802.02

802.03

580

801

675.02

675.04

675.03

0 2.5 5 10 Miles

N

4
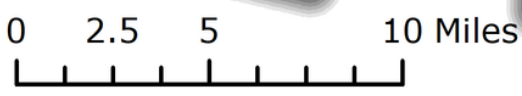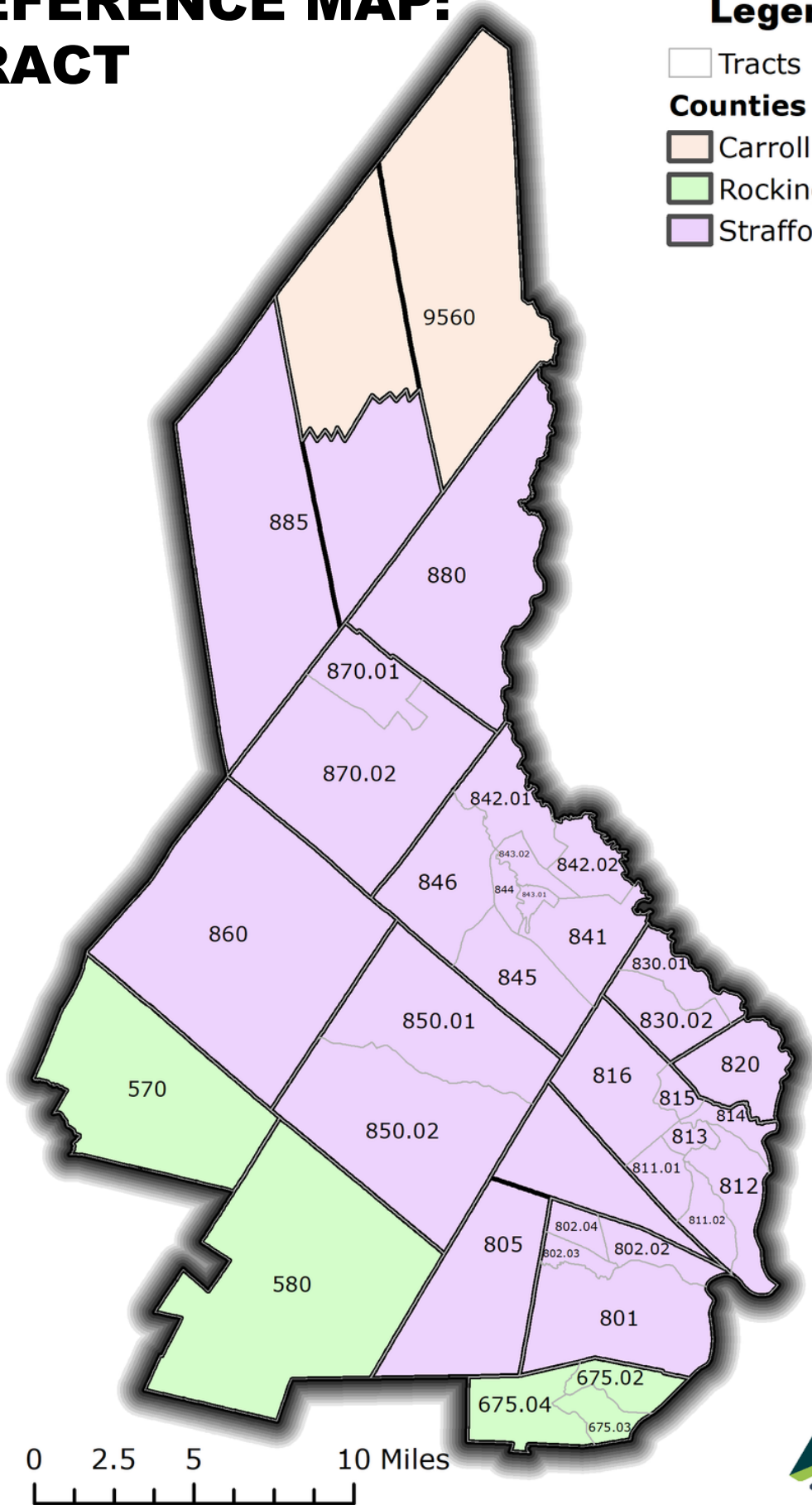
INTRODUCTION

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New This Year

The 2024 Regional Data Snapshot is SRPC's fourth annual Regional Data Snapshot. Last year, we added new housing metrics from the Regional Housing Needs Assessment and a series of new Community Profiles for each of the 18 communities.

This year, we are adding new metrics in the Resiliency chapter, as well as incorporating some additional metrics that are used in our Economic Development District work products.

The accompanying Community Profiles can be downloaded from the SRPC website at https://strafford.org/measure/data-snapshot/ or by emailing the team at data@strafford.org.

View all the GIS data in our interactive map viewer here: https://strafford.org/maps/regional-data-snapshot-map-viewer/

Data Sources

SRPC uses state, local, national, and other data sources in the data snapshot. Each page includes text in the bottom left corner indicating the organization that provides the data used, the years of data used, and the granularity or coverage of the data. In addition, some pages include links directly to reports or more details. The full list of data sources can be found at the end of the document.

Accessibility Disclaimer

SRPC is committed to making our data and information accessible to all users. Data heavy documents such as the Data Snapshot consist of mostly charts, tables, and maps and as such, making this document entirely accessible for all users is technologically not feasible. As a result, this document has been designed to be accessible for those who can see it, whether on paper or on a screen. However, it is not screen-reader compatible beyond this page. A screen-reader compatible data document will be available on request. Please contact the team at data@strafford.org or by calling SRPC at 603-994-3500.

General Data and Mapping Disclaimers

Data Disclaimers

Data in this document are generally from ESRI, NH GRANIT, NHDOT, NHDES, NHOSI, NHES, US Census, USFWS, USGS, the 18 municipalities represented by SRPC, and other state, federal, or local entities. These agencies and organizations have derived this data using a variety of cited source materials, at different time frames, through different methodologies, with varying levels of accuracy. As such, errors are often inherent in data and should be used for planning purposes only. The presented data is sometimes only a subset of the original data. Please visit the original location of the data, contact the original host source, or contact SRPC for information on the full data set.

See the full data source list for information about each data source.

Data Collected by SRPC

Several data sets in this document are collected by SRPC staff on a recurring basis. These data sets are collected and verified by staff before publication but may still be subject to error. Please contact SRPC if you notice any errors in data that was collected by staff.

Data from the US Census Bureau

Please see the Census Data Disclaimer for a detailed disclaimer for data obtained from the US Census Bureau.

Mapping Disclaimers

Many of the pages in this document include maps to help visualize the data being presented. These maps display a variety of data from a variety of sources. Please view the General Data Disclaimer and Census ACS Data Disclaimer pages for more information.

Several of the maps that contain ACS data display highlighted concentrations. A census tract has a concentration of a given population if the percent of people or households is more than one standard deviation from the regional percent. See the Census ACS Data Disclaimer for more information about this calculation.

GIS data in this document are generally from ESRI, NH GRANIT, NHDOT, NHDES, NHOSI, NHES, US Census, USFWS, USGS, the 18 municipalities represented by SRPC, and other state, federal, or local entities. These agencies and organizations have derived this data using a variety of cited source materials, at different time frames, through different methodologies, with varying levels of accuracy. As such, errors are often inherent in data and should be used for planning purposes only. The presented data is sometimes only a subset of the original data. Please visit the original location of the data, contact the original host source, or contact SRPC for information on the full data set.

View all the GIS data in our interactive map viewer here:

https://strafford.org/maps/regional-data-snapshot-map-viewer/

Census ACS Data Disclaimer

Much of the following demographic data comes from the US Census Bureau's American Community Survey (ACS). The ACS surveys a random selection of roughly 10,000 households in New Hampshire each year. The data is then made available for 1-year estimates (just the 10,000 households) and 5-year estimates (averages based on 5 years of data). All estimates in this document rely on the 5-year estimates and are thoroughly analyzed to ensure that the data is as reliable as possible.

In addition to ACS data, there is also limited data from the 2020 Decennial Census. The Decennial Census strives to count every person, and so the data is far more reliable than the ACS data, however the Decennial Census uses a short survey form and there are only a few metrics available with the full Decennial Census data. Much of the Census data in this document is from the ACS.

Each of the tables and trend lines on the following pages are based on municipal, county, or state level data. The margin of error on ACS data at the larger geographic levels tends to be smaller and the data more reliable.

Each of the following maps are estimated percentages, averages, or medians based on the Census tract or municipal levels. **Census tracts** are areas with populations between 1,200 and 8,000 people. The Census Bureau ideally aims for tracts to be around 4,000 people.

Two tests are performed to assess the validity and reliability of ACS data estimates for each geographic level:

1. Instances where an estimate's margin of error is larger than the estimate (i.e. an estimate of 429 people, with a margin of error of ±430) are removed because they are unreliable. This applies to both estimates expressed as a number or percentage.

2. The statistical significance of the sample size is determined as prescribed by the US Census Bureau. This test looks at whether the estimate is likely based on random chance. If the sample is determined to be statistically significant, then we are 90% confident that it is accurate. A lack of statistical significant does not mean that the data is inaccurate, so we do not discard the data if it fails this test unless the current year data seems to be inaccurate compared to the historic trend data.

If the data passes both checks, then we assume that it is accurate. If the data passes the first check, but not the second, then we do not remove the data because it may be representative of the real-life situation.

Select data items are further analyzed to identify whether a geographic concentration exists. A tract has a concentration of a given population if the percent of people or households is more than one standard deviation from the regional percent. These "concentrations" simply mean that the area has a noticeably higher percent of that population than the rest of the region.

Transportation Performance Measures

Federal Mandated Measures

In 2012, the [Moving Ahead for Progress in the 21st Century Act (MAP-21)](#) required that transportation planning shift to a performance-based approach. It mandated that all Metropolitan Planning Organizations (MPO) and state Departments of Transportation (DOT) use performance measures to work towards specific goals and targets. There are several [mandated measures](#) that Strafford MPO is required to set targets for and [seven regional performance measures](#) that were developed collaboratively and adopted by the four MPOs in New Hampshire. More information about the performance measures can be found at [www.partneringforperformancenh.org](#).

The snapshot contains the following mandated federal measures:

Safety
Number of Fatalities
•   Rate of Fatalities
•   Number of Serious Injuries
•   Rate of Serious Injuries
•   Number of Non-Motorized Fatalities and Non-motorized Serious Injuries

Transit Asset Management
•   Percent of revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB), by vehicle class
•   Percent of non-revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)
•   Percent of facilities with a condition rating below 3.0 on the FTA TERM Scale

Infrastructure Conditions
• Percentage of the Non-interstate NHS in Good condition
• Percentage of the Non-interstate NHS in Poor condition
• Percentage of NHS bridges in Good condition
• Percentage of NHS bridges in Poor condition

Travel Time Reliability
• Percent of person-miles traveled on the Non-Interstate NHS that are reliable

Transit Safety Measures
•   Total number of reportable fatalities and rate per total vehicle revenue miles by mode
•   Total number of reportable injuries and rate per total vehicle revenue miles by mode
•   Total number of reportable events and rate per total vehicle revenue miles by mode

DEMOGRAPHICS

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Population Estimates and Projections

In the chart and table below, the data for 2000, 2010, and 2020 comes from the full decennial census conducted by the US Census Bureau. The estimates for non-Census years 2011-2024 are developed by the data center of the New Hampshire Office of Planning & Development (OPD) based on the US Census Bureau's decennial data and its own statewide building permit records. The 2030 - 2050 data are projections developed by as part of the statewide housing needs assessment process in 2022. More information about building permits is available in the Livability section of the Data Snapshot.

Municipality	Census			OPD Projections		
	2000	2010	2020	2030	2040	2050
Barrington	7,475	8,576	9,326	9,474	10,015	10,461
Brookfield	604	712	755	774	814	828
Dover	26,884	29,987	32,741	33,234	35,190	36,772
Durham	12,664	14,638	15,490	14,695	16,635	17,375
Farmington	5,774	6,786	6,722	6,839	7,209	7,524
Lee	4,145	4,330	4,520	4,567	4,844	5,054
Madbury	1,509	1,771	1,918	1,964	2,060	2,151
Middleton	1,440	1,783	1,823	1,856	1,948	2,029
Milton	3,910	4,598	4,482	4,536	4,804	5,011
New Durham	2,220	2,638	2,693	2,770	2,882	3,005
Newmarket	8,027	8,936	9,430	9,459	10,183	10,522
Northwood	3,640	4,241	4,641	4,685	4,994	5,153
Nottingham	3,701	4,785	5,229	5,371	5,621	5,798
Rochester	28,461	29,752	32,492	33,018	34,894	36,445
Rollinsford	2,648	2,527	2,597	2,638	2,779	2,897
Somersworth	11,477	11,766	11,855	12,037	12,760	13,345
Strafford	3,626	3,991	4,230	4,280	4,543	4,745
Wakefield	4,252	5,078	5,201	5,288	5,607	5,702
Total RPC	132,457	146,895	156,145	157,485	167,784	174,816
Total EDD	117,089	128,933	136,845	137,970	146,986	153,343
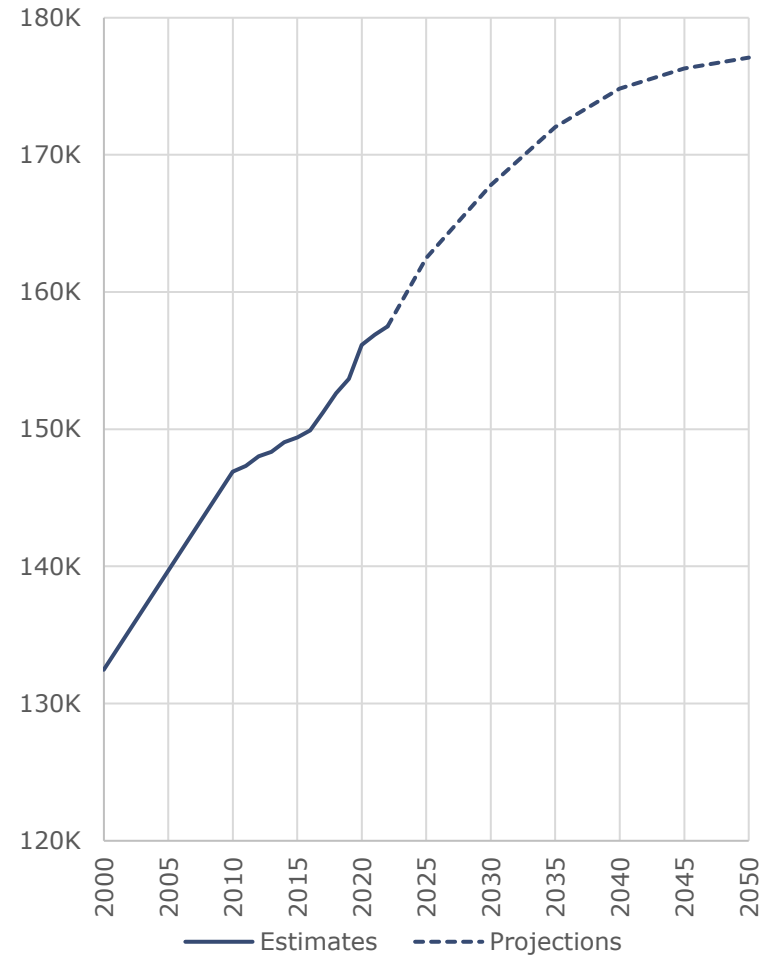
Trends - Source: US Decennial Census. Year: 2000 - 2020. Granularity: Municipalities.
Projections - Source: NHOPD. Year: 2000 - 2050. Granularity: Municipalities.
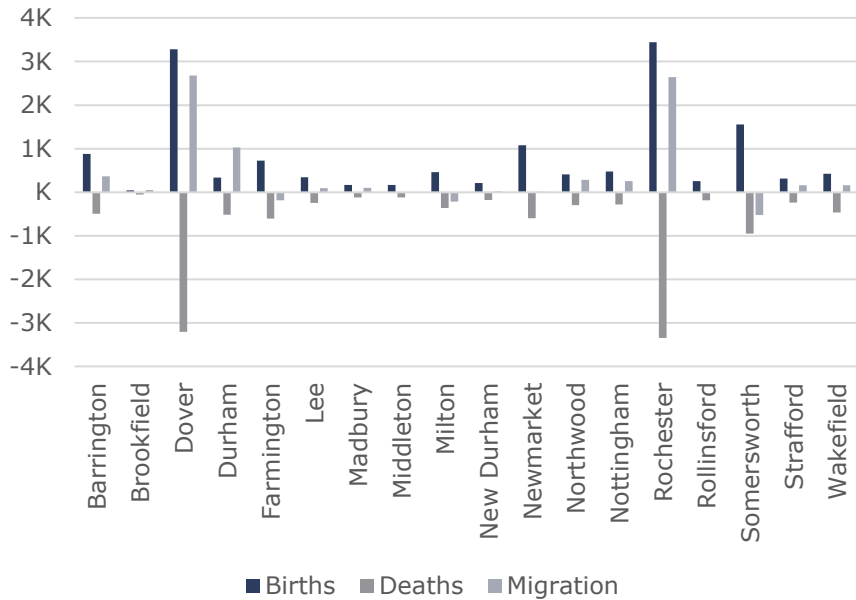
Net Migration

New Hampshire's overall birth rate is declining, and most new residents are moving from out of state. The Strafford Region is among only three regions that are experiencing natural population growth (more births than deaths from 2010-2019), and its population growth from migration is three times the natural population growth.

In Dover, migration growth is up to 35 times the natural population growth. Very few communities in the region have a negative net migration, where residents are moving out and any increased population is due to births. Somersworth and Rollinsford both have a negative net migration, but still saw population growth. Meanwhile, Farmington and Milton had negative net migration and their total population decreased.
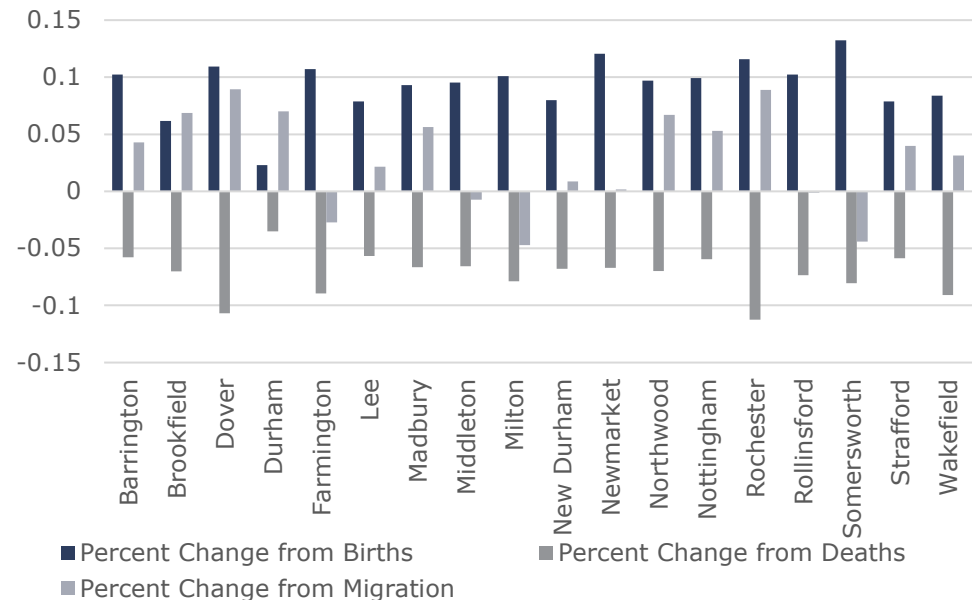
The math:

(Change in Population)	−	(Births − Deaths)	=	**Net Migration** 2010 to 2020
9,250	−	(14, 581 − 12,250)	=	**6,919** new residents to the SRPC region

Net Migration (People)

Legend: ■ Births ■ Deaths ■ Migration

X-axis categories: Barrington, Brookfield, Dover, Durham, Farmington, Lee, Madbury, Middleton, Milton, New Durham, Newmarket, Northwood, Nottingham, Rochester, Rollinsford, Somersworth, Strafford, Wakefield

Net Migration (Percent)

Legend: ■ Percent Change from Births ■ Percent Change from Deaths ■ Percent Change from Migration

X-axis categories: Barrington, Brookfield, Dover, Durham, Farmington, Lee, Madbury, Middleton, Milton, New Durham, Newmarket, Northwood, Nottingham, Rochester, Rollinsford, Somersworth, Strafford, Wakefield
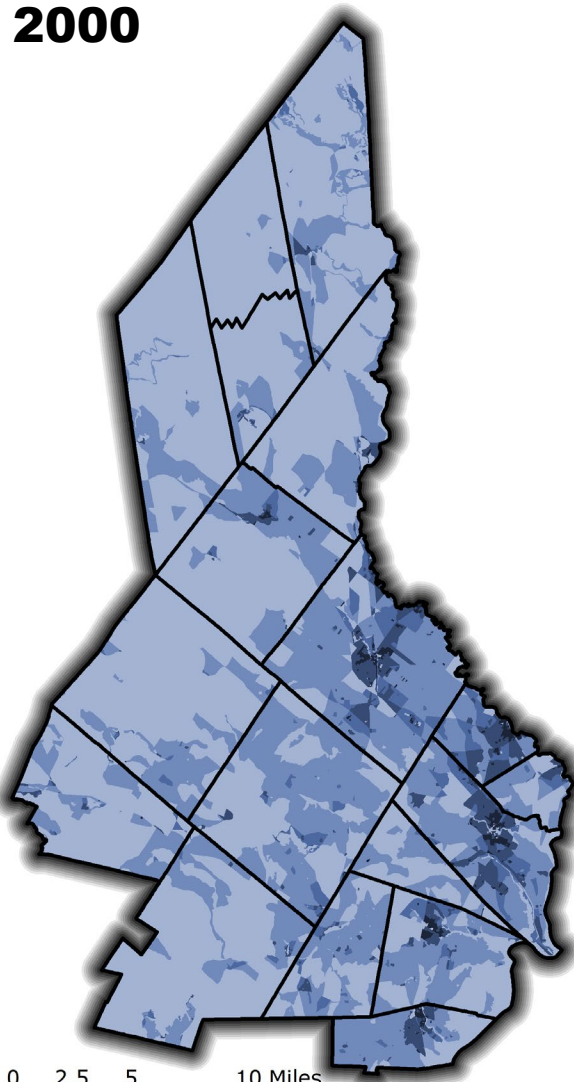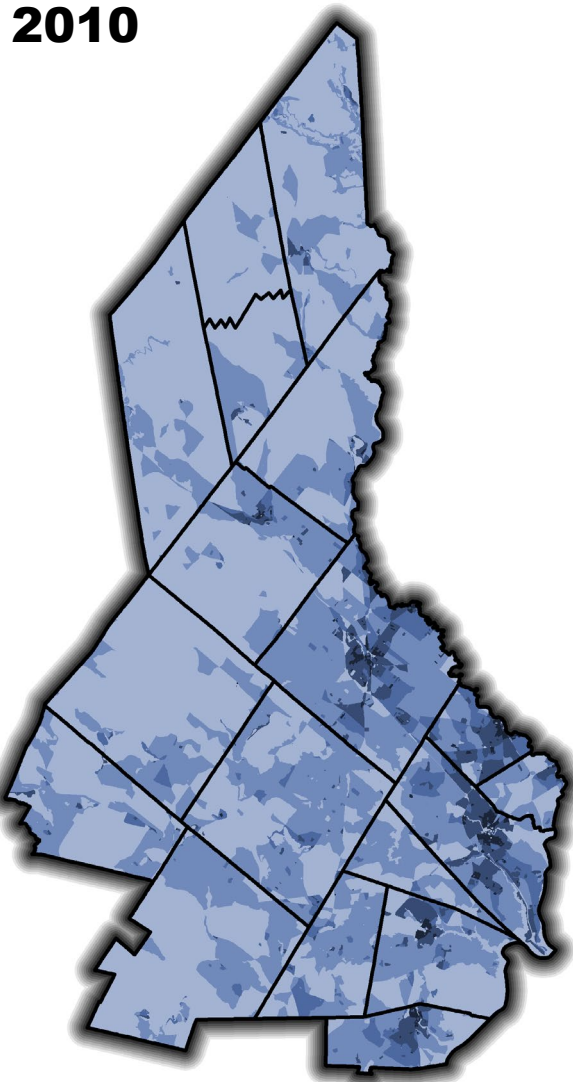
Total Population: Source: US Decennial Census. Year: 2010 - 2020. Granularity: Municipality.
Births and Deaths: NH Secretary of State Vital Statistics. Year: 2010-2019. Granularity: Municipality.

DEMOGRAPHICS

Population Density

2000 **2010** **2020**

Legend

People / Sq. Mile
- 0 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- > 5,000

0 2.5 5 10 Miles

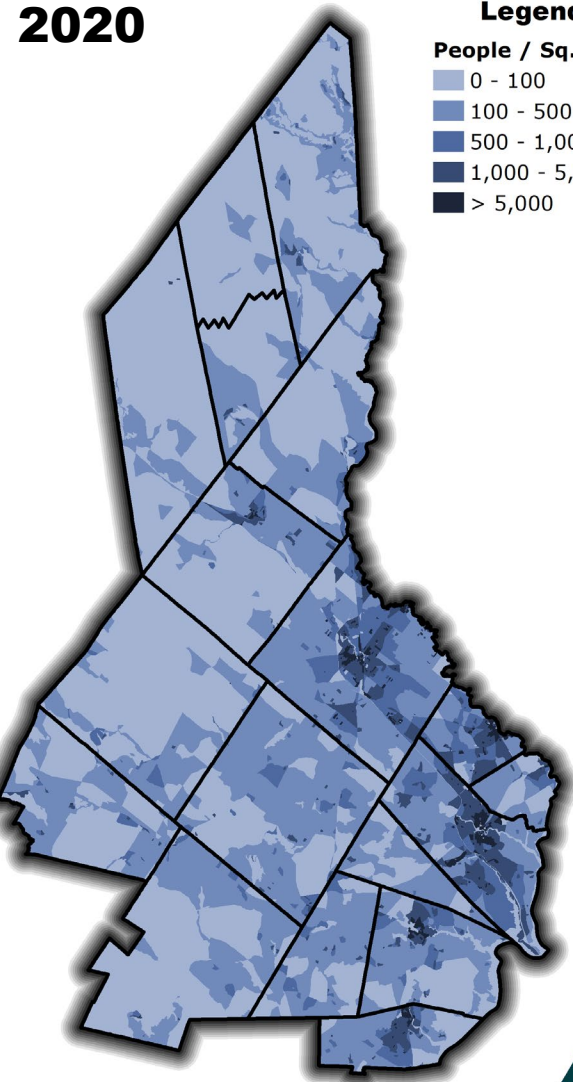Source: US Decennial Census. Year: 2000 - 2020. Granularity: Census Blocks.

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Group Quarters Population

"Group quarters" refers to the population residing in institutional and other non-household living arrangements. This includes, but is not limited to, nursing homes, college dormitories, prisons, and group homes.

Nearly 80% of the group quarters population in the SRPC region resides in on-campus housing of the University of New Hampshire in Durham.

As part of the Regional Housing Needs Assessment (SRPC) completed in 2023, SRPC will be monitoring these and other special housing arrangements to make determinations about needed capacity for these groups.

Registered Nursing Home Beds in the SRPC region

Rochester 187
Dover 299
Durham 12
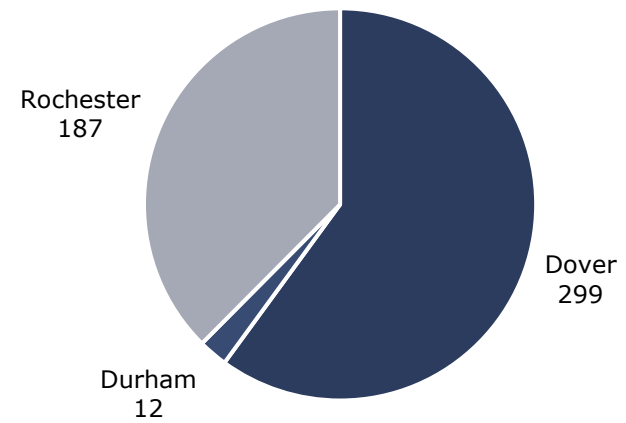
Type	2010 SRPC Residents	2020 SRPC Residents	Location(s)
College/university student housing	7,265	6,794	Durham
Nursing facilities/dedicated residential care	539	1,120	Dover, Durham, Rochester
Correctional facilities for adults	410	333	Dover
All others	219	380	(various)
Total	**8,433**	**8,627**	

Non-UNH Group Quarters

- Other Non-Institutionalized
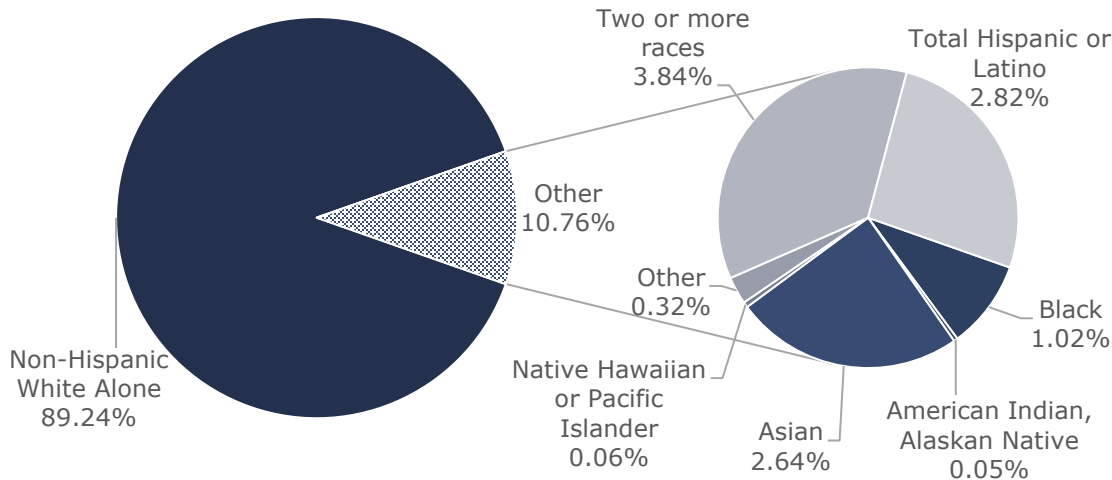- Other institutionalized
- Nursing Homes
- Correctional
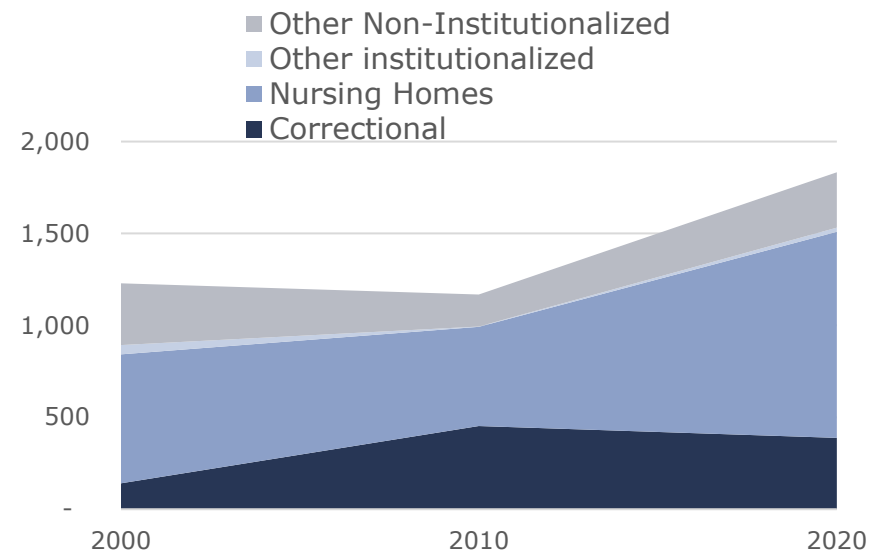
Source: US Decennial Census. Year: 2000 - 2020. Granularity: Census Blocks.
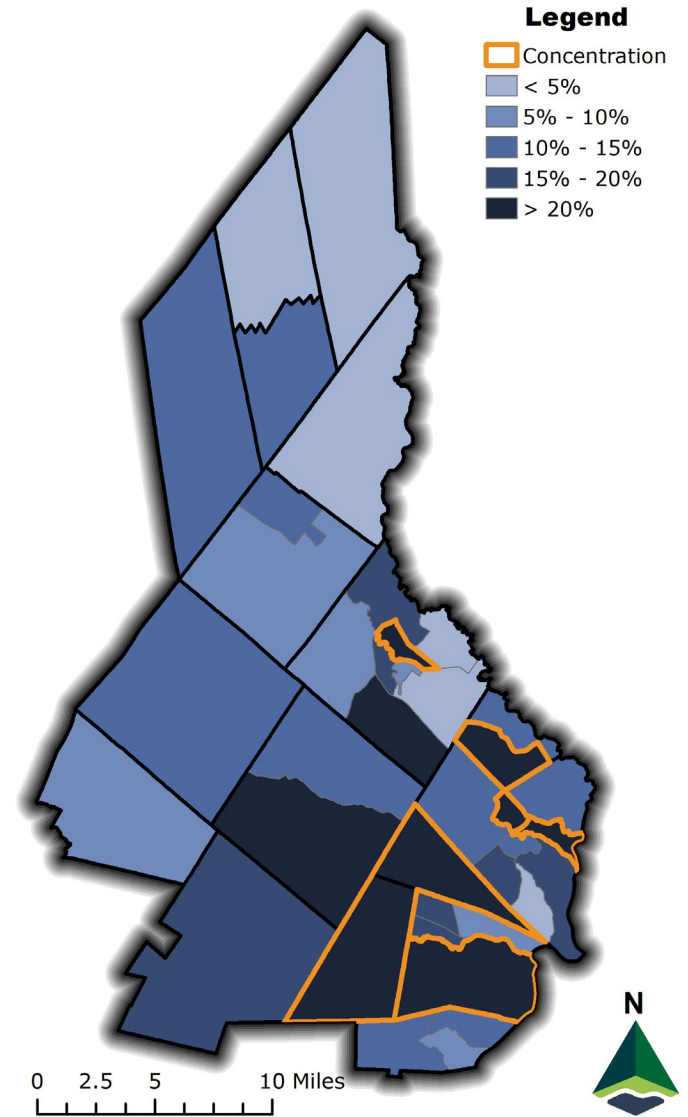
Race and Ethnicity

The most complete data available for race and ethnicity data in the United States comes from the US Census Bureau's Decennial Census and American Community Survey. Both surveys use the federal Office of Management and Budget's (OMB) definitions that were last updated in 1997. OMB's standards were updated in March 2024 and will shift the way that Census collects race and ethnicity data in the future. Among these changes will be an update to allow for multiple responses and include additional race and ethnicity categories. These revisions will allow the Census Bureau and all federal agencies to ask more descriptive questions moving forward. Due to outdated or incomplete language that is used in prior data collection, this metric can be quite generalizing and overlook many demographic nuances in New Hampshire.

New Hampshire and the Greater Seacoast have become more diverse in recent years. The Tri-Cities and Durham are among the more diverse communities in the region, as well as Barrington, Lee, and Madbury.

Population by Race and Ethnicity

Non-Hispanic White Alone 89.24%

Other 10.76%

Two or more races 3.84%

Total Hispanic or Latino 2.82%

Other 0.32%

Native Hawaiian or Pacific Islander 0.06%

Asian 2.64%

American Indian, Alaskan Native 0.05%

Black 1.02%

Legend

Concentration
< 5%
5% - 10%
10% - 15%
15% - 20%
> 20%

0   2.5   5   10 Miles

N

Source: US Census Bureau ACS, 2012-2022, Municipalities, Census Tracts.

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Population by Race and Ethnicity (2020 Decennial Census)

| Geography	Total Population	Non-Hispanic White Alone	Total Racial and Ethnic Minority	Total Hispanic or Latino	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some Other Race alone	Two or More Races
Barrington	9,326	8,567	759	175	39	8	106	0	24	407
Brookfield	755	723	32	7	0	1	0	0	0	24
Dover	32,741	27,783	4,958	1,047	520	39	1,793	5	134	1,420
Durham	15,490	13,046	2,444	653	207	51	825	10	14	684
Farmington	6,722	6,113	609	118	46	33	48	4	25	335
Lee	4,520	3,988	532	123	25	4	160	2	19	199
Madbury	1,918	1,738	180	26	6	2	71	1	11	63
Middleton	1,823	1,714	109	15	8	4	7	0	3	72
Milton	4,482	4,138	344	62	18	13	35	1	17	198
New Durham	2,693	2,533	160	31	8	5	11	0	6	99
Newmarket	9,430	8,309	1,121	301	84	8	339	13	21	355
Northwood	4,641	4,302	339	86	16	10	39	3	9	176
Nottingham	5,229	4,810	419	103	20	1	47	1	33	214
Rochester	32,492	29,004	3,488	1,016	327	57	518	10	70	1,490
Rollinsford	2,597	2,392	205	74	19	6	13	1	3	89
Somersworth	11,855	9,631	2,224	509	198	26	866	6	59	560
Strafford	4,230	3,952	278	65	13	3	20	2	18	157
Wakefield	5,201	4,881	320	65	19	11	27	1	21	176
SRPC	**156,145**	**137,624**	**18,521**	**4,476**	**1,573**	**282**	**4,925**	**60**	**487**	**6,718**
SEDD	**136,845**	**120,203**	**16,642**	**3,986**	**1,453**	**263**	**4,500**	**43**	**424**	**5,973**

Source: US Decennial Census. Year: 2020. Granularity: Municipalities.

DEMOGRAPHICS

Age

Much like the majority of New Hampshire, the SRPC region is aging. Median ages are climbing in 15 of the 18 municipalities in the region (See Median Age page) as the number of children decreases and the number of people over 55 increases.
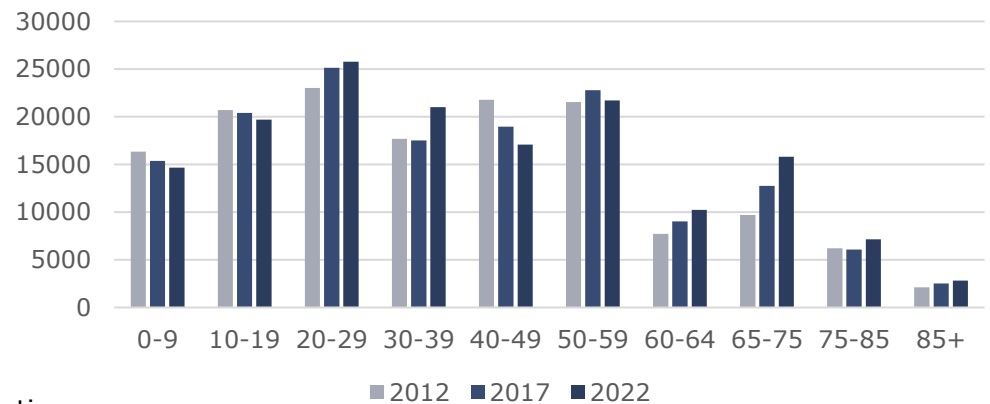
The 18-24 age group is historically the largest group in the region. UNH students are a major driver of this high number of young adults, with about 9,000 of them living in Durham.

The population over 60 is the fastest growing age group. This will continue as the remainder of the Baby Boomers (58+ in 2022) reach 65 over the next 8 years. There has been a recent spike in 30–39-year-olds as well, but the number of children continues to decline.
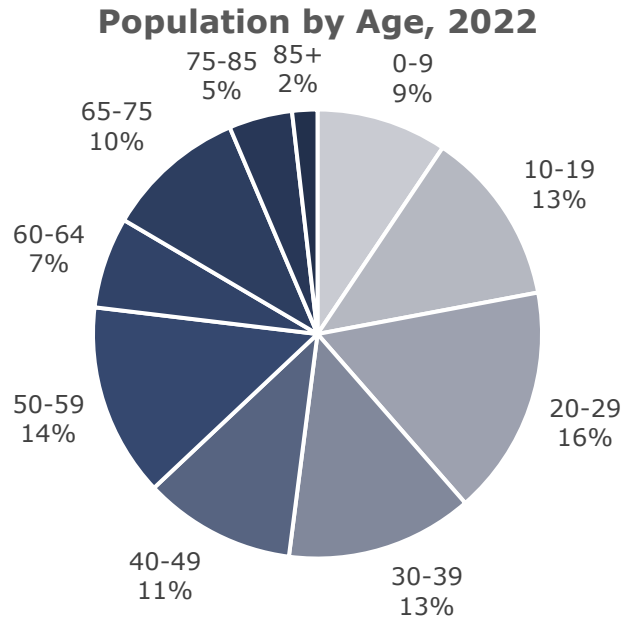
Town	Median Age (2022)	Life Expectancy (2015)	% Under 18 (2022)	% over 65 (2022)
Barrington	39	83.9	22.9%	14.1%
Brookfield	54	83	9.5%	34.9%
Dover	37.2	75.5 - 80.9	17.0%	16.5%
Durham	20.7	83.6	9.7%	9.7%
Farmington	42.6	76.5	19.7%	14.0%
Lee	48.1	81.2	22.6%	23.1%
Madbury	37.7	81.2	26.4%	10.2%
Middleton	41.5	82.9	19.2%	16.8%
Milton	43.1	83.9	21.2%	15.2%
New Durham	43.9	82.9	18.3%	17.4%
Newmarket	38.5	79.4 - 80.2	16.8%	16.2%
Northwood	43.5	78.6	16.1%	21.0%
Nottingham	40.8	81.8	23.2%	19.2%
Rochester	43.3	75.6 - 79.3	19.6%	18.5%
Rollinsford	38.6	82.1	14.9%	17.8%
Somersworth	38.1	78.1 - 79.1	17.9%	14.6%
Strafford	51.1	81.2	18.2%	21.1%
Wakefield	50.9	83	17.9%	21.1%

Population by Age, 2022

- 0-9: 9%
- 10-19: 13%
- 20-29: 16%
- 30-39: 13%
- 40-49: 11%
- 50-59: 14%
- 60-64: 7%
- 65-75: 10%
- 75-85: 5%
- 85+: 2%

Population by Age

Legend: ■ 2012 ■ 2017 ■ 2022

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

DEMOGRAPHICS

Age

Children under 5

Legend
- ☐ Concentration
- < 1%
- 1% - 2.5%
- 2.5 % - 5%
- 5% - 7.5%
- > 7.5%

0   2.5   5   10 Miles

N

Children under 18

Legend
- ☐ Concentration
- < 10%
- 10% - 15%
- 15% - 20%
- > 20%

0   2.5   5   10 Miles

N
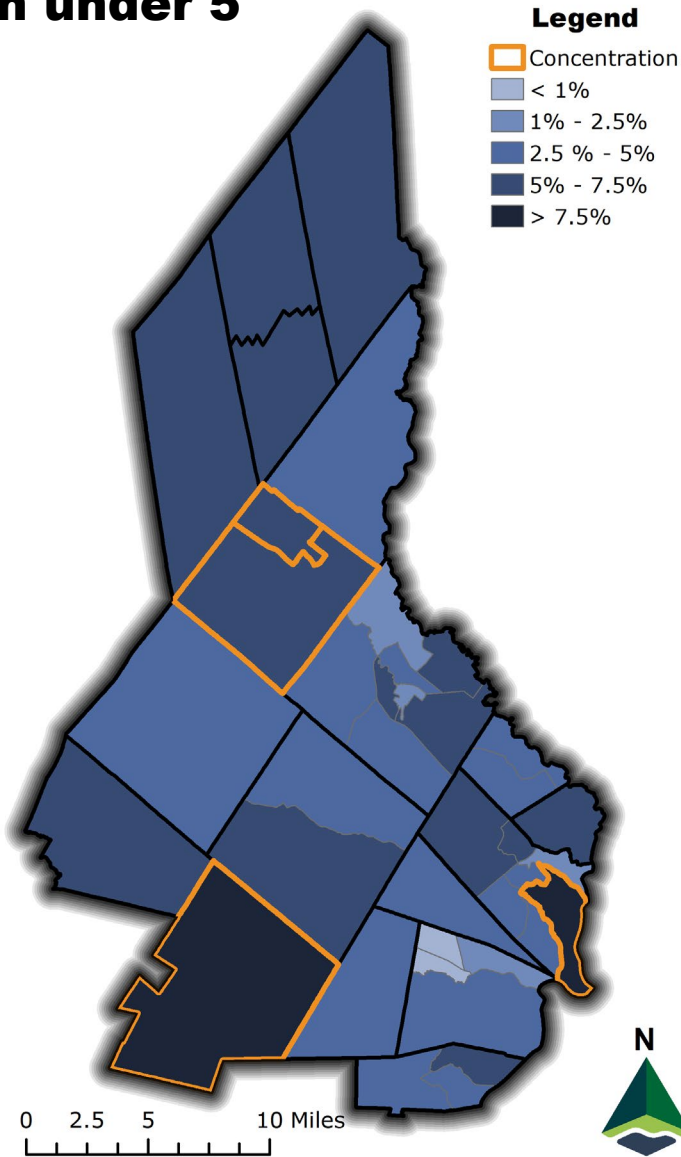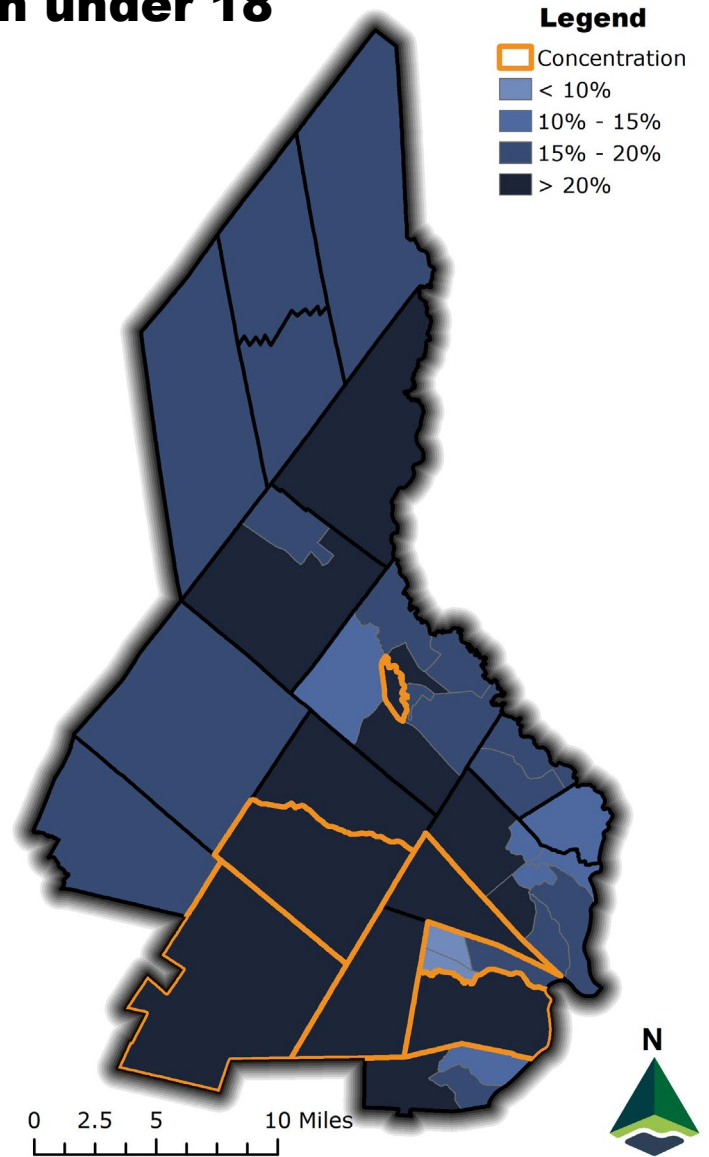
Source: US Census Bureau ACS. Year: 2022. Granularity: Census Tracts.

Age

Young Adults (18-25)
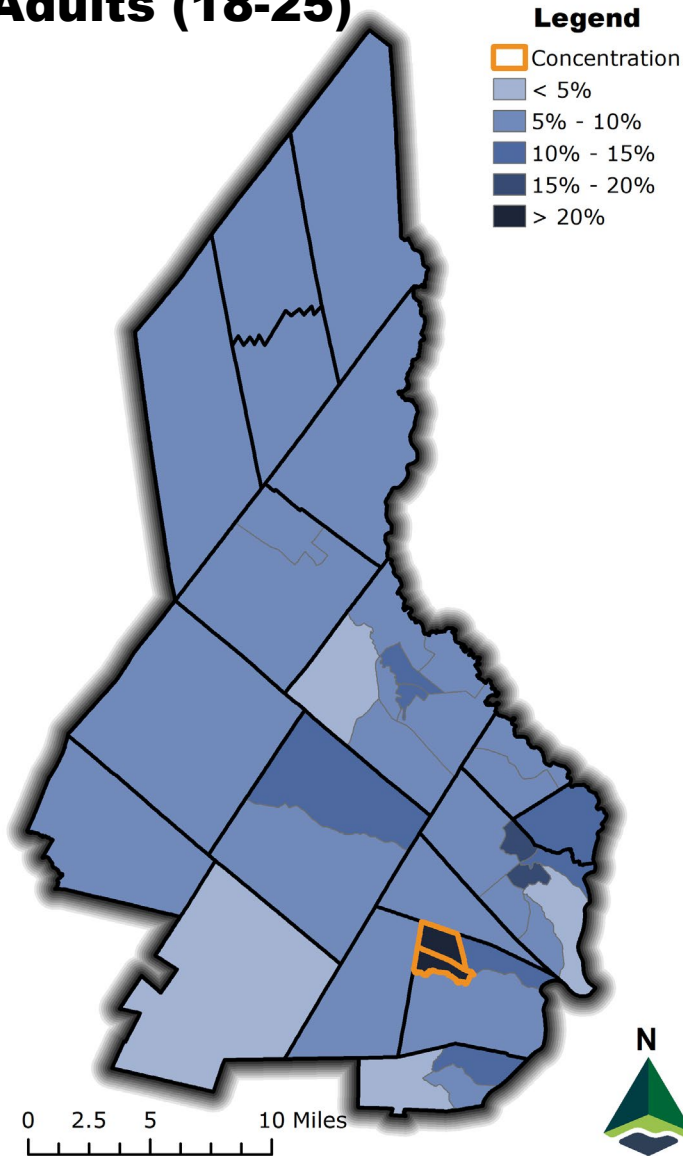
Legend
- Concentration
- < 5%
- 5% - 10%
- 10% - 15%
- 15% - 20%
- > 20%

0   2.5   5   10 Miles

N

Adults Over 65

Legend
- Concentration
- < 10%
- 10% - 15%
- 15% - 20%
- 20% - 25%
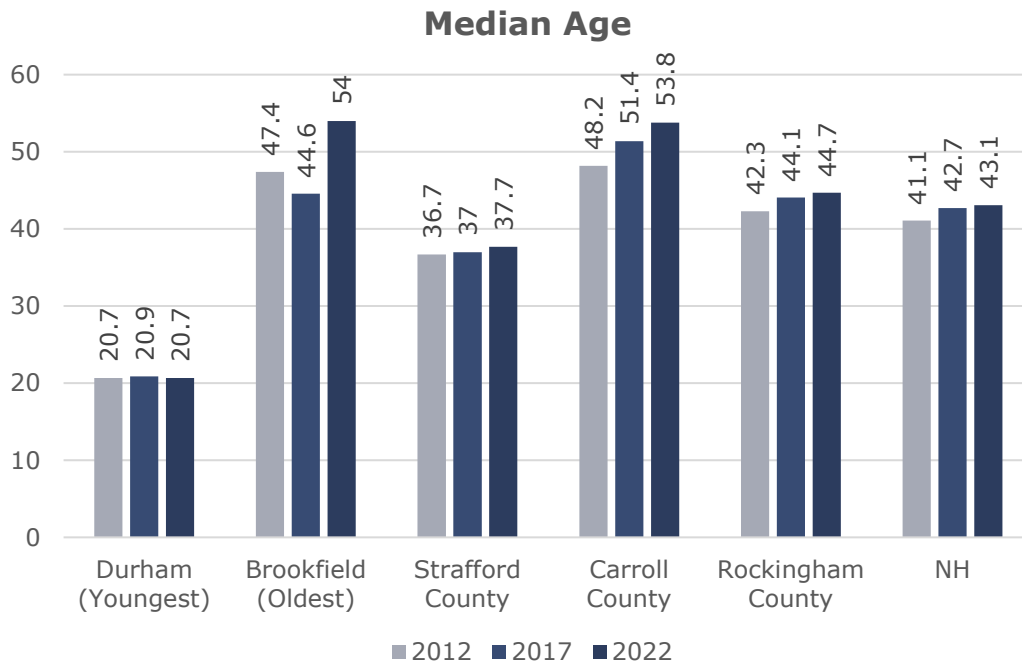- > 25%

0   2.5   5   10 Miles

N

Source: US Census Bureau ACS. Year: 2022. Granularity: Census Tracts.

19
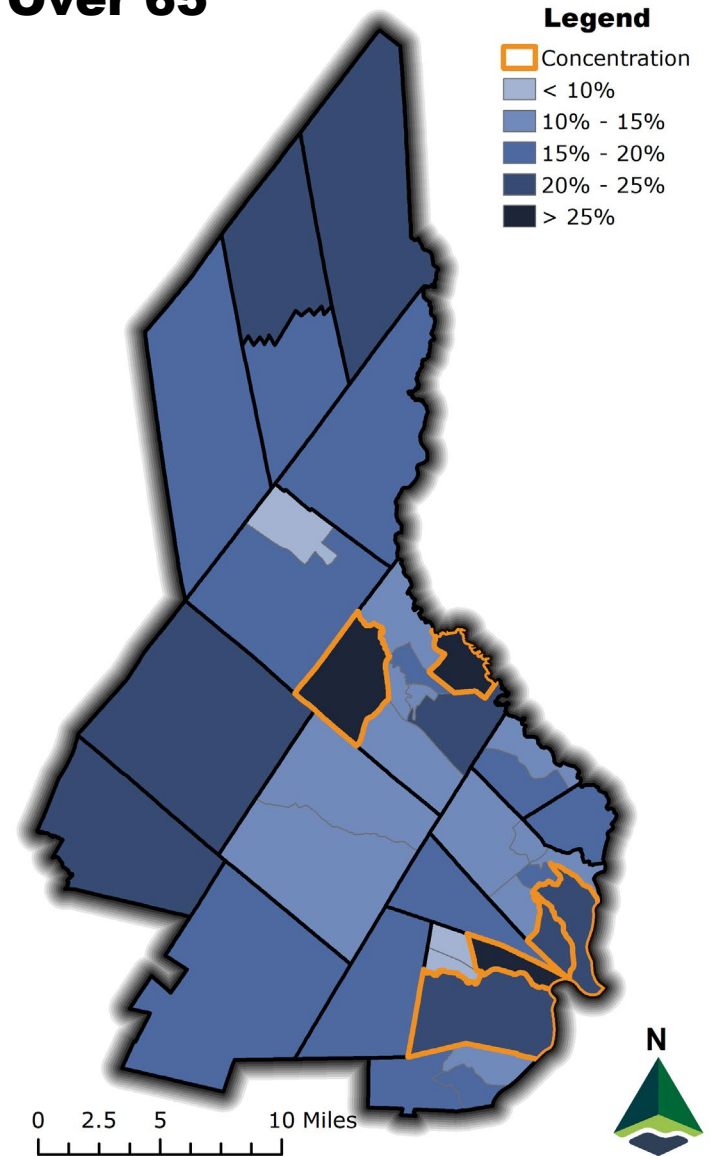
Median Age

The median age is increasing in many of SRPC's communities. The most significant changes are increases of 8.1 years in Strafford, 6.6 in Brookfield, and 4.7 in Milton.

The large student population in Durham skews the median age to 20.7 - the youngest in the region. The next youngest community is Dover at 37.2, likely due to a school district that is popular with young families and some overlap of the student rental market of UNH. Brookfield is the oldest community in the region with a median age of 54.

The median age in Strafford County remains constant, only increasing 1 year over a decade. Carroll and Rockingham counties have aged at more accelerated rates of 5.6 and 2.4 years, respectively.

Median Age

Location	2012	2017	2022
Durham (Youngest)	20.7	20.9	20.7
Brookfield (Oldest)	47.4	44.6	54
Strafford County	36.7	37	37.7
Carroll County	48.2	51.4	53.8
Rockingham County	42.3	44.1	44.7
NH	41.1	42.7	43.1

■ 2012 ■ 2017 ■ 2022

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

Legend
- UNH
- < 30
- 30 - 35
- 35 - 40
- 40 - 45
- > 45

N

0 2.5 5 10 Miles

DEMOGRAPHICS
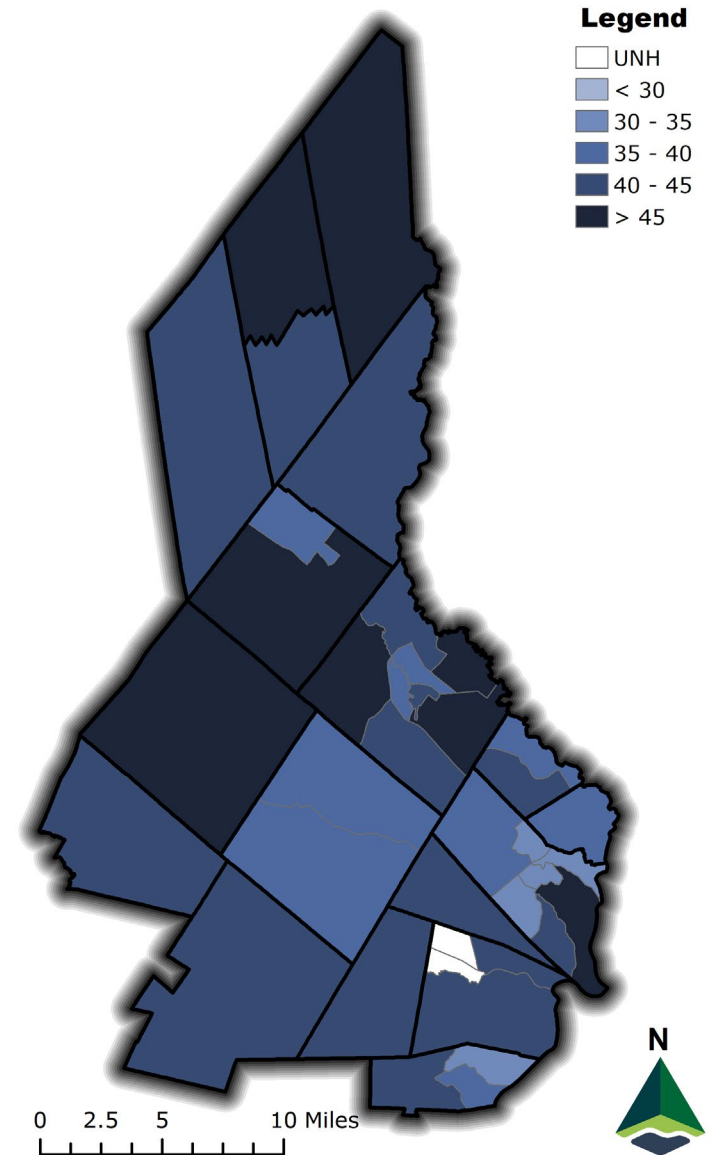
Life Expectancy at Birth

Life expectancy is the average number of years of life remaining at a given age and is an important indicator for assessing public health at the local and regional levels. Life expectancy has been increasing nationwide for at least 50 years. Projections published by the US Census Bureau in February 2020 predicted that the average life expectancy at birth would increase to 85.6 by 2060. The COVID-19 pandemic has caused the first significant drop in life expectancy in this 50-year period.

Local data is only available for 2015, therefore it may be difficult to realize the implications of life expectancy projections in the SRPC region. The map shown here displays these 2015 estimates. However, the United States saw a dip of 1.8 years to the average life expectancy in 2020 alone. Deaths increased 19% between 2019 and 2020, the largest spike in mortality in 100 years. See "Excess Deaths" for more information. Further study will be required when 2021 numbers and projections become available, as these will include the Delta and Omicron variant "spikes" in COVID-19 transmissions.
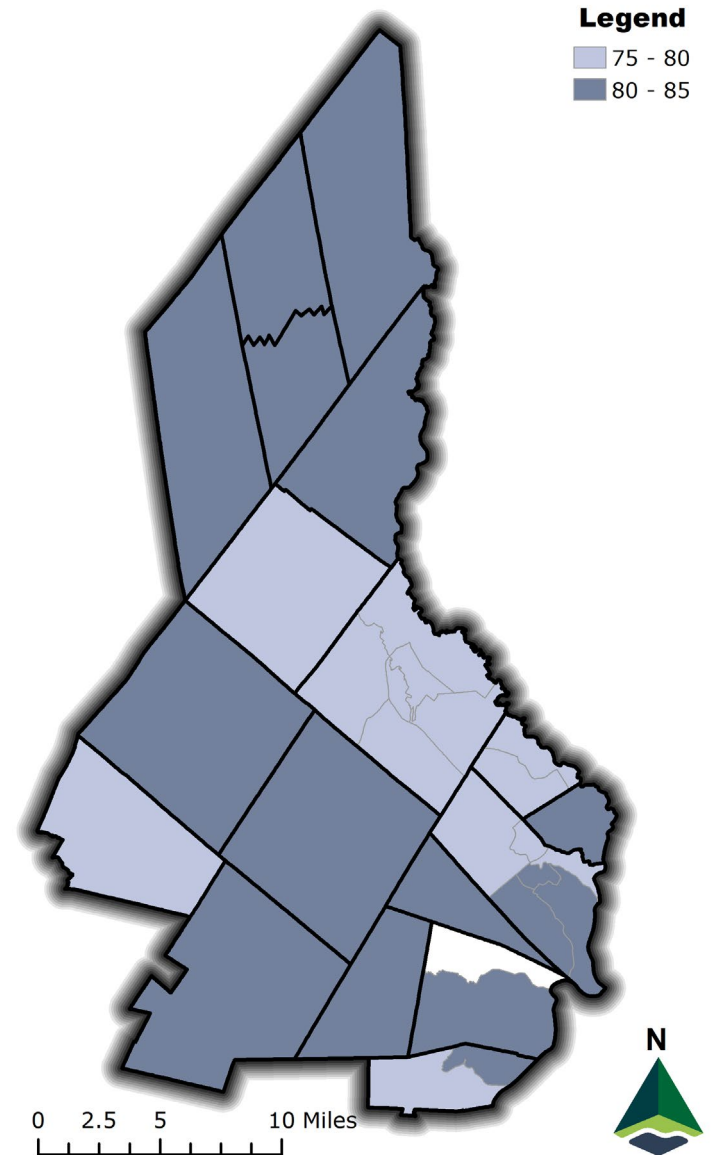
Legend
- 75 - 80
- 80 - 85

US Life Expectancy at Birth (Years)

Both Sexes · · · · · Male – – – Female
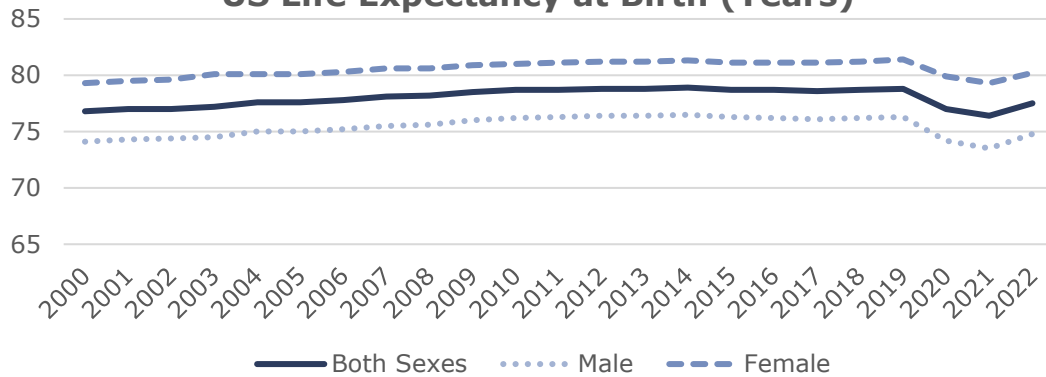
2017 Projected Life Expectancy for 2021 by Sex	Men: 77.9	Women: 82.4
Actual Life Expectancy for 2021 by Sex	Men: 73.5	Women: 79.3
Life Expectancy has dropped in 2020 and 2021. The 2021 life expectancy rates haven't been this low for...	All people since	1996
	Men since	1996
	Women since	2000

Map - Source: CDC. Year: 2015. Granularity: Tracts.
Chart - Source: CDC. Year: 2020. Granularity: United States.

0   2.5   5   10 Miles

DEMOGRAPHICS

Excess Deaths

Excess deaths are defined as the difference between observed deaths in a specific time period and the existing expected deaths for the same period. These charts instead reflect total deaths in a week, compared to the average of the same week in the three previous years.

In the US Excess Deaths chart, you can see spikes in particularly bad flu seasons (the 2016-2017 and 2017-2018 flu seasons had over 38,000 and 52,000 deaths respectively), and spikes for each of the major waves of the COVID-19 pandemic that occurred between March 2020-December 2022. In New Hampshire, COVID-19 was the third highest cause of death in 2020, and the main driver of excess deaths.

Reporting of deaths associated with COVID-19 may not be precise due to inconsistencies in testing. Therefore, Excess Deaths is a useful metric in looking at the overall impact of COVID-19 on mortality because it looks at deaths across all causes. In addition to deaths that were directly caused by the virus, the chart includes deaths caused by drug overdoses, supply chain disruptions making medical supplies or specific dietary needs harder to access, and delays in medical care due to hospitals operating at capacity or patients not seeking care to avoid hospitals.

Due to low population density, New Hampshire did not suffer as many excess deaths as high-population states such as Texas, California, or Florida. However, the state still followed a similar trendline as the whole United States. Throughout the pandemic, the United States has totaled around 1.2 million excess deaths since 2020. New Hampshire has recorded nearly 3,000 of these.

The CDC stopped publishing this data weekly in September 2023 following a 31-week streak of no excess deaths. This will be the last update of this data. Look for a new public health metric in the 2025 Data Snapshot.

US Excess Deaths Per Week

NH Excess Deaths Per Week

Legend: Deaths — Average Expected Count
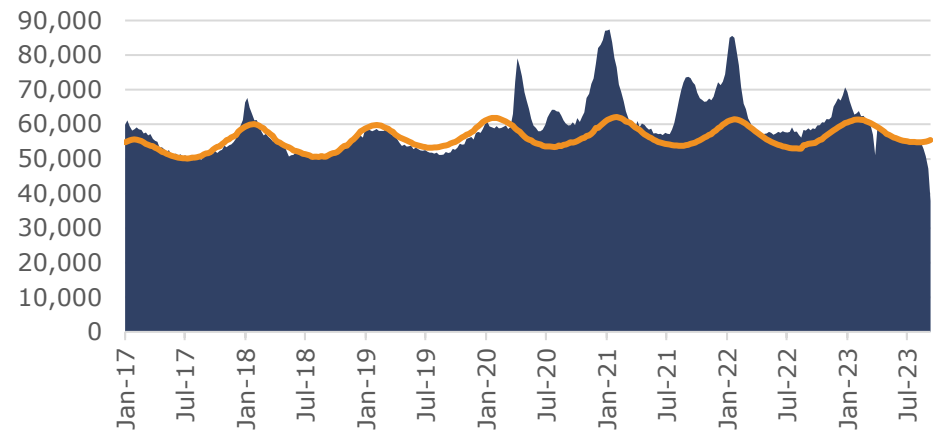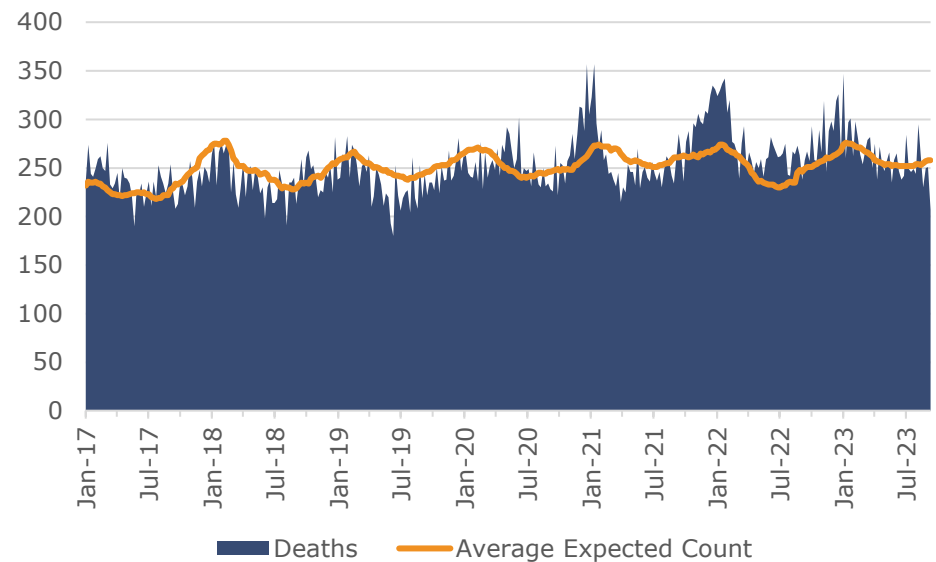
Source: CDC. Year: 2017-2023. Granularity: New Hampshire, United States.

DEMOGRAPHICS

Sex

Disclaimer: The ACS survey only supplies two options for the choice of sex in its questionnaire. ACS data is reflective of sex as reported by respondents and not necessarily of gender identity.
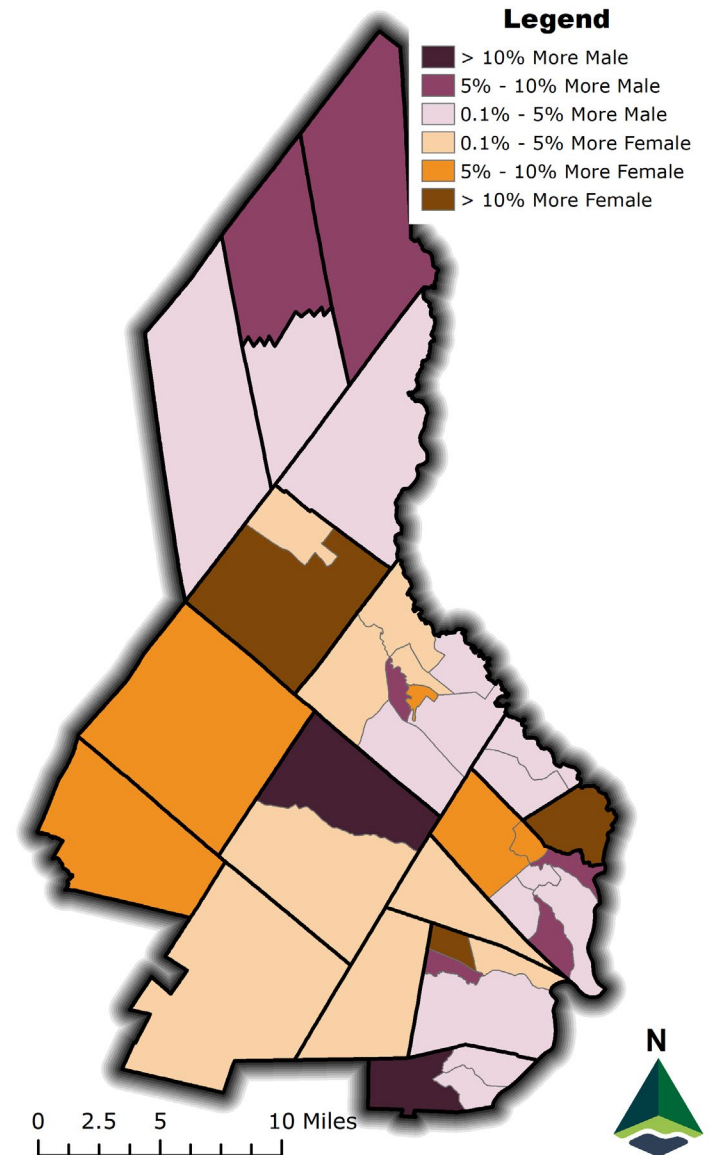
ACS only surveys a small sample of housing units each year. As a result, data may be skewed by the housing units selected. As expected, the vast majority of SRPC tracts cluster around 50% male and female and the variance in data is consistent with random population distribution or minor variation due to sample size.

There are a few tracts where there are significantly more of one sex than the other that are somewhat unexpected. Rollinsford has a 21% gap and part of Farmington has an 11% gap both with more females. The northern part of Barrington and western part of Newmarket each have 10% gaps with more males.

One of the four Census tracts in Durham is consistently an outlier from typical variation. The tract north of Main St and west of Madbury Rd appears to be 19% more female than male (i.e. 59% of tract residents are female and 41% are male). About 4,500 of the roughly 5,100 residents of that tract are between the ages of 18 and 24. Of those 4,500 residents, about 63% were female. The female lead in this tract's population fluctuates each year but remains fairly high. There are a few sorority houses in the tract that likely drive the higher female population, and the variation is likely a result of annual fluctuation in the other student housing options within the tract.

This trend is generally consistent with enrollment data reported by UNH for the total student body (approximately 1,000 more female undergraduate students than male undergraduates). For this reason, it may be reasonable to assume that this census tract does have more female residents than male. It could be true that over 60% of the students on this side of Main St and Madbury Rd are in fact female. Several dorms and sorority houses are present, so it is possible. It could also be that ACS sampling methods are artificially inflating the female population of this tract if a couple of sorority houses were surveyed. Once the Age and Sex data from the 2020 Decennial Census becomes available, it can be used to further analyze this trend.

Map - Source: US Census Bureau ACS. Year: 2022. Granularity: Census Tracts.
UNH Enrollment - Source: UNH. Year: 2020. Granularity: Durham.

Legend
- > 10% More Male
- 5% - 10% More Male
- 0.1% - 5% More Male
- 0.1% - 5% More Female
- 5% - 10% More Female
- > 10% More Female

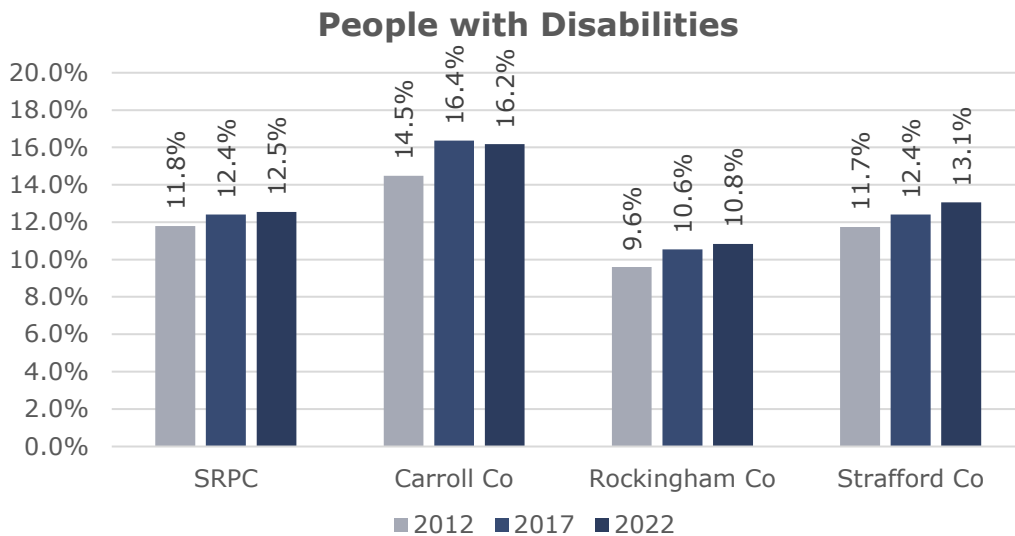0   2.5   5   10 Miles

N

DEMOGRAPHICS

Disability

The percent of the population with a disability is calculated as the total population reporting any disability in a Census Bureau survey. While these rates are roughly the same for 2017 (12.4%) and 2022 (12.5%), the number of people with disabilities is still expected to increase with the rising median age in the SRPC region, particularly in municipalities in the northern half of the region. This will also become apparent as the age-dependent population in both the SRPC region and all of New Hampshire is weighed more heavily by the 65+ population than minor populations.

The following types of disabilities are captured by the ACS:
- Hearing difficulty
- Vision difficulty
- Cognitive difficulty
- Ambulatory
- Self-care difficulty
- Independent living difficulty

As the sample size in the ACS is very small, the chart and map reflect only the total population experiencing a disability, rather than breaking the data out by the types of disabilities experienced.

People with Disabilities

Chart data — People with Disabilities (2012, 2017, 2022):
- SRPC: 11.8%, 12.4%, 12.5%
- Carroll Co: 14.5%, 16.4%, 16.2%
- Rockingham Co: 9.6%, 10.6%, 10.8%
- Strafford Co: 11.7%, 12.4%, 13.1%

Legend: 2012, 2017, 2022

Source: US Census Bureau ACS, 2012-2022.
Granularity: Counties, Municipalities, Census Tracts.

Legend
- Concentration
- 5% - 10%
- 10% - 15%
- 15% - 20%
- > 20%

N

0   2.5   5   10 Miles

DEMOGRAPHICS
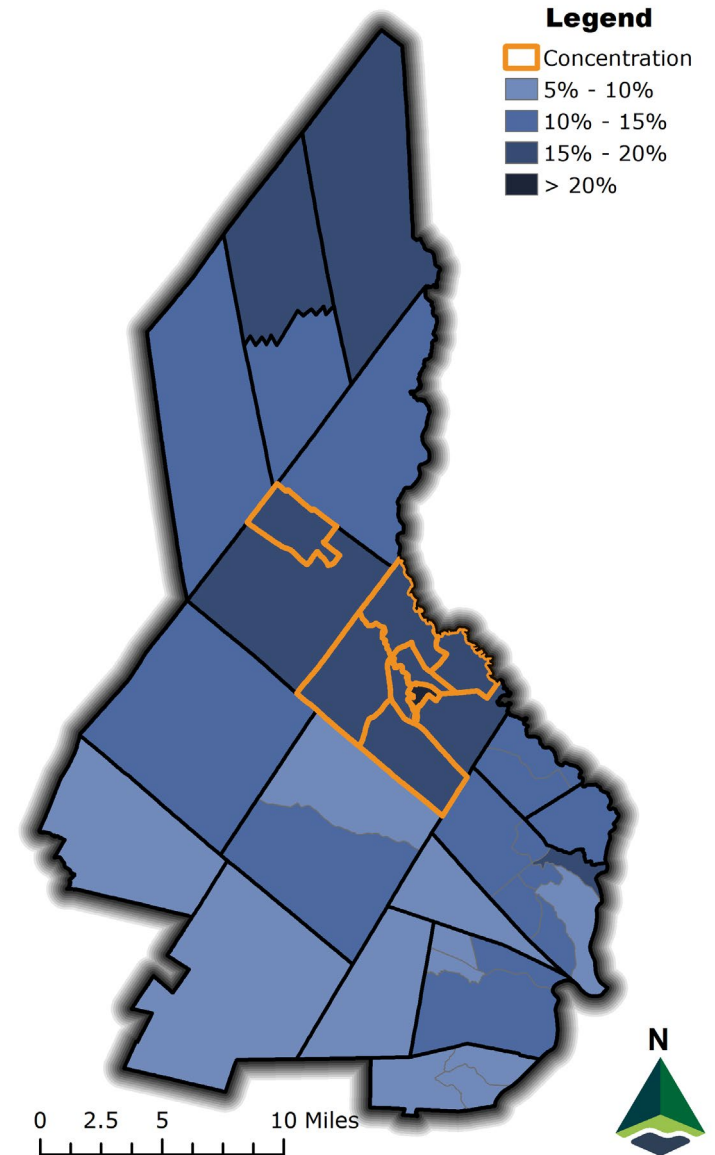
Childcare

The SRPC region has 59 operating childcare programs of any type as of 2019. Out of the fifty states and the District of Columbia, New Hampshire ranked thirteenth for populations residing in "**child care deserts,"** census tracts with "more than 50 children under age five that [contain] either no childcare providers or so few options that there are more than three times as many children as licensed childcare slots." Forty-six percent of New Hampshire families resided in areas of this nature in 2018, a figure that climbed to 57 percent in rural areas. Neighboring Maine ranked fifty-first, with only 22 percent of its population residing in childcare deserts.

The map to the right looks at the capacity of the licensed childcare providers and divides this by the number of children under the age of 5 years old in each tract.

- **No Child Care Providers** indicates that there are no licensed child care providers.

- **Child Care Sufficient** indicates that the capacity is greater than or equal to the number of children residing in the area. This does not mean that there are any open spots available, as these "extra" spots are likely filled by children from other tracts.

- **Child Care Insufficient** indicates that the child care capacity is less than the number of children, but does not meet the threshold for child care deserts outlined above.

- **Child Care Deserts** are areas where the number of children under 5 is three times the capacity of the licensed providers.

Childcare Deserts

Legend
- No Child Care Providers
- Child Care Deserts
- Child Care Insufficient
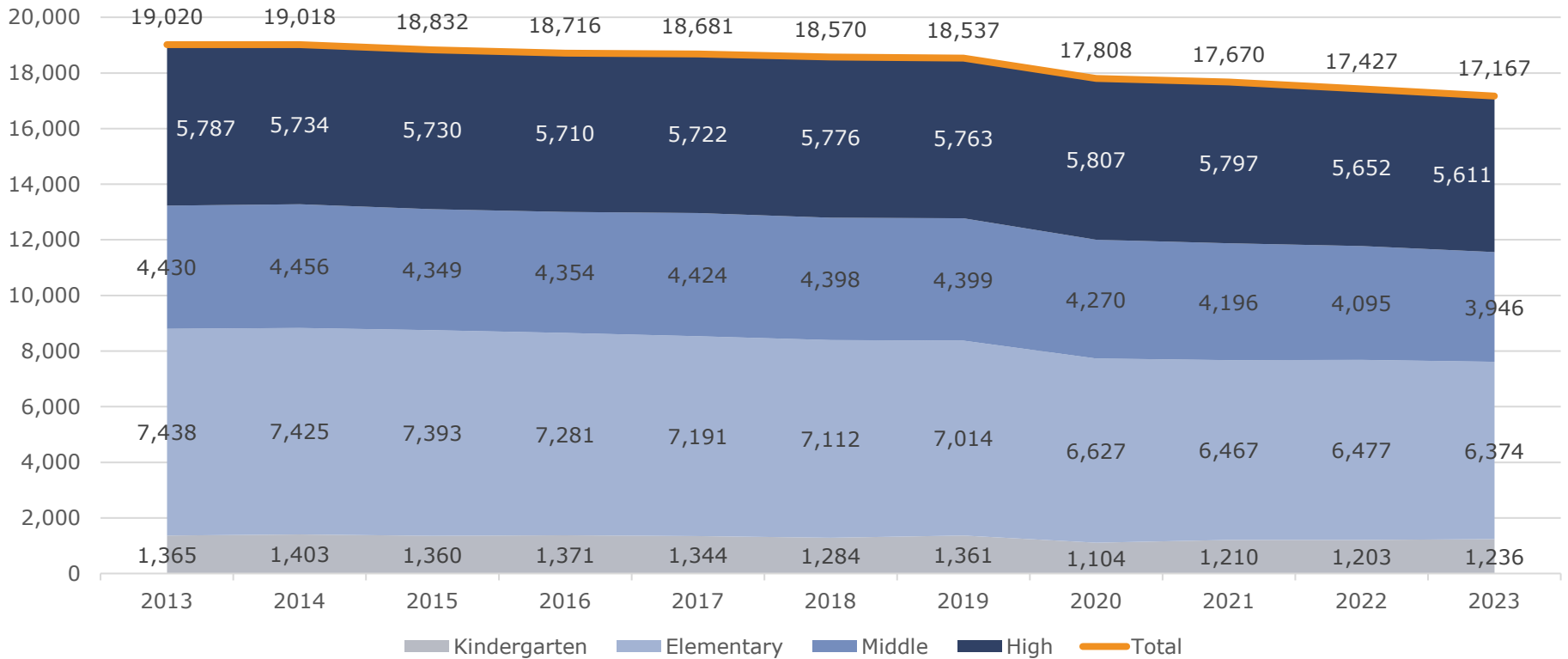- Child Care Sufficient

0   2.5   5   10 Miles

N
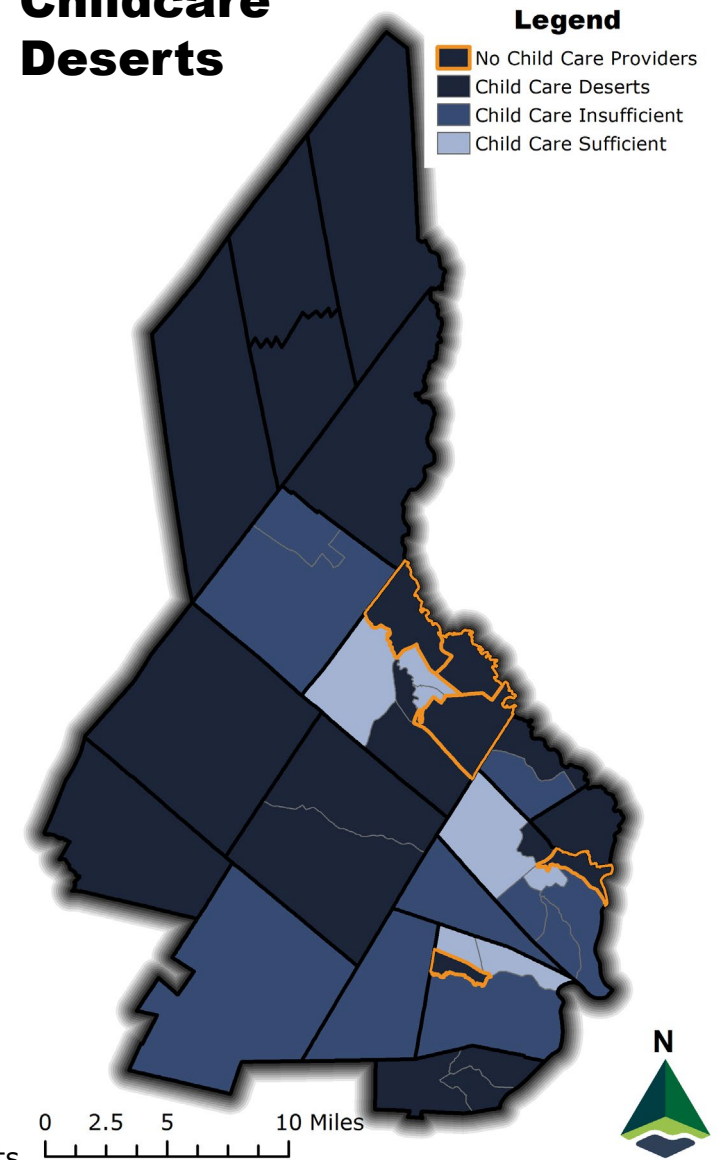
Map - Source: Center for American Progress. Year: 2018. Granularity: Census Tracts.
Numbers in Text - Source: NH Connections. Year: 2019, 2020. Granularity: Census Tracts.

DEMOGRAPHICS

25

School Enrollment

Across the various school districts in the SRPC region, there are 17,167 students (K-12) enrolled in the 2023-24 school year. This figure has been declining for several years across all grade levels. Some SRPC school districts operate only elementary schools and may have agreements with neighboring school districts for grades 6 through 12, or with the private Coe Brown Academy in Northwood and the surrounding communities.

Enrollment in ninth grade spikes each year, and this is likely a result of K-8 home schoolers and private school attendees entering the public school system. This year's 12th grade class, or teens born in 2005-06, is the largest, followed by this year's 9th graders, or teens born in 2008-09. The enrollment of kindergarteners and first graders tends to be lower, and thus it is difficult to determine the grade with the true "lowest" enrollment.

Strafford Region School Enrollment by Grade Level

Total: 19,020 (2013), 19,018 (2014), 18,832 (2015), 18,716 (2016), 18,681 (2017), 18,570 (2018), 18,537 (2019), 17,808 (2020), 17,670 (2021), 17,427 (2022), 17,167 (2023)

High: 5,787, 5,734, 5,730, 5,710, 5,722, 5,776, 5,763, 5,807, 5,797, 5,652, 5,611

Middle: 4,430, 4,456, 4,349, 4,354, 4,424, 4,398, 4,399, 4,270, 4,196, 4,095, 3,946

Elementary: 7,438, 7,425, 7,393, 7,281, 7,191, 7,112, 7,014, 6,627, 6,467, 6,477, 6,374

Kindergarten: 1,365, 1,403, 1,360, 1,371, 1,344, 1,284, 1,361, 1,104, 1,210, 1,203, 1,236

Legend: Kindergarten · Elementary · Middle · High · Total

Source: NHDOE. Year: 2023. Granularity: SRPC.

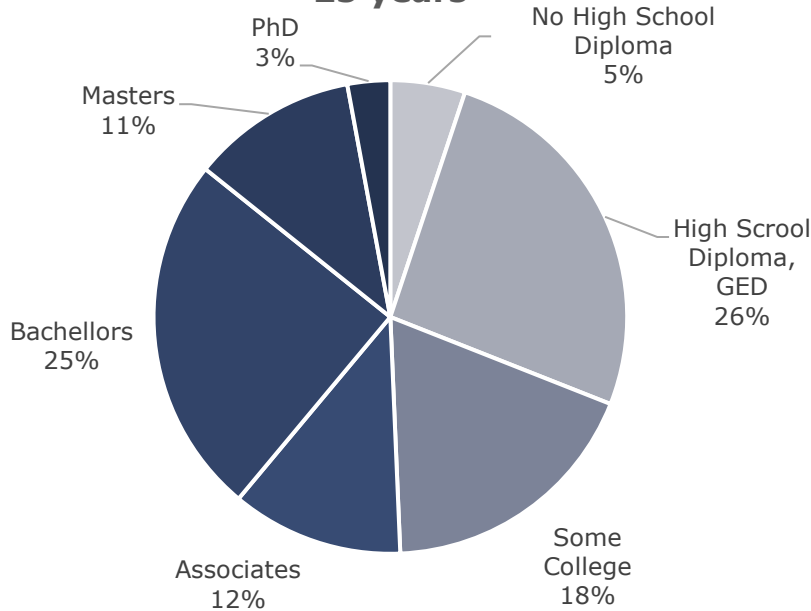# Educational Attainment for the Population Over 25

Educational attainment metrics are reported for populations over 25 years old. This captures the population that the Census Bureau has assumed to be old enough to have completed a four-year degree.

Each of these metrics represent the percent of the population by the **highest** level of educational attainment achieved.
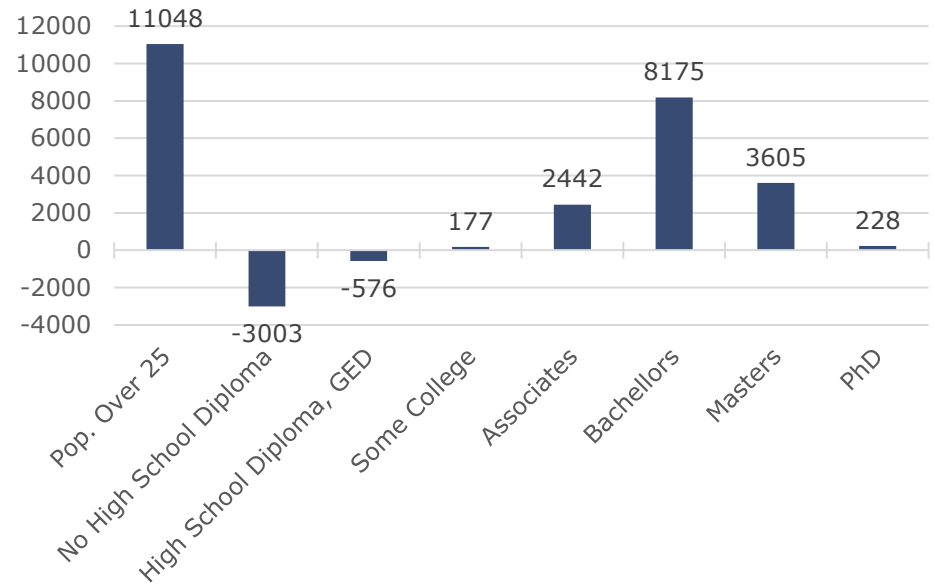- "No High School Diploma" includes all the education attainment categories from "no schooling completed" to "12th grade, no diploma."
- "High School Diploma or GED" includes high school graduates or those who have obtained a GED or equivalent.
- "Masters or Higher" includes all educational attainments beyond a Masters degree.

The following Educational Attainment chart and respective maps does not include all University of New Hampshire undergraduate students, as many are under the age of 25. While the majority of the 18–24-year-old population of Durham is pursuing a college degree, they are not captured in this section. In the Age section of this Snapshot, there is information about the high percentage of young adults aged 18-24, which highlights where most UNH undergraduate students live.

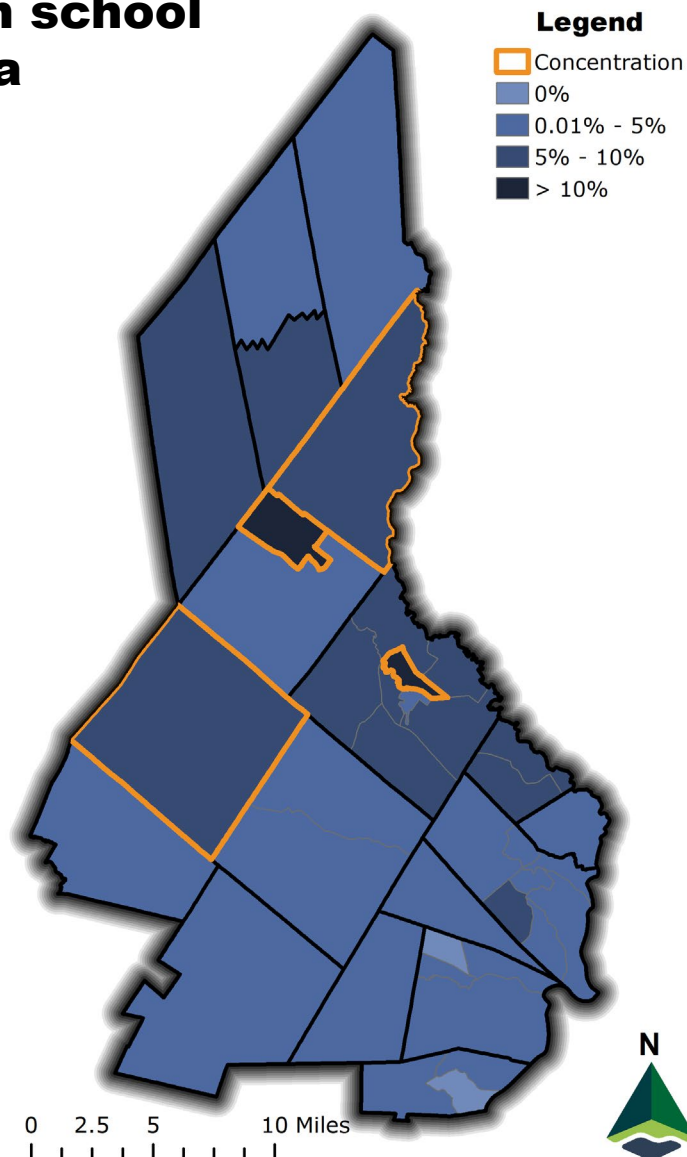## Educational Attainment of adults over 25 years

- No High School Diploma: 5%
- High School Diploma, GED: 26%
- Some College: 18%
- Associates: 12%
- Bachellors: 25%
- Masters: 11%
- PhD: 3%

Change in Educational Attainment (2012-2022)

- Pop. Over 25: 11048
- No High School Diploma: -3003
- High School Diploma, GED: -576
- Some College: 177
- Associates: 2442
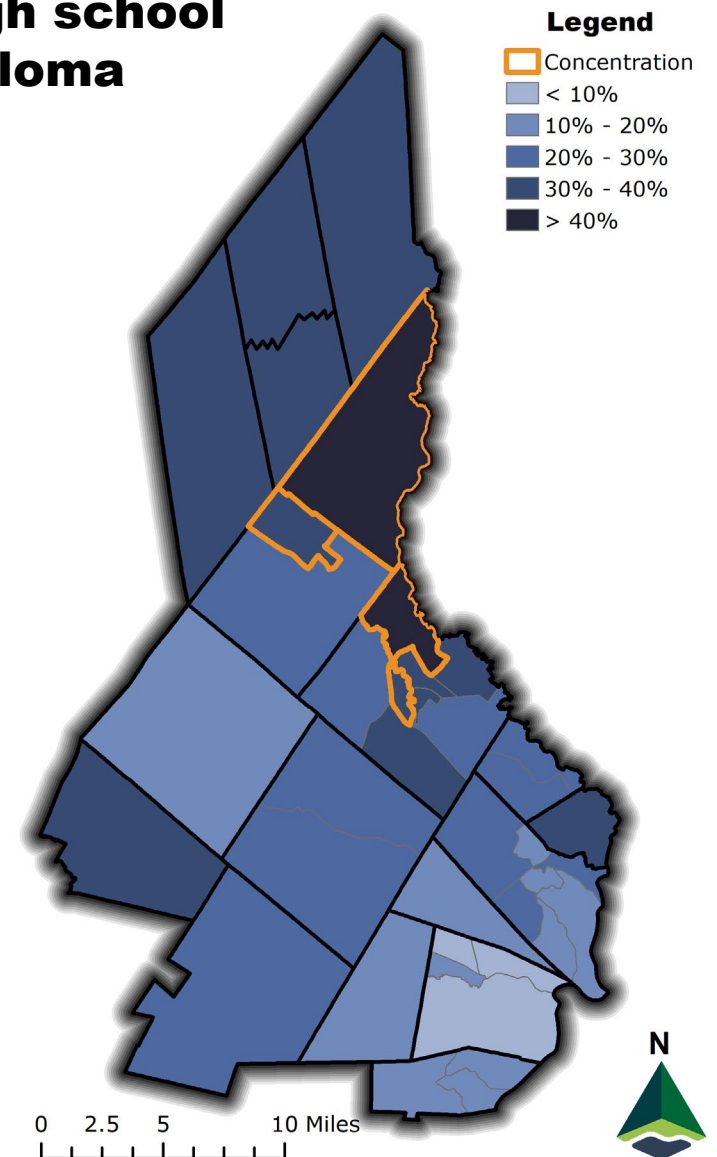- Bachellors: 8175
- Masters: 3605
- PhD: 228

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

DEMOGRAPHICS

27

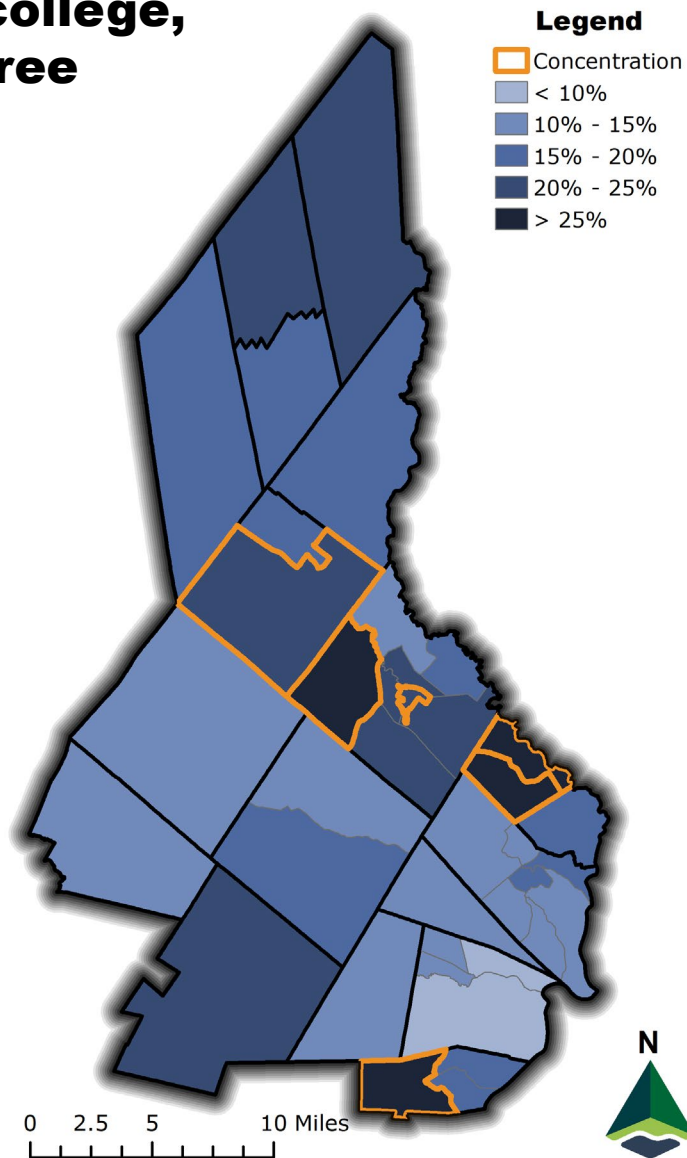# Educational Attainment of the Population Over 25 Years Old

DEMOGRAPHICS

No high school diploma

Legend
- ☐ Concentration
- 0%
- 0.01% - 5%
- 5% - 10%
- > 10%

High school diploma

Legend
- ☐ Concentration
- < 10%
- 10% - 20%
- 20% - 30%
- 30% - 40%
- > 40%

0   2.5   5   10 Miles

N

0   2.5   5   10 Miles

N

Source: US Census Bureau ACS. Year: 2022. Granularity: Municipalities, Census Tracts.

Educational Attainment of the Population Over 25 Years Old

DEMOGRAPHICS

Some college, no degree

Legend
- ☐ Concentration (orange)
- ☐ < 10%
- ☐ 10% - 15%
- ☐ 15% - 20%
- ☐ 20% - 25%
- ☐ > 25%

0 2.5 5 10 Miles

N

Associates degree

Legend
- ☐ Concentration (orange)
- ☐ < 5%
- ☐ 5% - 10%
- ☐ 10% - 15%
- ☐ > 15%

0 2.5 5 10 Miles

N

Source: US Census Bureau ACS. Year: 2022. Granularity: Municipalities, Census Tracts.

Educational Attainment of the Population Over 25 Years Old

DEMOGRAPHICS

Bachelors' degree

Legend
- Concentration
- < 10%
- 10% - 20%
- 20% - 30%
- 30% - 40%
- > 40%

0   2.5   5   10 Miles

N

Masters' degree or higher

Legend
- Concentration
- < 5%
- 5% - 10%
- 10% - 20%
- 20% - 30%
- > 30%

0   2.5   5   10 Miles

N
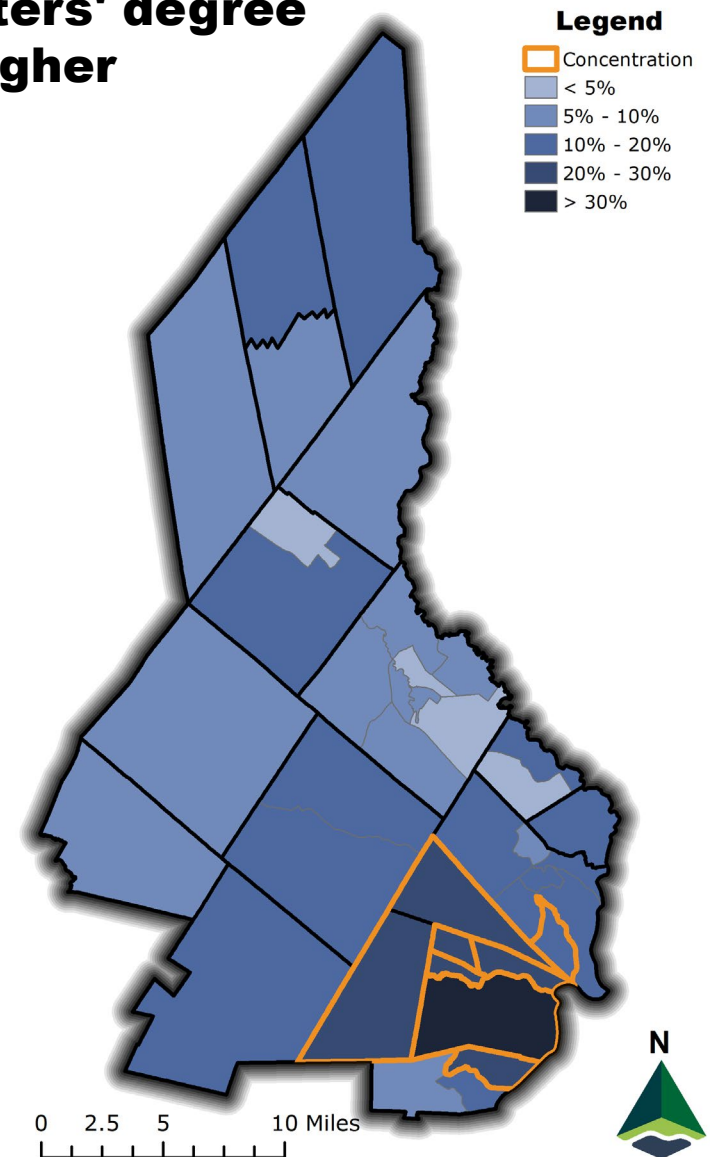
Source: US Census Bureau ACS. Year: 2022. Granularity: Municipalities, Census Tracts.

Individuals with Limited English Proficiency

Individuals with Limited English Proficiency (LEP) are people over the age of 5 who **do not speak English at least "Very Well."**

In 2022, there were about 30 individuals in Strafford County who do not speak any English. More than half (78% in Strafford County alone) of the population with limited English proficiency in the region speaks English "Well."
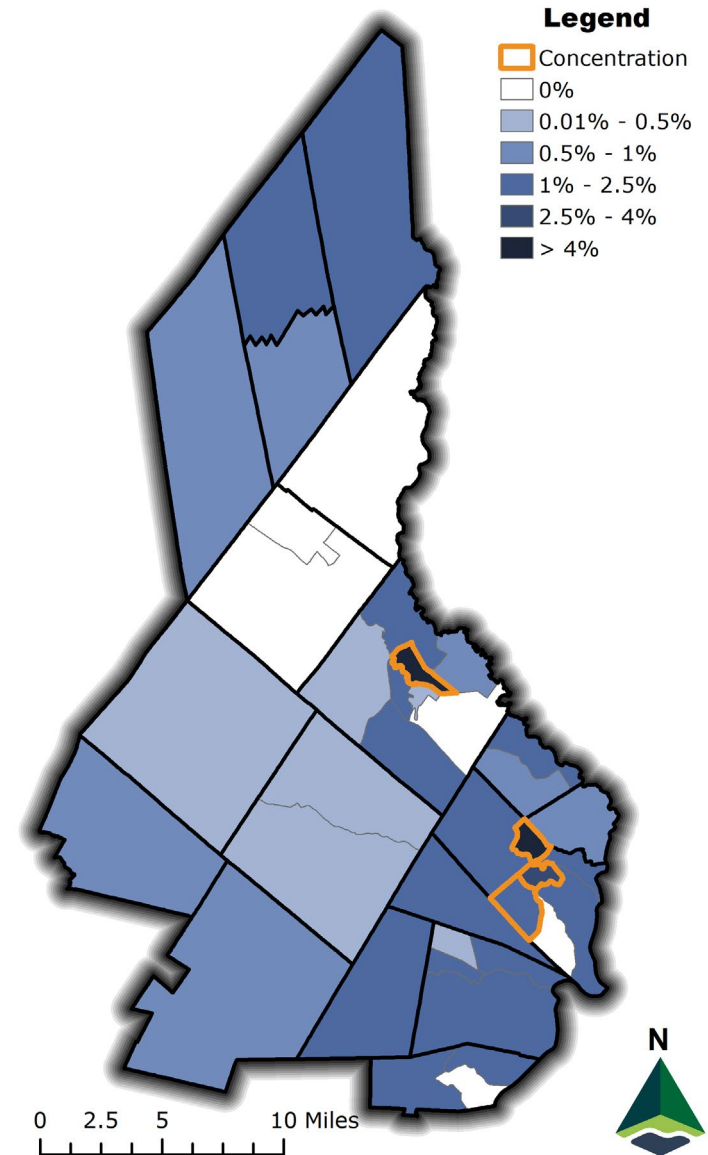
LEP Population by Age

Legend (bar chart): ■ 2012 ■ 2017 ■ 2022
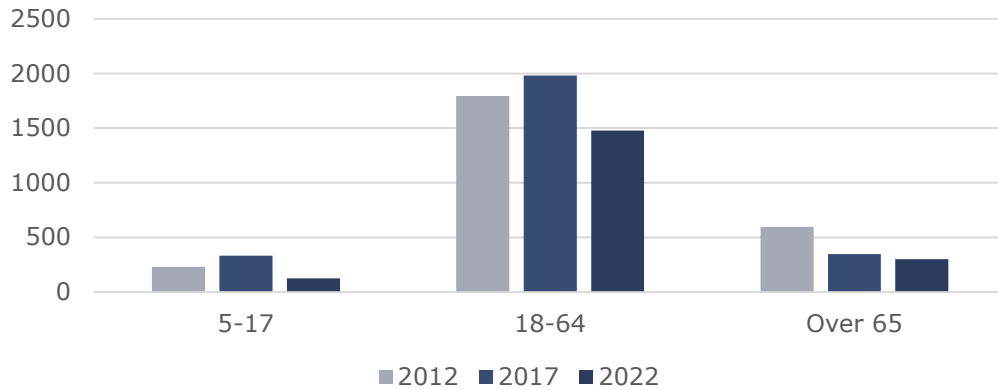
Languages Spoken at Home (excluding English)
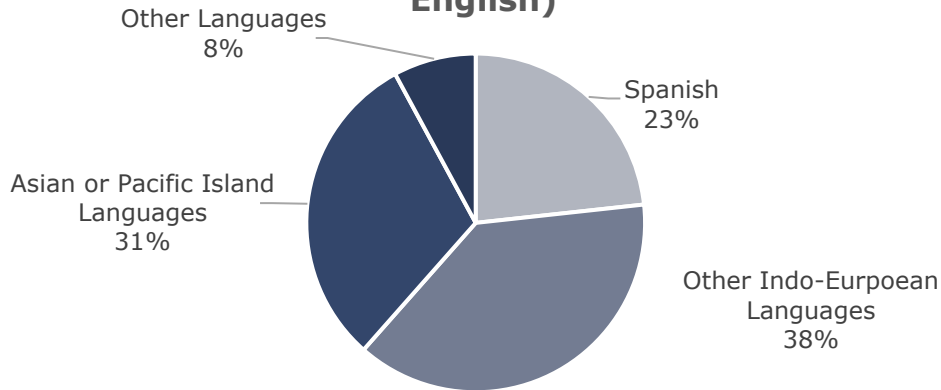
- Other Languages 8%
- Spanish 23%
- Asian or Pacific Island Languages 31%
- Other Indo-Eurpoean Languages 38%

Source: US Census Bureau ACS, 2012-2022.
Granularity: Counties, Municipalities, Census Tracts.

Legend
- Concentration
- 0%
- 0.01% - 0.5%
- 0.5% - 1%
- 1% - 2.5%
- 2.5% - 4%
- > 4%

0   2.5   5   10 Miles

N

DEMOGRAPHICS

31

Veterans

Many veterans find themselves in vulnerable positions due to physical disabilities, mental illness, old age, or other socioeconomic factors. The number of living veterans is decreasing as the age of current veterans is increasing.
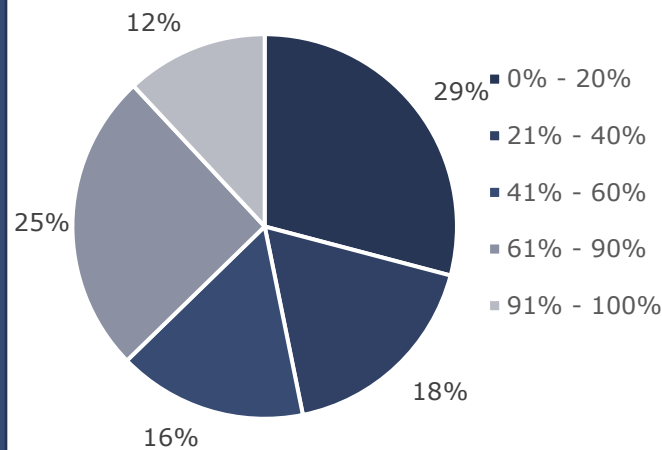
The military is becoming more diverse; the U.S. has more veterans who are people of color and women than prior generations.

The VA tracks the severity of veterans' disabilities as a result of service. The severity ranking is based on an estimated overall impact on the veteran's day to day life. For instance, partial hearing loss or chronic pain would have a lower severity ranking than loss of multiple limbs or full paralysis. In general, a veteran whose disability severity is less than 50% should be able to work and live a fairly normal life, albeit with some challenges due to their disability. However, as the severity approaches 100%, the veterans may face more challenges in day-to-day life, and it may not be feasible for them to work.
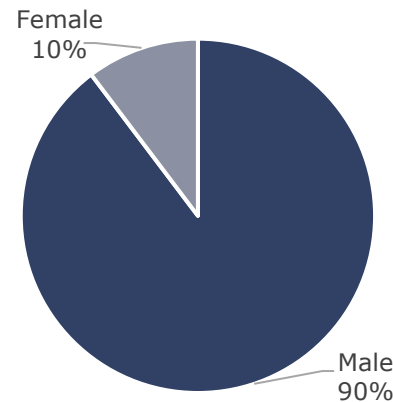
Age of Veterans by County (2022)

Legend:
- 75 years and over
- 65 to 74 years
- 55 to 64 years
- 35 to 54 years
- 18 to 34 years
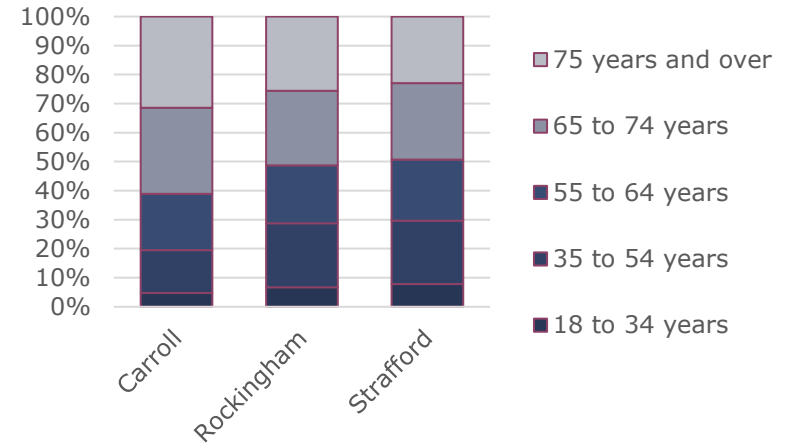
Veteran's Disability Severity Strafford County

- 0% - 20%: 29%
- 21% - 40%: 18%
- 41% - 60%: 16%
- 61% - 90%: 25%
- 91% - 100%: 12%

Sex of Veterans Strafford County (2022)

- Female 10%
- Male 90%

Source: US Census Bureau ACS, Veterans Affairs; 2020-2022

	Veterans		
Municipality	2012	2017	2022
Barrington	10.7%	8.1%	10.8%
Brookfield	12.7%	10.7%	15.9%
Dover	10.6%	8.5%	5.8%
Durham	4.5%	3.0%	2.8%
Farmington	11.9%	12.9%	9.5%
Lee	10.7%	7.6%	7.8%
Madbury	11.1%	9.4%	4.6%
Middleton	10.8%	8.7%	10.7%
Milton	11.5%	14.4%	9.1%
New Durham	13.8%	13.8%	8.4%
Newmarket	9.2%	10.8%	8.5%
Northwood	15.4%	11.1%	11.8%
Nottingham	14.4%	9.8%	12.1%
Rochester	13.9%	11.8%	10.8%
Rollinsford	10.6%	14.0%	8.3%
Somersworth	9.6%	8.6%	8.9%
Strafford	14.5%	13.0%	8.4%
Wakefield	14.1%	15.3%	7.8%
SRPC	**11.1%**	**9.6%**	**8.2%**

ECONOMIC VITALITY

Table of Contents

Employment and the Labor Force

The SRPC region has a civilian labor force of about 89,000 people, but fewer than 55,000 jobs. This section will look at the jobs available and the labor force that seeks to fill those jobs.

Over the past four years of this document, the COVID-19 pandemic had been causing significant fluctuations in most of this data. Now in 2024, many of the metrics in this section have recovered to at least 2018-2019 conditions. The employment projection data that is presented in this chapter was developed prior to the pandemic.

This section has information about:
- Employment trends and projections by industry and municipality.
- Top Employers by number of employees.
- In-are labor force efficiency (i.e. where do jobholders live and work).
- Labor force participation (i.e. unemployment rates).
- Employees by age, including employees under 18 or over 65.

Throughout this section, there are some metrics that are based on the location of the job and some that are based on the people with the job.

This icon means that the metric is based on the number of jobs held. One person can have more than one job, so this will be greater than the number of employed people.

This icon means that the metric is based on the number of employed people. One person can have more than one job, so this will be less than the number as the number of jobs held.

Employment Projections to 2045

New Hampshire Employment Security (NHES) projects employment for ten years biennially. SRPC's Travel Demand Model relies on population and employment projections for each scenario year. The current scenario years are 2015, 2025, 2035, and 2045. Projections from NHES and the New Hampshire Office of Planning & Development (OPD) are used for the model and extended out as needed for the scenario years. See the Demographics section for Population Projections that are also used in the model.

These projections show an increase in the number of jobs in all the municipalities in the region. Additionally, the region is projected to grow or stay level in all industries except agriculture and communications.

Please note that these estimates and projections were developed prior to the COVID-19 pandemic and may not reflect current employment trends. These figures are still valuable, as they show regional pre-pandemic trends and may be indicative of the region's labor force skillset.

Industry (NAICS Sector)	2015	2025	2035	2045
Agriculture, Forestry, & Fishing (11)	136	133	129	126
Business, Legal, & Personal (54, 55, 56)	3,844	4,351	4,931	5,595
Communications (51)	997	963	932	906
Construction (23)	1,703	1,836	1,985	2,143
Eating & Drinking Establishments (72)	364	404	431	462
Educational Services (6)	8,331	8,718	9124	9,551
Finance, Insurance, & Real Estate (52, 53)	4,298	4,569	4,861	5,170
Government (92)	2,218	2,314	2,416	2,524
Health Services (62)	2,923	3,351	3,851	4,424
Hotels & Lodging (72)	4,122	4,161	4,446	4,748
Manufacturing (31)	5,498	5,548	5,606	5,667
Mining (21)	32	33	33	37
Non-Classifiable (99)	3,046	3,270	3,516	3,776
Retail Trade (44)	6,952	7,338	7,743	8,174
Service (general) (71)	642	710	782	864
Social Services (62)	4,527	5,212	5,988	6,881
Transportation (48)	1,216	1,237	1,260	1,285
Utilities (22)	72	72	71	71
Wholesale Trade (42, 81)	2,832	3,034	3,249	3,478
Total (SRPC)	53,753	57,254	61,354	65,882

Source: NHES. Year: 2015. Granularity: Municipalities.

Municipality	2015	2025	2035	2045
Barrington	1,911	2,017	2,140	2,272
Brookfield	14	15	16	17
Dover	18,192	19,581	21,212	23,029
Durham	6,728	7069	7,462	7,883
Farmington	1,041	1,100	1,166	1,239
Lee	1,302	1,381	1,476	1,581
Madbury	275	296	321	348
Middleton	140	148	156	165
Milton	651	680	714	753
New Durham	238	251	266	283
Newmarket	1,468	1,570	1,690	1,824
Northwood	1,055	1,123	1,198	1,281
Nottingham	343	361	385	411
Rochester	12,373	13,183	14,140	15,198
Rollinsford	527	546	573	599
Somersworth	6,150	6,515	6,935	7,400
Strafford	372	392	415	441
Wakefield	973	1,026	1,089	1,158
Total (EDD)	**50,887**	**54,200**	**58,081**	**62,366**
Total (SRPC)	**53,753**	**57,254**	**61,354**	**65,882**

EDD denotes the Strafford Economic Development District, which excludes municipalities in Rockingham County.

Employment by Industry

NH Employment Security provides ten-year employment forecasts by industry. The latest projections are based on 2018 estimated employment.

These estimates and projections were developed prior to the COVID-19 pandemic and may not reflect current employment trends.

Long-term Industry Projections Industry	2020 Estimated	2030 Projected
Total Employment	**53,874**	**57,945**
Goods-Producing Industries	**7,207**	**7,377**
Agriculture, Forestry, Fishing and Hunting	417	454
Mining	16	16
Construction	1,881	2,060
Manufacturing	4,893	4,847
Service-Providing Industries	**43,784**	**47,730**
Utilities	n	n
Wholesale Trade	1,189	1,269
Retail Trade	7,211	7,049
Transportation and Warehousing	1,056	1,133
Information	688	663
Finance and Insurance	2,826	2,943
Real Estate and Rental and Leasing	395	414
Professional, Scientific, and Technical Services	2,869	3,358
Management of Companies and Enterprises	127	121
Administrative and Support and Waste Management Services	2,194	2,367
Educational Services	7,892	8,342
Health Care and Social Assistance	7,427	8,423
Arts, Entertainment, and Recreation	562	669
Accommodation and Food Services	4,129	5,360
Other Services (Except Government)	2,337	2,592
Government	**2,823**	**2,962**
Self-employed Workers	**2,883**	**2,838**

Source: NHES. Year: 2020. Granularity: SRPC.

Employment Projections By Industry 2020-2030

Legend: Service-Providing Industries ■ Goods-Producing Industries ■ Government ■ Self-employed Workers
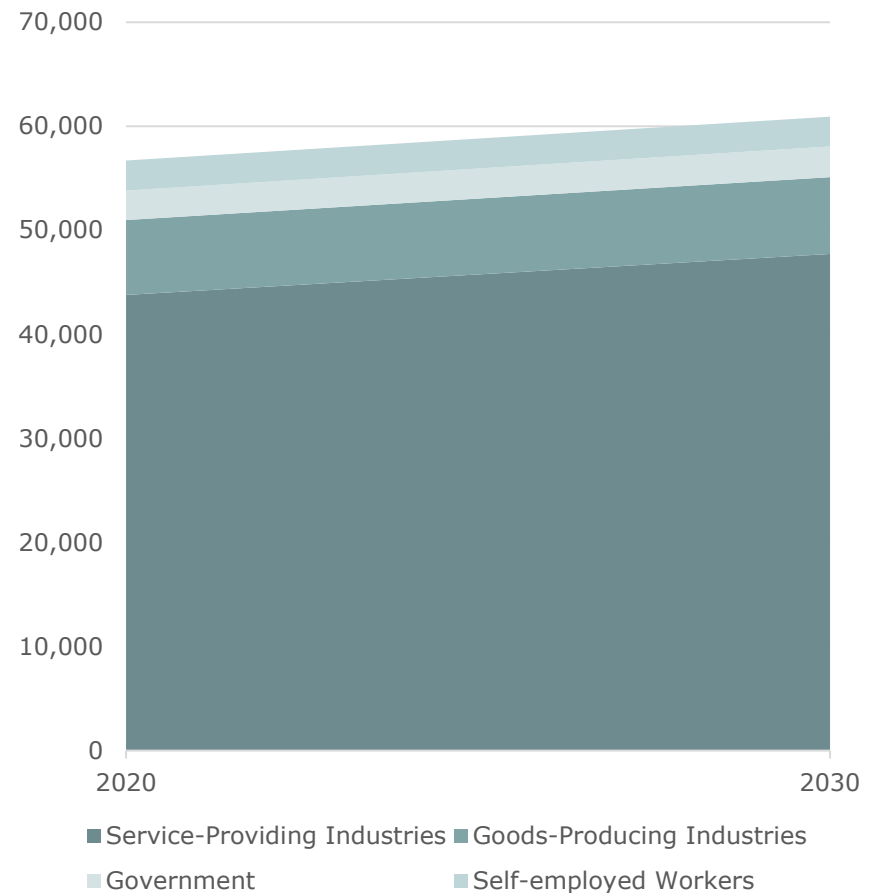
Top Employers

The major employers in the region align with the region's largest industries: Education, Healthcare, Retail, and Manufacturing.

In 2023, Liberty Mutual announced that they will be vacating their two Dover campuses to consolidate their workers to their existing Portsmouth office, as well as allowing employees to work remotely. This change will be taking place throughout the rest of the year.

Refer to the latest SRPC Comprehensive Economic Development Strategy (CEDS) for annual updates on employment trends, and specifically the Business Operations chapter to see annual updates about major employers.

Size	Company	Sector
1,000 to 4,999	University Of New Hampshire	Education
	Liberty Mutual (Lincoln Life Assurance Co)	Insurance
500 to 999	Frisbie Memorial Hospital	Hospitals
	Community Partners	Health Care
	Albany International Corp	Manufacturing
250 to 499	Thermopol Inc	Manufacturing
	Walmart Supercenter	Retail
	Riverside Rest Home	Government
	Dover Municipal Building	Government
	Target	Retail
	Work Opportunities Unltd Inc	Temp Help
	Aclara Meters	Manufacturing
	Market Basket	Retail
	Rochester NH City Hall	Government
	Robbins Auto Parts Inc	Retail

Source: DataAxle via New Hampshire Economic & Labor Market Information Bureau. 2023.

In-Area Labor Force Efficiency

The Longitudinal Employer-Household Dynamics (LEHD) dataset is maintained by the US Census Bureau. LEHD is known for its origin-destination employment statistics data (LODES).

This data is based on jobs rather than workers, so the total labor force represented in this data may be larger than the labor force referenced in other metrics. One worker may hold multiple jobs at a time or within a reporting period such that the individual would be represented here more than once.

Many of the job holders who live in the region work outside of the region. This may be people who lived and worked to the south of the region in Portsmouth or Boston moving here for lower housing costs, or it could be people living in the region who found better paying jobs outside of the region.

2021
Lives In the Region   **Works In the Region**

45,546   **28,966**   **23,956**
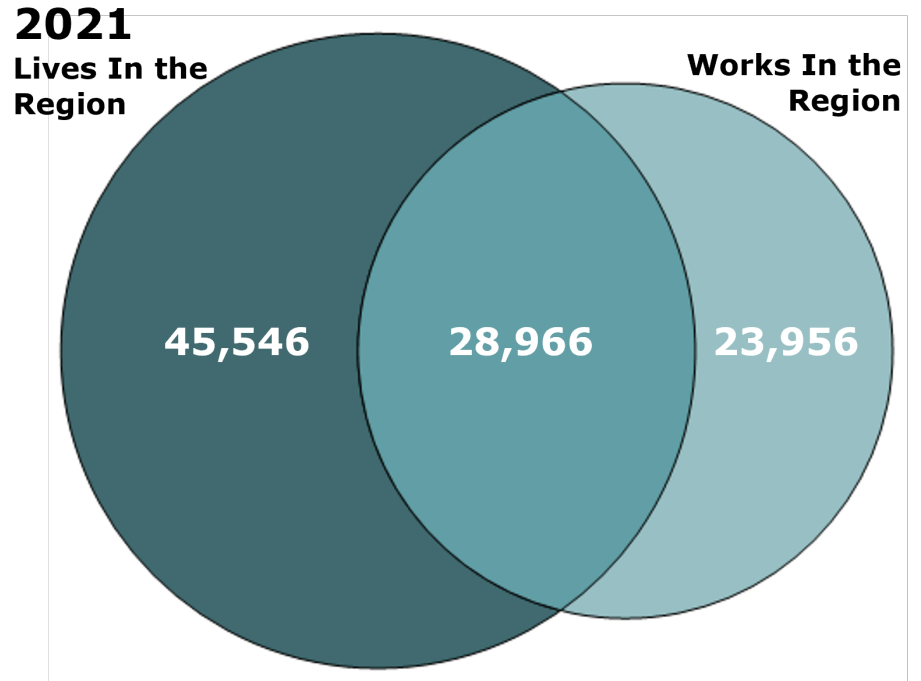
Lives:	**Here**	**Here**	**Not Here**
Works:	**Not Here**	**Here**	**Here**
Worker Age Under 29	10,440	6,336	5,790
30 - 54	23,653	14,520	11,594
Over 55	11,453	8,110	6,572
Monthly Income < $1,250	7,145	5,441	5,088
$1,250 - $3,333	9,888	8,177	5,835
> $3,333	28,513	15,348	13,033
Sector Goods Producing	7,747	4,830	2,756
Trade, Transportation, and Utilities	10,065	4,306	5,757
All Other Services	27,734	19,830	15,443

	2018	**2019**	**2020**	**2021**
Living in the Region but Employed Outside	45,698	45,868	43,820	45,546
Living and Employed in the Region	29,937	30,925	28,544	28,966
Employed in the Region but Living Outside	23,995	24,244	22,712	23,956

Source: US Census Bureau LEHD. Year: 2021. Granularity: SRPC.
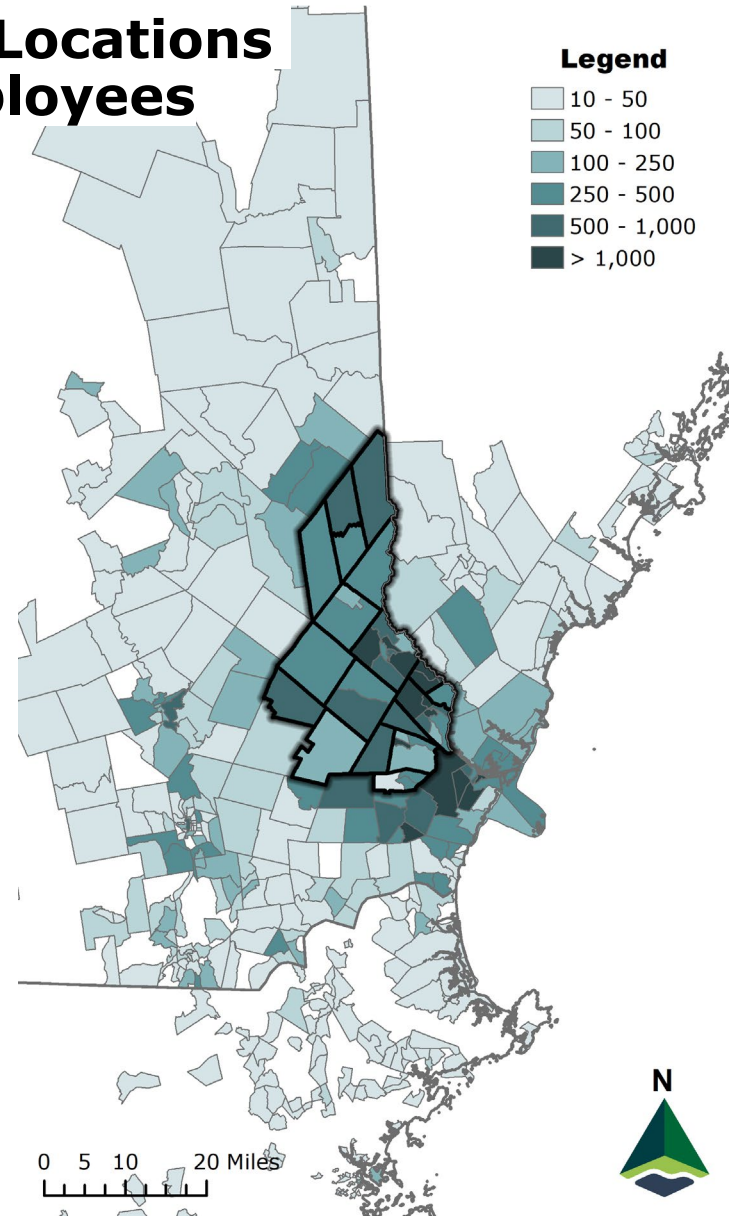
ECONOMIC VITALITY

In-Area Labor Force Efficiency

Work Locations of Residents
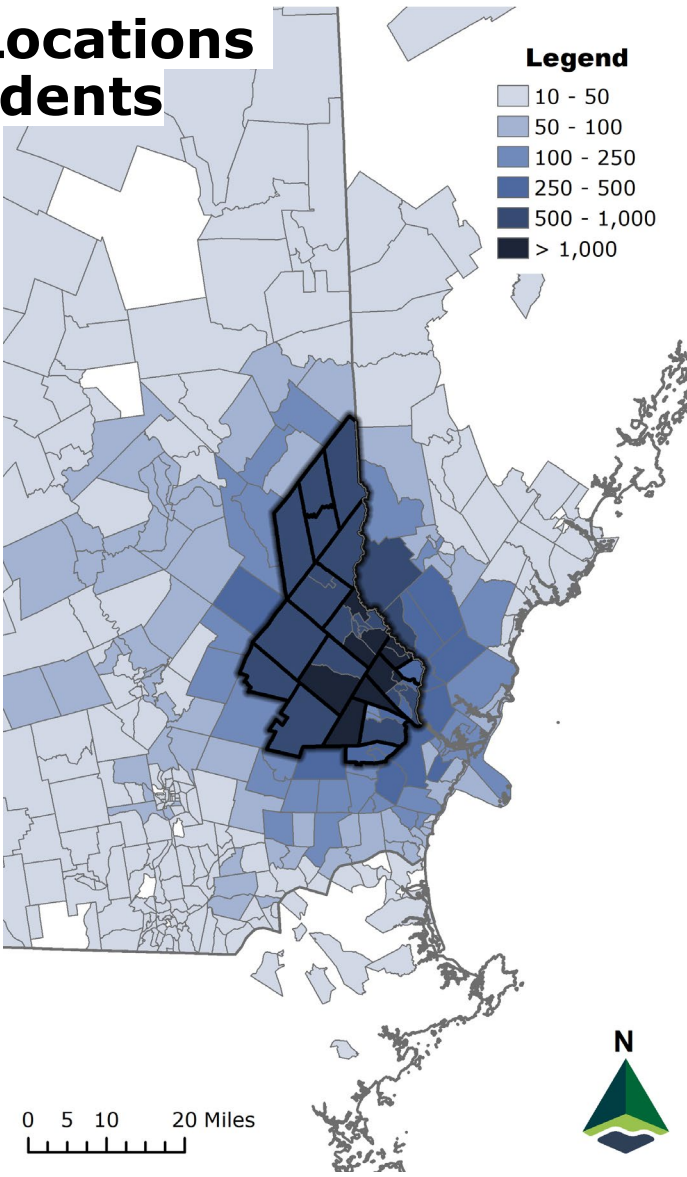
Home Locations of Employees

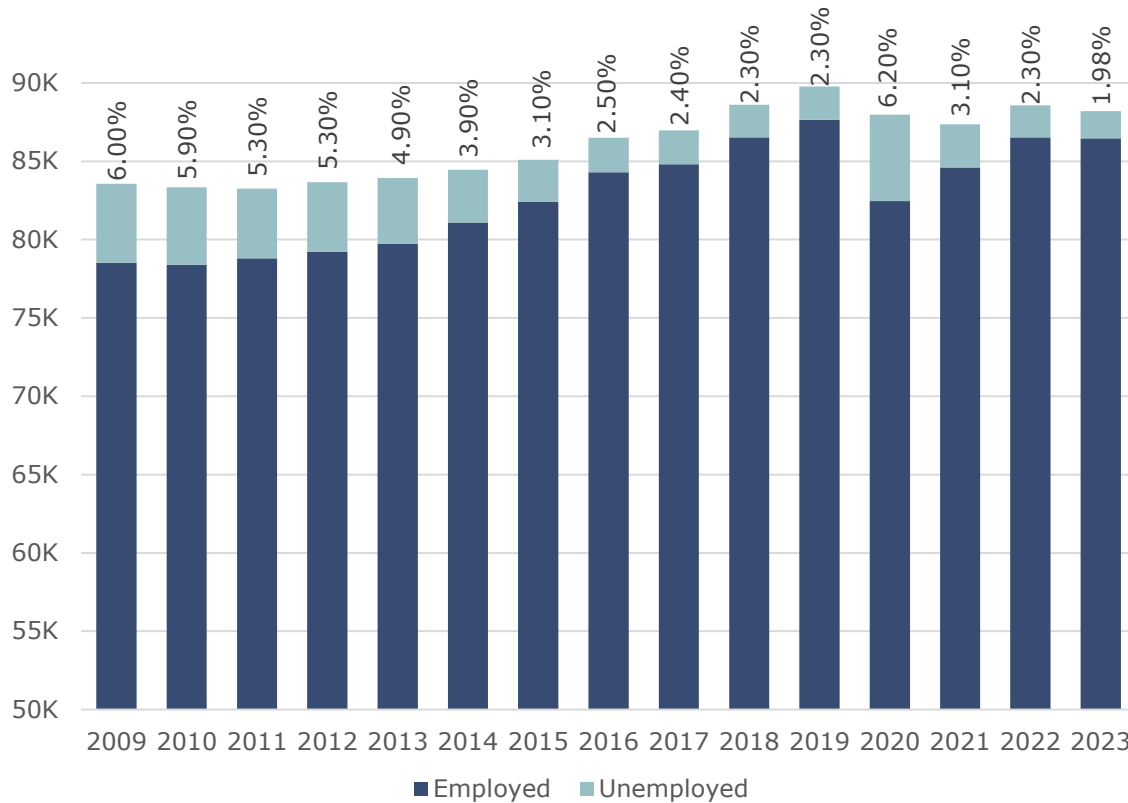Source: US Census Bureau LEHD. Year: 2021. Granularity: SRPC.

Labor Force Participation

This chart below consists of people who are actively employed and those who are unemployed but actively looking for work. The chart does not include discouraged workers (i.e., people who are not employed and not actively looking for work) as unemployed. Labor force participation is used directly to determine the unemployment rate of the region.

Below, it is apparent that unemployment rose in the late 2000s financial crisis and was decreasing until the COVID-19 pandemic. Up to 2019, the labor force and the employed population grew at similar rates. There was an initial drop in employment in 2020 due to COVID-19, however the region's unemployment rate recovered by 2022. Some towns have not been so fortunate and continue to experience higher unemployment rates today.

Unemployment by Year

Bar chart showing employment and unemployment by year (2009-2023), with unemployment rate labels:
- 2009: 6.00%
- 2010: 5.90%
- 2011: 5.30%
- 2012: 5.30%
- 2013: 4.90%
- 2014: 3.90%
- 2015: 3.10%
- 2016: 2.50%
- 2017: 2.40%
- 2018: 2.30%
- 2019: 2.30%
- 2020: 6.20%
- 2021: 3.10%
- 2022: 2.30%
- 2023: 1.98%

Y-axis: 50K to 90K
Legend: ■ Employed ■ Unemployed

COVID-19 Recovery Status
*Comparison of
Oct 2019-Jan 2020 averages
and
Oct 2023-Jan 2024 averages*

Higher Total Labor Force (Recovered)
Newmarket
Northwood
Nottingham

Higher Unemployment Rate (Not Recovered)
Dover, Farmington, Lee, Middleton, New Durham, Rochester, Rollinsford, Somersworth, Wakefield

Source: NHES. Year: 2009 - 2023. Granularity: SRPC.

ECONOMIC VITALITY

Percent of Employees Under Age 18

This data summarizes the percent of employed people who are under the age of 18 who earned a paycheck at the beginning of each quarter. For employees working between April and June (Q2), they would have to earn a paycheck at the beginning of April. Employees hired through the spring and early summer will not be count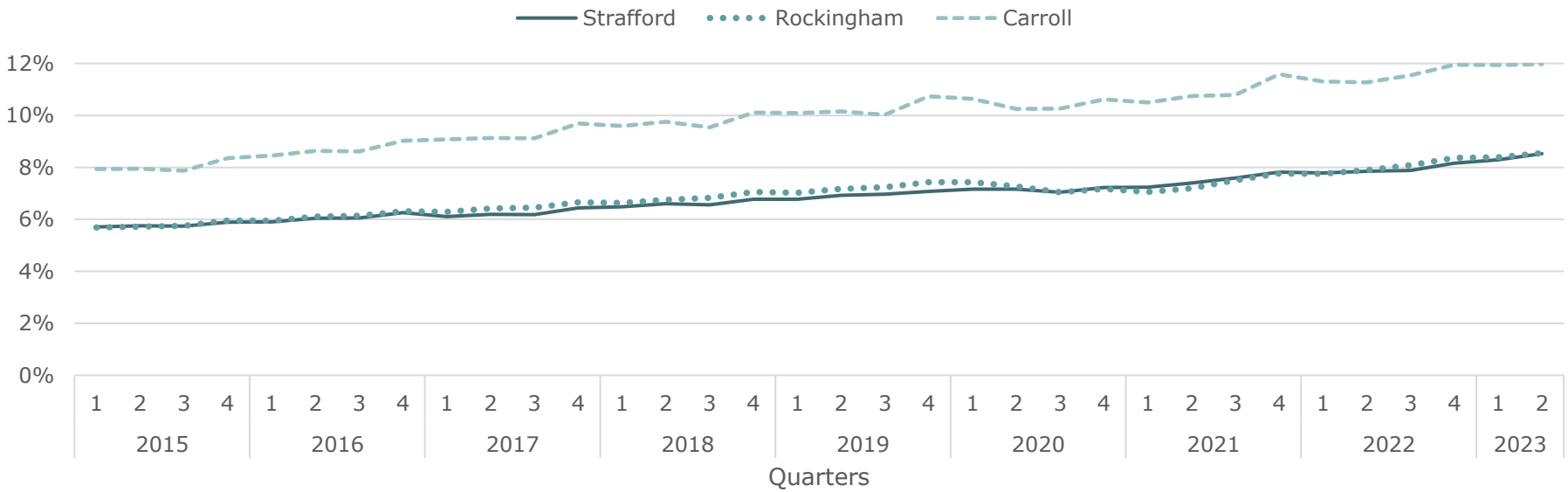ed until they receive a paycheck at the beginning of July. As a result, the workforce under the age of 18 spikes yearly in Q3 (July-September) due to summer break and seasonal positions becoming available.

This trend is most noticeable in Carroll County due to the tourism demand of the summer, especially around the lakes. Rockingham County has a similar, though less pronounced spike in young employees in the summer months.

COVID-19 caused a major drop in Q2 and Q3 of 2020 as many tourist destinations were closed in response to the pandemic. These jobs have not entirely recovered, however, the remainder of 2020 and early 2021 indicate a return to seasonal trends for this employed group.

Percentage of Workers Under 18 Years Old
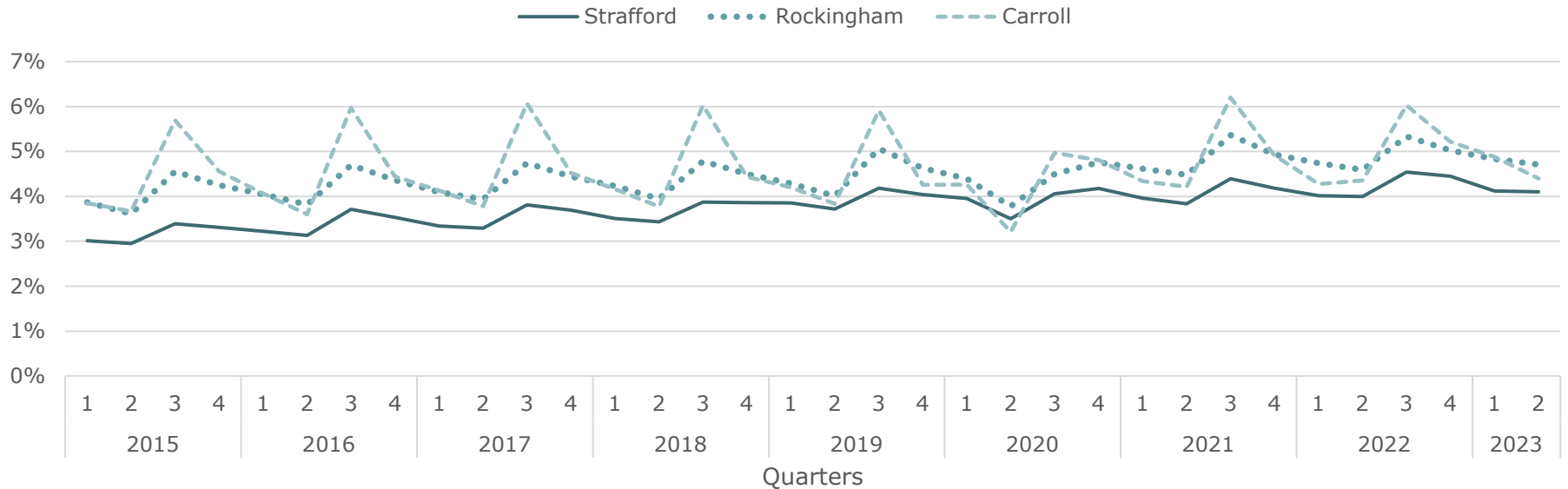
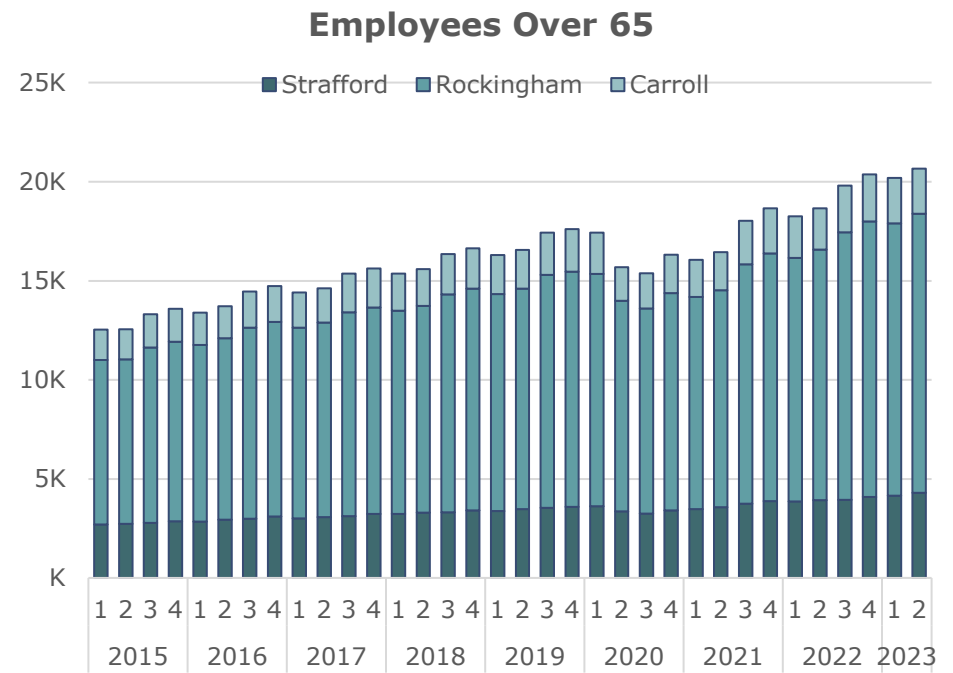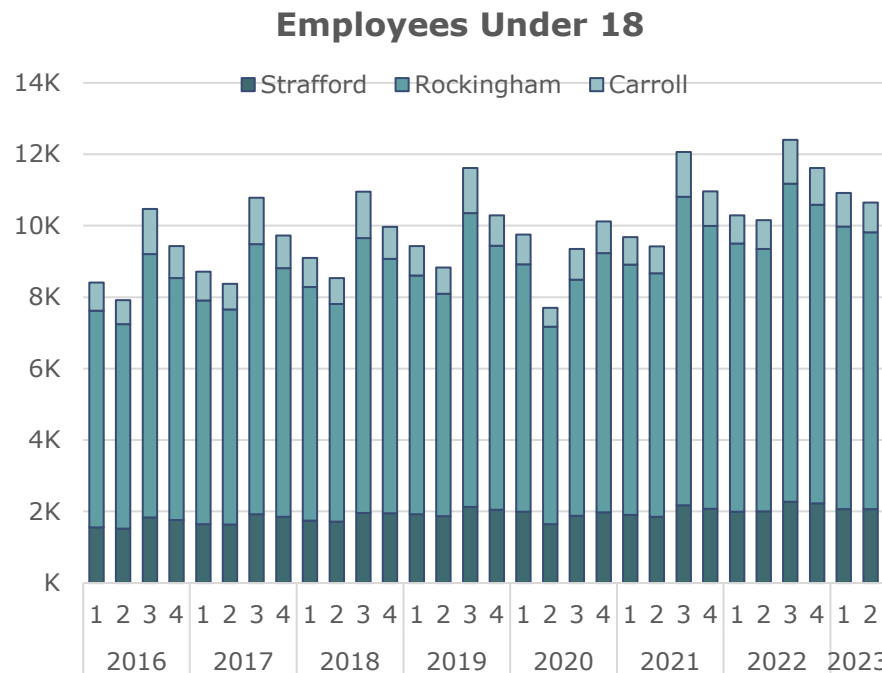Source: US Census Bureau LEHD QWI. Year: 2015 – 2023. Granularity: Counties, NH.

ECONOMIC VITALITY

Percent of Employees Over Age 65

This data summarizes the percent of employed people who are over the age of 65 who were employed and earned a paycheck at the beginning of each quarter. For employees working between April and June (Q2), they would have to earn a paycheck at the beginning of April. Employees hired through the spring will not be counted until they receive a paycheck at the beginning of July.

The percent of the workforce over the age of 65 is increasing statewide. Strafford and Rockingham Counties follow the state trend very closely, while Carroll county has a much higher percent of the workforce over the age of 65. This follows the trends in the age of the residents in the counties as well.

Carroll County has a larger percent of residents over 65 (29.2%) than the rest of the state (19%) and employment trends reflect this. See Demographics for more information.

An increasing retirement age has also influenced the employment of adults over 65 nationwide. The Social Security Administration is raising the retirement age to 67 for those born 1960 and later. For more information see the SSA's website: https://www.ssa.gov/pressoffice/IncRetAge.html

Percentage of Workers Over 65 Years Old

Strafford ••••• Rockingham ――― Carroll

Source: US Census Bureau LEHD QWI. Year: 2015 – 2023. Granularity: Counties, NH.

ECONOMIC VITALITY

Workforce Numbers by Age

The number of workers in the high-school-age and retirement-age brackets shows similar trends to those displayed by their share of the total workforce.

The workforce under 18 shows strong seasonal variability, with large spikes in Q2 summer jobs each year. Year-over-year comparisons of Q2 show steady growth from 2016-2019. Trends for workers over 65 show less seasonal variability and prior to 2020 showed continual growth, especially in Q3 and Q4 of each year, punctuated by small losses or stagnation in Q1 of the following year.

Both the workforce under 18 and the workforce over 65

suffered initial drops in 2020 Q2, but quickly recovered to 2019 numbers by the end of 2021. Furthermore, both age cohorts are continuing to grow in 2022 and 2023 indicating that they are both recovered from the pandemic.

Declining elementary school enrollment and lower birth rates across New Hampshire suggest that teen workers under 18 may plateau or even decline in the years to come. In contrast, we expect the number of senior workers over 65 to continue to grow as this age cohort grapples with higher costs of living or seeks "retirement gigs" in the service industry.

ECONOMIC VITALITY

Employees Under 18

Employees Over 65

Source: US Census Bureau LEHD QWI. Year: 2015 – 2023. Granularity: Counties, NH.

Workforce Numbers by Age

Strafford and Rockingham Counties have shown marked recovery even two years after the start of the COVID-19 pandemic, while Carroll County struggles somewhat.
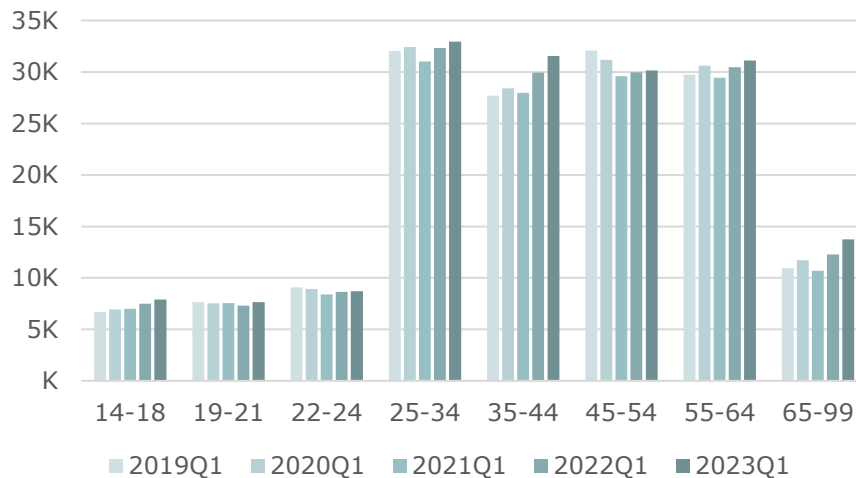
In all three counties, the number of high-school-age and retirement-age employees recovered the fastest. These two age groups were trending up even before the onset of the pandemic.

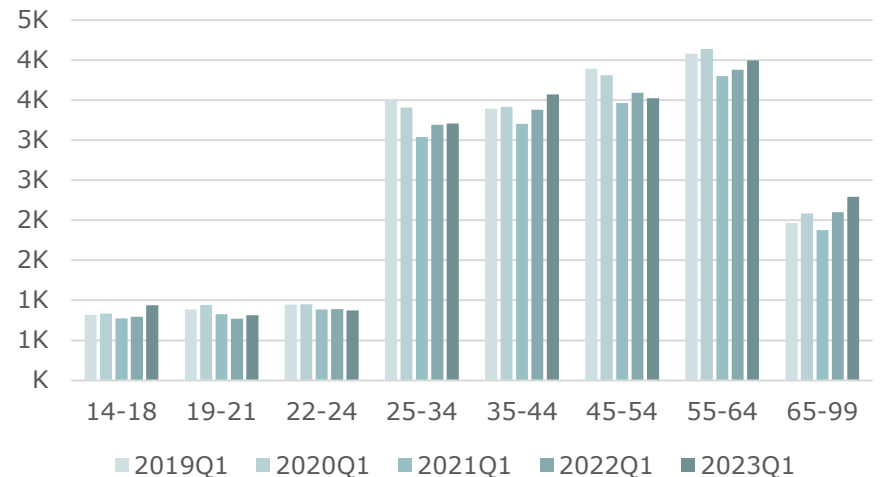The 22-24 and 45-54 age groups of workers were declining prior to the pandemic and are experiencing a slow recovery.

ECONOMIC VITALITY

Strafford County

2019Q1 2020Q1 2021Q1 2022Q1 2023Q1

Rockingham County

2019Q1 2020Q1 2021Q1 2022Q1 2023Q1

Carroll County

2019Q1 2020Q1 2021Q1 2022Q1 2023Q1
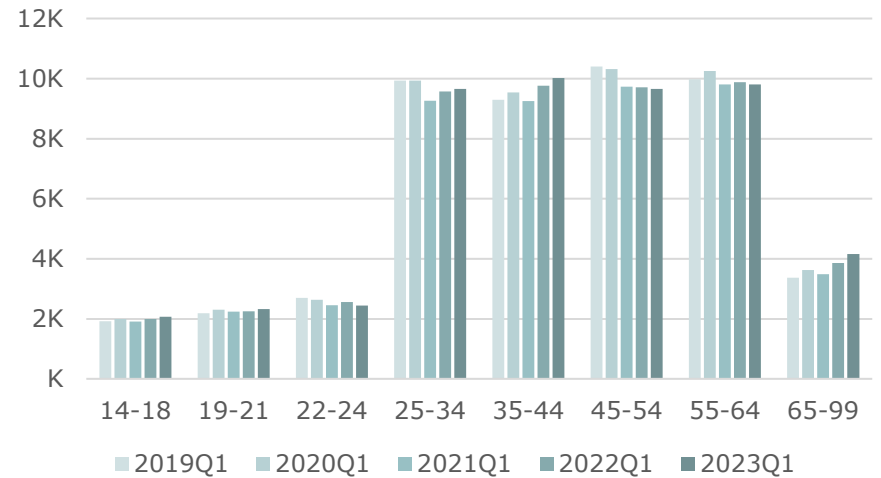
Source: US Census Bureau LEHD QWI. Year: 2019 – 2023. Granularity: Counties, NH.

Income

While many of the trends for things like jobs and workforce in this chapter and expenses like cost of living, housing prices, interest, inflation, and taxes have been increasing rapidly over the last few decades, income has not kept up.

Today the living wage in Strafford County is more than 3 times the minimum wage, and the median home price is nearly 5 times the median household income.

Metrics regarding income in this section include:
- Median household income.
- Poverty and Low-Income Households.
- Income inequality via the Gini Index and select income metrics.
- Percentage of households in defined income brackets.
- Income by Household Tenure.
- Social Security, Disability, and Retirement income

The next section "Cost of Living" will add context about how inadequate these incomes are.

Median Household Income

The median household incomes for the state of New Hampshire and all three counties with SRPC communities are increasing. The median income in Strafford County is increasing at a rate higher than the state. The median income in Rockingham County is over $16K more than the state median and is also increasing at a higher rate. Carroll County's median income is about $11K less than the state, although increasing at about the same rate.
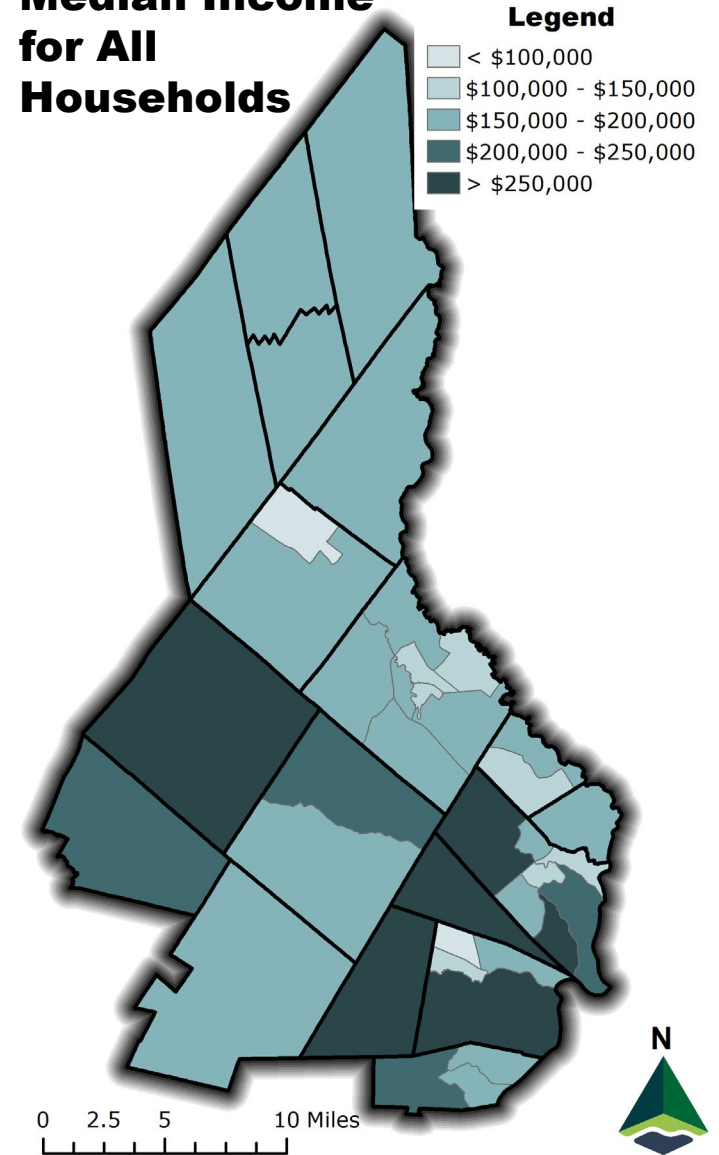
While the median income for all households has been increasing, the median income of homeowners is roughly double the median income of households who rent their homes. This inequity makes it harder for those who rent to afford to purchase homes and keeps them locked into a rental market. Homeowners benefit from stable housing costs (30-year mortgages) while renters are subject to rents that can increase annually.

Median Household Income — bar chart showing income by All / Owner / Renter for Carroll County, Rockingham County, and Strafford County for years 2012, 2017, 2022.
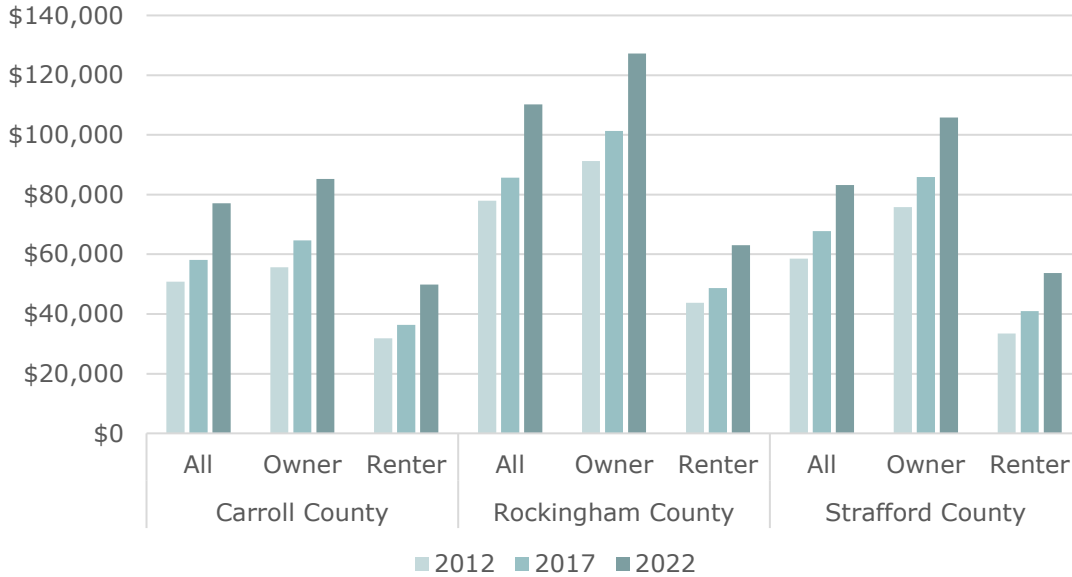
Median Income for All Households

Legend
- < $100,000
- $100,000 - $150,000
- $150,000 - $200,000
- $200,000 - $250,000
- > $250,000

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.
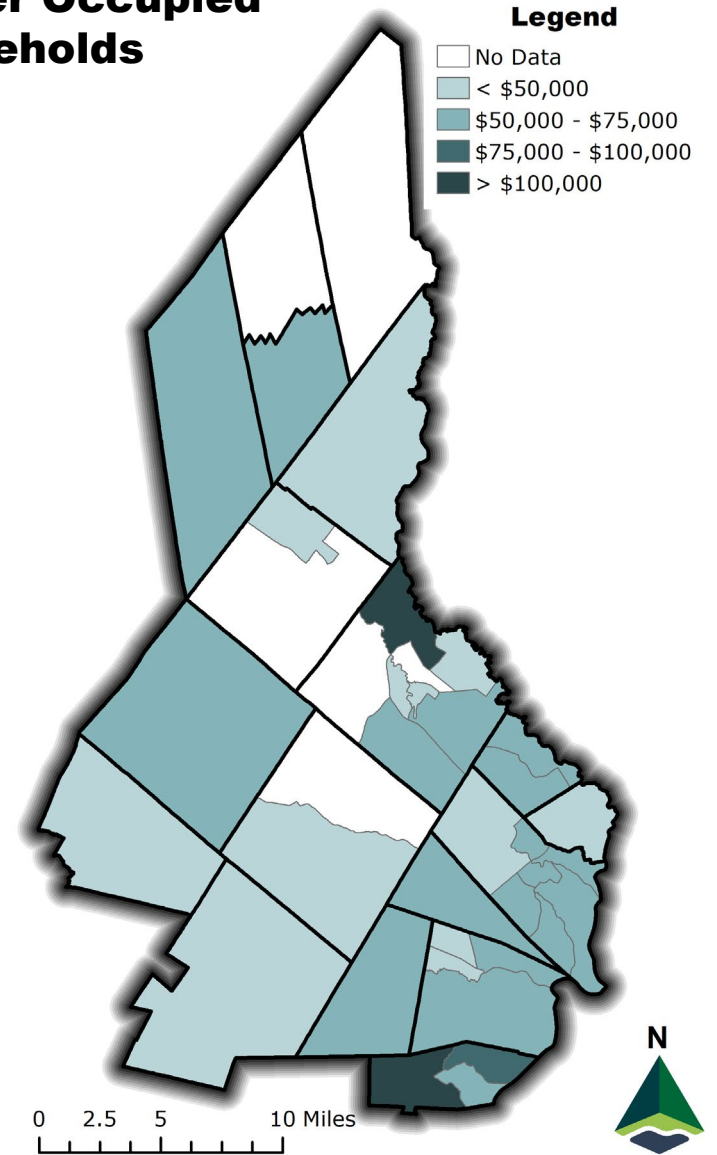
Median Household Incomes

Owner Occupied Households
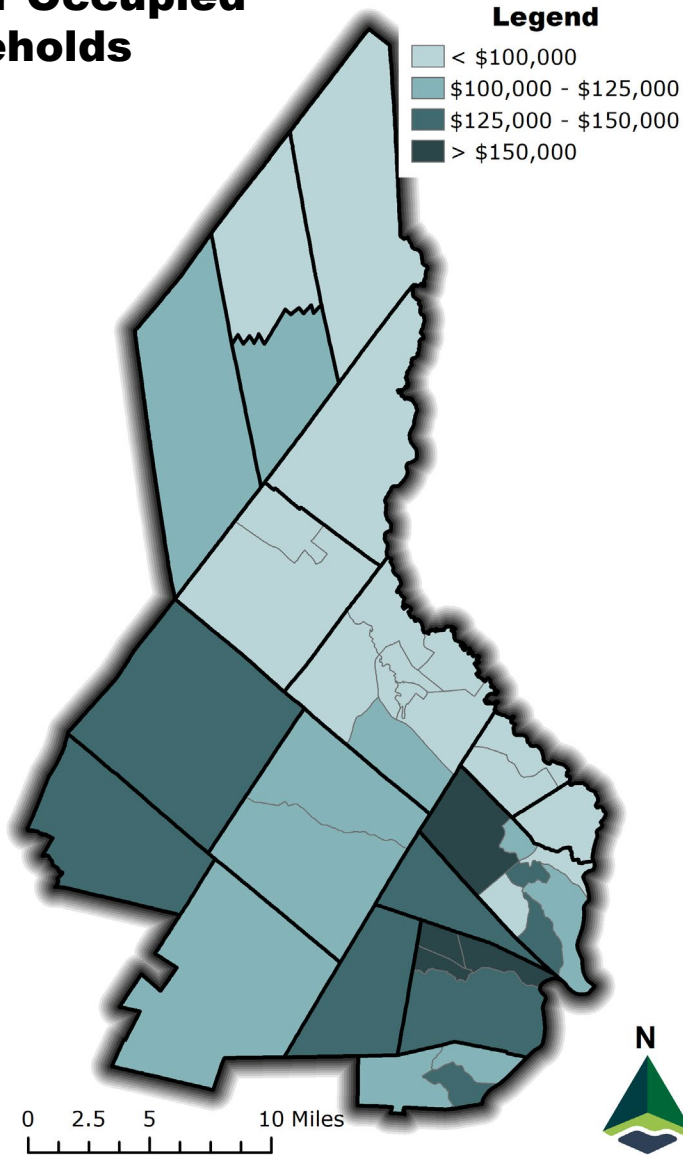
Legend
- < $100,000
- $100,000 - $125,000
- $125,000 - $150,000
- > $150,000

Renter Occupied Households

Legend
- No Data
- < $50,000
- $50,000 - $75,000
- $75,000 - $100,000
- > $100,000

0   2.5   5   10 Miles

N

0   2.5   5   10 Miles

N

Source: US Census Bureau ACS, 2012-2022. Granularity: Census Tracts.

Poverty

Each year the US Census Bureau calculates poverty thresholds based on a selection of household configurations and determines the poverty status for each household. These assumptions are based on the age of the head of household and the presence of children. In addition to thresholds for each of the household configurations, they also develop a weighted threshold. The table on this page contains the weighted poverty thresholds for different household sizes. More information about these thresholds is available here:
https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html

The charts below look specifically at people who are living in households that earn less than 2x (200%) of the poverty level, as these households are considered low income.

The maps on the next page are based on each households' configurations and household income. The table to the right shows the federal weighted average poverty threshold for the specified household size.

Persons in household	2019 Threshold	2020 Threshold	2021 Threshold	2022 Threshold
1	$13,011	$13,171	$14,097	$14,880
2	$16,521	$16,733	$18,145	$18,900
3	$20,335	$20,591	$21,196	$23,280
4	$26,172	$26,496	$27,949	$29,950
5	$31,021	$31,417	$33,705	$35,510
6	$35,129	$35,499	$38,767	$40,160
7	$40,016	$40,406	$44,606	$45,690
8	$44,461	$44,755	$49,888	$51,010
9+	$52,875	$53,905	$60,012	$60,300

Poverty Status

Legend: ■ Under 200% Poverty Level ■ Over 200% Poverty Level
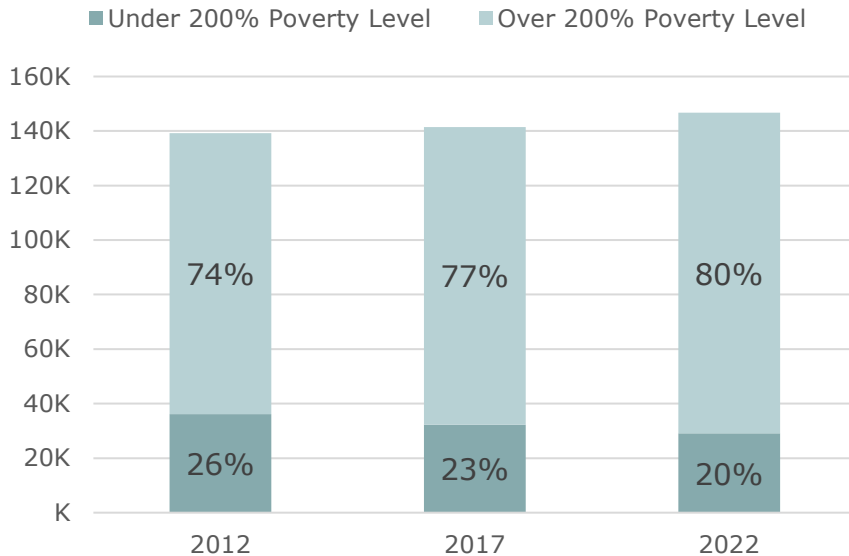
Population Under 200% of the Poverty Level
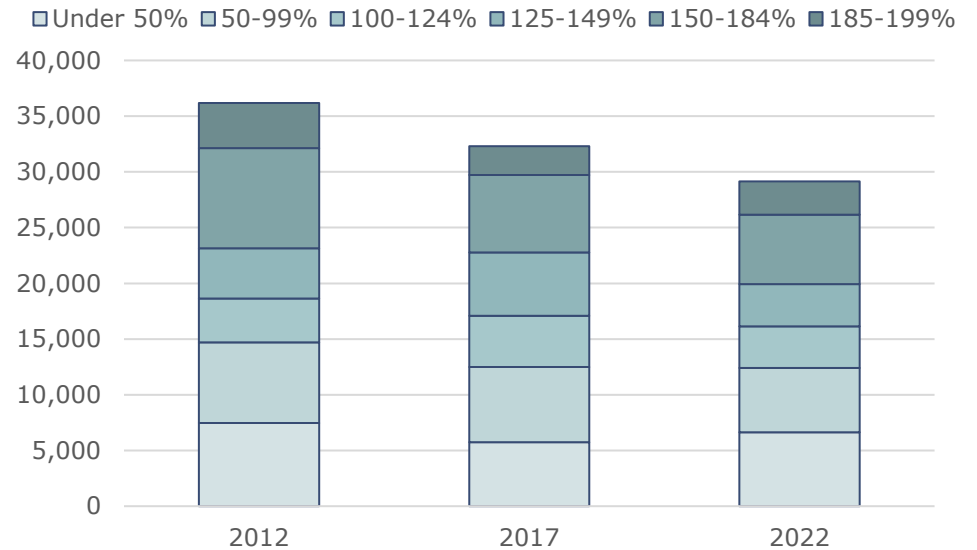
Legend: □ Under 50% □ 50-99% □ 100-124% □ 125-149% ■ 150-184% ■ 185-199%
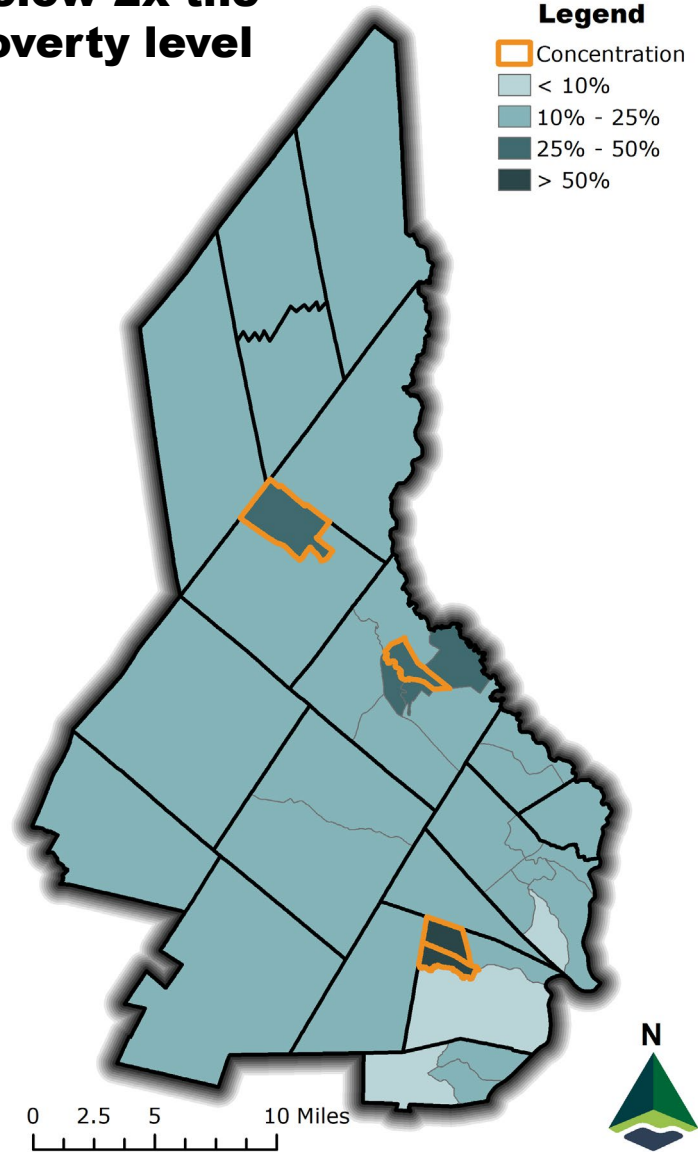

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

ECONOMIC VITALITY

Poverty Status

Below the poverty level

Legend
- 0%
- 0.1% - 5%
- 5% - 10%
- 10% - 20%
- > 20%
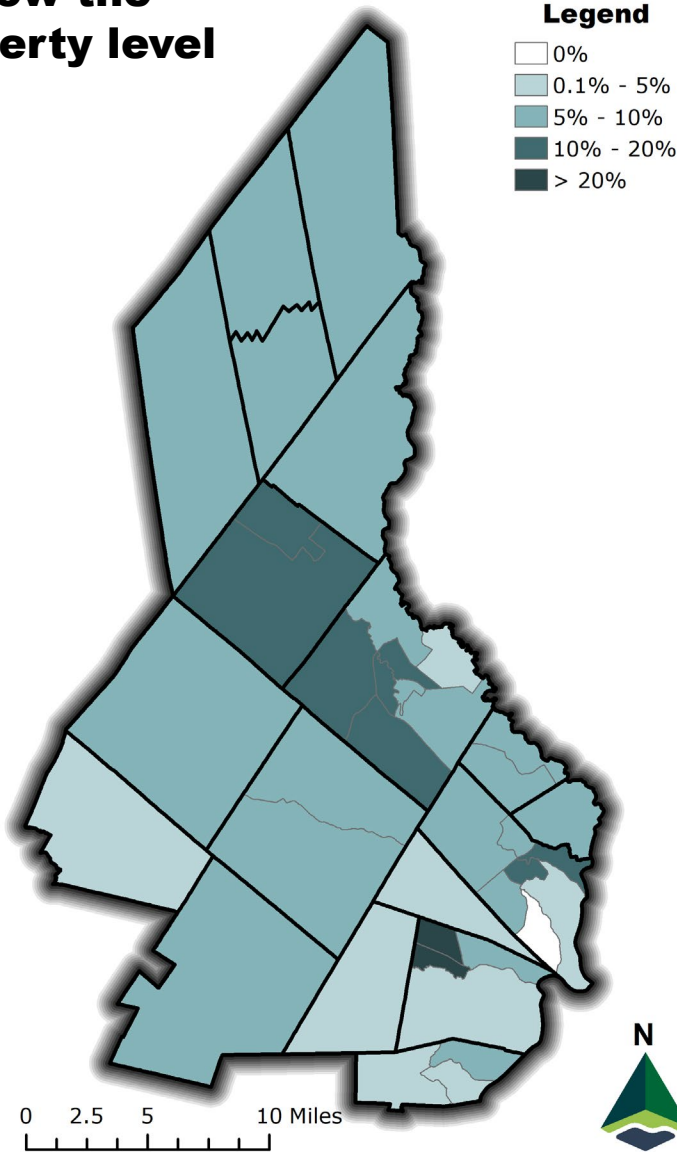
Below 2x the poverty level

Legend
- Concentration
- < 10%
- 10% - 25%
- 25% - 50%
- > 50%

0 2.5 5 10 Miles

0 2.5 5 10 Miles

N

N

ECONOMIC VITALITY

Source: US Census Bureau ACS, 2012-2022. Granularity: Census Tracts.

Income Inequality

The Gini Index is a measure of income inequality. It ranges from 0.0 to 1.0, where 0.0 is perfect equality and 1 is complete inequality. The map to the right shows low to high income inequality.

A low Gini Index alone does not have positive or negative connotations for a community. A community could have a low Gini index (high income equality), but the entire community could have low incomes that places many residents in financial strain. Similarly, a community could have high income equality and high incomes. The Gini Index is an indicator of income inequality, not a performance measure.

Gini Index

	Location	Gini Index	Median Household Income			Below Min. Wage	Under 200% of Poverty Level	Over $150K
			All	Owner	Renter			
Municipal	Barrington	0.40	$ 103,258	$ 112,823	$ 46,958	3.3%	15.7%	29.3%
	Brookfield	0.47	$ 89,286	$ 89,464	--	2.6%	12.9%	21.2%
	Dover	0.43	$ 90,844	$ 128,734	$ 63,988	2.1%	16.3%	42.2%
	Durham	0.49	$ 98,190	$ 157,469	$ 41,069	3.4%	28.4%	55.2%
	Farmington	0.43	$ 60,978	$ 74,912	$ 30,740	8.1%	31.8%	16.7%
	Lee	0.44	$ 116,350	$ 133,063	--	--	14.0%	32.8%
	Madbury	0.35	$ 165,583	$ 205,833	$ 78,971	2.3%	8.3%	67.7%
	Middleton	0.35	$ 94,300	$ 100,417	$ 45,500	1.5%	18.4%	16.9%
	Milton	0.36	$ 86,534	$ 92,071	$ 39,659	2.0%	21.0%	20.7%
	New Durham	0.35	$ 97,000	$ 104,479	$ 59,844	6.7%	14.2%	32.2%
	Newmarket	0.37	$ 98,002	$ 116,467	$ 77,715	0.7%	13.6%	36.9%
	Northwood	0.32	$ 122,294	$ 130,395	$ 46,538	2.5%	10.1%	31.4%
	Nottingham	0.36	$ 96,047	$ 105,994	$ 36,567	1.8%	14.6%	30.1%
	Rochester	0.43	$ 74,882	$ 86,956	$ 49,680	4.7%	26.2%	19.6%
	Rollinsford	0.44	$ 81,184	$ 93,667	$ 45,972	3.9%	14.1%	27.2%
	Somersworth	0.37	$ 75,841	$ 83,571	$ 59,574	3.6%	20.6%	22.1%
	Strafford	0.34	$ 133,889	$ 139,205	$ 62,216	3.6%	17.7%	41.3%
	Wakefield	0.38	$ 86,573	$ 94,750	--	4.0%	23.1%	14.6%
County	Carroll	0.48	$ 77,049	$ 85,210	$ 49,883	6.2%	22.2%	20.4%
	Rockingham	0.42	$ 110,225	$ 127,256	$ 62,998	2.8%	12.6%	40.0%
	Strafford	0.43	$ 83,212	$ 105,814	$ 53,664	3.6%	20.8%	30.3%
	NH	0.44	$ 90,845	$ 109,809	$ 53,472	3.2%	18.6%	32.3%

[1] https://www.census.gov/topics/income-poverty/income-inequality/about/metrics/gini-index.html
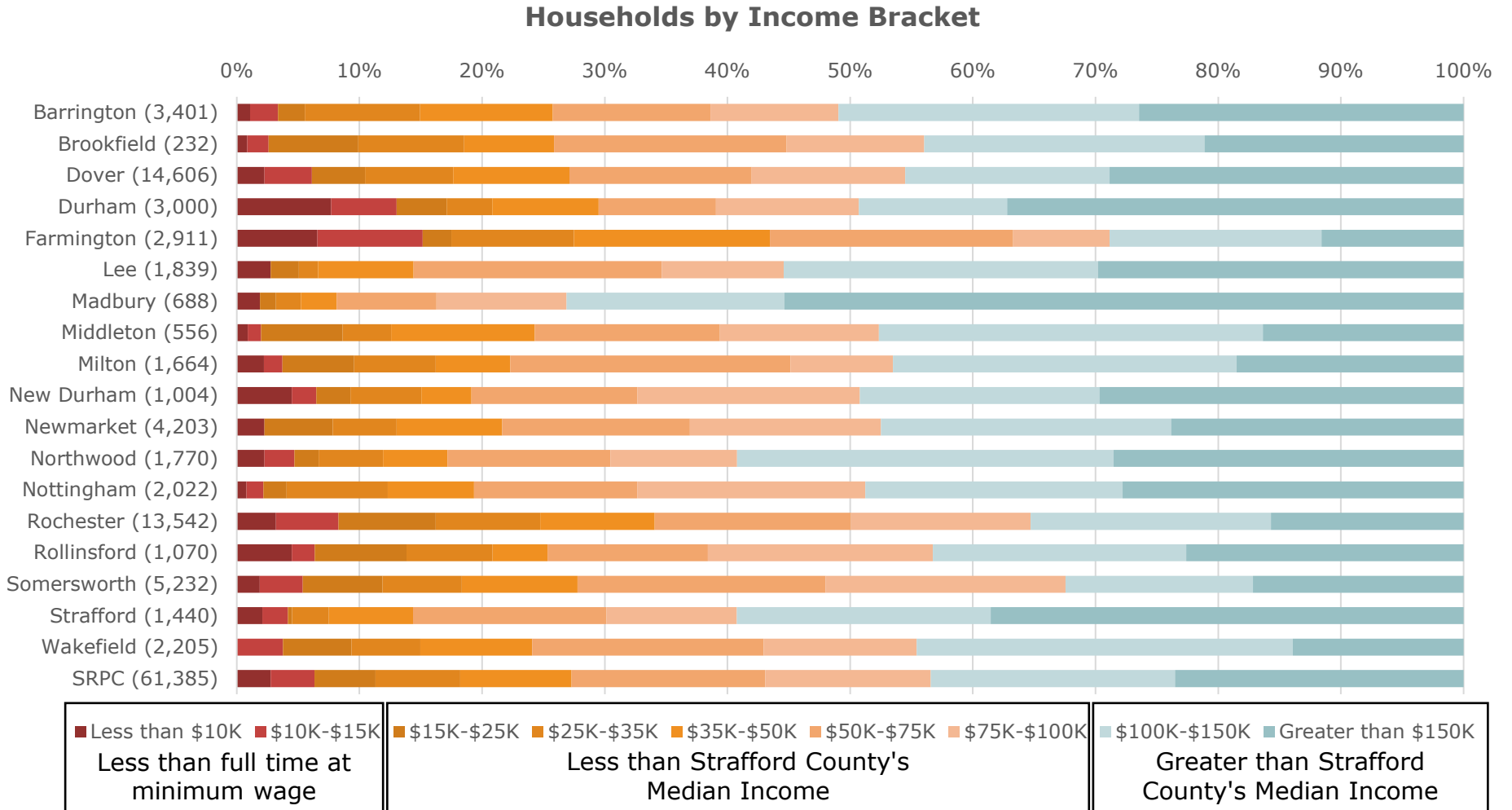Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.
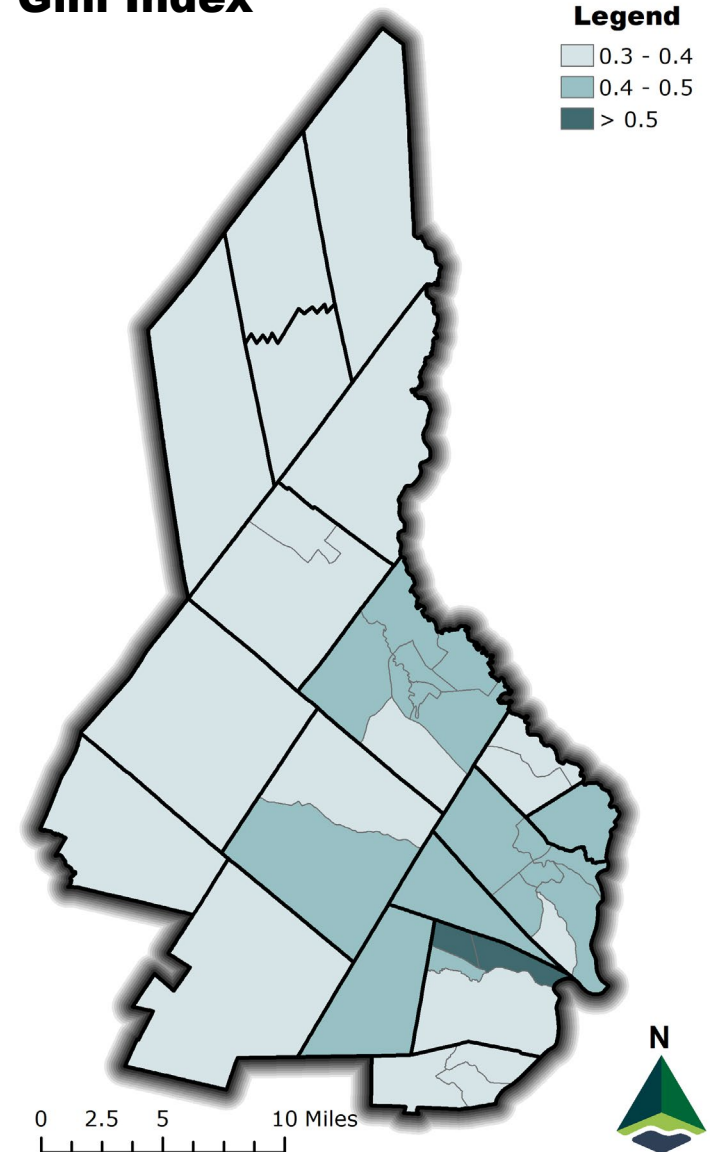
Households in Defined Income Brackets

The chart below displays the percent of households within each income bracket for each municipality. The colors are grouped by relation to NH's minimum wage and Strafford County's median household income.

NH Minimum Income: $7.25/Hour or $15,080/Year full time

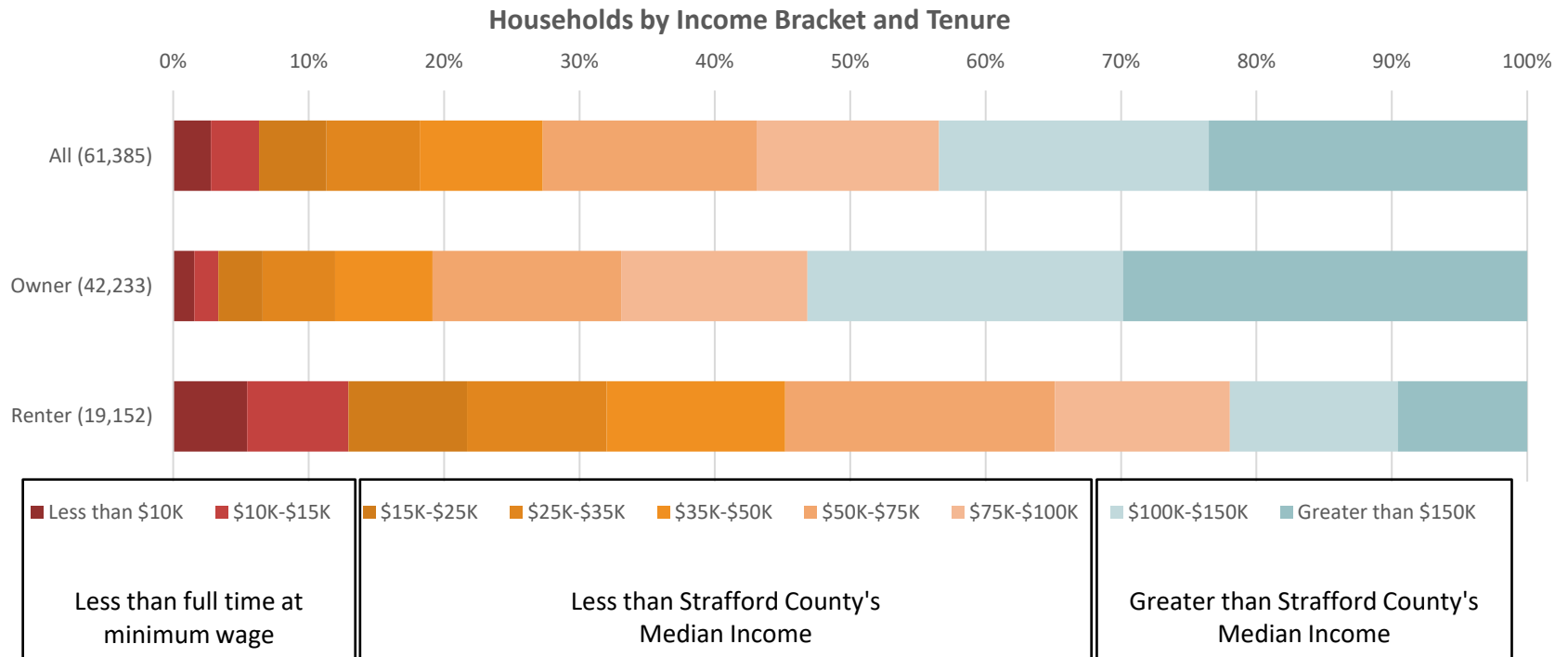**Strafford County Median Household Income: $83,212**

Households by Income Bracket

Legend:
- Less than $10K
- $10K-$15K
- $15K-$25K
- $25K-$35K
- $35K-$50K
- $50K-$75K
- $75K-$100K
- $100K-$150K
- Greater than $150K

| Less than full time at minimum wage | Less than Strafford County's Median Income | Greater than Strafford County's Median Income |

Categories (top to bottom):
- Barrington (3,401)
- Brookfield (232)
- Dover (14,606)
- Durham (3,000)
- Farmington (2,911)
- Lee (1,839)
- Madbury (688)
- Middleton (556)
- Milton (1,664)
- New Durham (1,004)
- Newmarket (4,203)
- Northwood (1,770)
- Nottingham (2,022)
- Rochester (13,542)
- Rollinsford (1,070)
- Somersworth (5,232)
- Strafford (1,440)
- Wakefield (2,205)
- SRPC (61,385)

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

ECONOMIC VITALITY

Household Income Brackets by Tenure

Around 7% of the households in the region have a household income that is less than a full-time minimum wage salary. This is worse for renters at around 13%. Renter occupied households make up 31% of the region. Renters often have lower household incomes than owner occupied households, and these lower incomes make it difficult to purchase a home or even to move from one apartment to another.

Furthermore, over half of homeowners make more than the Strafford County median wage, while just over 20% of renters make over the median wage.

Households by Income Bracket and Tenure

Legend:
- Less than $10K
- $10K-$15K
- $15K-$25K
- $25K-$35K
- $35K-$50K
- $50K-$75K
- $75K-$100K
- $100K-$150K
- Greater than $150K

Less than full time at minimum wage

Less than Strafford County's Median Income

Greater than Strafford County's Median Income

ECONOMIC VITALITY

Social Security, Disability, and Retirement

Social security benefits have provided a "safety net" for vulnerable populations for decades in the United States. However, there are two distinct benefit types that are commonly confused. Supplemental Security Income (SSI) is intended for the elderly and those experiencing disabilities who are unable to work, including children. This program was initiated in the 1970s and recipients of these benefits may be colloquially referred to as "collecting disability." OASDI, or Old Age, Survivors, and Disability Insurance, is the traditional income-calculated benefit colloquially referred to as "retirement" or "social security." Its inception has roots in the New Deal of the second Roosevelt administration.

It is possible for an individual to receive both types of assistance.

In 2021, OASDI benefits in the SRPC region accounted for just over 10% of all New Hampshire beneficiaries across all categories. In contrast to changes from 2019-20, disbursement of all benefits to the SRPC region decreased in 2021. Retirement assistance shrunk while disability assistance grew at that time.

In 2024, monthly payments in New Hampshire increased 2.6% since last year, a less pronounced growth than experienced in neighboring Maine, Vermont, and Massachusetts which all saw payments increase by more than 3%, although all four states saw increases of 8% or more between 2022 and 2023.

Average Monthly SSI Payment in New Hampshire (Feb. 2024)

$642.72

Social Security Changes 2020-21

3.0 % — Disability (up)

3.6 % — Retirement (down)

Source: SSA. Year: 2020, 2021, 2024. Granularity: SRPC, NH.
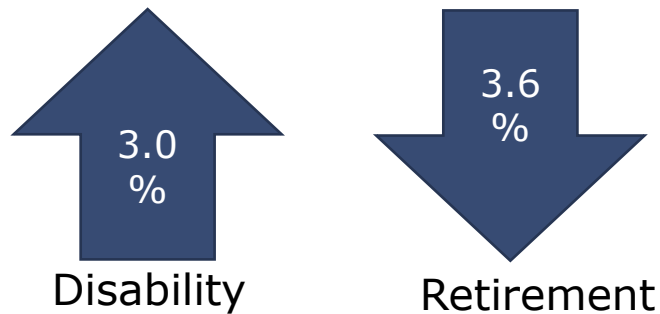
OASDI (Old Age, Survivors, and Disability)	SRPC Recipients 12/31/21	% of NH Claims	Change from 2020
Total	32,524	10.3%	- 1.6%
Retired workers	22,620	9.9%	- 3.6%
Disabled workers	5,315	11.8%	+ 3.0%
Other recipients	4,590	10.7%	+ 3.3%

Cost of Living

"Cost of living" refers to a wide range of expenses including, but not limited to, transportation costs, housing costs, childcare, and healthcare that make up a typical household budget.

Cost of living calculations have been known to factor essential services and frequently exclude discretionary spending. However, a household's ability to afford some "discretionary" expenses, such as accumulating savings or access to affordable credit, can have material impacts on the cost of living. Low- and lower-income families may not be able to afford higher quality housing, which results in higher costs for heating and cooling. Inability to purchase a newer-model vehicle frequently means driving a car that is less fuel-efficient and more likely to require repairs.

Choices that reduce costs within a single category can often have an inverse impact on other categories. For example, employment is often concentrated in urbanized areas where housing is more expensive, especially in New England. This often necessitates that low-income families live a greater distance from employment, increasing the cost of transportation. The long-term impacts of COVID-19 on childcare, housing, and other household costs are still being realized.

This subsection analyzes estimated costs of living in Strafford County as a proxy for the region by taking assumed income and expense estimates from the Living Wage Calculator, an ongoing research effort by MIT since 2004. The Living Wage Calculator estimates the salary required for each working adult in a household based on the number of children in the home and the basic needs of a household of that size. From these assumptions, the Living Wage Calculator produces two sets of salaries, a poverty salary which corresponds with the poverty thresholds defined by the Census Bureau, and a living salary which allows the household to afford all of the expenses estimated for that family composition.

MIT Living Wage Calculator Assumptions

Adults:
- **1 Adult households** – the adult works full time, 40 hours per week, 52 weeks per year
- **2 Adult household with one adult working** - the working adult works full time, 40 hours per week, 52 weeks per year. The other adult provides childcare for any children in the home.
- **2 Adult household with both working** – both adults work full time, 40 hours per week, 52 weeks per year.

Children:
- **1 Child households** – the child is 4 years old
- **2 Children households** – one child is 4 years old, and the other is 9 years old
- **3 Children households** – one child is 4 years old, one child is 9 years old, and the other is 15 years old.
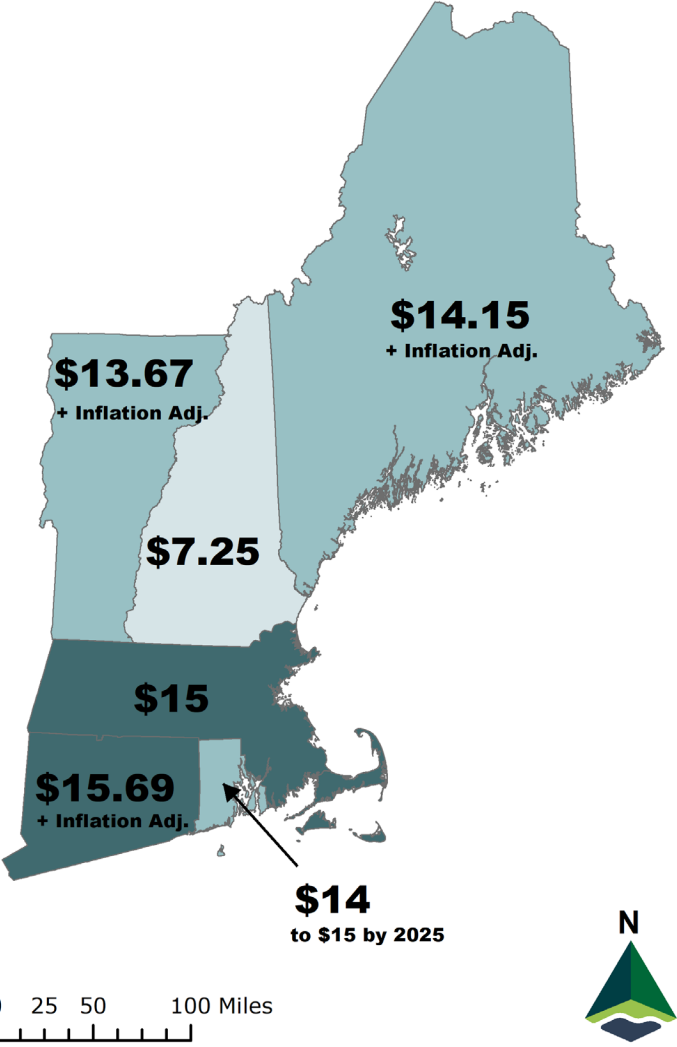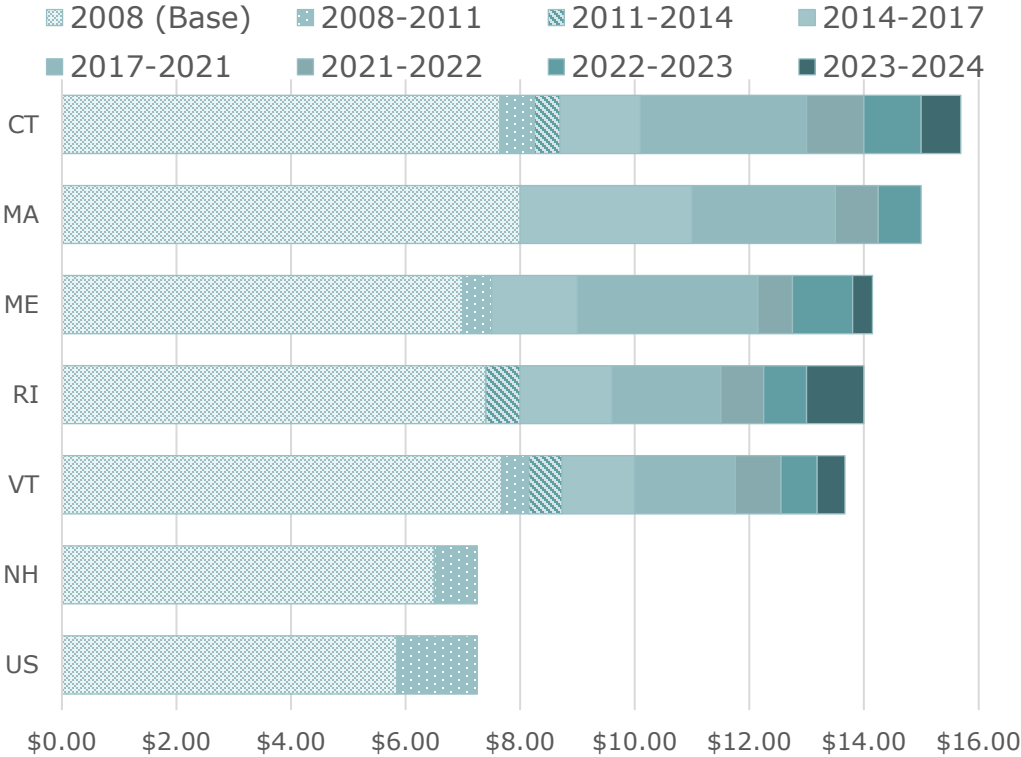
Minimum Wages

Minimum wage in New Hampshire remains at the federal rate of $7.25 per hour. The last increase to the minimum wage was in 2008.

No counties or municipalities in New Hampshire impose a local minimum wage, however, the City of Manchester and its school district instituted a minimum wage of $15 per hour for their employees in 2022.

The following pages have more information about the difference between minimum and "living" wages in New Hampshire and the Strafford region.

Change in Minimum Wage in New England

Legend:
- 2008 (Base)
- 2008-2011
- 2011-2014
- 2014-2017
- 2017-2021
- 2021-2022
- 2022-2023
- 2023-2024

States (top to bottom): CT, MA, ME, RI, VT, NH, US

X-axis: $0.00, $2.00, $4.00, $6.00, $8.00, $10.00, $12.00, $14.00, $16.00

Map labels:
- $14.15 + Inflation Adj.
- $13.67 + Inflation Adj.
- $7.25
- $15
- $15.69 + Inflation Adj.
- $14 to $15 by 2025

Scale: 0 25 50 100 Miles

N

Source: Departments of Labor in each state shown; WMUR; NHPR. Year: 2024. Granularity: New England.

Living Wages and Poverty Wages

The MIT Living Wage Calculator estimates the cost of living in a county and determines the necessary living wage and the poverty wage based on those costs. Strafford County is used as a proxy for the SRPC region.

The table below outlines the hourly wages and equivalent yearly salaries **per working adult** for various household types for the poverty wage and the living wage based on the following assumptions:

- An employed adult works 40-hour weeks, 52 weeks per year. In households with two adults, with one not employed, the adult who does not work provides childcare for any children in the home.
- For households with children, the first child present is assumed to be 4 years old, a second child is 9 years old, and a third child is 15 years old.

NH Statewide Wages	Hourly	Annual (Full time 40hr*52wks)
Minimum	$7.25	$15,080
Median	$22.17	$46,103
Median Entry Wage	$14.05	$29,225
Mean Wage	$28.42	$59,106
Median Experienced Wage	$35.60	$74,046

Household Type		Poverty Wage	Poverty Salary	Poverty Salary per month	Living Wage	Living Salary	Living Salary per month
1 Adult	0 Children	$7.24	$15,059	$1,255	$25.63	$53,310	$4,443
	1 Child	$9.83	$20,446	$1,704	$44.36	$92,269	$7,689
	2 Children	$12.41	$25,813	$2,151	$55.64	$115,731	$9,644
	3 Children	$15.00	$31,200	$2,600	$72.69	$151,195	$12,600
2 Adults (1 Working)	0 Children	$9.83	$20,446	$1,704	$34.14	$71,011	$5,918
	1 Child	$12.41	$25,813	$2,151	$41.73	$86,798	$7,233
	2 Children	$15.00	$31,200	$2,600	$46.67	$97,074	$8,089
	3 Children	$17.59	$36,587	$3,049	$50.30	$104,624	$8,719
2 Adults (both working)	0 Children	$4.91	$10,213	$851	$17.07	$35,506	$2,959
	1 Child	$6.21	$12,917	$1,076	$24.50	$50,960	$4,247
	2 Children	$7.50	$15,600	$1,300	$30.23	$62,878	$5,240
	3 Children	$8.79	$18,283	$1,524	$35.78	$74,422	$6,202

Less than minimum wage

More than 3x the minimum wage

Table - Source: MIT. Year: 2024. Granularity: Strafford County.

ECONOMIC VITALITY

Typical Household Expenses

The MIT Living Wage Calculator estimates the cost of living in a county and determines the necessary living wage and the poverty wage based on those costs. Strafford County is used as a proxy for the SRPC region.

The table below outlines the estimated cost for six primary living expenses and taxes based on the following assumptions:

- An employed adult works 40-hour weeks, 52 weeks per year. In households with two adults, with one not employed, the adult who does not work provides childcare for any children in the home.
- For households with children, the first child present is assumed to be 4 years old, a second child is 9 years old, and a third child is 15 years old.
- Tax assumptions are based on state and federal taxes and make certain assumptions for income and property taxes.

The expenses in the table below are based on a very small budget. The grocery budget is based on USDA's Low Cost Food Plan budget from June 2022. Rising inflation since 2022 means that the food costs alone in this table are lower than what is needed today.

Household Type		Food	Childcare	Medical	Housing	Transportation	Other necessities and quality of life	Required income after taxes	Annual taxes	Required income before taxes
1 Adult	0 Children	$4,382	$0	$3,655	$17,864	$11,365	$7,430	$46,115	$7,194	$53,310
	1 Child	$6,460	$13,139	$9,721	$24,160	$13,152	$13,187	$81,238	$11,028	$92,266
	2 Children	$9,690	$24,873	$9,572	$24,160	$16,567	$15,058	$101,340	$14,388	$115,728
	3 Children	$12,879	$36,220	$10,186	$30,843	$19,063	$19,318	$129,926	$21,266	$151,192
2 Adults (1 Working)	0 Children	$8,034	$0	$7,029	$19,082	$13,152	$13,187	$62,469	$8,540	$71,009
	1 Child	$10,001	$0	$9,572	$24,160	$16,567	$15,058	$77,343	$9,463	$86,806
	2 Children	$12,880	$0	$10,186	$24,160	$19,063	$19,318	$87,590	$9,476	$97,067
	3 Children	$15,704	$0	$9,649	$30,843	$19,041	$18,365	$95,585	$9,047	$104,633
2 Adults (both working)	0 Children	$8,034	$0	$7,029	$19,082	$13,152	$13,187	$62,469	$8,540	$71,009
	1 Child	$10,001	$13,139	$9,572	$24,160	$16,567	$15,058	$90,482	$11,445	$101,926
	2 Children	$12,880	$24,873	$10,186	$24,160	$19,063	$19,318	$112,464	$13,285	$125,749
	3 Children	$15,704	$36,220	$9,649	$30,843	$19,041	$18,365	$131,806	$17,020	$148,826

Source: MIT. Year: 2024. Granularity: Strafford County.

ECONOMIC VITALITY

Interest Rates

The Federal Funds Effective Rate is the interest at which banks and credit unions lend money overnight. The Federal Open Market Committee is the policy making body that controls this rate. They meet and change the benchmark rate 8 times each year. These changes drive the interest that is paid on all lines of credit.

The impacts that these interest rates have on the economy are discussed in more detail the CEDS.

ECONOMIC VITALITY

Federal Interest Rates
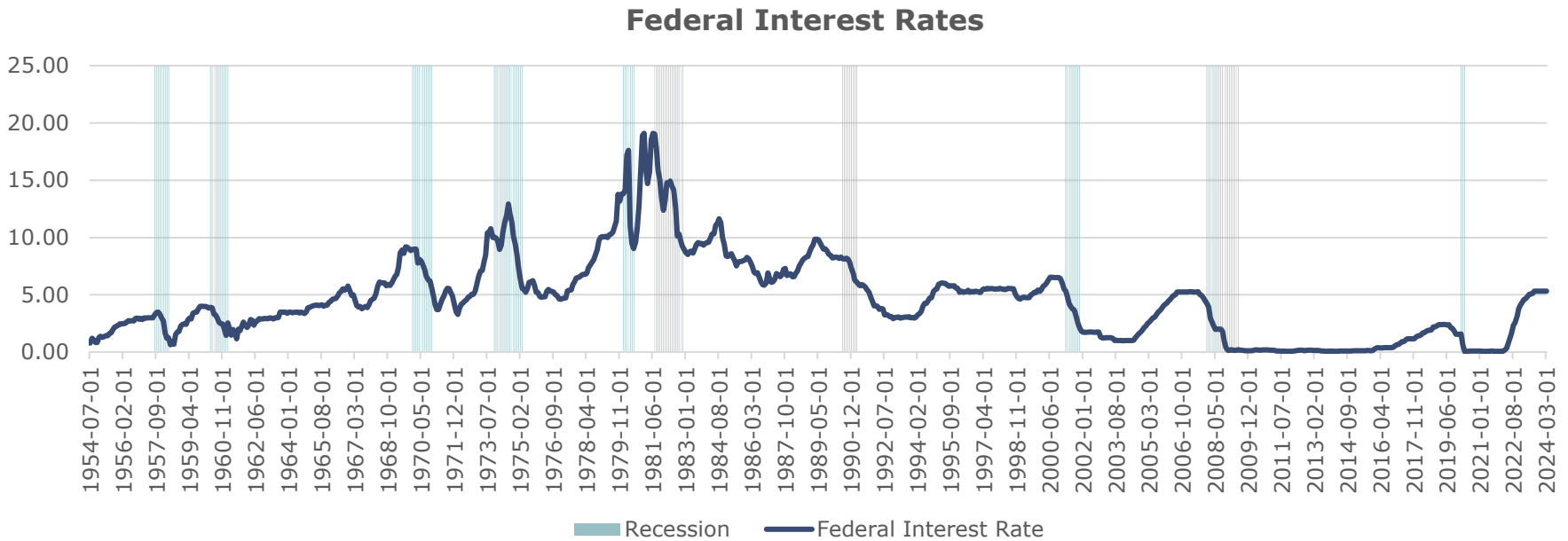
Source: FRED – Economic Data. Year: 2024. Granularity: United States

Inflation (Consumer Price Index)

Inflation is the rate at which overall price of goods and services increases. A common measurement of inflation is the consumer price index (CPI). The CPI is a weighted average of the price of a range of consumer goods and services purchased by households.

Inflation has risen dramatically over the past year. May 2022 was understood to have the largest month to month increase since 2005 and the largest 12-month increase since the 1980s. This is in part understood to be as a result of increased demand from supply chain backlogs caused by the COVID-19 pandemic.

While the monthly year-over-year CPI fell 1% in 2022 compared to 2021, inflation is still increasing at a historic rate. The Northeast still has nearly double the inflation (6%) it experienced at pre-pandemic levels (3.5%). While increased interest rates have clearly leveled off the price index year-over-year in 2024, the CPI has risen as many points between 2020 and 2024 as it did between 2007 and 2019(46), pointing to the rapid inflation comparatively since 2007.

Average Year-over-year Northeast Urban CPI

Northeast Urban Year-Over-Year CPI Percent Change (2020-2024)

Recent data in the past 15 years shows this level of inflation is unprecedented for a duration of time this short. In no period in the last 30 years has average year-over-year inflation increased over 6 percent. Many precautions will need to be taken by the federal reserve to balance growth and inflation in 2023/2024.

Source: US Bureau of Labor Statistics. Year: 2006-2024. Granularity: Northeast Urban Labor Market Region.

ECONOMIC VITALITY

Meals and Rooms Tax Receipts

The Meals and Rooms (M&R) tax is an 8.5% tax on rooms and meals paid by the consumer and collected by operators of hotels, restaurants, food service, room rental, and motor vehicle rentals.

The State of New Hampshire compiles tax data from the Department of Revenue Administration's monthly M&R tax report. This data is an important indicator of the hospitality industry.

M&R tax revenues refer to the funds generated from taxation for use by the state. These fluctuate annually due to variation in total receipts and changes in the tax rate, which has been adjusted several times since the tax was first instituted in 1974.

As areas with more tourist activity, Rockingham and Carroll counties experience greater variation throughout the year than Strafford County.

Total Meals and Rooms Receipts by Quarter (Calendar Year)

Legend: Strafford, Carroll, Rockingham, Other Counties, New Hampshire
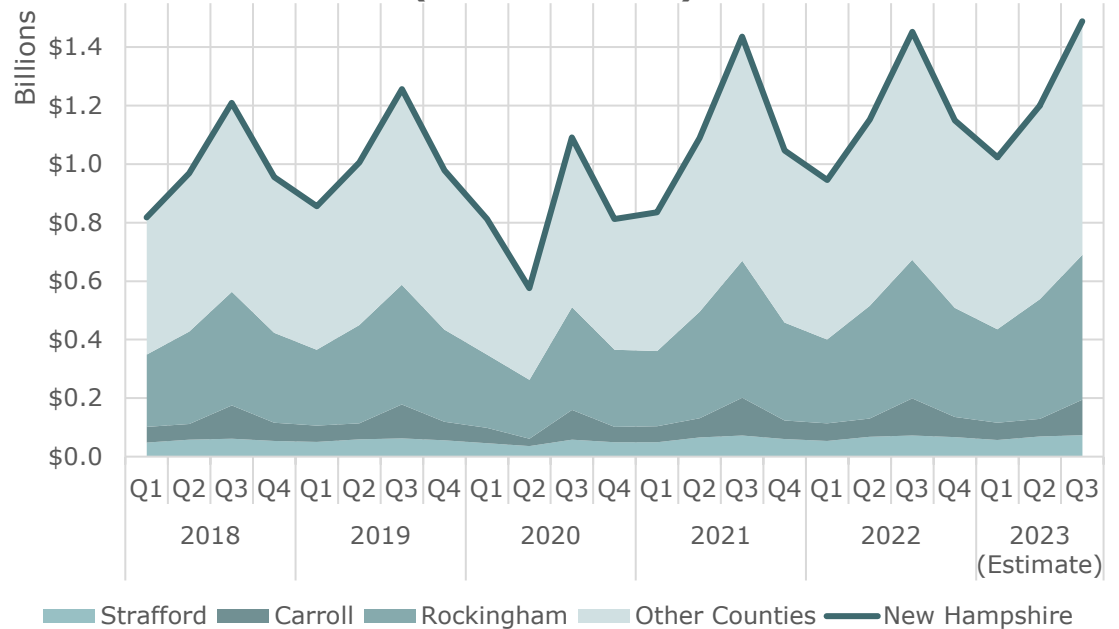
NH Annual Percent Change in Meals & Rooms Tax

Legend: Percent Change in Revenue, Rate from 5% to 6%, Rate from 6% to 7%, Rate from 7% to 8%, Rate from 8% to 9%, Rate from 9% to 8.5% (Oct 21)
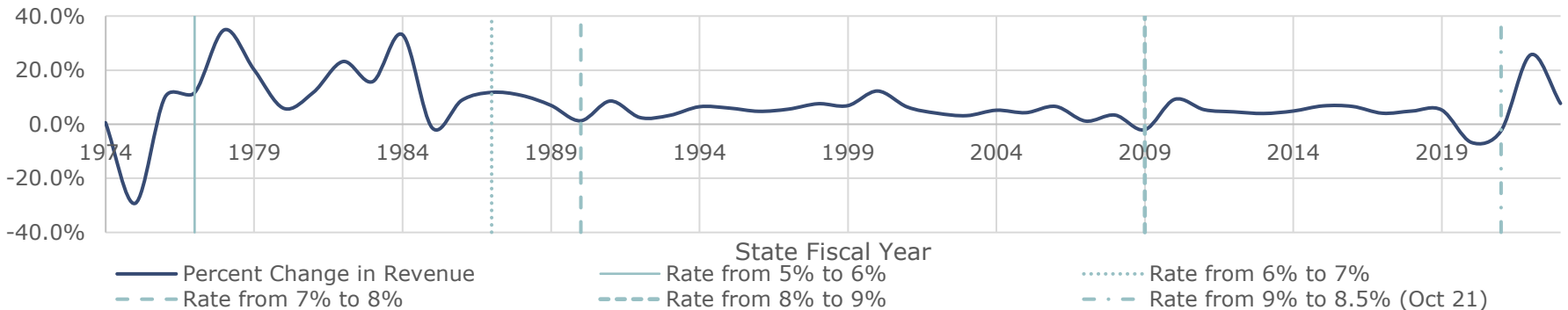
Source: NHDRA. Year: 2018-2023. Granularity: Counties, NH.

LIVABILITY AND QUALITY OF LIFE

Table of Contents

Traffic Safety

The Federal Highway Administration (FHWA) implemented a final ruling on the Highway Safety Improvement Program (HSIP) effective April 14, 2016. This regulation (23 CFR 490) requires that five safety related performance targets must be set and published annually by state DOTs by August 31st and metropolitan planning organizations (MPO) like SRPC within 180 days after the state targets are established. The federally required targets assess and report five factors related to highway safety are:

1. **Number of Fatalities**: The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year.
2. **Rate of Fatalities**: The ratio of total number of fatalities to the number of vehicle miles traveled (VMT, in 100 Million VMT) in a calendar year.
3. **Number of Serious Injuries***:* The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year.
4. **Rate of Serious Injuries**: The ratio of total number of serious injuries to the number of VMT (in 100 Million VMT) in a calendar year.
5. **Number of Non-Motorized Fatalities and Non-motorized Serious Injuries**: A subset of the above where the killed or injured party was not using a motor vehicle (pedestrians, bicyclists, skateboarders, etc.) during a calendar year.

In addition to these five measures, SRPC also records the **number of motorcycle fatalities**.

Data Sources

Data for these measures is provided by three sources:

- **Fatality Analysis Reporting System (FARS):** FARS Annual Report File or Final data is utilized to provide information on fatal crashes in the state.
- **State Motor Vehicle Crash Database:** Data collected and maintained by the NH Department of Safety is utilized to determine the number of serious injuries in the state. This is based on the Federal Model Minimum Uniform Crash Criteria (MMUCC, 4th Edition).
- **Highway Performance Monitoring System (HPMS):** State Vehicle Miles Traveled (VMT) data is collected by the Department of Transportation and aggregated into a dataset for the state. VMT data can be calculated for MPO regions and individual communities. SRPC contributes roughly 9% of the statewide VMT.

NHDOT's Year-To-Date Fatality map can be found here: https://www.nhtmc.com/Dashboard/Safety/

Traffic Fatalities
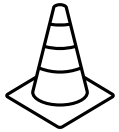
The number of fatalities is one of the FHWA-mandated performance measures defined in 23 CFR 490. SRPC is required to set annual targets by the end of February each year. SRPC has assumed the state targets set by NHDOT each year for the region.

The table and chart show the number of deaths as a result of fatal crashes. The map shows the location of the crashes. Multiple deaths may occur in a single crash, so a point on the map may represent more than one lost life.
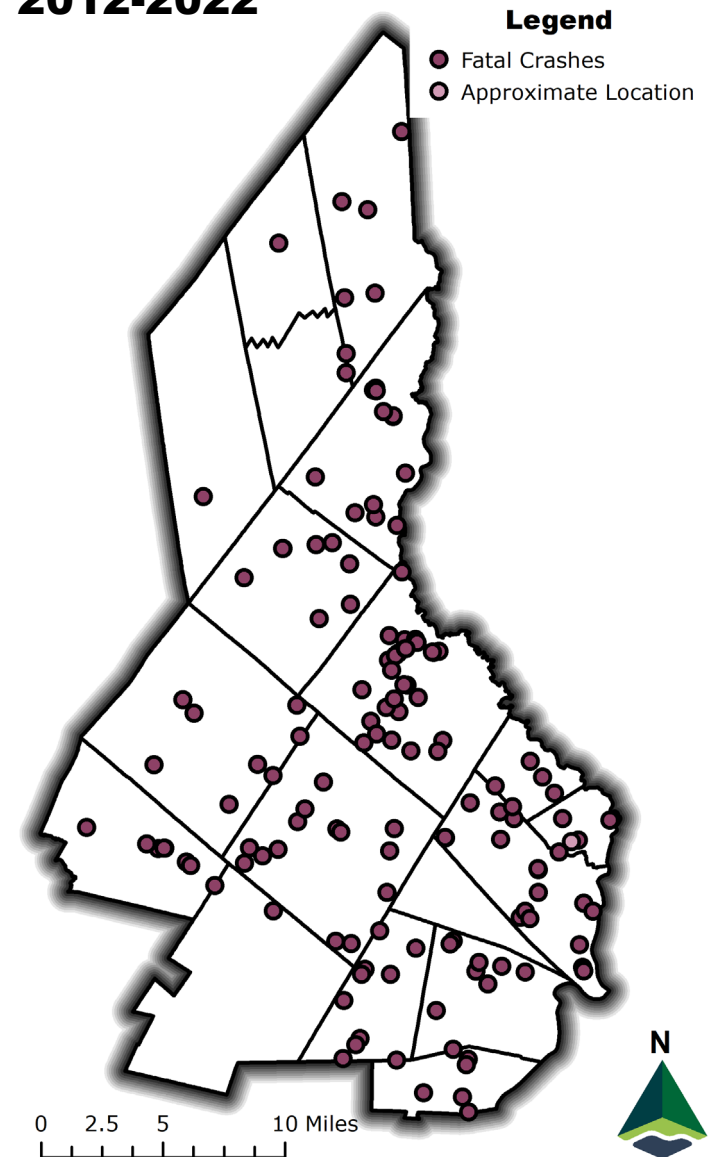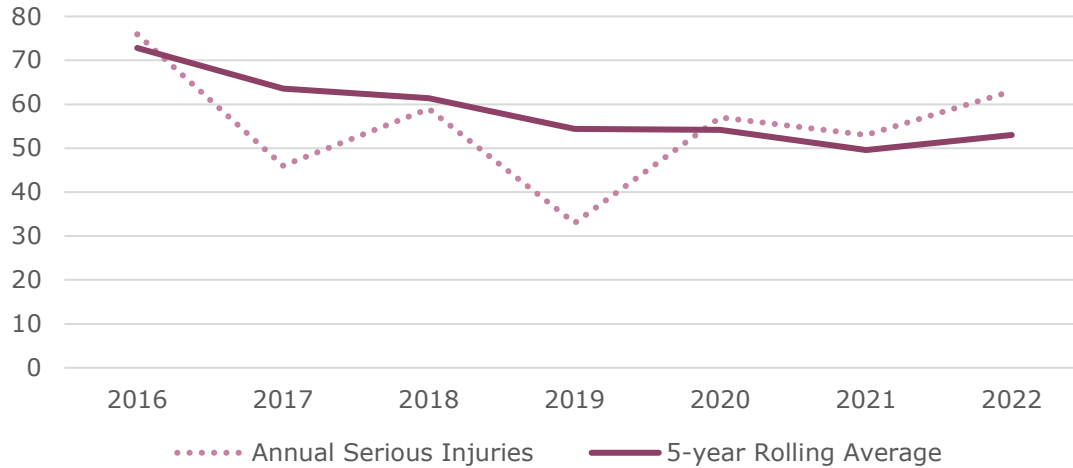
Number of Fatalities in the Strafford Region

········ Annual Fatalities ——— 5-year Rolling Average

Fatality Trends and Targets Summary								
		2018	2019	2020	2021	2022	2023	2024
NH	Target	113.2	116.4	118.8	*120*	117.8	**111.6**	**120.0**
	5-yr Avg	118.8	120.0	118.0	114.4	123.2	---	---
SRPC	Target	11	15	14	13.2	13	13	**12.4**
	5-yr Avg	14.8	13.6	13.4	13.6	14.6	---	---

Source: National Highway Traffic Safety Administration. Year: 2012-2022. Granularity: SRPC, NH.

2012-2022

Legend
● Fatal Crashes
○ Approximate Location

0   2.5   5   10 Miles

N

LIVABILITY AND QUALITY OF LIFE
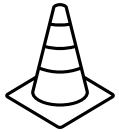
Serious Injuries

The number of serious injuries is one of the FHWA-mandated performance measures defined in 23 CFR 490. SRPC is required to set annual targets by the end of February each year. SRPC has assumed the state targets set by NHDOT each year for the region.

2012-2022

Legend
High Density
Low Density

Number of Serious Injuries in the Strafford Region

········ Annual Serious Injuries   ——— 5-year Rolling Average

Serious Injury Trends and Targets Summary							
		2018	**2019**	**2020**	**2021**	2022	2023	2024
NH	**Target**	433.2	433.2	465.4	*456.4*	465.4	**466.4**	**509.6**
	5-yr Avg	449.6	456.4	465.4	466.4	503.2	---	---
SRPC	**Target**	53	46	51	*50.2*	50.2	59	**49.9**
	5-yr Avg	61	54.4	54.2	49	53	---	---

Source: NH Division of Motor Vehicles. Year: 2012-2022. Granularity: SRPC.

0   2.5   5   10 Miles

N
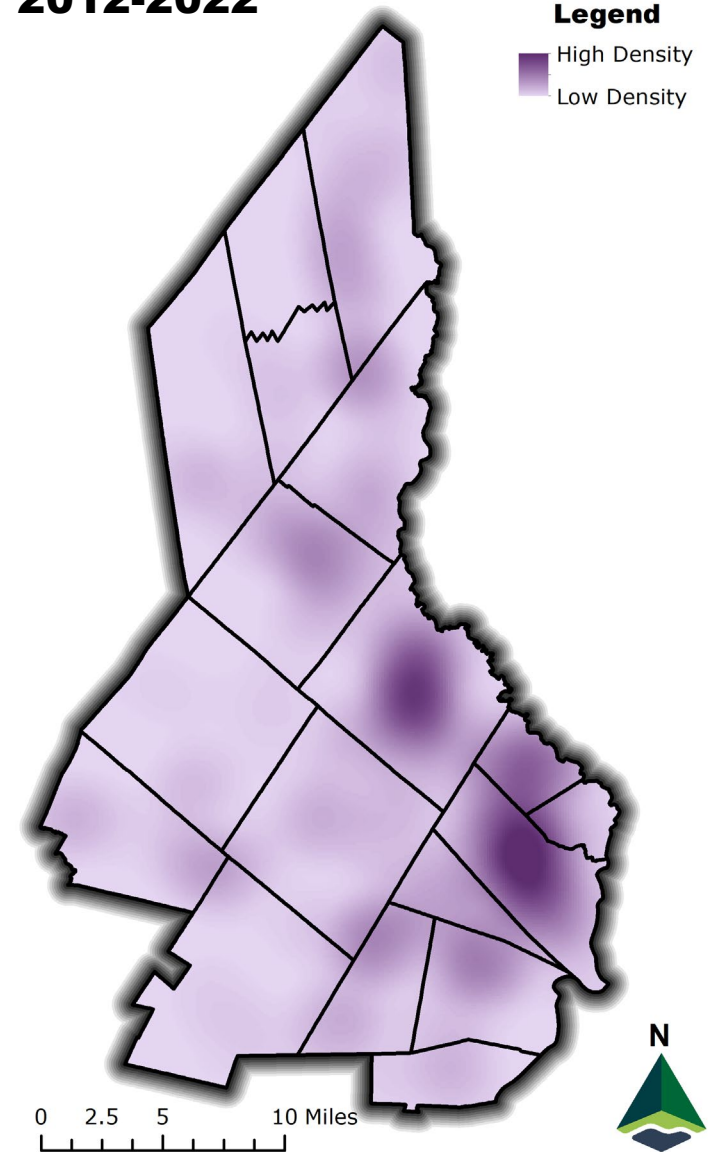
Rate of Fatalities and Serious Injuries
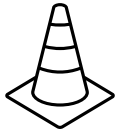
The rate of fatalities and the rate of serious injury measures combine their respective crash data with the vehicle miles traveled (VMT) data from the Highway Performance Monitoring System (HPMS). The NHDOT has calculated regional shares of VMT for the MPOs to use in these calculations.

The rate of fatalities is calculated by dividing the number of fatalities by the VMT. Similarly, the rate of serious injuries is calculated by dividing the serious injuries by the VMT. SRPC's rate of fatalities and rate of serious injuries are both generally a bit higher than the state rates. This is likely because the regional share of VMT is usually less than the regional share of fatalities and serious injuries. 2019 data showed a decrease in VMT but the number of serious injuries did not fall as dramatically. This will result in a higher rate of serious injuries during this reporting period.

Rate of Fatalities in the Strafford Region

..... Annual Rate   —— 5-year Rolling Average

Rate of Serious Injuries in the Strafford Region

..... Annual Rate   —— 5-year Rolling Average
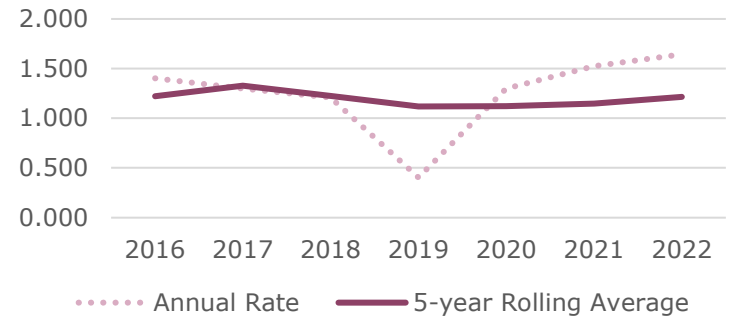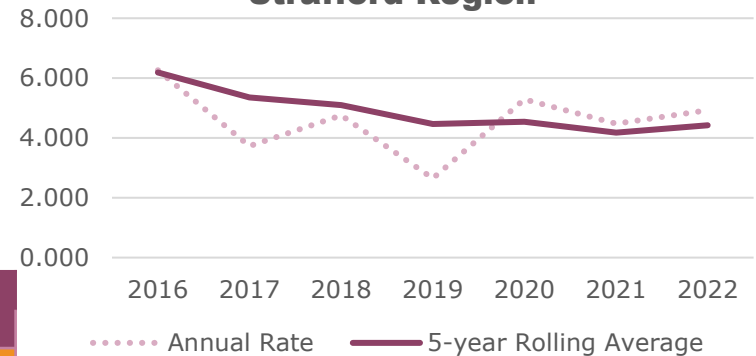
SRPC Average Annual Shares

Fatalities	Serious Injuries	VMT
11%	11%	9%

$$\text{SRPC Rate} = \frac{11\% \text{ of the serious injuries in the state}}{9\% \text{ of the VMT in the state}}$$

Serious Injury Trends and Targets Summary

			2018	2019	2020	2021	2022	2023	2024
Fatal	NH	Target	51.6	53.4	42	*45.9*	38.0	**37.0**	**39.4**
		5-yr Avg	57	52.0	45.0	40.6	41.6	---	---
	SRPC	Target	3	8	7.4	*6.9*	7.4	6	**4**
		5-yr Avg	9	8.2	7.4	5	5.6	---	---
Serious Injury	NH	Target	51.6	53.4	42	*45.9*	38.0	**37.0**	**39.4**
		5-yr Avg	57	52.0	45.0	40.6	41.6	---	---
	SRPC	Target	3	8	7.4	*6.9*	7.4	6	**4**
		5-yr Avg	9	8.2	7.4	5	5.6	---	---

Source: National Highway Traffic Safety Administration. Year: 2012-2022. Granularity: SRPC, NH.
Source: NH Division of Motor Vehicles. Year: 2012-2022. Granularity: SRPC.

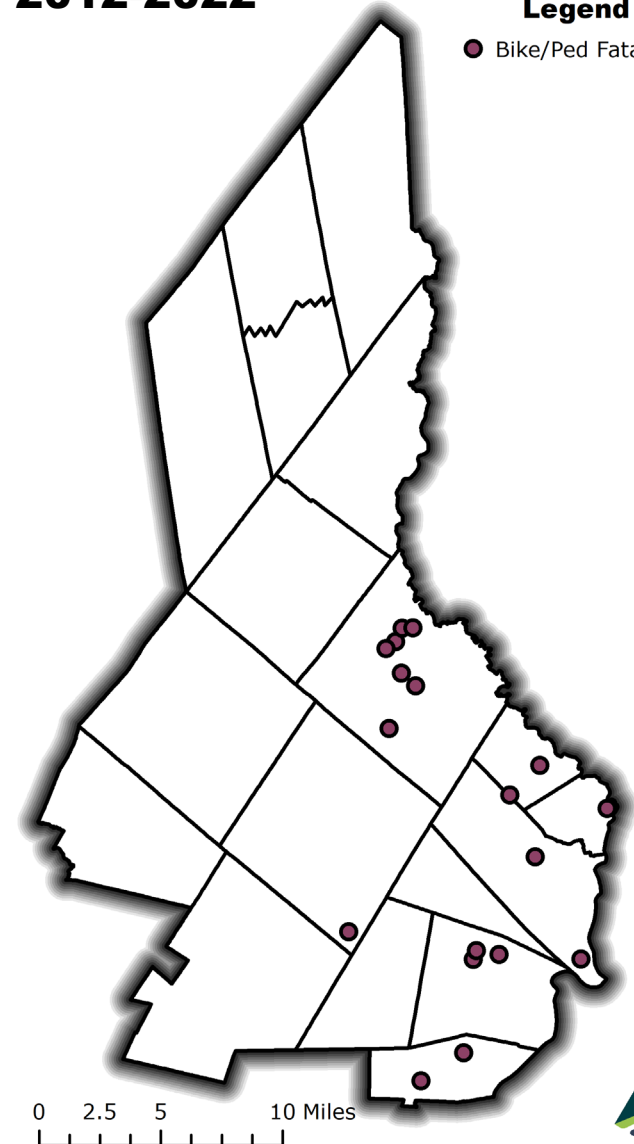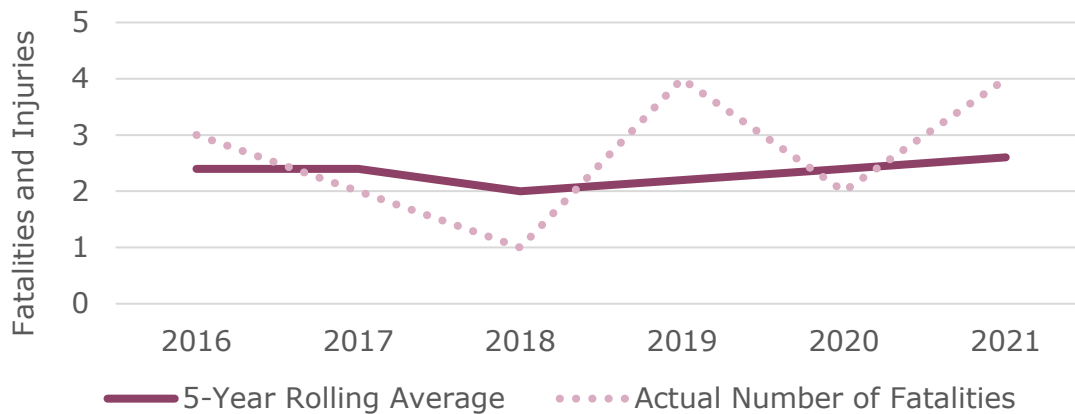# Non-Motorized Fatalities and Serious Injuries
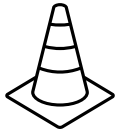
The non-motorized fatalities and serious injuries measure is the sum of the individuals who were killed or seriously injured while outside of a motor vehicle. This measure includes pedestrians and bicyclists.

As with most crashes, the locations for non-motorized crashes are random. SRPC has seen anywhere from 0 to 33% of the statewide non-motorized fatalities and anywhere from 6 to 37% of the serious injuries since 2007. In 2016, SRPC had 3 non-motorized fatalities (21% of the state total that year), and 6 serious injuries (12% of the state total). In 2019, SRPC had 0 non-motorized fatalities and 2 (of the 30 statewide) serious injuries.

2012-2022

Number of Non-Motorized Fatalities and Serious Injuries in the Strafford Region

········ Annual   ——— 5-year Rolling Average
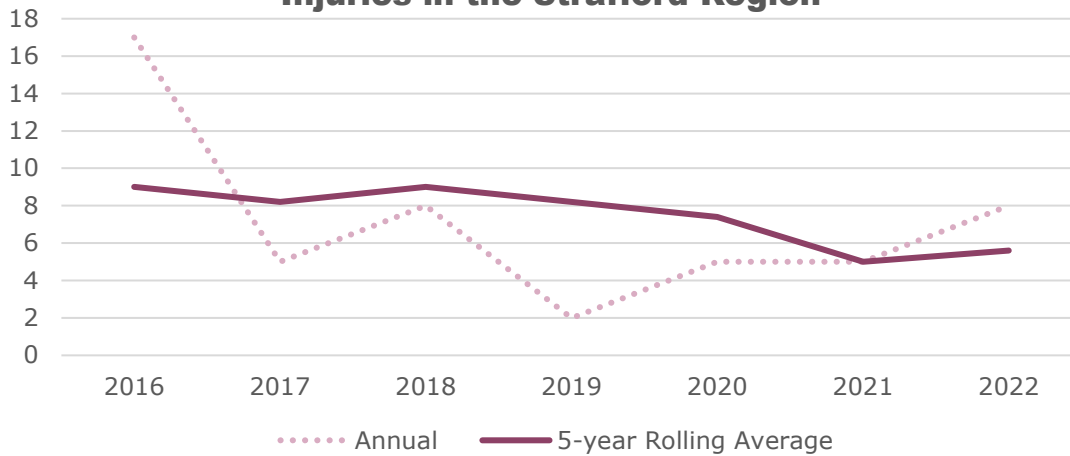
Serious Injury Trends and Targets Summary		2018	2019	2020	2021	2022	2023	2024
NH	Target	51.6	53.4	42	*45.9*	38.0	**37.0**	**39.4**
	5-yr Avg	57	52.0	45.0	40.6	41.6	---	---
SRPC	Target	3	8	7.4	*6.9*	7.4	6	**4**
	5-yr Avg	9	8.2	7.4	5	5.6	---	---

Source: National Highway Traffic Safety Administration. Year: 2012-2022. Granularity: SRPC, NH.
Source: NH Division of Motor Vehicles. Year: 2012-2022 Granularity: SRPC.

0   2.5   5   10 Miles

N

LIVABILITY AND QUALITY OF LIFE

Motorcycle Fatalities

Because of the popularity of motorcycles in New Hampshire, their safety is an important component of highway safety planning. Home of Laconia's Motorcycle Week, the world's oldest motorcycle rally, New Hampshire is one of the only states that does not have a helmet law. A single crash in Randolph in 2019 left 7 motorcyclists dead and 3 injured. The locations of these crashes are largely random and behavior driven, so it is often difficult to predict where motorcycle incidents may occur.

The table and chart show the number of deaths as a result of fatal crashes. The map shows the location of the crashes. Multiple deaths may occur in a single crash, so a point on the map may represent more than one lost life.

2012-2022

Legend
● Motorcycle Fatalities

Number of Motorcycle Fatalities in the Strafford Region

Y-axis: Fatalities and Injuries (0–5)
X-axis: 2016, 2017, 2018, 2019, 2020, 2021

——— 5-Year Rolling Average   ••••• Actual Number of Fatalities

0 2.5 5   10 Miles

N

Source: National Highway Safety Administration. Year: 2012-2022. Granularity: SRPC, NH.
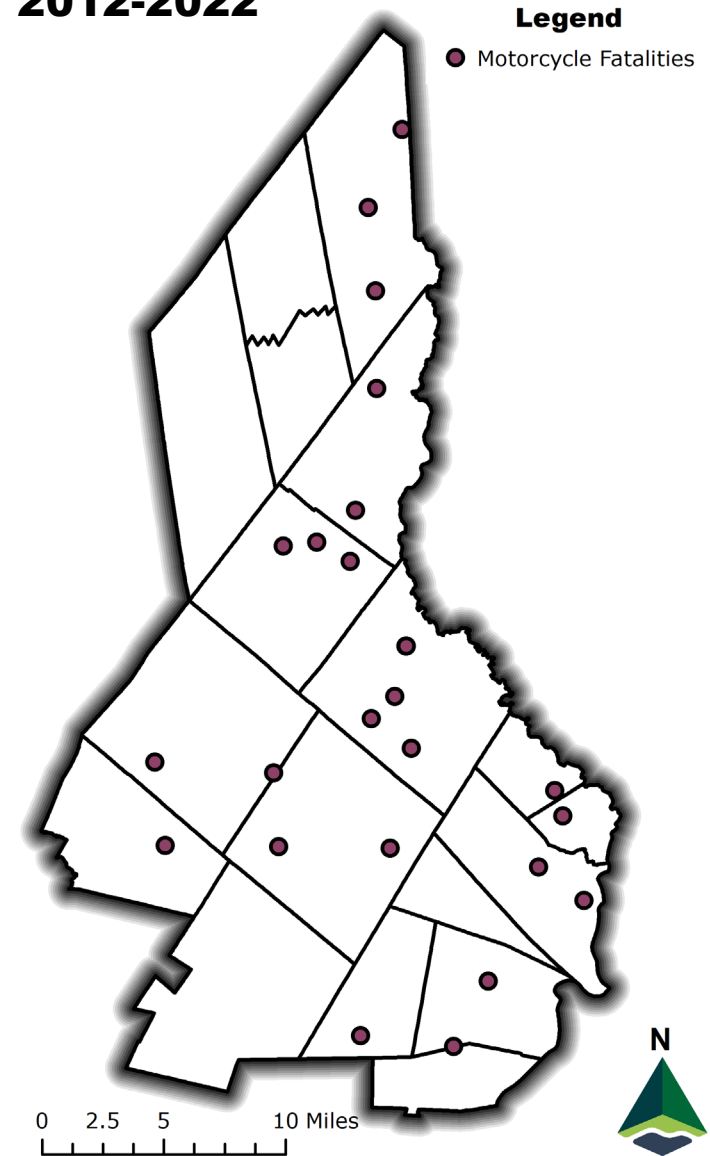
Transit Safety Performance Measures
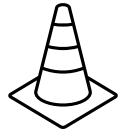
The Federal Transit Administration requires that transit agencies, states, and MPOs track the number of safety events that occur on transit vehicles and at transit facilities. Data includes safety events (reportable derailments, collisions, fires, and evacuations), fatalities (not including suicides or trespassers), and injuries (not including assaults or injuries due to crime. Since incidents include non-crash events, these data are not necessarily a subset of the fatality and serious injury metrics on prior pages.

The table below covers data for the fatalities, serious injuries, and other safety events occurring on COAST's fixed route and demand response buses.

Similar to the highway safety performance measures, these measures are presented as numbers and rates. The "rate" here is calculated as incidents per 500,000 revenue miles traveled.

"System reliability" is an approximation of miles traveled between major mechanical failures.

Fixed Route buses run regardless of the presence of passengers, while Demand Response vehicles only run if there is a requested trip. This may be impacting both the "rate" and "System reliability" performance.

Performance Measure			FY 2020 Performance	FY2021 Target	FY 2021 Performance	FY 2022 Target
Fixed Route	Fatalities	Total	0	0	0	0
		Rate	0.00	0.00	0.00	0.00
	Injuries	Total	0	0	0	0
		Rate	0.00	0.00	0.00	0.00
	Safety Events	Total	1	0	0	0
		Rate	0.17	0.00	0.00	0.00
	System Reliability		15,634	19,000	14,358	16,000
Demand Response	Fatalities	Total	0	0	0	0
		Rate	0.00	0.00	0.00	0.00
	Injuries	Total	0	0	0	0
		Rate	0.00	0.00	0.00	0.00
	Safety Events	Total	0	0	1	0
		Rate	0.00	0.00	0.66	0.00
	System Reliability		54,351	216,000	37,637	100,000

All rates are expressed as a number per 100,000 Vehicle Revenue Miles (VRM), rounded

Source: COAST. Year: 2019-2021. Granularity: SRPC, RPC.

Housing Market

The availability, affordability, type, and quality of housing are significant factors for attracting and retaining a qualified workforce and attracting new businesses. Housing that sufficiently meets the above criteria – available both for rent and purchase – allows people to live and work in the same community, attracts a reliant workforce and skilled labor, and creates resilient and competitive communities.

The metrics in this subsection illustrate diversity and availability of housing in the region with information about:

- Vacancy.
- Occupancy of housing units, both by renters and owners.
- Costs to rent or own homes in the region.
- Building permits issued regionwide.

Communities in the southern SRPC region have a higher occurrence of rental units and renting populations. The SRPC region has seen an increase in demand for all housing types with an increasing population. With limited supply and other difficulties experienced, rent and sale prices have risen since the millennium and accelerated during 2020-21. The COVID-19 pandemic has had notable influence on these trends. Lower interest rates, inflated construction costs, and demand for homes across northern New England and other rural and semi-rural communities nationwide have affected the housing market in the SRPC region.

For the purposes of this document, unless otherwise stated otherwise, "house," "housing unit," and "household" are inclusive of all types of physical structure (single family house, each unit within a multi-family house, mobile homes, condominiums, apartment buildings, etc.).

New Hampshire's nine regional planning commissions (RPCs) in partnership with the Office of Planning & Development completed regional housing needs assessments (RHNA) throughout 2022. This is the first such assessment since 2015 for SRPC. RPCs' staff used surveys and community engagement, researched housing trends across the country, collaborated with community partners and advocates, and calculated the number of needed units for a growing region in order to fully realize the effects of the housing crisis. SRPC has included a select number of findings in the Data Snapshot, however, more information is available in the completed RHNA.

Housing Density

2000 **2010** **2020**

Legend

Units / Sq. Mile

- 0 - 50
- 50 - 250
- 250 - 500
- 500 - 1,000
- >1,000

0   2.5   5   10 Miles

N
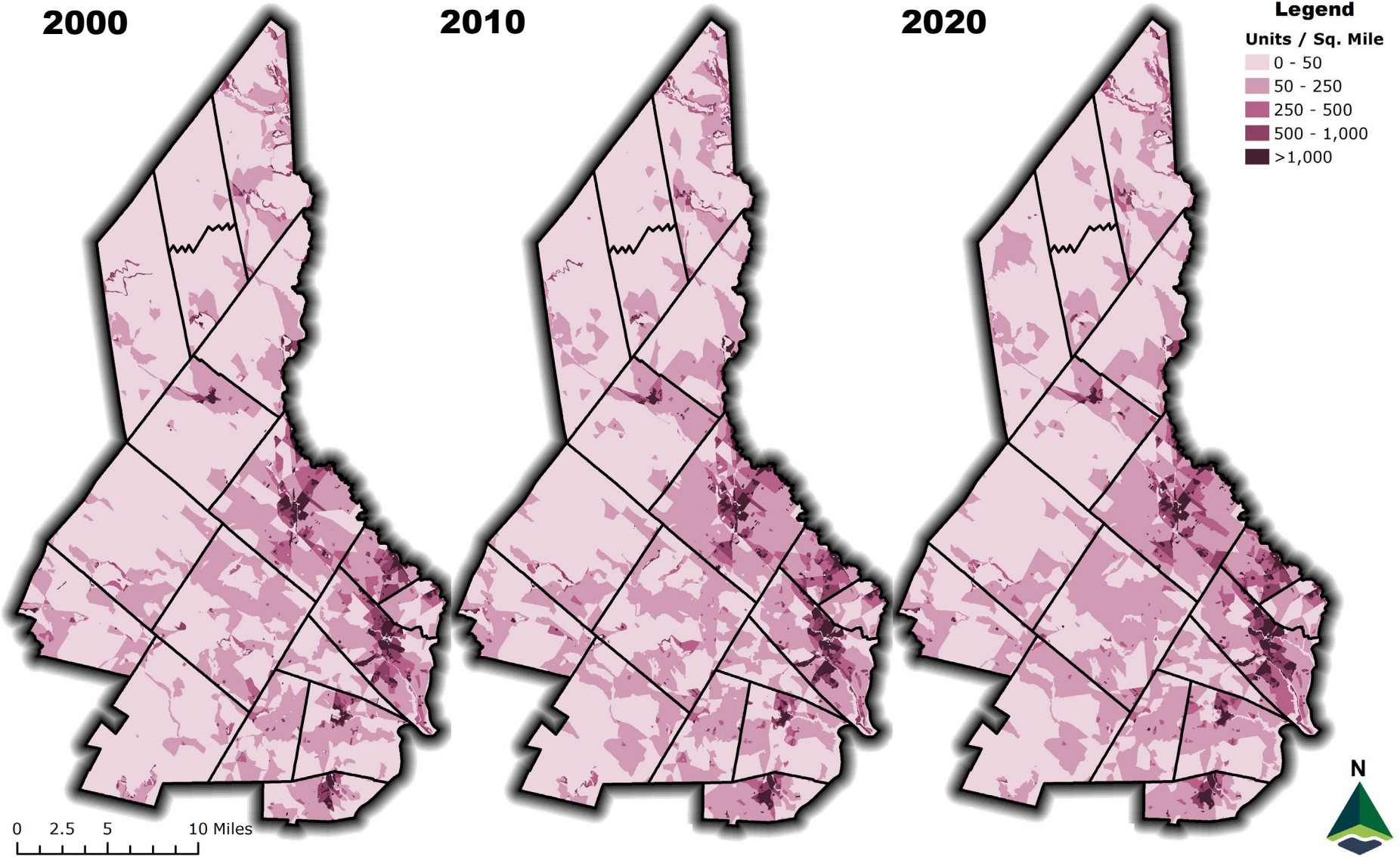
Source: US Decennial Census. Year: 2020. Granularity: Blocks.

Occupied Housing Density

2000

2010

2020

Legend

Units / Sq. Mile

- 0 - 50
- 50 - 250
- 250 - 500
- 500 - 1,000
- > 1,000

0   2.5   5   10 Miles

N
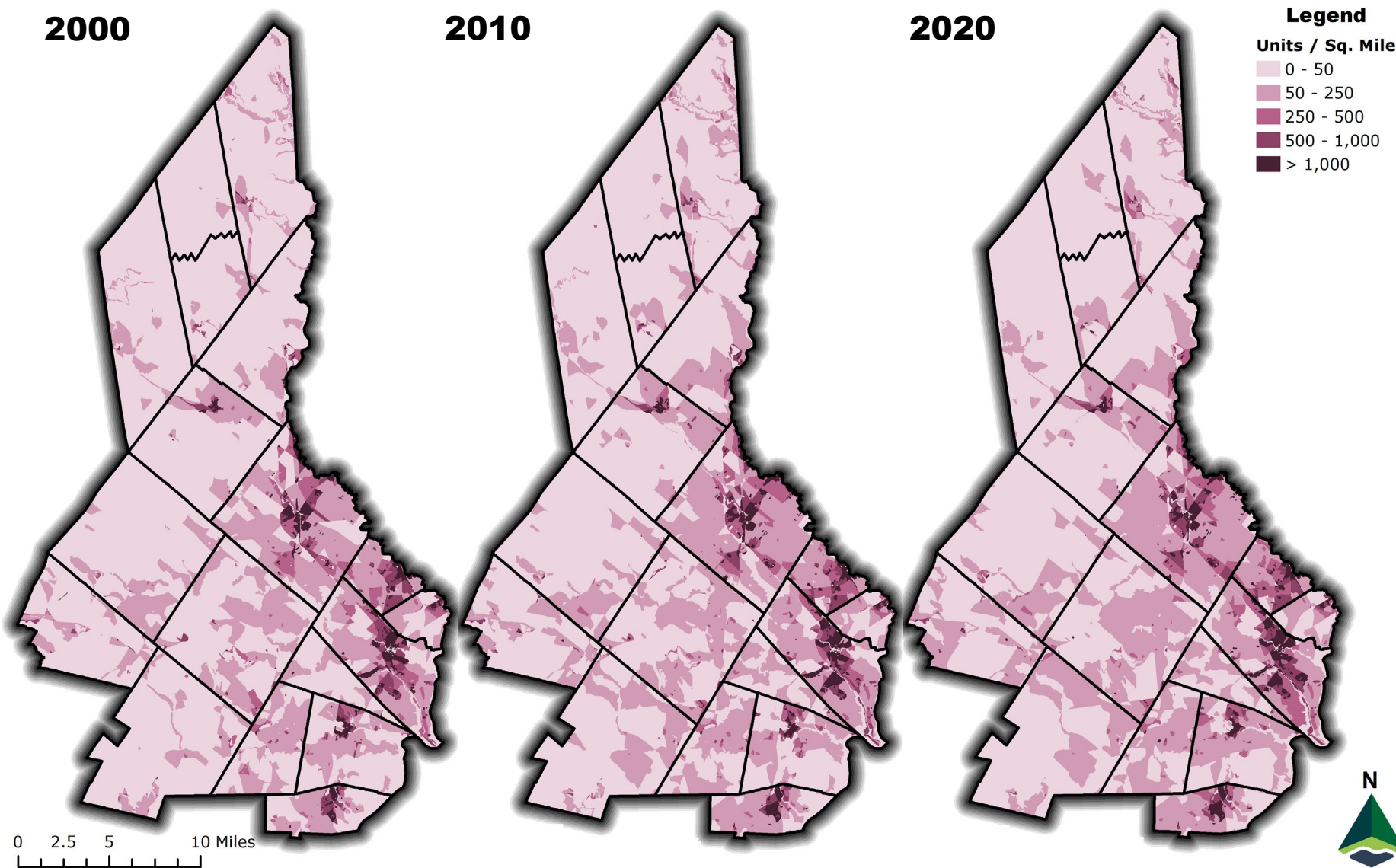
Source: US Decennial Census. Year: 2020. Granularity: Blocks.

Vacant Housing Density

2000

2010

2020

Legend

Units / Sq. Mile

- 0 - 5
- 5 - 10
- 10 - 25
- 25 - 50
- > 50

0   2.5   5   10 Miles

N
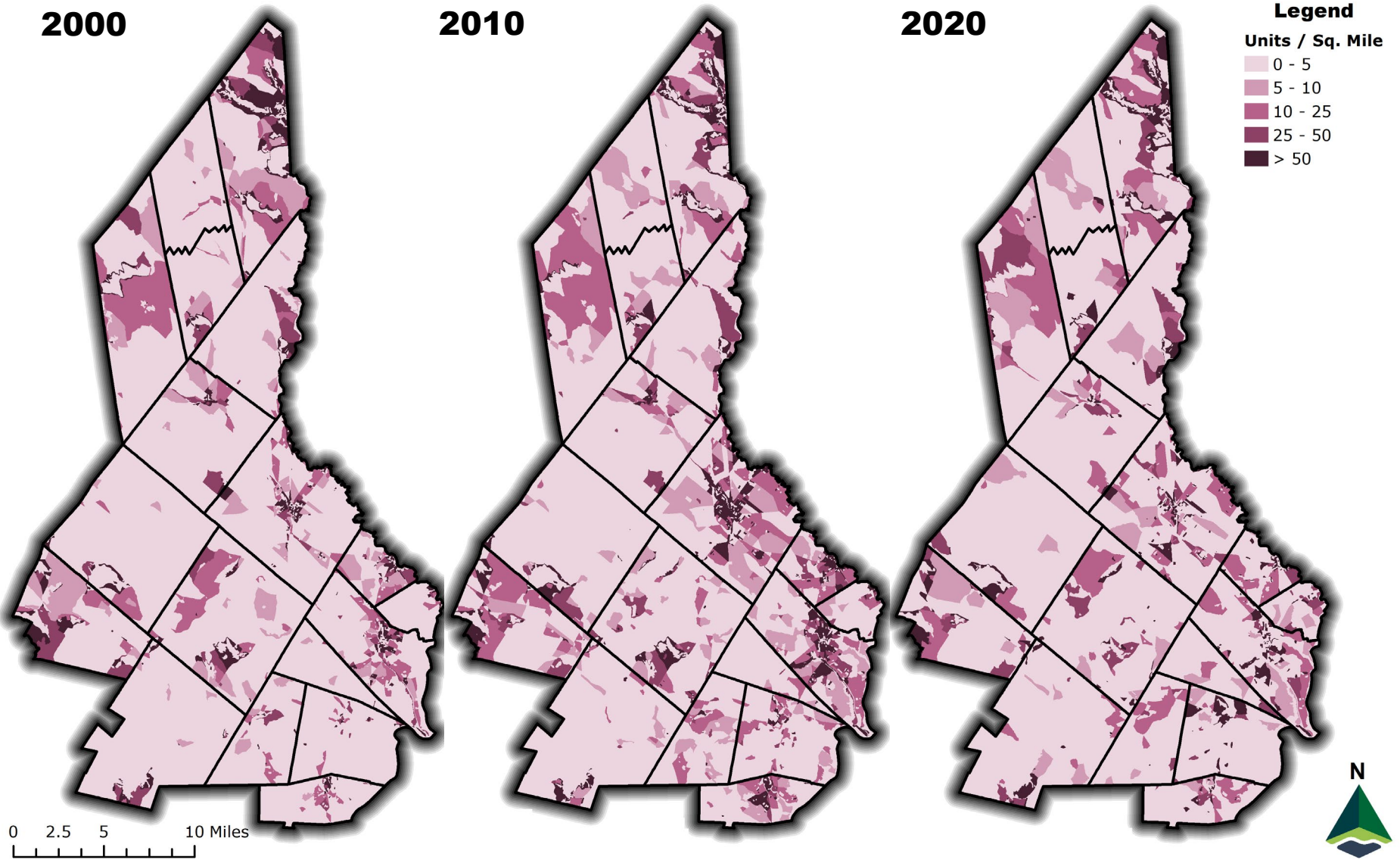
Source: US Decennial Census. Year: 2020. Granularity: Blocks.

Vacant Housing

Vacant housing units in the region are largely seasonal homes. The municipalities with the highest percentages of vacant housing units are ones with a significant presence lake houses and other summer homes, not uncommon for New Hampshire. "Vacant" homes are recorded as such when owners are at a different permanent address on Census Day (April 1st).

LIVABILITY AND QUALITY OF LIFE

Vacant Units by Type

Other 17%
For Rent 16%
Rented, Empty 8%
For Sale 2%
Sold, Empty 3%
Seasonal 54%

Vacant Units by Type

Legend:
- Other
- Seasonal
- Sold, Empty
- For Sale
- Rented, Empty
- For Rent

Years: 2012, 2017, 2022
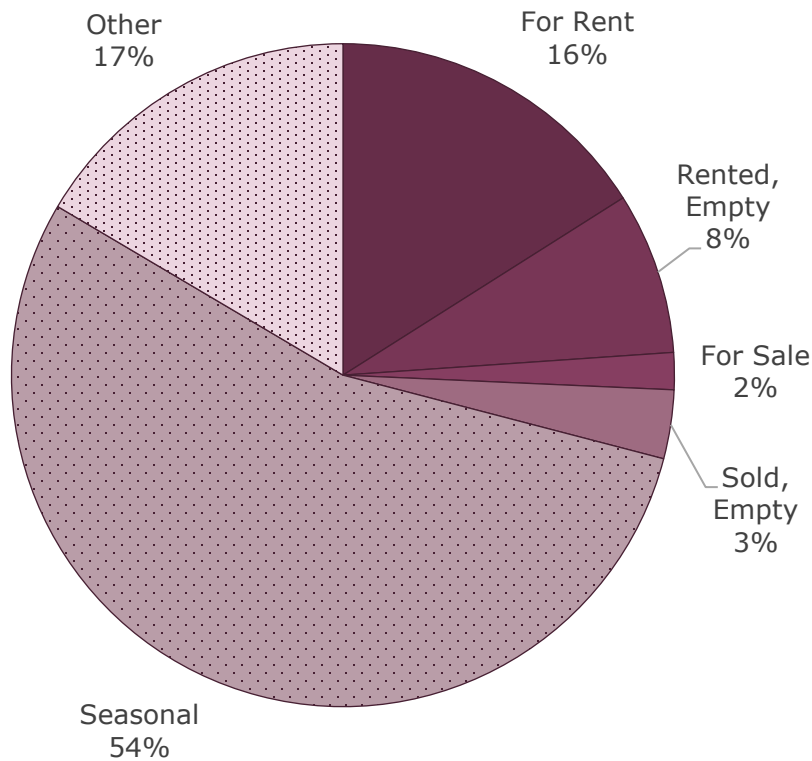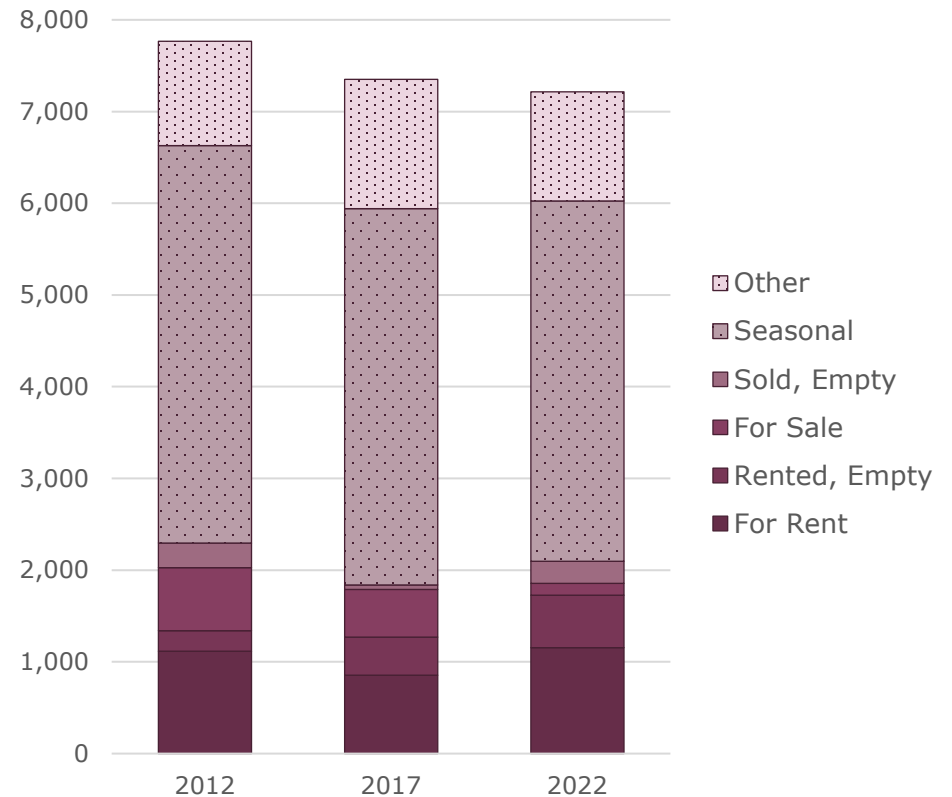
Source: US Census Bureau ACS, 2012-2022. Granularity: Municipalities.

Geographic Mobility

Geographic Mobility is an ACS metric measuring the movement of residents in the US. The ACS asks for each person in the home "Did this person live in this house or apartment 1 year ago?" and then "Where did this person live 1 year ago?". The charts to the right look at just the population who did not live in the same house or apartment one year ago.

Wakefield, Dover, and Durham had the most turnover in 2022, while Madbury and Barrington had the least turnover.

The impacts of the recent and ongoing housing crisis are evident in the 2022 numbers. Low vacancy rates combined with high prices (both purchase and rent) and interest rates have resulted in people staying where they are, rather than moving and risking an increase to their housing costs.

Important note: As this data is based on 5-year averages, the charts do not represent 2012, 2017, and 2022 alone.

Percent of Population who Did <u>Not</u> Live in the same home 1 year ago
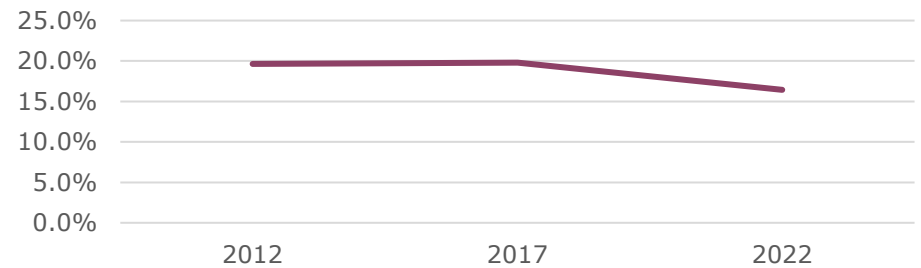
Where did people who did <u>not</u> live in the same home 1 year ago move from?

■ Moved within County ■ Moved within NH
■ Moved from outside NH ■ Moved from outside US
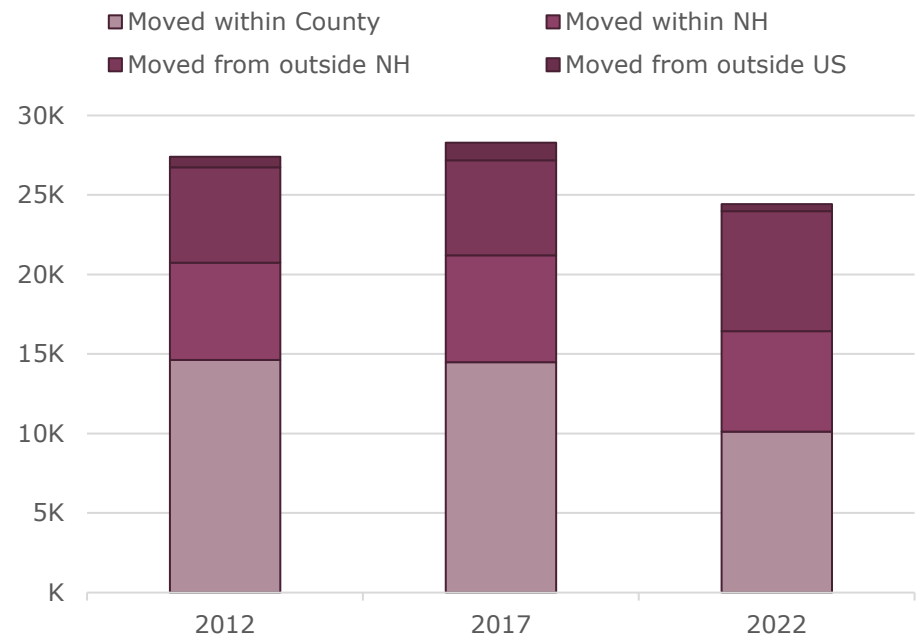
Source: US Census Bureau ACS, 2012-2022. Granularity: Municipalities.

Homes Sales

The rate of sale is understood to follow a yearly cycle, where home purchases increase in the spring and summer between academic school years and slows during the winter months. This has not changed since the onset of the COVID-19 pandemic; however, the characteristics of individual properties and households has.

Notably, the inventory of homes available at *any* time has dropped dramatically.
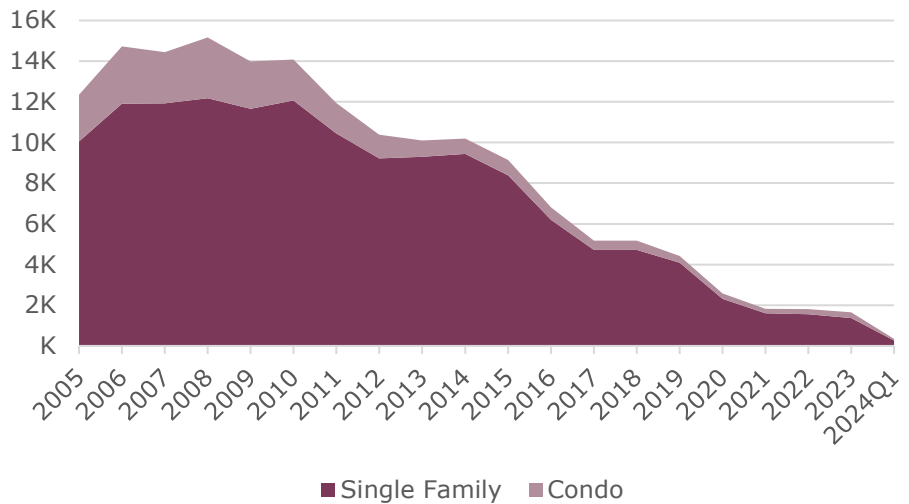
Single Family Closed Sales (by Quarter)
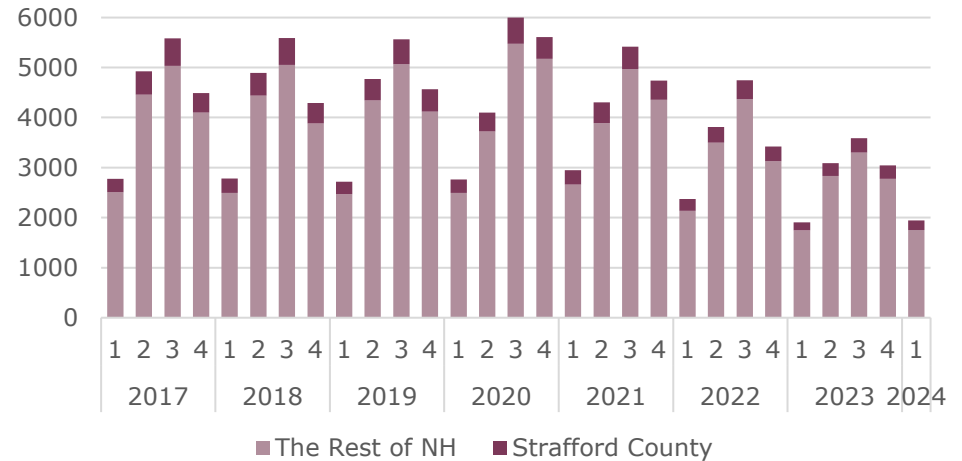
Percent of List Price Received Over Asking (Strafford County)
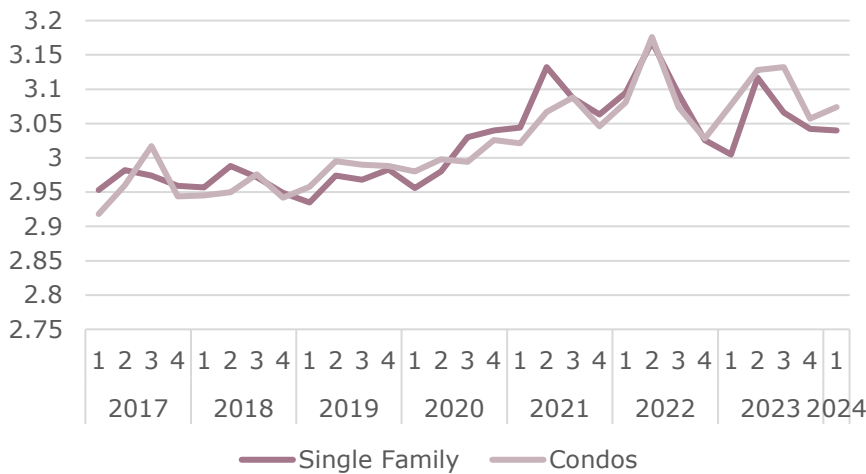
Homes for Sale (Strafford County)

Source: NHRealtors Year: 2017-2022 Granularity: Counties, NH

Housing Supply

In a growing region where home production slowed following the recession of 2008-09, many housing trends were accelerated during the COVID-19 pandemic.

In 2010, a market that were to "freeze," with no new properties available, would have sold off in several months' time. In 2022, inventory of homes available would sell off in a number of days. This means fewer homes are available at *every* price point and buyers are anxious to get into new homes.

A "healthy" rental vacancy rate is traditionally considered 5 percent. Sources can vary, however, it is generally agreed that southern New Hampshire has struggled to maintain a rental market near this rate for most of the 2010s and has since dipped below 1 percent since COVID-19. In the Strafford Region, much of the multifamily homes built outside of Dover, Rochester, and Somersworth may be age-restricted or purposely built for UNH students. In a growing region with increasingly high barriers to homeownership, these forces create much strain on an overburdened rental market.

Month Supply Inventory (New Hampshire)

Vacancy Rates (All Units)
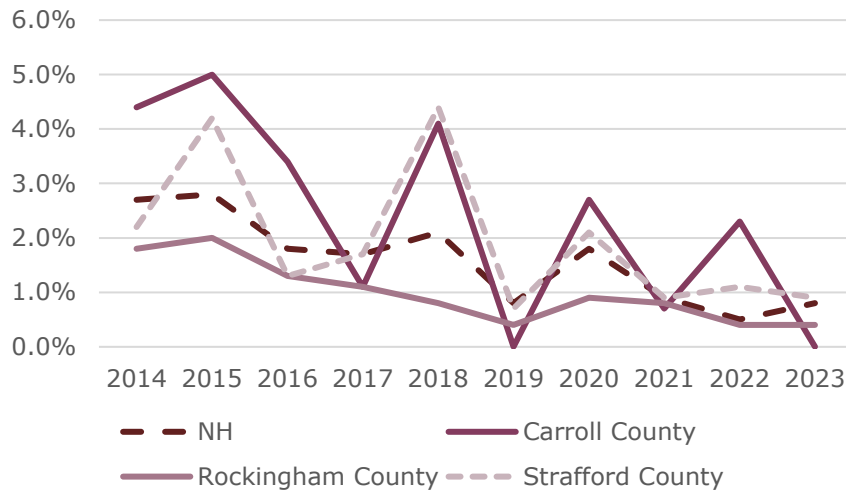
Single Family Homes Average Days on the Market
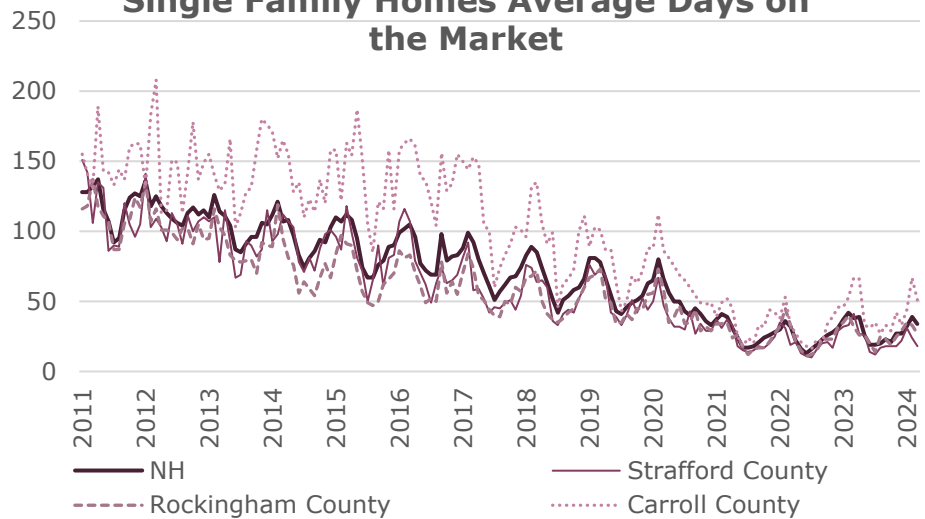
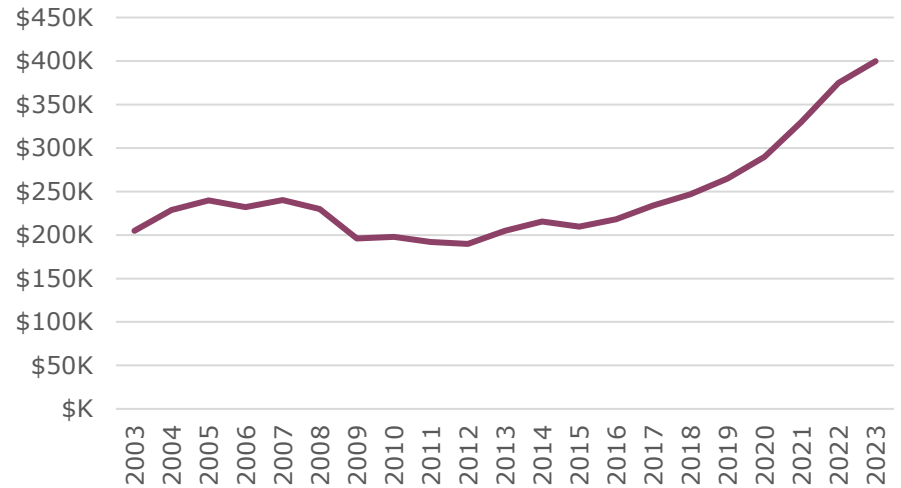Source: NHRealtors, NHHFA Year: 2013-2022 Granularity: Counties, NH

Purchase Price Trends

Median purchase prices have been increasing since 2012, with the biggest increases from 2020-2022. The median purchase price in 2023 is 1.51 times what it was in 2019 when the first Data Snapshot was released.

In contrast to median rent, the purchase price is not the only consideration for the overall cost of buying a home. Changing interest rates and the initial down payment directly impact the monthly mortgage payment that owners pay. The charts on this page reflect the total purchase price and the monthly mortgage payment equivalent. The next page will discuss down payments as well as the income needed to afford mortgage payments at different down payment amounts.

For the sake of this discussion, we look at the following down payment amounts: 20% is a common down payment because it is the threshold at which PMI fees are dropped, 10% is another common down payment, and 3.5% is the minimum down payment required for FHA loans.

Median Purchase Price (SRPC)

Monthly Mortgage Payments vs Rent

Legend: Mortgage (20%), Mortgage (10%), Mortgage (3.5%), Median Rents, Mortgage + PMI (10%), Mortgage + PMI (3.5%)
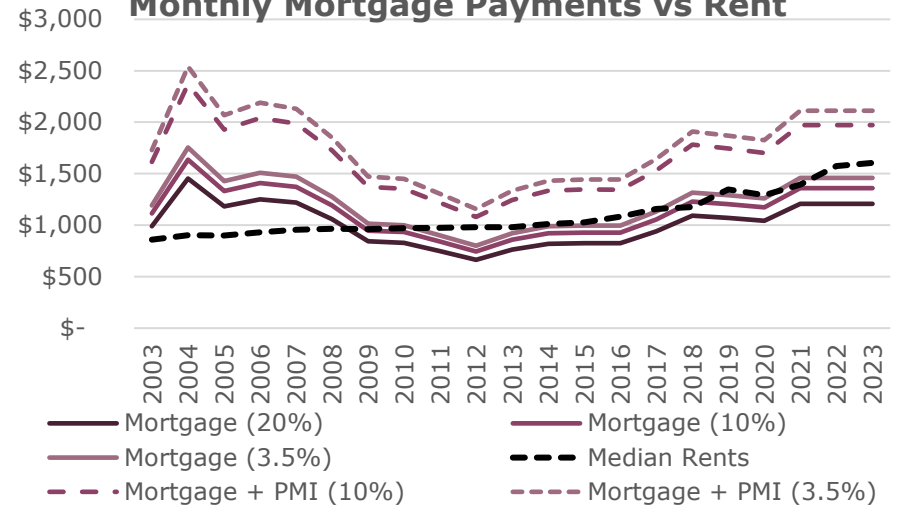
Source: NHHFA. Year: 2000-2023. Granularity: SRPC.

Purchase Price Trends

To better understand how affordable a home might be, this page examines common down payment amounts and the salary that is needed to not be cost burdened by the corresponding mortgage payments.

The Down Payment Amounts chart shows the amount needed for different down payment amounts for the Strafford County median purchase prices. 20% is a common down payment because it is the threshold at which PMI fees are dropped, and 3.5% is the minimum down payment required for FHA loans. A lower down payment is a lower barrier to entry but results in higher monthly mortgage amounts.

Finally, the income required to afford mortgage payments without being cost burdened is found in the bottom right chart, showing that only the mortgage with 20% down is more affordable than rent. This means that renters must put $72,000 down to obtain a mortgage that is less than rent for a median priced home.

Down Payment Amounts
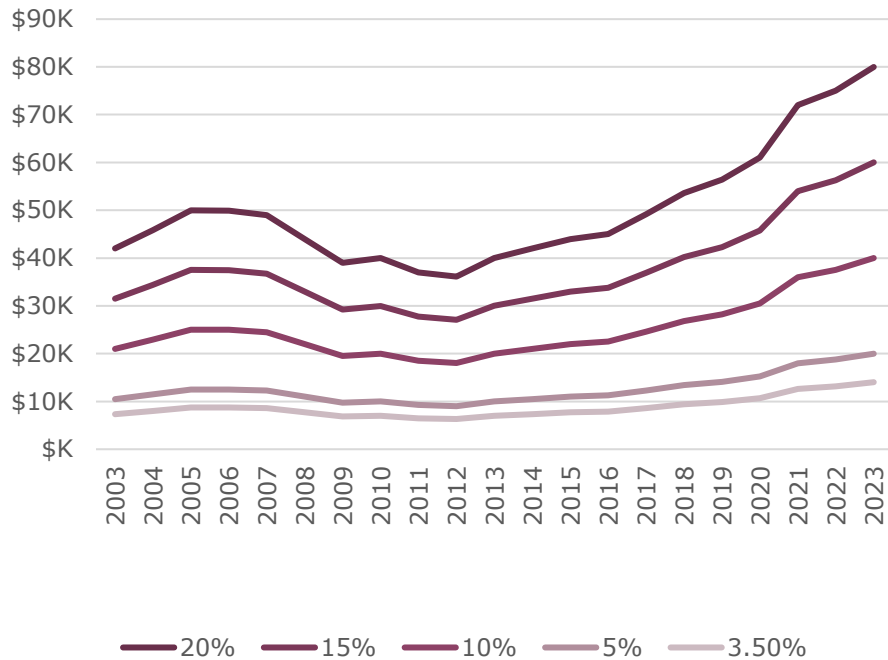
Income Required to Afford Mortgages or Rent vs Per Capita Income
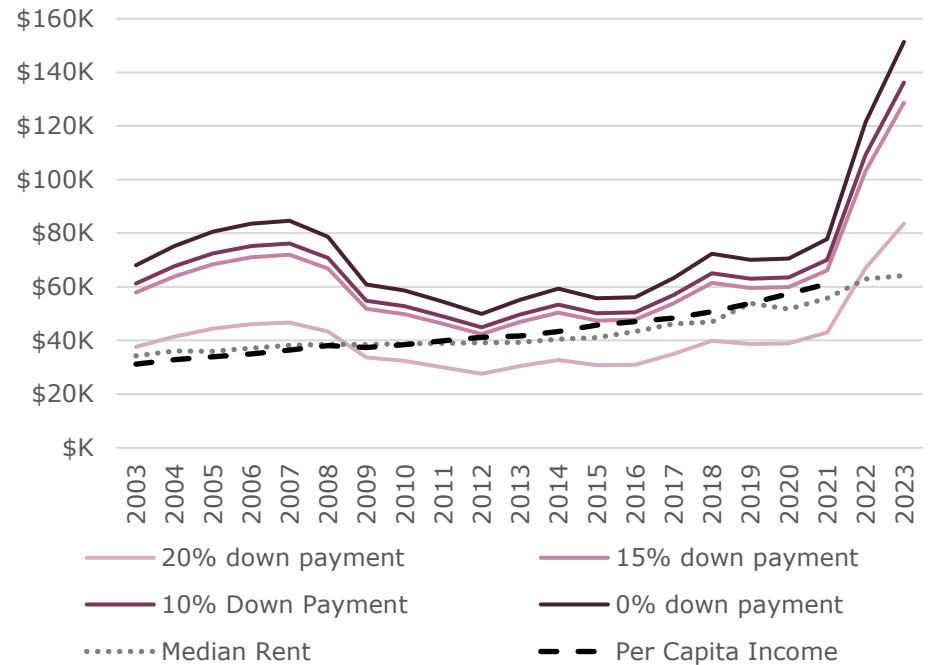
Sources: Federal Reserve Bank of St. Louis (FRED), NHHFA.
Year: 2000-2023. Granularity: Strafford County

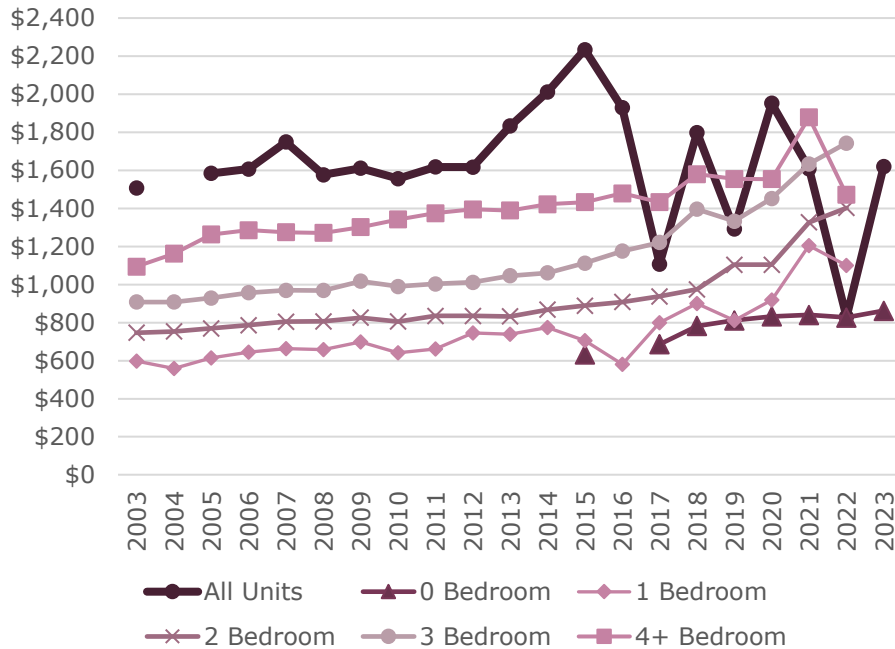**LIVABILITY AND QUALITY OF LIFE**

Rental Cost Trends

Rental costs have been rising year over year. The monthly rent for larger units (2+ bedrooms) have been climbing, and at the same time the market is gaining more studio (0-bedroom) and 1-bedroom units. This skews the overall median rent as we can see in the chart below. To better understand the cost of renting in the region, we must consider the frequency of rental prices as well.

The frequency of rental prices chart represents the distribution of rented housing at each monthly rental price. From 2016-2018, there used to be large peaks at the $800-$1,200 price point, however from 2019-today, we have seen the distribution of prices flatten, with larger spikes near $1,500, $1,900, and $2,200.
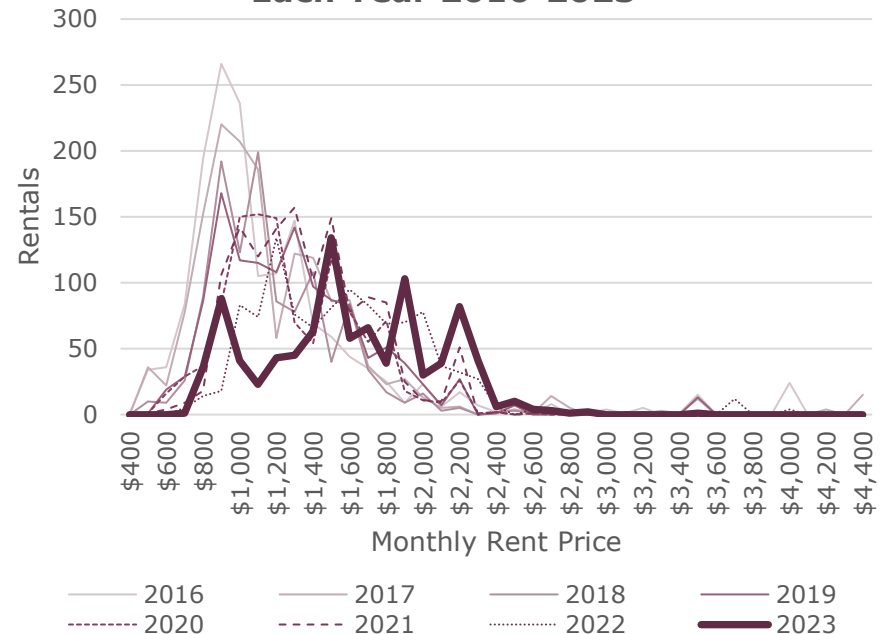
Rental assistance from the state and federal government are based on the Fair Market Rent (FMR) determined by HUD. The FMR is not based on any metric of affordability. It represents the 40th percentile of gross rent for standard-quality unsubsidized units. Most of the region (all of Strafford County plus Newmarket) shares an FMR area with Portsmouth, where rent is even higher than in the Strafford region. The current Portsmouth-Rochester FMR for a 2-bedroom in 2024 is $2,003.

As previously covered in earlier sections of this snapshot, renter occupied households make less than homeowner households. These high rental costs mean that renters have less money available for other things like food, childcare, student loans, cars, or saving up a down payment to eventually buy a home.

Median Rent by Number of Bedrooms

Legend: All Units, 0 Bedroom, 1 Bedroom, 2 Bedroom, 3 Bedroom, 4+ Bedroom

Frequency of Rental Prices Each Year 2016-2023

Rentals (y-axis), Monthly Rent Price (x-axis)

Legend: 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023

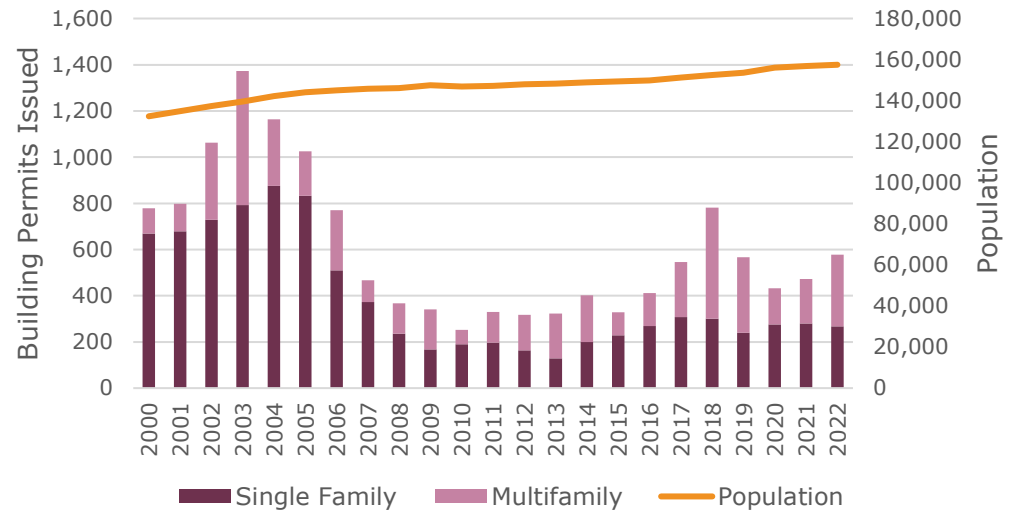Source: NHHFA. Year: 2000-2023. Granularity: SRPC.

Building Permits

The New Hampshire Office of Planning & Development (OPD, formerly the Office of Strategic Initiatives or OSI) collects residential unit information annually to tax information for each municipality and to calculate population estimates. OPD records demolitions in addition to new units, so a net change of housing units each year is recorded. SRPC also collects this information on an annual basis directly from our 18 municipalities. Both OPD and SRPC measure the number of living units for residential permits including single family, multi-family, mixed use, and manufactured dwellings. However, SRPC additionally collects information about non-residential permits such as industrial or commercial structures. SRPC measures the number of non-residential permits because square foot data is not collected as a part of our data request. These are not calculated with demolitions as they are by OPD.
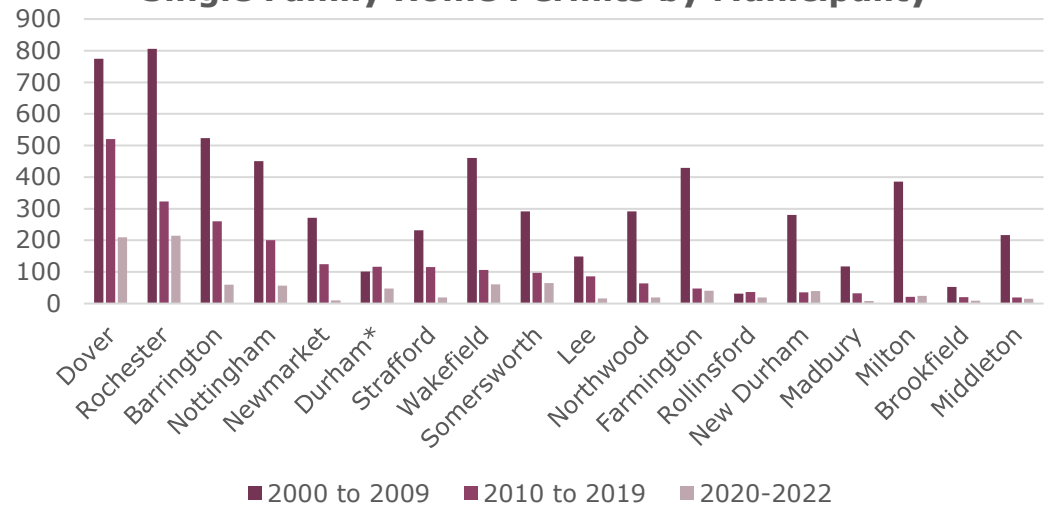
SRPC maintains an interactive dashboard, mapping permit locations on a yearly basis. The data can be filtered by types of permit issued and town from 2008 to 2021 in the SRPC region.
https://srpc.maps.arcgis.com/apps/dashboards/874cf8c1e8dd4714af17c8d530433605

SRPC Building Permits Issued 2000 to 2022

**Single Family Home Permits by Municipality**

Source: NHOPD. Year: 2000-2021. Granularity: SRPC.

Types of Housing Stock

Broadly, most housing is found within single-family structures Much of the housing stock of the Strafford Region, 71% percent, is single family homes. Brookfield contains exclusively single-family homes.

Manufactured or mobile homes are frequent in this area of the state and in New England. Rochester contains more mobile homes than any other municipality in New England.

Durham, Newmarket, and the Tri Cities of Dover, Rochester, and Somersworth are the only communities to consistently report large (50+ unit) structures every year.

Units in Structure
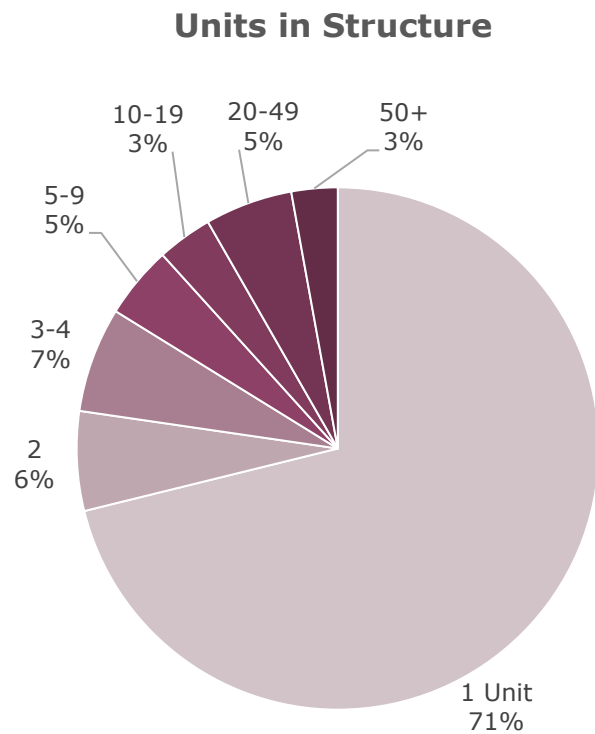
Geography	1 Unit		2 Units		3-9 Units		10-49 Units		50+ Units	
	2012	2022	2012	2022	2012	2022	2012	2022	2012	2022
Barrington	3,155	3,402	57	73	144	146	-	30	-	-
Brookfield	310	289	2	2	-	-	-	-	-	-
Dover	7,071	7,822	1,096	1,110	2,782	3,187	1,647	2,382	656	744
Durham	2,301	2,267	104	238	422	312	489	672	385	295
Farmington	2,201	2,332	73	151	443	317	114	177	-	-
Lee	1,687	1,904	-	51	170	68	62	-	-	-
Madbury	610	651	41	61	42	3	-	-	-	-
Middleton	823	739	3	13	-	-	-	-	-	-
Milton	1,943	1,733	51	29	65	132	26	15	-	-
New Durham	1,373	1,565	22	14	-	-	-	-	-	-
Newmarket	2,107	2,470	148	247	789	495	805	903	26	235
Northwood	2,161	2,142	8	101	38	20	33	20	-	-
Nottingham	2,063	2,121	7	68	-	31	-	-	9	-
Rochester	9,907	9,884	815	956	2,095	1,750	815	1,307	371	412
Rollinsford	824	857	66	80	165	219	15	-	11	-
Somersworth	2,809	3,151	646	954	904	784	437	538	27	274
Strafford	1,623	1,780	32	72	49	19	9	-	-	-
Wakefield	3,809	3,680	103	-	173	50	23	25	-	-
SRPC	46,777	48,789	3,274	4,220	8,281	7,533	4,475	6,069	1,485	1,960
SEDD	40,446	42,056	3,111	3,804	7,454	6,987	3,637	5,146	1,450	1,725

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.
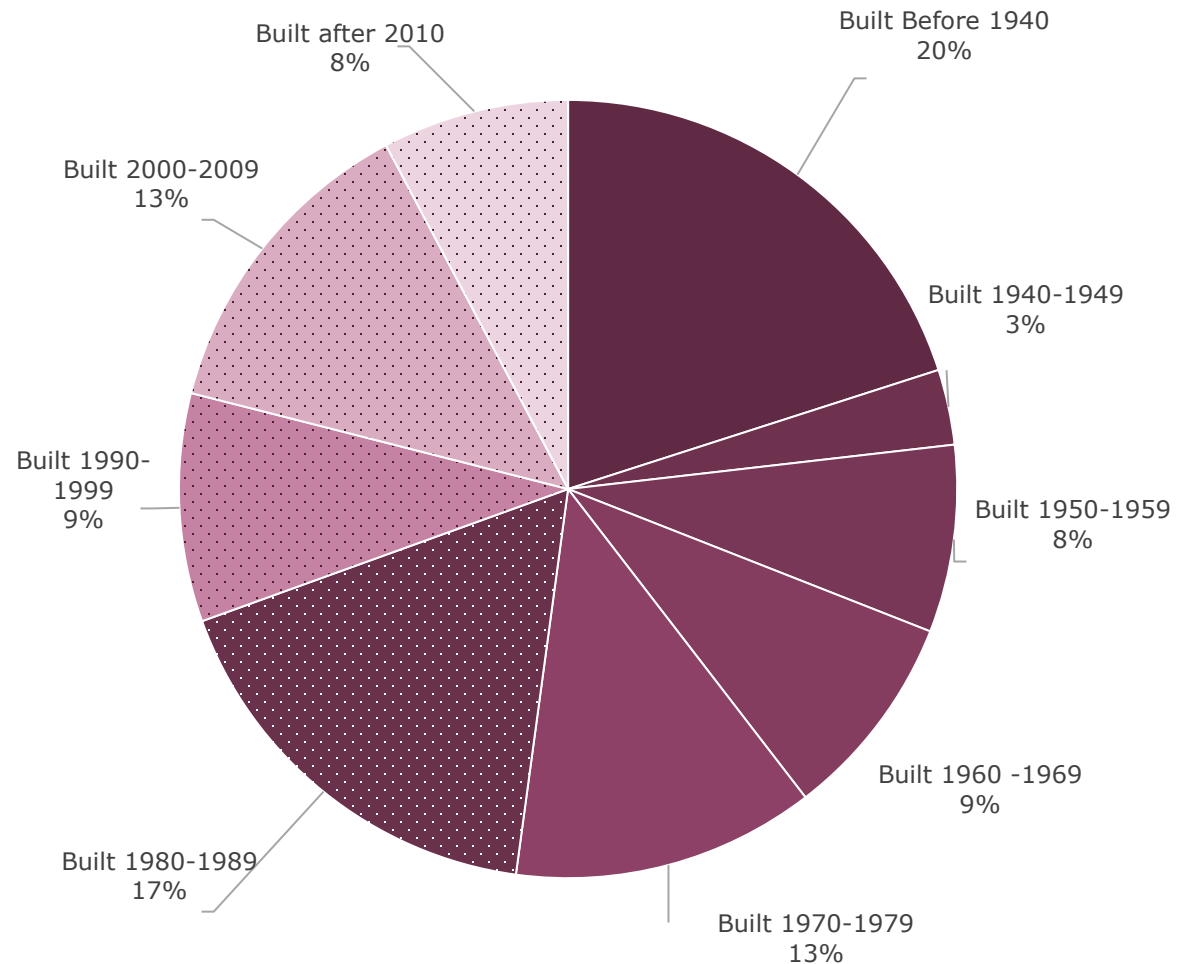
Age of Housing Stock

New England towns have many of the oldest homes in the country, with some homes in the region dating back to the early eighteenth century. SRPC staff found archived Zillow listings of several 1700s-era homes that have been sold in the last 10 years.

Unfortunately, available US Census ACS data notes age of housing by decade for homes only since 1940. Nearly 20% of housing in the region was built prior to 1940, and notably, 30% of renter occupied households live in housing that was constructed prior to 1940 (compared to 15% of homeowners). More recent housing (built since 1980) is predominantly occupied by people who own their homes.

Most housing built prior to 1980 has a high possibility of lead paint. That is more than half of the housing in the region.

As renters are more likely to occupy older homes, one finding of the RHNA was that renters may be exposed to lead paint, mobility challenges that are expensive to correct, and energy inefficiency that leads to higher heating and cooling costs.

Year Housing Structure Was Built

- Built Before 1940 — 20%
- Built 1940-1949 — 3%
- Built 1950-1959 — 8%
- Built 1960 -1969 — 9%
- Built 1970-1979 — 13%
- Built 1980-1989 — 17%
- Built 1990-1999 — 9%
- Built 2000-2009 — 13%
- Built after 2010 — 8%

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities.
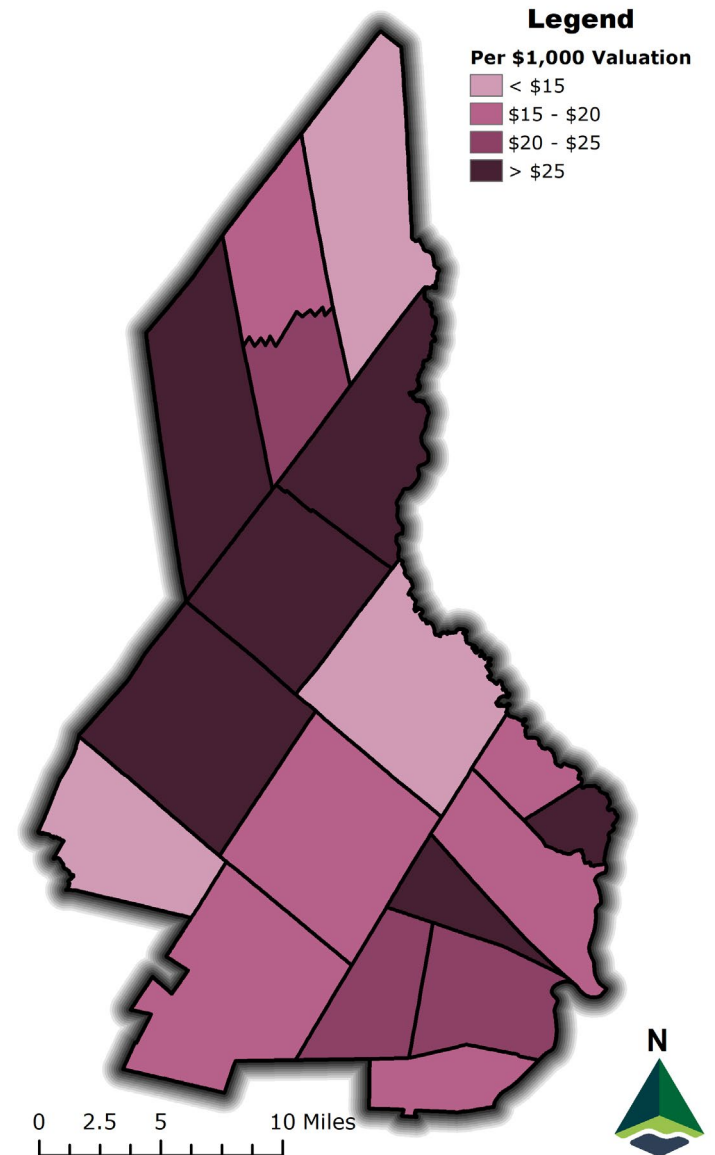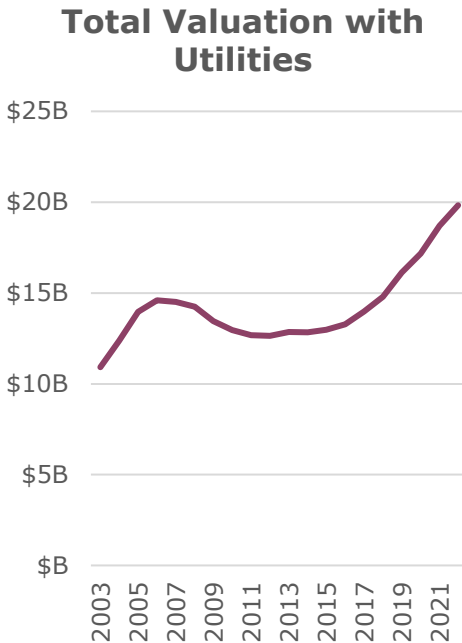
Property Tax Rates

New Hampshire is one of four states without sales tax and one of eight without income tax. In their place, New Hampshire has acquired a reputation for high property taxes, as have other northeastern states. This cost can be a burden even for homeowners who have finished paying off a mortgage, especially older adults who rely on fixed incomes. It could also be argued that high property taxes are a deterrent to potential landlords, thereby restricting the availability of rental units.

In general, municipal tax rates have been decreasing in the region since 2010, but the total valuation is increasing. Only five communities have higher tax rates in 2020 than they did in 2010 (Brookfield, Dover, Middleton, Newmarket, and Rollinsford). Many communities make small changes (less than $1 increase or decrease) year to year, but Middleton makes the most adjustments over $1 in a single year (high of $6.25 increase and $11.30 decrease). Despite these decreasing tax rates, the total valuation has continued to increase, indicating that the property values are increasing.

Municipality	2010	2020	2022
Barrington	$19.57	$22.77	$19.85
Dover	$23.75	$24.85	$19.84
Brookfield	$14.20	$17.18	$19.23
Farmington	$20.24	$22.92	$24.18
Durham	$27.28	$27.73	$29.04
Lee	$25.42	$31.86	$21.72
Madbury	$23.99	$25.25	$25.27
Milton	$22.57	$22.16	$24.48
Middleton	$16.92	$28.27	$26.09
Newmarket	$22.00	$25.46	$26.99
New Durham	$21.19	$16.88	$17.92
Northwood	$24.56	$17.77	$12.58
Nottingham	$19.92	$18.76	$19.11
Rollinsford	$20.53	$24.68	$14.87
Rochester	$23.89	$24.61	$25.28
Strafford	$19.76	$25.65	$17.13
Somersworth	$27.32	$27.85	$28.09
Wakefield	$11.69	$12.38	$12.25

Source: NH Public Finance Consortium. Year: 2003-2022.

Total Valuation with Utilities

Legend

Per $1,000 Valuation
- < $15
- $15 - $20
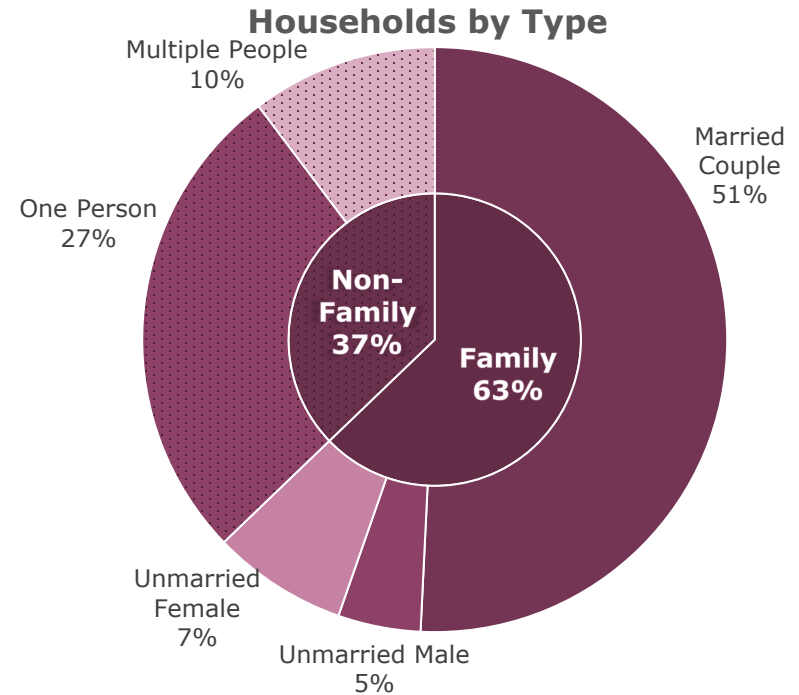- $20 - $25
- > $25

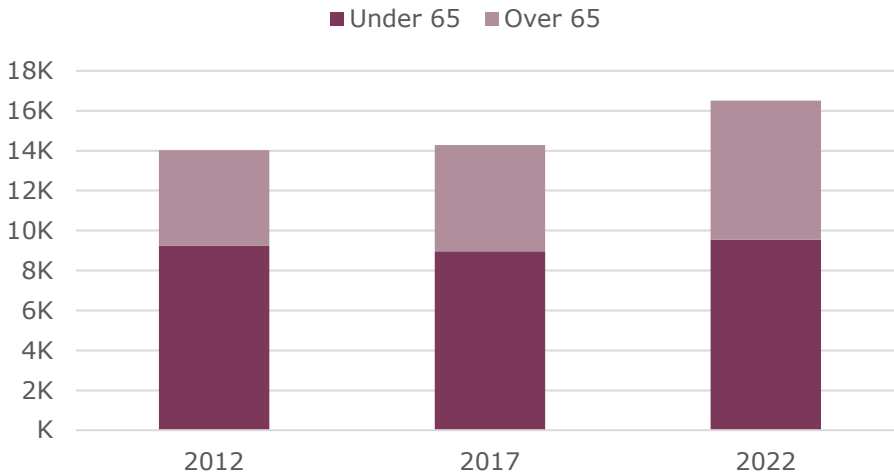0   2.5   5   10 Miles

Households

Household data provides a different lens through which citizens, planners, and decision makers can view the needs, livability, and efficacy of services provided to an area. This is in contrast to the granularity of data provided about individual residents, workers, and stakeholders. Data about households can provide information that is more fine-tuned to the nature of economic habits and resources available to families and children.

On this page, we look at the type of households (family or non-family). In the pages that follow, we'll dig into average household sizes, people living alone, households with children and whether they live with parents or grandparents.
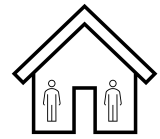
Households by Type

- Multiple People 10%
- One Person 27%
- Married Couple 51%
- Non-Family 37%
- Family 63%
- Unmarried Female 7%
- Unmarried Male 5%

Living Alone by Age

■ Under 65 ■ Over 65

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.
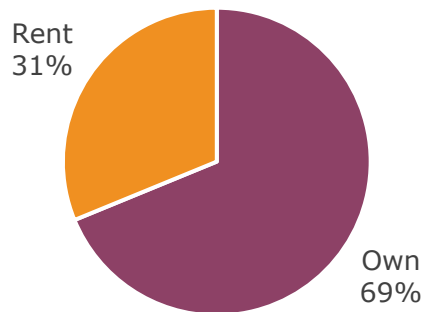
Owner vs Renter Households

Household occupancy has traditionally been identified by renter-occupancy and owner-occupancy. This data identifies occupied housing units and counts each unit in a multi-unit housing structure as a distinct household. University of New Hampshire students living in on-campus dorms are not included (see "Group Quarters"), but off-campus apartments in Durham and the surrounding areas are included.
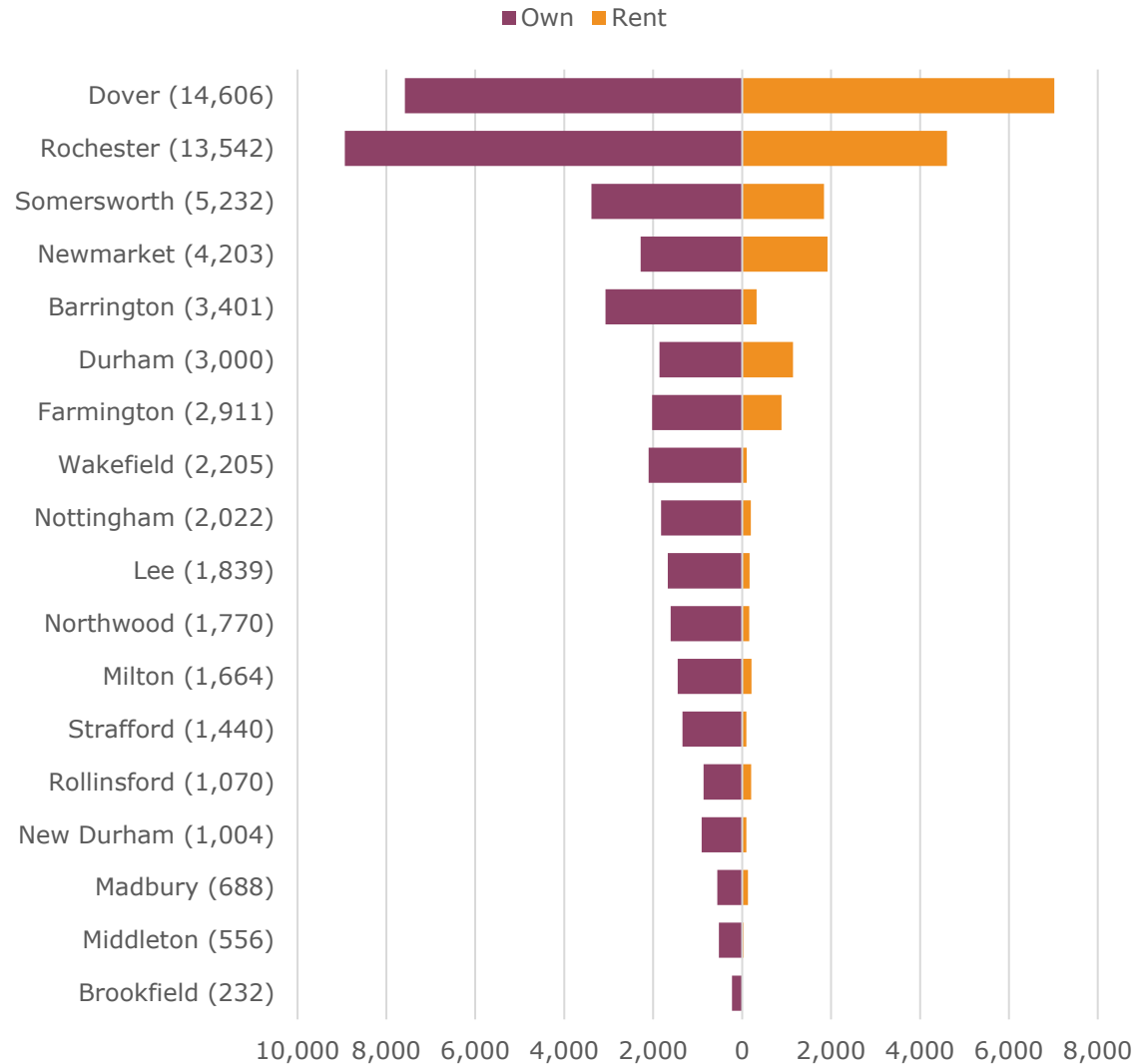
In the pyramid graph to the right, the total width of the bar represents the total number of households in the municipality and the two colors on either side represent owner- and renter-occupied units, respectively.

The cities within our region have the highest number of renters while the rural areas are almost entirely owner-occupied homes. No municipalities have over 50% renter-occupied homes, however Dover, Newmarket, Somersworth, and Durham contain the closest to even distributions.
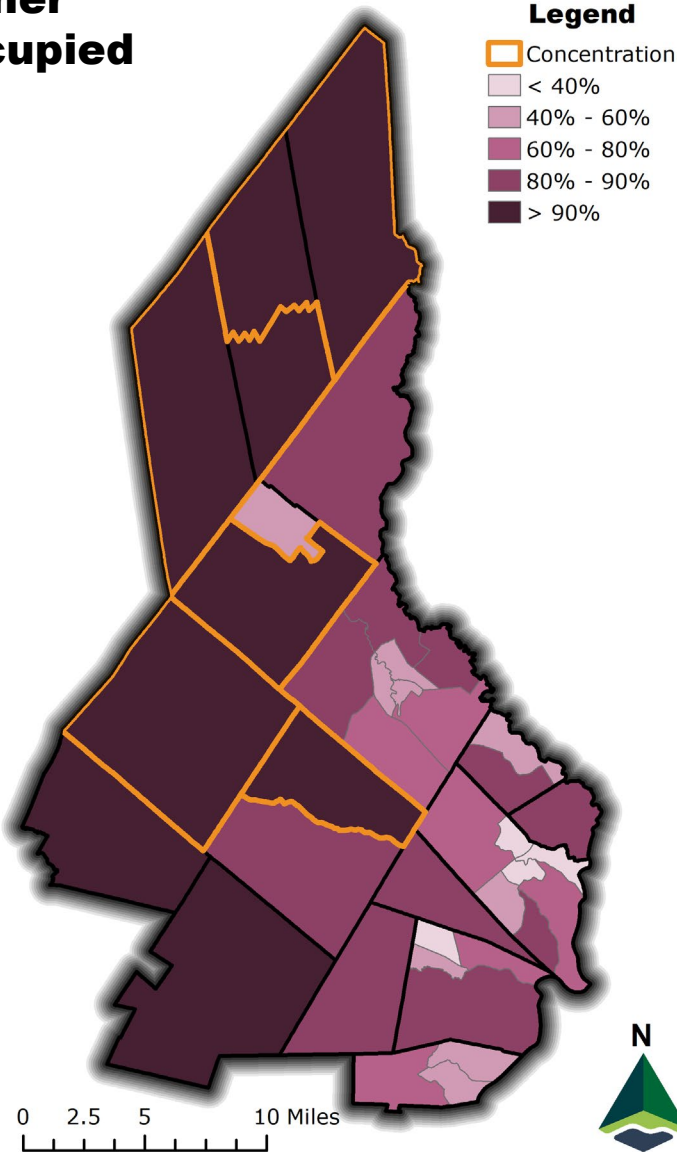
Households by Tenure

Rent 31%

Own 69%

Households by Tenure

■ Own ■ Rent

Dover (14,606)
Rochester (13,542)
Somersworth (5,232)
Newmarket (4,203)
Barrington (3,401)
Durham (3,000)
Farmington (2,911)
Wakefield (2,205)
Nottingham (2,022)
Lee (1,839)
Northwood (1,770)
Milton (1,664)
Strafford (1,440)
Rollinsford (1,070)
New Durham (1,004)
Madbury (688)
Middleton (556)
Brookfield (232)

10,000 8,000 6,000 4,000 2,000 0 2,000 4,000 6,000 8,000

Source: US Census Bureau ACS, 2012-2022. Granularity: Municipalities.

Owner vs Renter Households

Owner Occupied / Renter Occupied maps

Legend
Concentration
< 40%
40% - 60%
60% - 80%
80% - 90%
> 90%
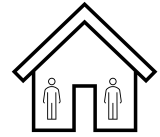
Legend
Concentration
< 10%
10% - 20%
20% - 40%
40% - 60%
> 60%
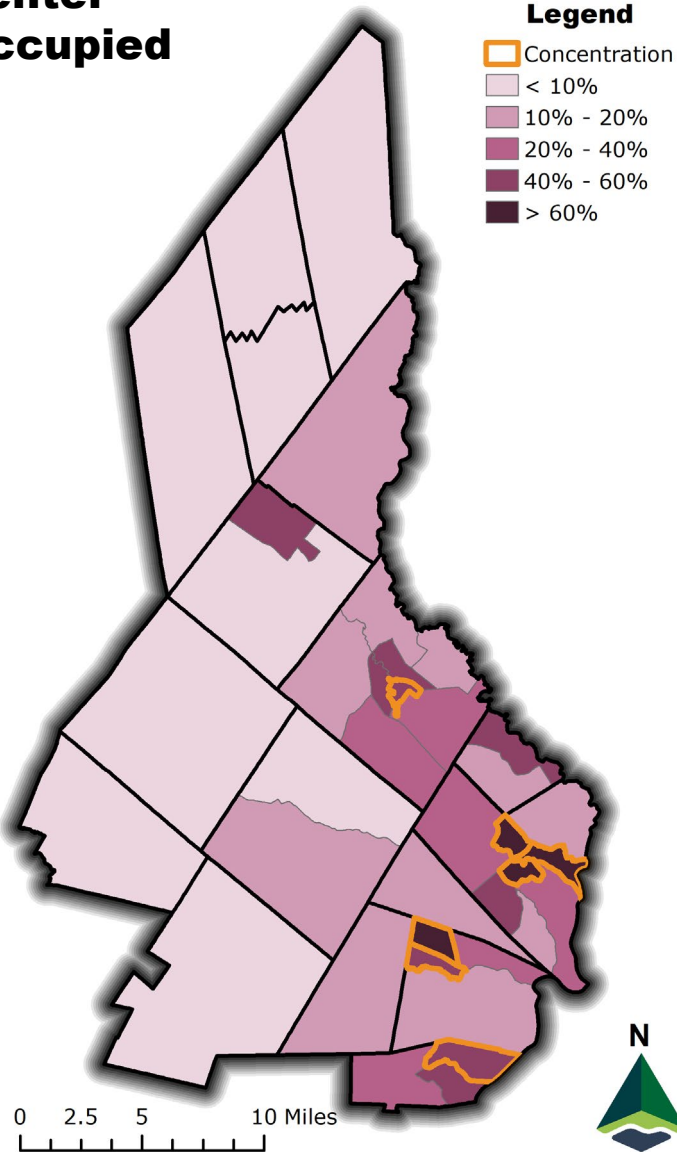
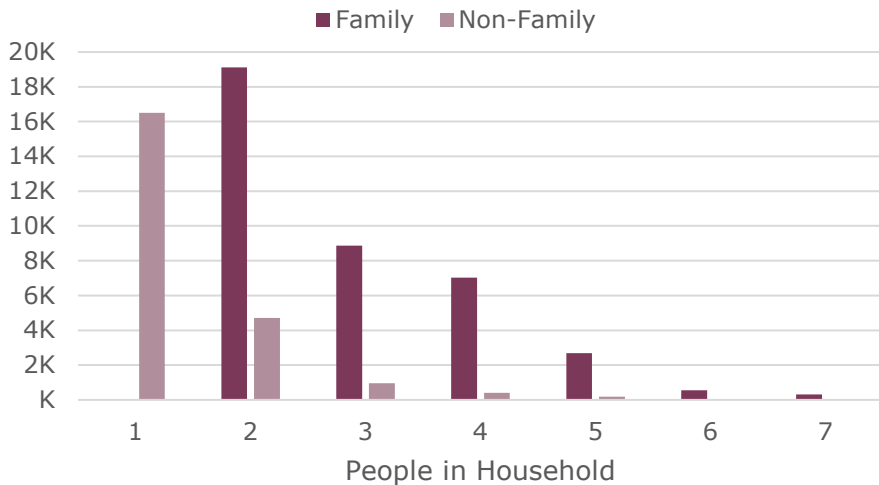Source: US Census Bureau ACS, 2022. Granularity: Tracts.
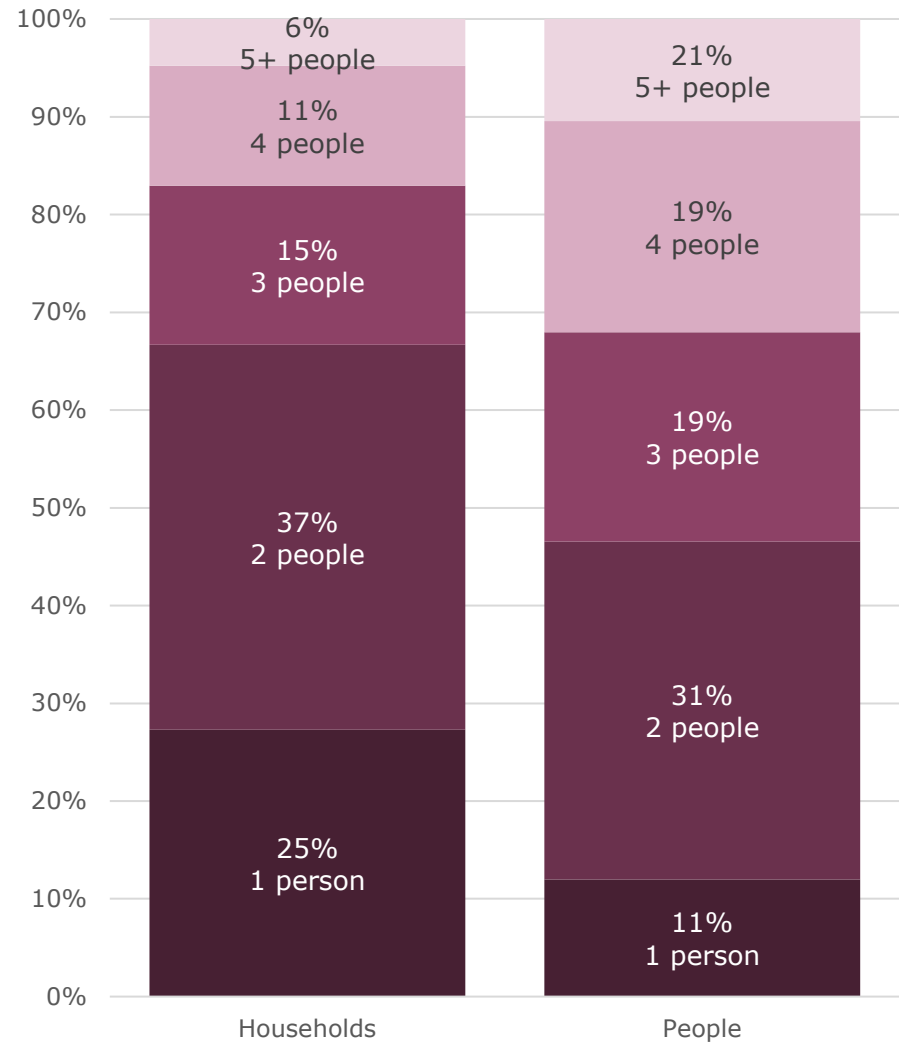
Households and Household Size

Household size is a distinct metric from a simple "head count" of total population for an area. Household size can be indicative of housing climates, age dependency, and energy consumption. New Hampshire contains below-average size households than the whole United States, particularly in renter-occupied homes. This is likely due in part to the higher percentage of households comprised of older adults in northern New England.

People living alone make up 26% of the households in the region, but only 11% of the population. Meanwhile, 6% of the households have 5 or more people, but this is 21% of the population. The recently updated Regional Housing Needs Assessment explores issues of affordability, crowding, and many other issues related to housing and how these two groups face different housing challenges.

Households and People by Houshold Size

Household Size by Type

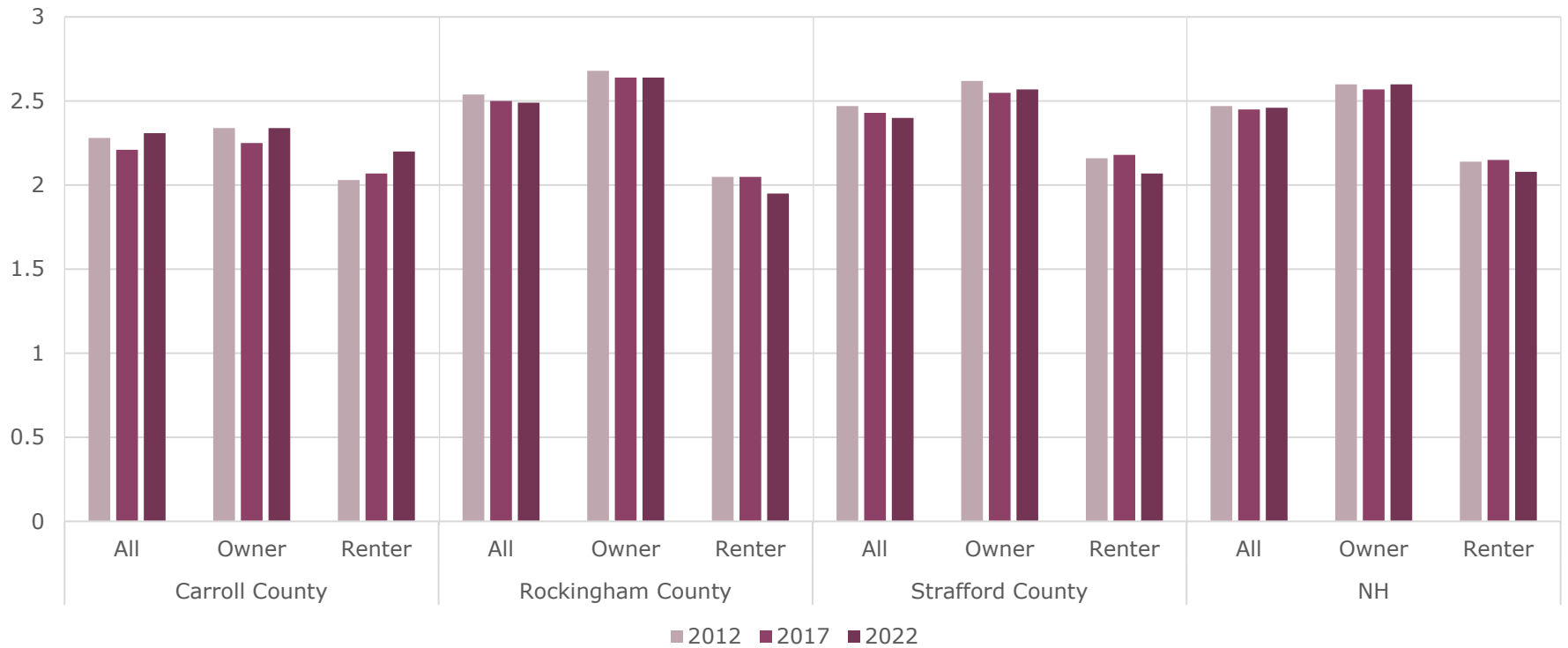Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

Average Household Size

The average household size is declining in most of the region. This driven by the significant increases in households with 1 or 2 people and declines in households of 4 or 6 or more people. This trend is due to several factors including a declining birth rate and an aging population.
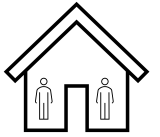
Owner occupied households have a larger average household size than renter occupied households.

Average Household Size

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.
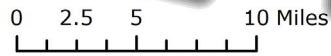
Average Household Size
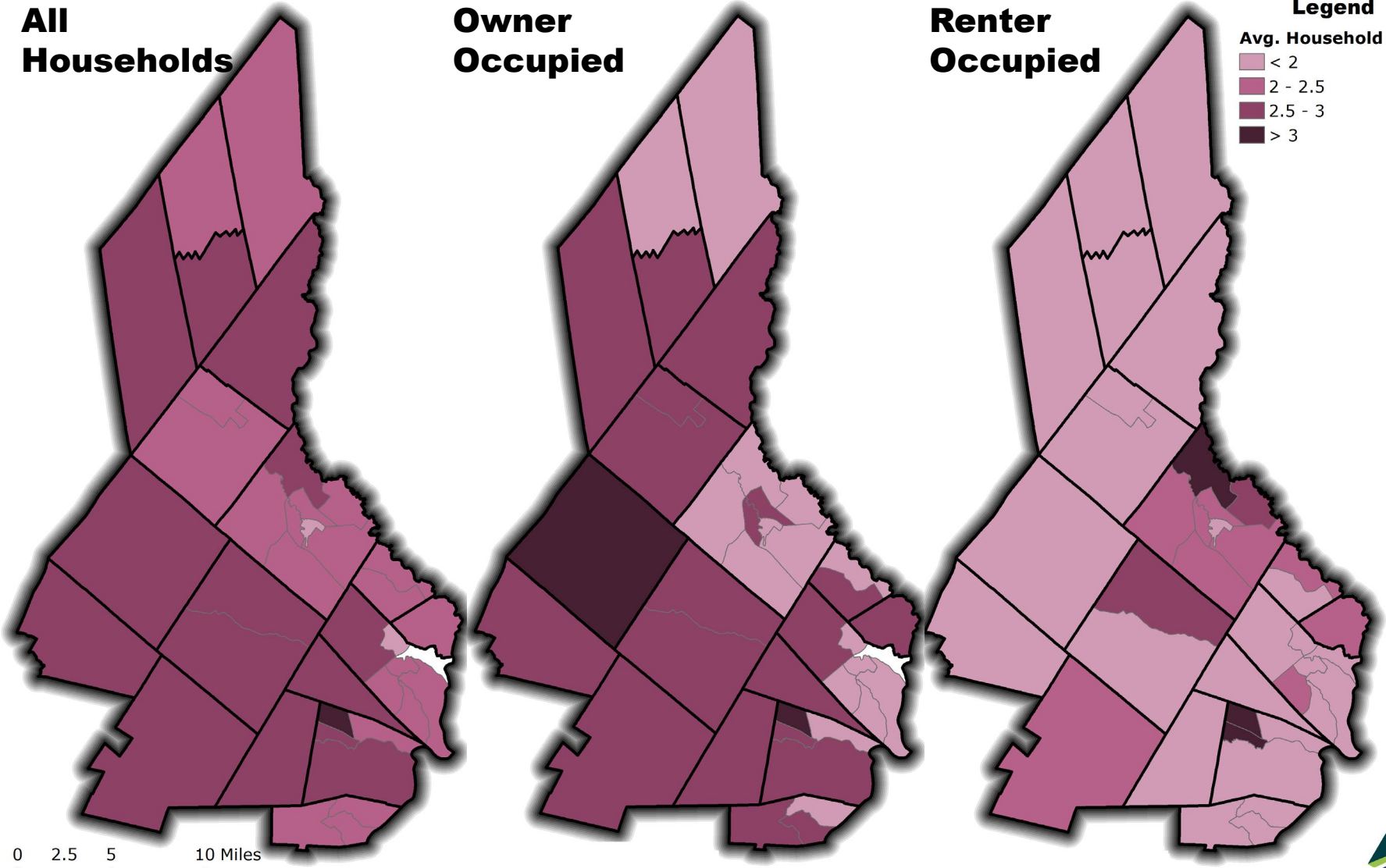
All Households

Owner Occupied

Renter Occupied

Legend

Avg. Household Size
- < 2
- 2 - 2.5
- 2.5 - 3
- > 3

0 2.5 5 10 Miles

N

Source: US Census Bureau ACS. Year: 2022. Granularity: Counties, Municipalities.
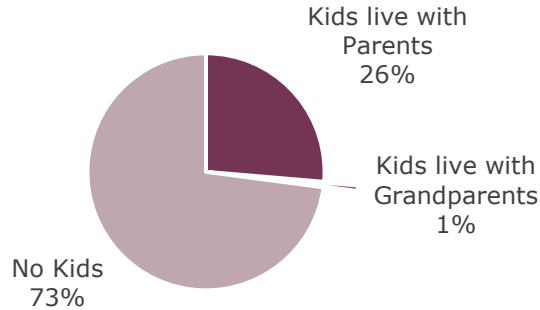
Children Living with Parents or Grandparents

The data on this page looks at households where children live with at least one of their parents or grandparents. It excludes households where children live with other guardians such as more distant relatives or in foster care.

The number of households with children has decreased over the last decade from 31% to 26% of the region. While the total number of households with children in the region has decreased in recent years, the number of households with children under 6 has r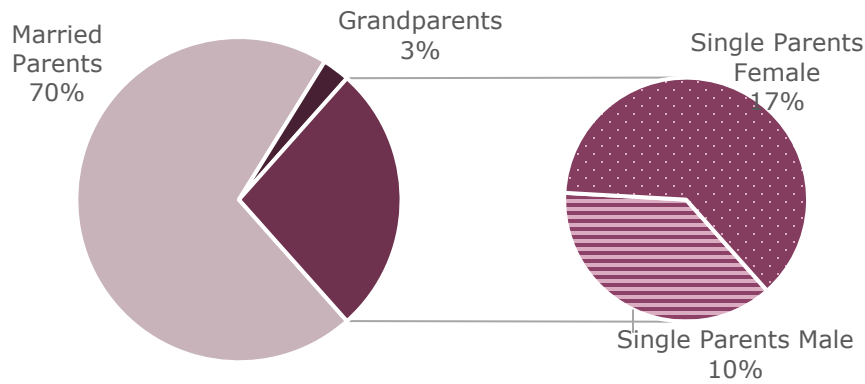isen. Households with children over the age of 6 have declined slightly, maintaining a level percentage of households with children. Meanwhile households with multiple children (including at least one under 6 and one over 6) has seen the largest decrease.

SRPC will continue to calculate and assess the presence of families and the respective age brackets of their children as the region continues to grow and attract workers from other areas of New England and the Northeast.

Households by presence of children

Kids live with Parents
26%

Kids live with Grandparents
1%

No Kids
73%

Guardians in Households with Children

Married Parents
70%

Grandparents
3%

Single Parents Female
17%

Single Parents Male
10%

Households by Parents' Marital Status
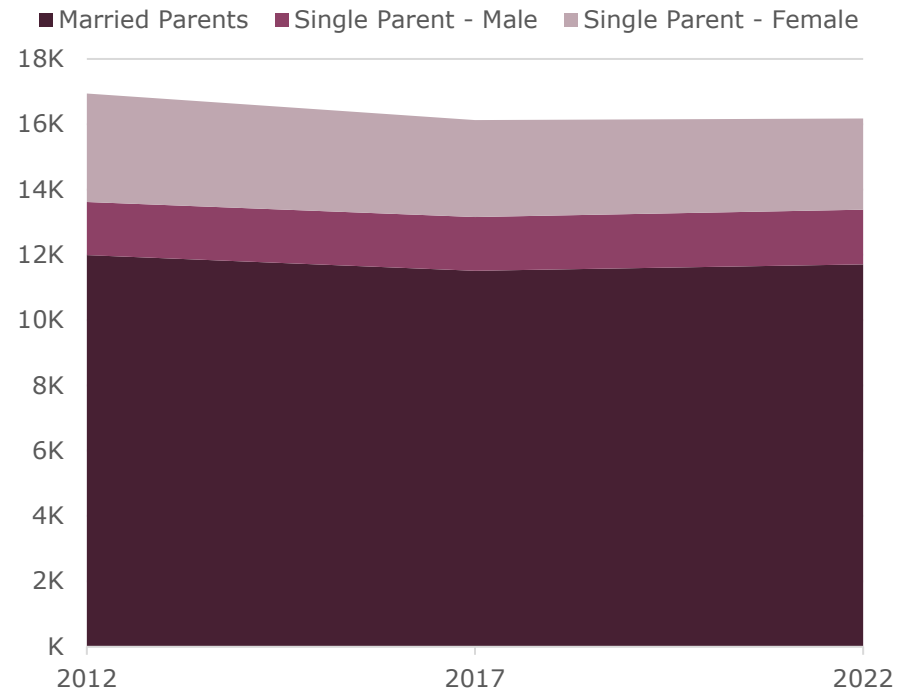
■ Married Parents ■ Single Parent - Male ■ Single Parent - Female

18K
16K
14K
12K
10K
8K
6K
4K
2K
K

2012   2017   2022

Source: US Census Bureau ACS, 2012-2022. Granularity: Counties, Municipalities, Census Tracts.

Single Parent Households

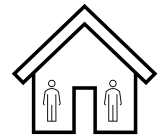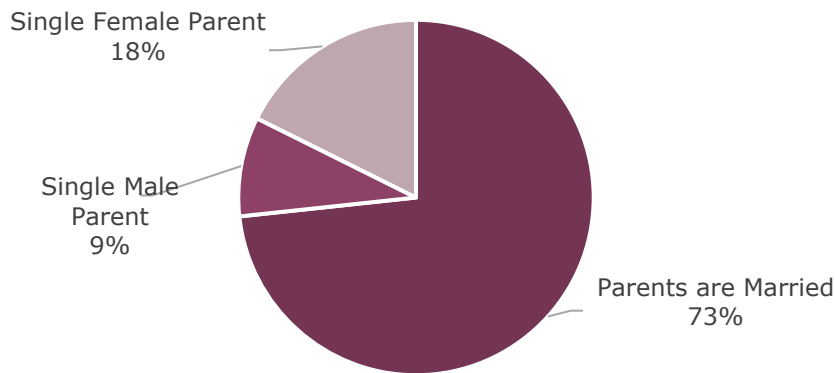Single parents need to make significantly more money than parents with 2 adults earning an income. The MIT Living Wage Calculator estimates that a single parent of a child under 6 years old needs to make 81% more, and a single parent of three needs to make twice as much as each parent in a two-adult household.
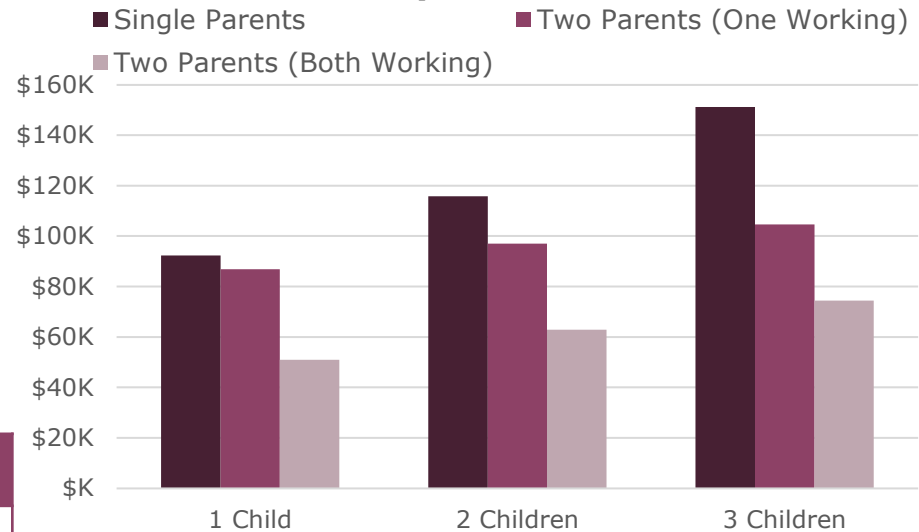
Single parent households account for about 27% of households with children. Households with female single parents make up over 62% of single parent households and have the highest average number of children per household. Meanwhile, male single parents make up 9% of all households with children and have the lowest average number of children per household.

Salary Per Adult

Legend: ■ Single Parents ■ Two Parents (One Working) ■ Two Parents (Both Working)

	Children	Households	Children per Household
Married Parents	19,191	11,707	1.64
Male Single Parent	2,370	1,673	1.42
Female Single Parent	4,620	2,793	1.65

Children by Marital Status of their Parents

- Single Female Parent 18%
- Single Male Parent 9%
- Parents are Married 73%

Children by Parent's Employment Status

- 1 Adult, Not Working 5%
- 1 Adult, Working 22%
- 2 Adults, Neither Works 1%
- 2 Adults, Only One Working 20%
- 2 Adults, Both Working 52%
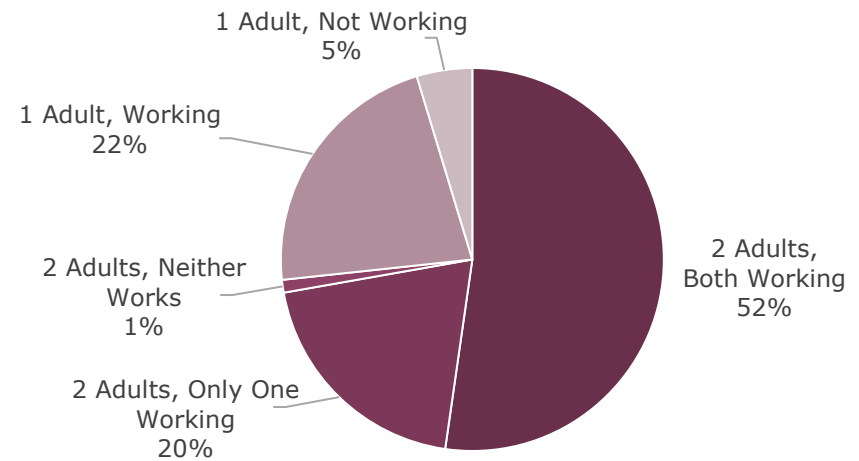
Households - Source: US Census Bureau ACS, 2012-2022. Granularity: Municipalities.
Salaries per Adult - Source: MIT. Year: 2023. Granularity: Strafford County.

Recreation Sites

New Hampshire is characterized by its scenic nature and countless recreation opportunities. There are year-round opportunities for all types of outdoor enthusiasts. The SRPC region, much like the rest of New Hampshire, has dozens of lakes for boating, swimming, and fishing, and many hiking areas with views of Lake Winnipesaukee, Mount Washington, and other regional landmarks. SRPC municipalities provide and operate playgrounds, pools, and other recreation centers of their own.

In the spring of 2020, SRPC was awarded a second New Hampshire Children's Health Foundation (NHCHF) grant to implement a program complementary to the Pathways to Play program. Promoting Outdoor Play! (POP!) has enabled SRPC to expand the data available about publicly accessible recreation sites that was gathered in the Pathways to Play project, and to present this data in a more user-friendly and accessible tool for those who live, work, and recreate in the region.

| Type	Barrington	Brookfield	Dover	Durham	Farmington	Lee	Madbury	Middleton	Milton	New Durham	Newmarket	Northwood	Nottingham	Rochester	Rollinsford	Somersworth	Strafford	Wakefield	Total
Playgrounds	2		13	2	2	3	1	1	2	2	2	1	3	9	1	5	1	4	**54**
Parks	1		10	4	3				3		2		1	3	3	3		2	**35**
Trails/open land	11	4	16	17	5	3	2	1	6	4	7	2	4	7	2	5	4	2	**102**
Sports	5	1	16	3	3	4	2	1	2	1	6	3	2	14	3	10	1	7	**83**
Beaches/pools			2					1	1	1	1	4	2	3				3	**18**
Boat launch/etc.	1		4	4			2		1	5	4	1	3	2	2	1	1	1	**32**
Winter	1		4	2							1			1		2			**11**
Other			2	1	1						1				1	1	1		**8**
Total	**21**	**5**	**67**	**33**	**13**	**10**	**7**	**4**	**15**	**13**	**24**	**11**	**15**	**39**	**12**	**27**	**8**	**19**	**343**

Source: SRPC. Year: 2021. Granularity: Municipalities.
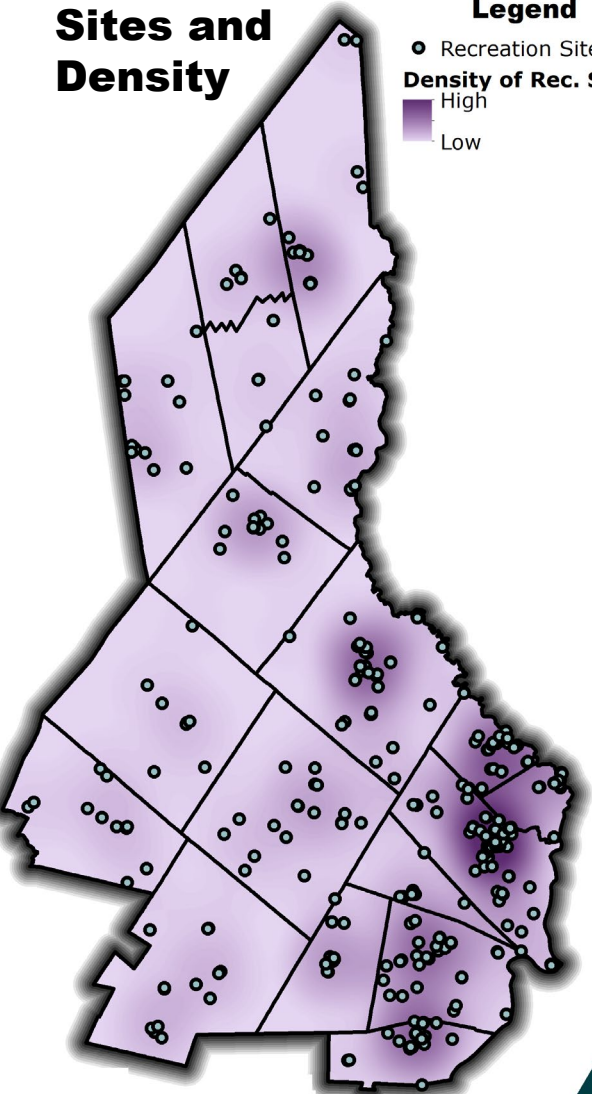
Recreation Sites

Sites
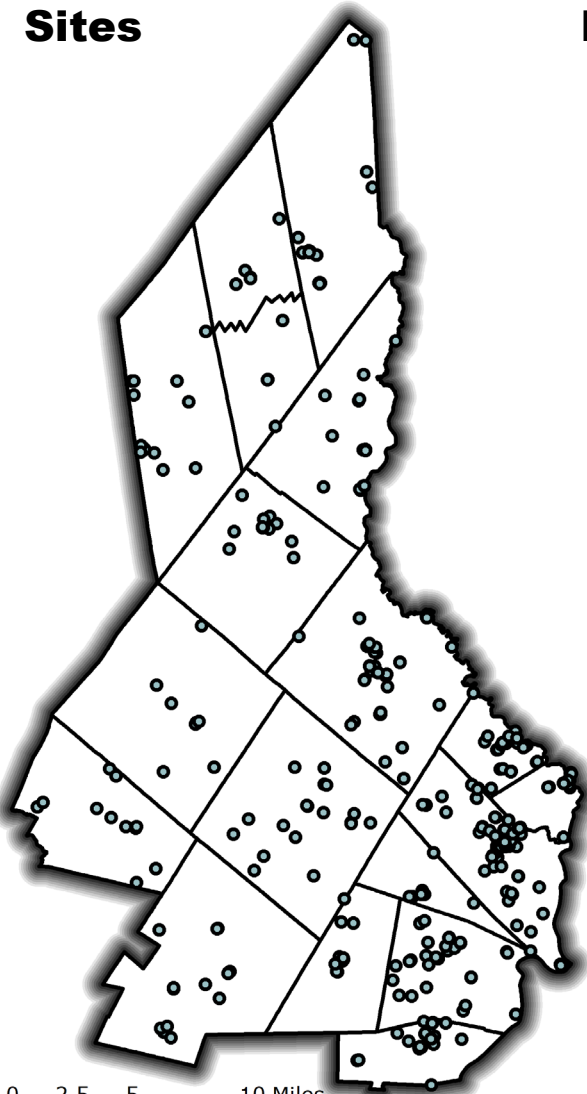
Density
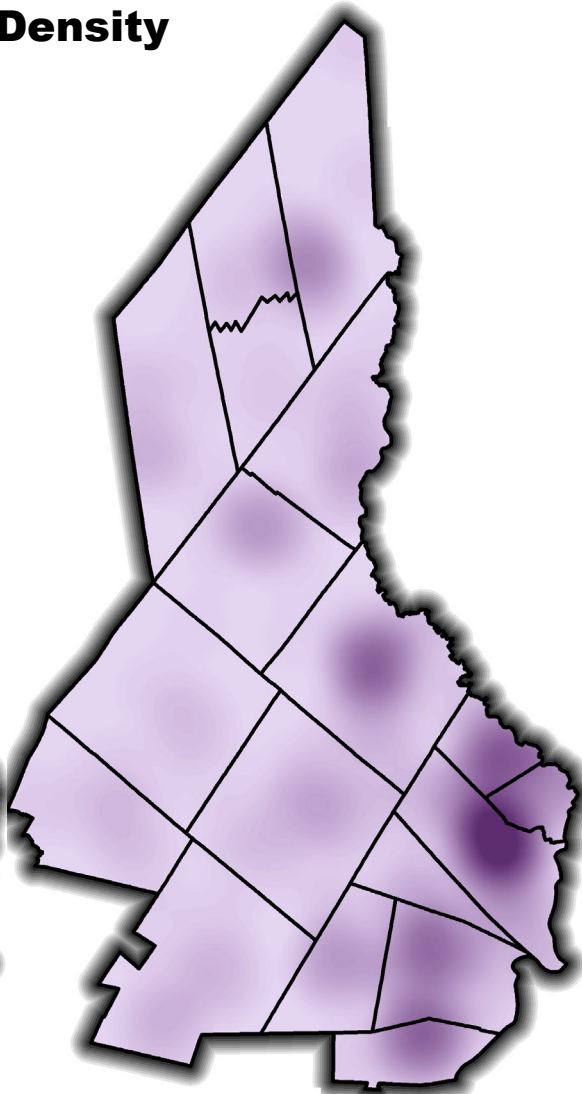
Sites and Density

Legend
○ Recreation Sites
Density of Rec. Sites
High
Low

0 2.5 5 10 Miles

Source: SRPC. Year: 2021. Granularity: Municipalities.

LIVABILITY AND QUALITY OF LIFE

Conservation Lands

Conservation lands are properties that are generally undeveloped and protected from development by local land use regulations. These regulations are often put into place to protect features such as forestry, agriculture, wildlife habitats, watershed protections, and occasionally for recreational use.

Durham has the highest percentage of conservation land as a result of a large amount of UNH properties. Nottingham is second, containing much of Pawtuckaway State Park.

The percent calculation in the table below is percent of land area only and excludes waterbodies.

	Square Miles of Conservation	Percent of Municipality
Barrington	9.98	21%
Brookfield	5.47	24%
Dover	5.69	20%
Durham	10.32	42%
Farmington	3.87	10%
Lee	5.16	26%
Madbury	3.30	27%
Middleton	3.98	21%
Milton	8.21	24%
New Durham	3.27	7%
Newmarket	3.41	24%
Northwood	4.91	16%
Nottingham	15.54	32%
Rochester	3.51	8%
Rollinsford	1.37	18%
Somersworth	1.14	11%
Strafford	13.55	26%
Wakefield	2.18	5%
SRPC	**104.86**	**19%**

Source: UNH GRANIT. Year: 2024. Granularity: SRPC.

Legend
- Conservation Lands
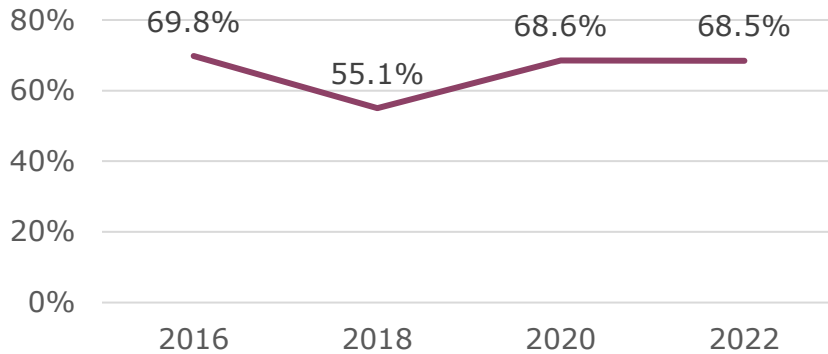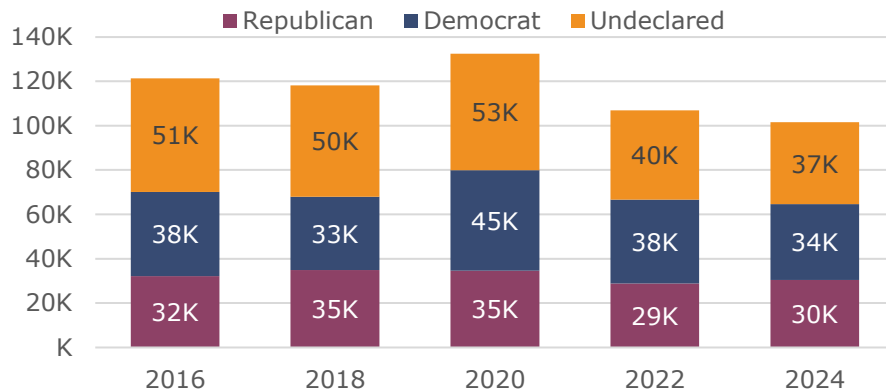

0   2.5   5   10 Miles

N
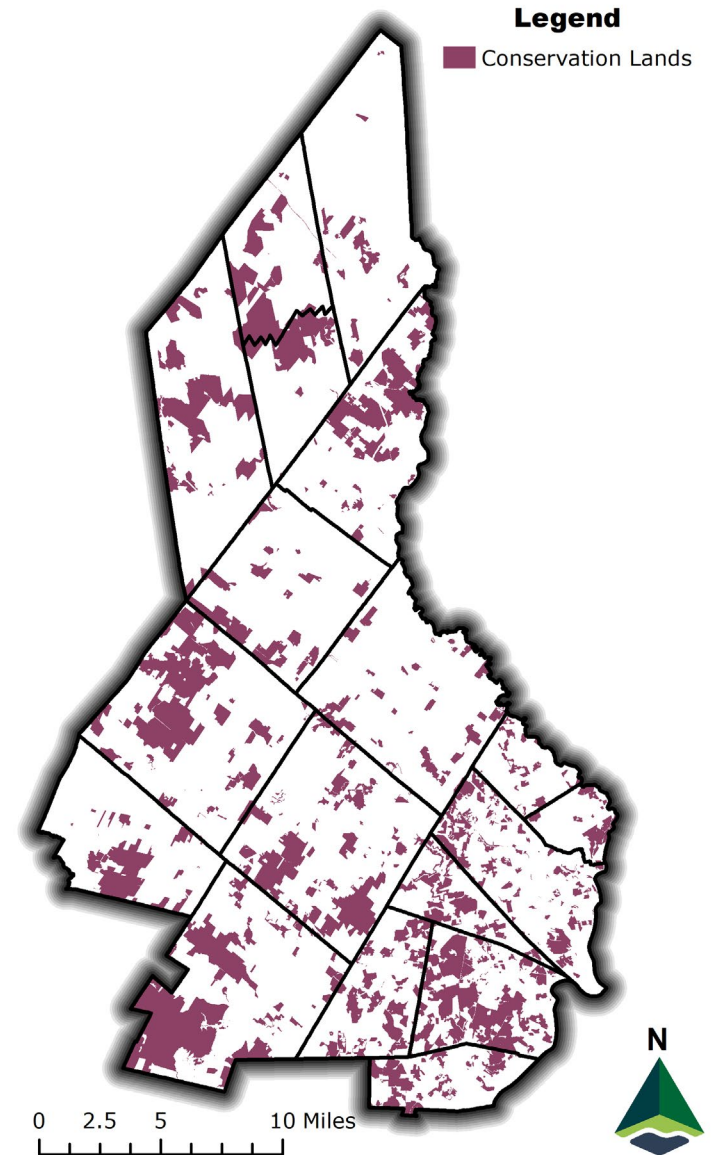
Voting

New Hampshire remains a top state for voter participation, and the SRPC region is no exception. In the 2022 general election, Brookfield and New Durham recorded the highest participation at 77%; Somersworth recorded the second-lowest at 63%. Durham recorded significantly lower voter turnout at 52% as a result of UNH students who were registered in Durham but were not present to vote in Durham.

As is expected, turnout for the 2024 primary election was lower than general elections at 45% of registered voters. The majority of the undeclared voters who turned out chose to participate in the republican primary.

Percent of Registered Voters who Voted in General Elections

69.8%   55.1%   68.6%   68.5%
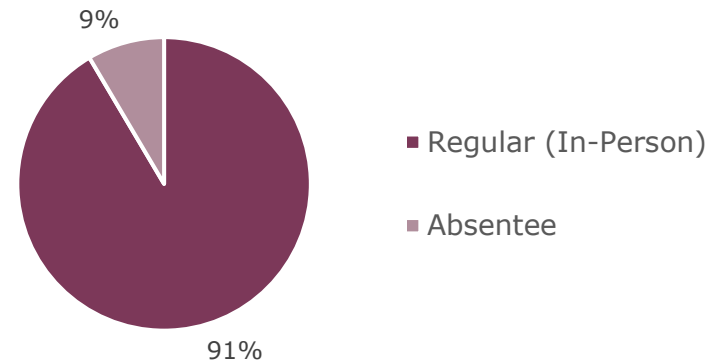
(Line chart: 2016, 2018, 2020, 2022)

In the 2024 Presidential Primary…	
The ballots cast were	39% Republicans 25% Democrats 36% Undeclared
The undeclared voters chose to vote	85% Republican 15% Democrat
The participation rate by party	60% of registered republicans 38% of registered democrats 30% of registered undeclared 45% of all registered voters
Day-of registrants	3,389
Total Ballots cast	47,164
Total Registered Voters	101,560

Registered Voters by Party

■ Republican ■ Democrat ■ Undeclared

Year	Republican	Democrat	Undeclared
2016	32K	38K	51K
2018	35K	33K	50K
2020	35K	45K	53K
2022	29K	38K	40K
2024	30K	34K	37K

Regular vs Absentee: 2022 General Election

9%   91%

■ Regular (In-Person)
■ Absentee

Source: New Hampshire Secretary of State. Year: 2016-2024. Granularity: Municipalities.

MOBILITY AND ACCESSIBILITY

Table of Contents

Infrastructure Conditions

Infrastructure can be categorized into two types: built infrastructure (structures such as roads, bridges, dams, railroads, utilities, etc.), and unbuilt infrastructure (facilities and systems such as emergency services, online systems used by government agencies and utility providers, social and economic systems, public health networks, etc.).

This section contains updated metrics that assess the condition and operation of a range of structures and facilities in the region.

This includes:

- Condition of pavements and bridges.

- Travel time reliability on National Highway System roads.

- Location and scale of dams.

- Availability of high speed (broadband) internet.

Future updates to this document will include additional information about non-transportation infrastructure.

Pavement in the National Highway System

This metric is one of the FHWA mandated performance measures defined in 23 CFR 490. The pavement condition on the National Highway System (NHS) is calculated as the percent of miles of NHS road by condition.

In the first iteration of target setting in 2018, the condition can be calculated by using the International Roughness Index (IRI), but starting in 2022, the pavement condition will also consider:
• Cracking.
• Rutting – where the wheel path is a visible indent in the pavement.
• Faulting – misalignment in sections of pavement, common on bridges and concrete roads.

SRPC chose to support the state targets in 2018 when they were initially set. Targets will be reevaluated in summer 2023.

The chart and map on this page use the IRI condition ratings for NHS roads. An IRI of less than 5 is considered good, and an IRI over 170 is considered poor. Some segments in 2016 and 2019 contained poor data quality not suitable for evaluation.

Pavement Condition on the NHS

Legend
— Good
— Fair
— Poor

■Good ■Fair ■Poor ■Unknown
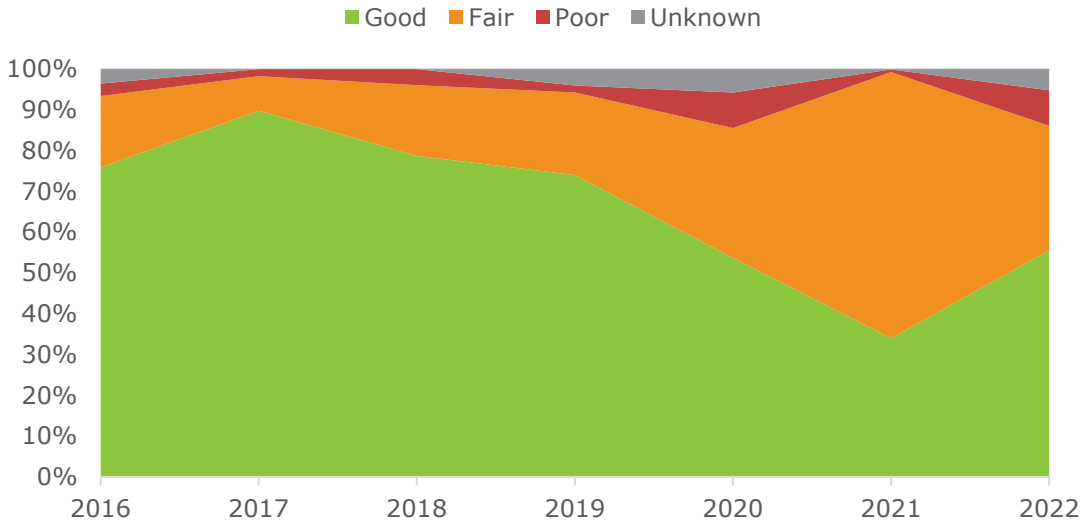
Source: NHDOT. Year: 2016-2022. Granularity: SRPC.
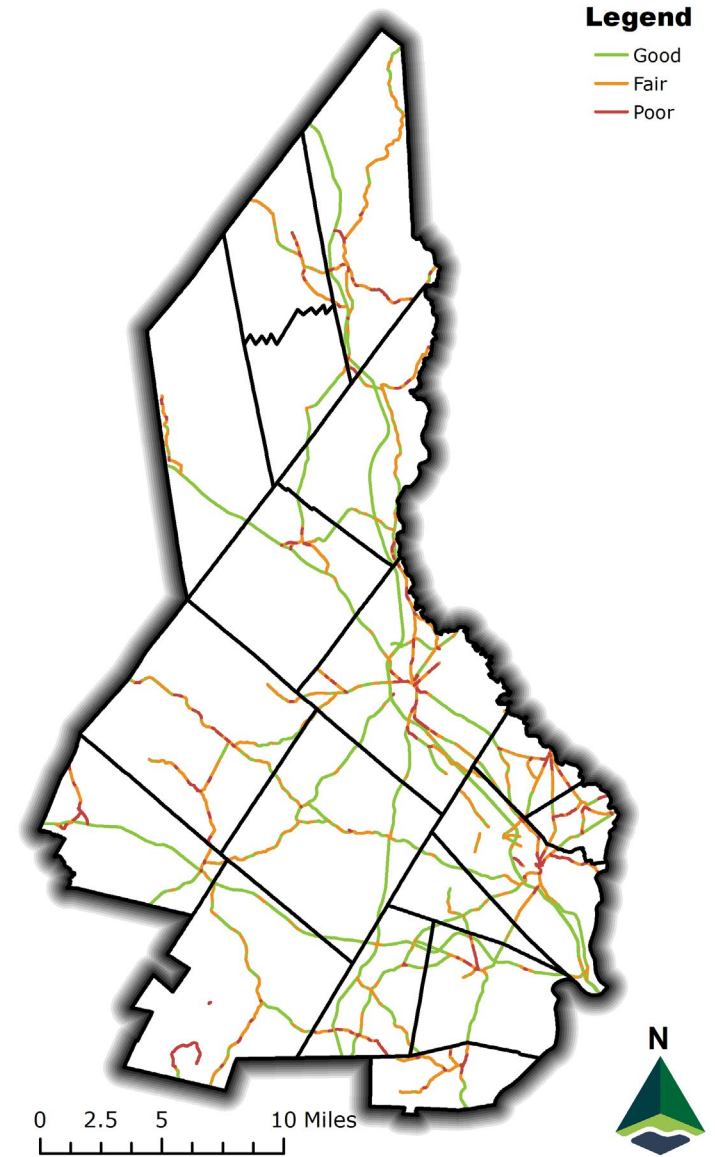
Bridge Condition

There are two main bridge condition methodologies used by SRPC. One is defined by FHWA in 23 CFR 490 as part of the federal transportation performance measures, and one is defined by NHDOT and is used to prioritize bridge repairs and replacements.

The FHWA Bridge condition performance measures identify the condition of bridges on National Highway System (NHS) roads. These bridges are scored on the condition of their deck, superstructure, substructure, and culvert (if applicable). The lowest scoring of these conditions determines the overall rating of the bridge.

The chart below and map on this page apply the FHWA bridge condition performance measures' analysis for all the bridges[1] in the National Bridge Inventory in the region.

Bridge Condition

	2017	2018	2019	2020	2021	2022	2023
■ Poor	8%	8%	7%	7%	7%	6%	7%
■ Fair	35%	36%	35%	36%	36%	37%	39%
■ Good	57%	56%	58%	58%	57%	56%	55%
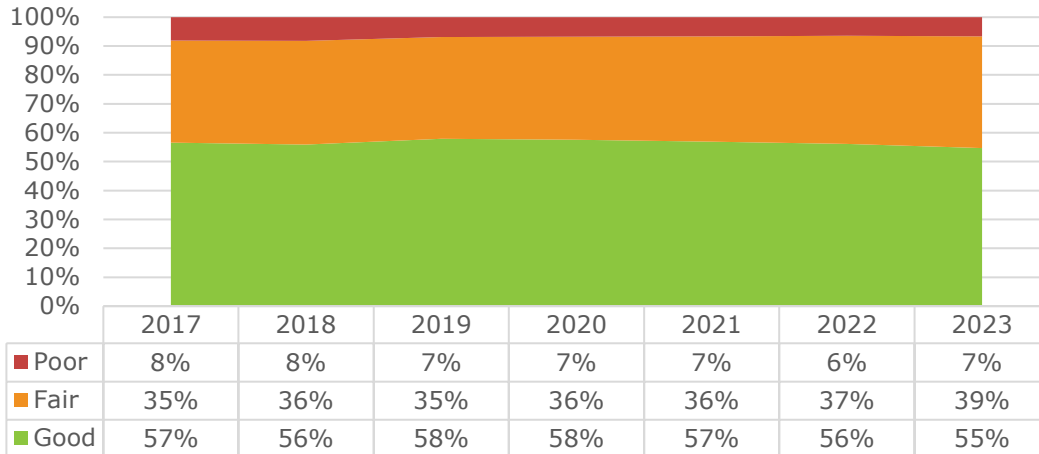
[1] Bridges in the National Bridge Inventory are defined as bridges with a length of 20 feet or more. NHDOT uses a length of 10 feet for the state bridge inventory, so the Red List Bridge Metric may include bridges that are not included here.

Source: National Bridge Inventory. Year: 2017-2023. Granularity: New Hampshire.

Legend
- ● Good
- ● Fair
- ● Poor

Bridge Condition in the National Highway System

The FHWA bridge condition performance measures determine the condition of bridges of roadways in the National Highway System. These bridges are scored on the conditions of their deck, superstructure, substructure, and culvert (if applicable). The lowest scoring of these conditions determines the overall rating of the bridge.
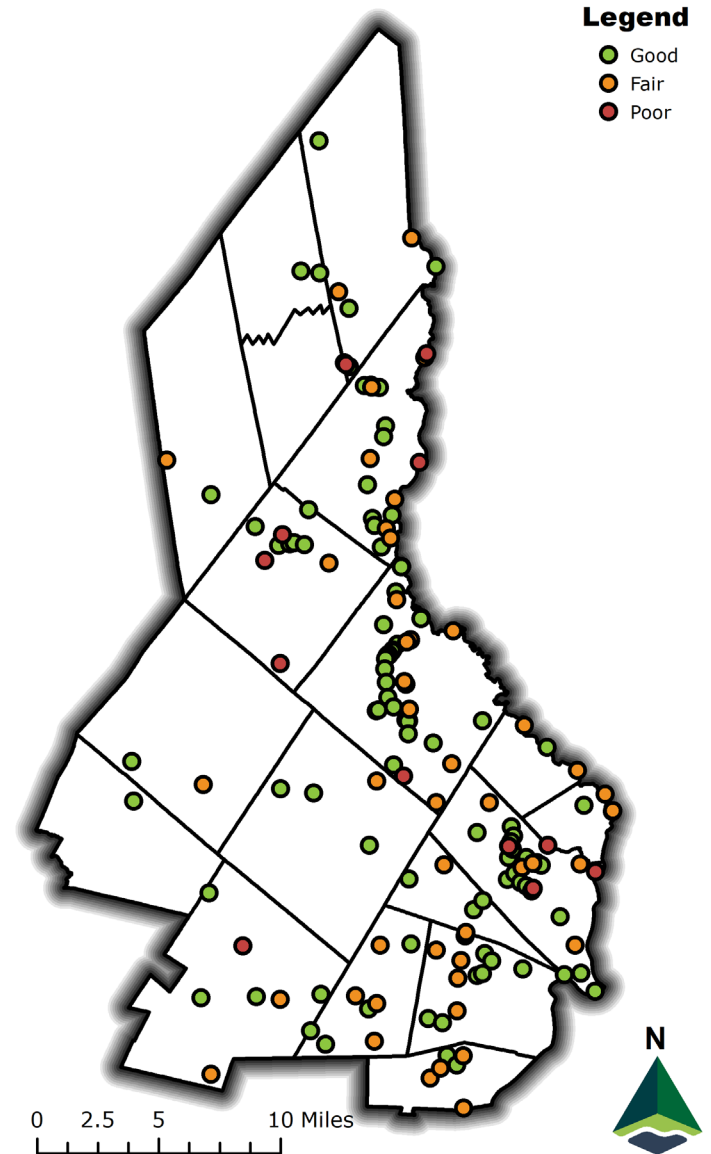
In 2018, SRPC set targets based on 2015-2021 bridge conditions. The SRPC region was performing better than the state (57% good condition statewide compared to 65.2% in the region). As of 2021, SRPC is on track to meet "good" and "poor" condition targets, although poor-condition bridges have increased slightly. SRPC will be evaluating the 2018 targets and setting new targets in Summer 2023.

Condition	State Target	SRPC Target	2023 Status
Good	57.0%	Support State	On track
Poor	5.0%	Support State	On track

Bridge Condition on the NHS
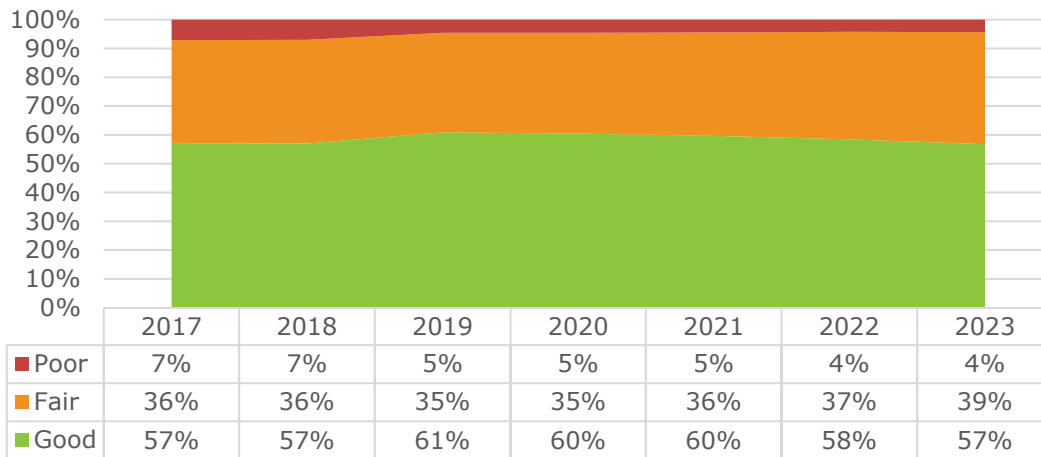
	2017	2018	2019	2020	2021	2022	2023
Poor	7%	7%	5%	5%	5%	4%	4%
Fair	36%	36%	35%	35%	36%	37%	39%
Good	57%	57%	61%	60%	60%	58%	57%

Source: National Bridge Inventory. Year: 2017-2023. Granularity: New Hampshire.

Legend
- Good
- Fair
- Poor
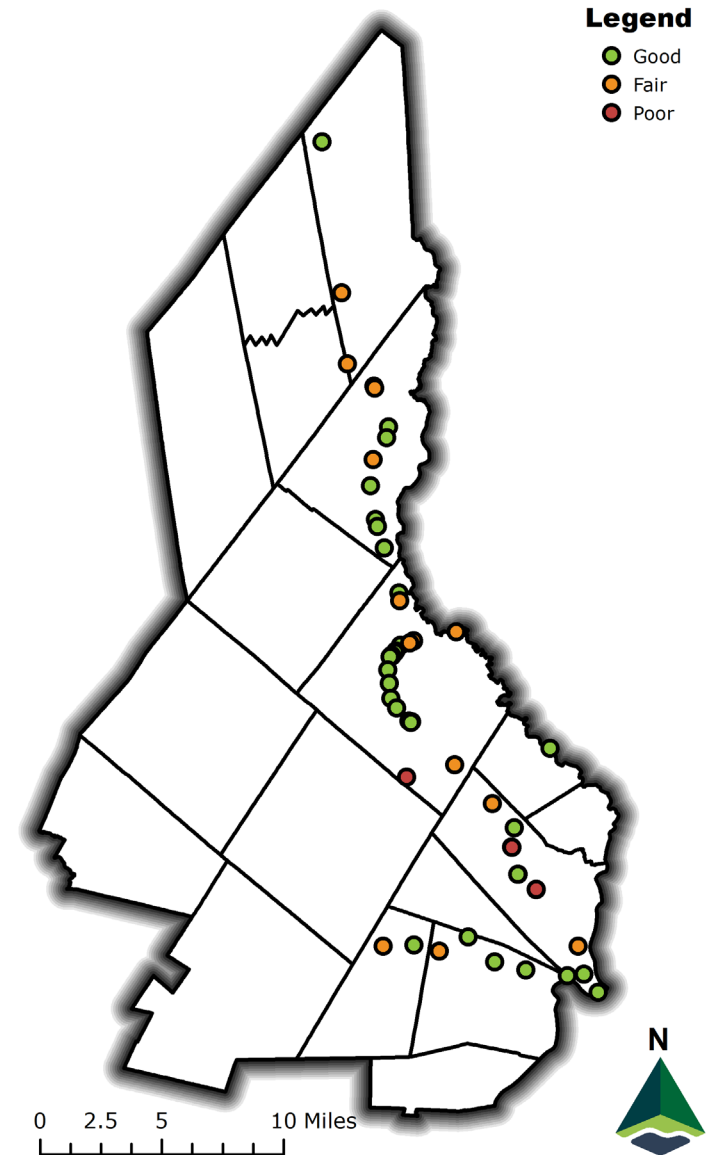
Red List Bridges

Red list bridges are designated by NHDOT and used to rank and prioritize bridge improvements. The red list instructs NHDOT on the frequency of inspections and the urgency of repairs. A state-owned red list bridge is inspected twice annually, a municipally-owned red list bridge is inspected annually, and non-red list bridges are inspected biennially (RSA 234.2). NH RSA 234.2 defines a bridge as any span 10 feet or more, which is 10 feet shorter than the federal definition of a bridge. As a result, the data for this metric will show more bridges than other bridge metrics in this document.

The chart below to the left displays the number of bridges on and off the red list, and all the municipalities in the region have bridges in the red list. The chart below to the right displays the progress in the region for repairing these red list bridges.

Municipality	Red List Bridges
Barrington	1 Local, 1 State
Brookfield	1 Local
Dover	1 Local, 6 State
Durham	2 Local
Farmington	6 Local
Lee	1 State
Madbury	1 Local
Milton	2 Local
Northwood	1 State
Nottingham	1 State
Rochester	1 Local, 1 State
Rollinsford	1 Local, 1 State
Wakefield	1 Local

Source: NHDOT. Year: 2023. Granularity: New Hampshire.

Legend
- ○ Municipal Owned
- ● State Owned

0   2.5   5   10 Miles

N
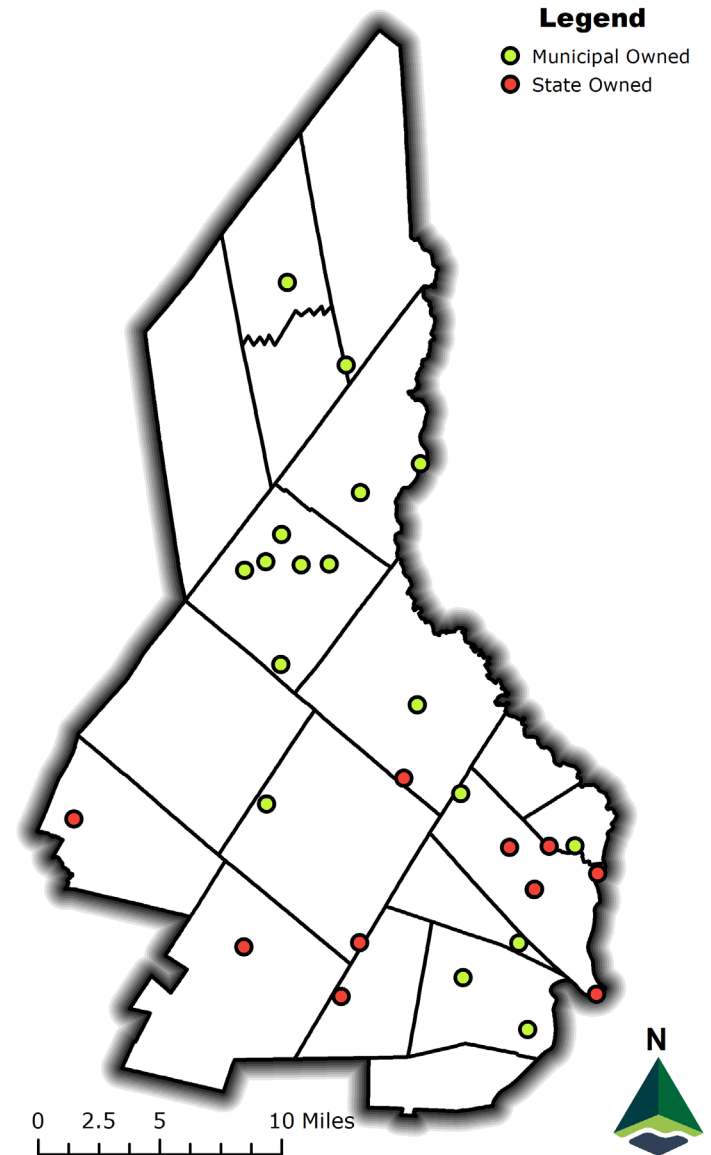
Travel Time Reliability on Non-Interstate National Highway System

The Travel Time Reliability measure is defined as the "Percent of person-miles traveled on the non-Interstate NHS that are reliable." This is one of the performance measures required by FHWA in 23 CFR 490. SRPC set initial four-year targets in 2018 and will need to set new targets again in 2022.

In 2018, SRPC chose to assume the state target. The state target was 85% reliable travel. This target was based on 2017 baseline data. In the Strafford Region, 98.4% of travel was reliable in 2017.

Reliability is not a measure of whether there is congestion, but rather a measure of the predictability of any congestion that exists. A road can be congested for an hour each weekday and still be "reliable" as long as drivers can know what time to leave to account for the congestion. If the congestion is unpredictable, then the road is not reliable.

Non-Interstate NHS Travel Time Reliability (SRPC)
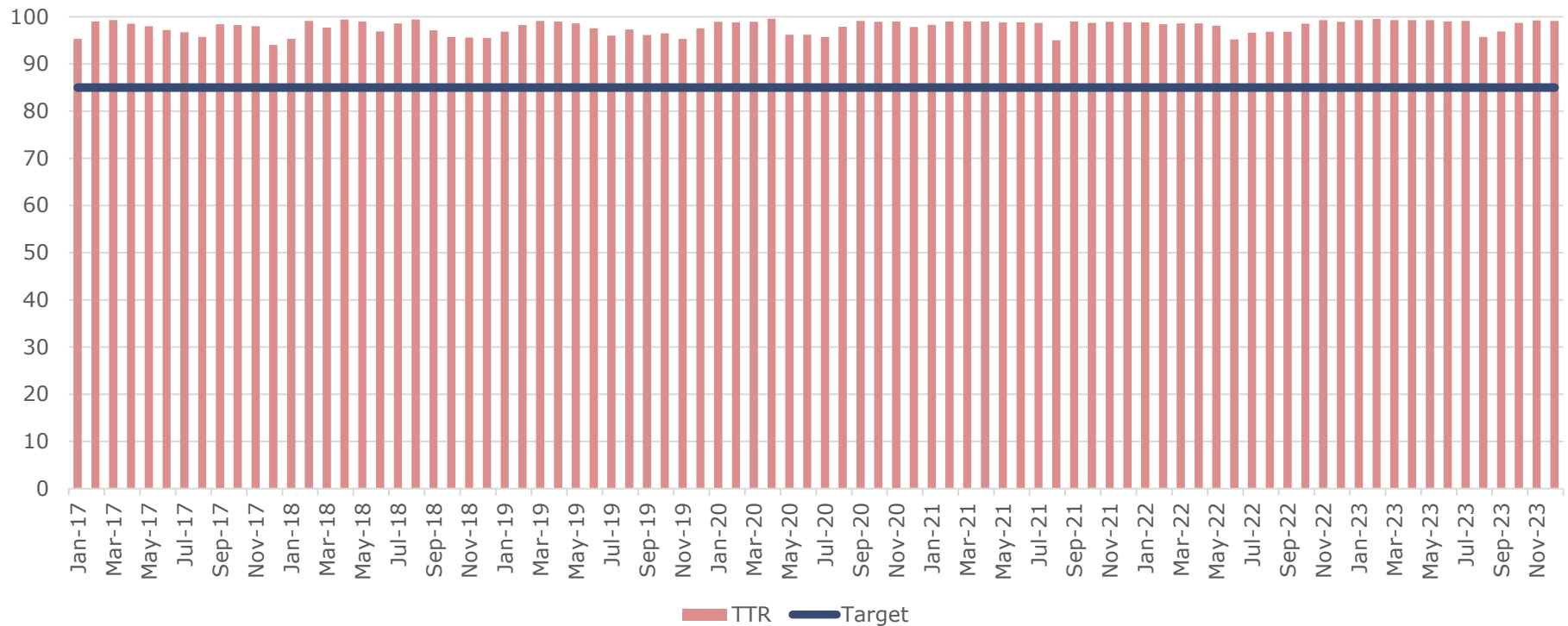
Source: INRIX. Year: 2019-2023. Granularity: SRPC, NH.

Truck Travel Time Reliability on Interstates

The Truck Travel Time Reliability measure is defined as the "Percent of truck-miles traveled on the Interstate that are reliable." This is one of the performance measures required by FHWA in 23 CFR 490.

The performance measure looks at interstates. Since SRPC does not have any Interstate highways, targets are not set. SRPC still tracks statewide reliability as these conditions impact the region's infrastructure, commuting patterns, and other needs.

Reliability is not a measure of whether there is congestion, but rather a measure of the predictability of any congestion that exists. A road can be congested for an hour each weekday and still be "reliable" as long as drivers can know what time to leave to account for the congestion. If the congestion is unpredictable, then the road is not reliable.

Truck Travel Time Reliability (New Hampshire Interstate)
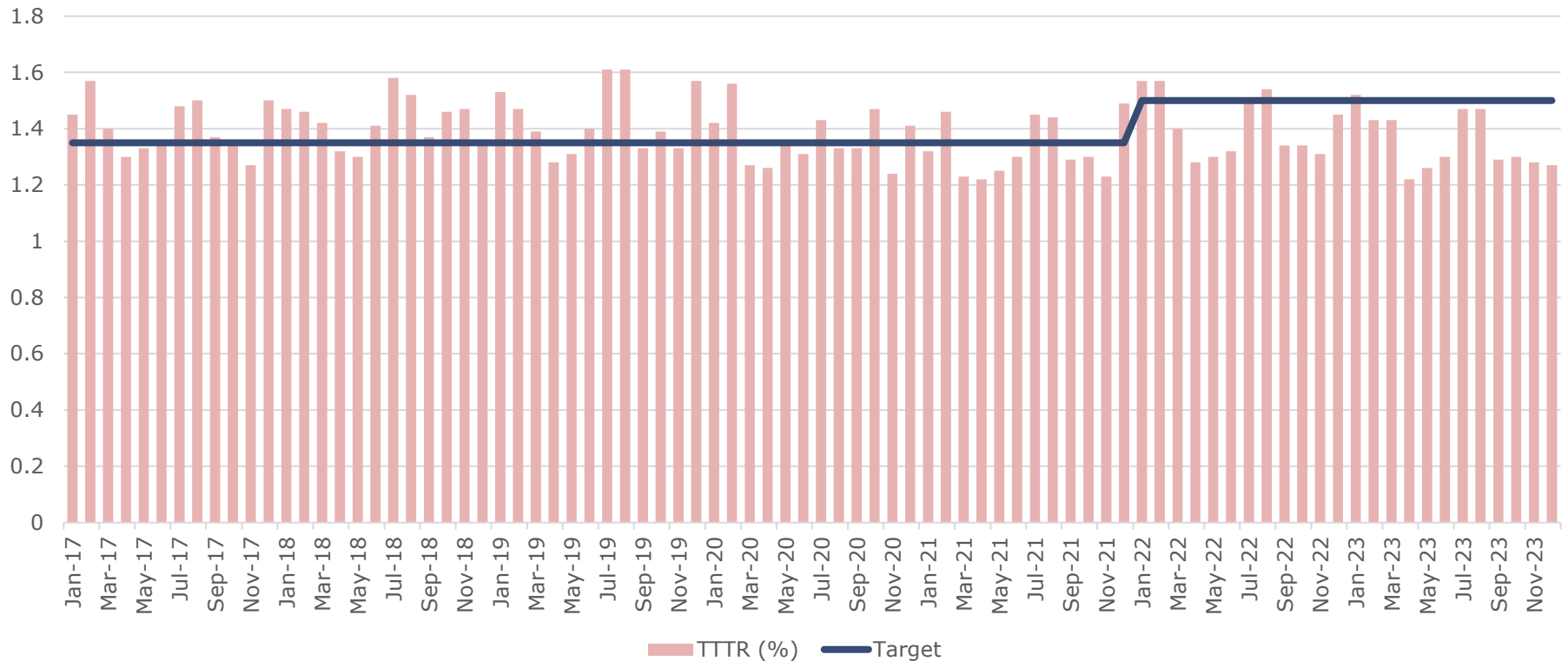
Source: INRIX. Year: 2017-2023. Granularity: NH.

Active Dams

Dams are a critical component of the region's infrastructure. Dams are classified into four categories based on the estimated damage that could occur in the event of failure. Based on these classifications, 16% of the dams in the region are High Hazard or Significant Hazard Dams and would cause serious damage and potential loss of life if they were to fail. These dams are required to have Emergency Action Plans (RSA 482). In addition, these higher hazard dams are listed in their communities' Hazard Mitigation Plans.

More information about the classifications of dams can be found here: https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/db-15.pdf

	Hazard Description	Dams
High Hazard	Failure of the dam would likely result in loss of human life, destruction or damage to houses or interstates, or release hazardous waste.	22
Significant Hazard	Failure of the dam would result in destruction or damage to Class I or II roads, property, or damage to public health or environmental sites.	20
Low Hazard	Failure of the dam may result in some destruction or damage to property, including local or private roads.	41
Non-Menacing	Failure of the dam would not result in any destruction due to the size or location of the dam.	183

Top 4 Rivers within SRPC Region by Number of Dams					
Streams/ Rivers	Total Dams	High Hazard	Significant Hazard	Low Hazard	Non-Menace
Salmon Falls River	15	4	4	5	2
Cochecho River	8	2	2	3	1
Bellamy River	6	3	0	0	3
Lamprey River	4	1	1	1	1

Source: NHDES. Year: 2021. Granularity: SRPC.

Legend
- High Hazard
- Significant Hazard
- Low Hazard

0   2.5   5   10 Miles

N

104
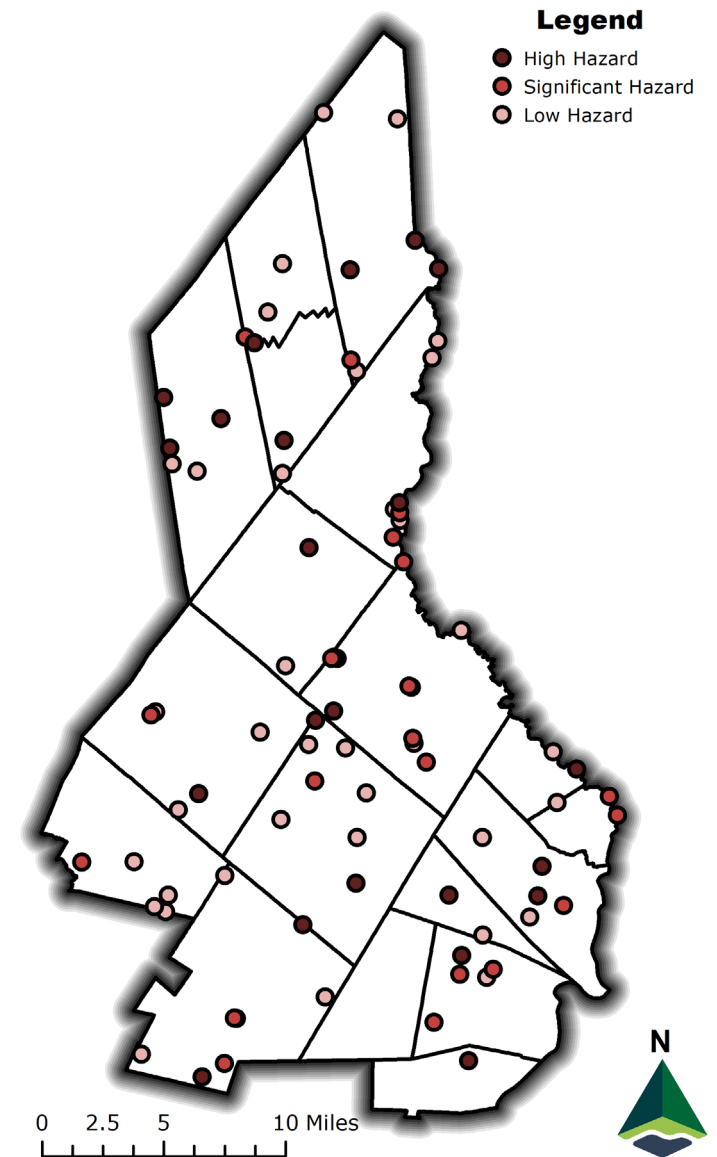
Broadband Access

Broadband, also called "high-speed Internet," is the umbrella term referring to Internet access that is always on and is significantly faster than dial-up Internet access. Reliable high-speed internet increasingly viewed as an indispensable utility like electricity and running water. COVID-19 has shown that access to it is an equity issue as a lack of access results in limited access to jobs, health care, education, important services, and leisure.

The Infrastructure Investment and Jobs Act (IIJA) seeks to address this through over $65 billion in investments in broadband focusing on unserved and underserved areas. This investment includes funding for statewide efforts including updated mapping, infrastructure improvements, and digital equity programs. Follow the state's efforts here: https://www.nheconomy.com/office-of-broadband-initiatives.

Unfortunately, not all types of broadband are equal. High speed internet is available via four transmission types: DSL, Cable, fiber optic, and satellite. The table below compares these different technology types. DSL and Satellite providers in the region do not provide data fast enough to meet the current FCC definition of broadband. Additionally, some households in the region only have high-speed internet through their cell phone's data plans. The limitations of this type of connection are in the table as well.

The pie chart on this page shows the type(s) of broadband access available to the households of the region. Over 81% of the region who has broadband internet has access to 2 or more types of high-speed internet (example: internet subscription and a phone data plan), while 8.48% only has access through a cell phone data plan.

Type	Transmission by	Speed	Price
Fiber Optic	Fiber/Optic (glass) cables	Fastest	$$
Cable	Same as Cable TV	Faster than DSL and Satellite	$$
Satellite	Satellites	Slower than Cable and Fiber	$$$$
DSL	Same as phone lines	Slowest of these four	$
Cell Phone Data	Cell phone network	Fast but subject to throttling and data caps	$$

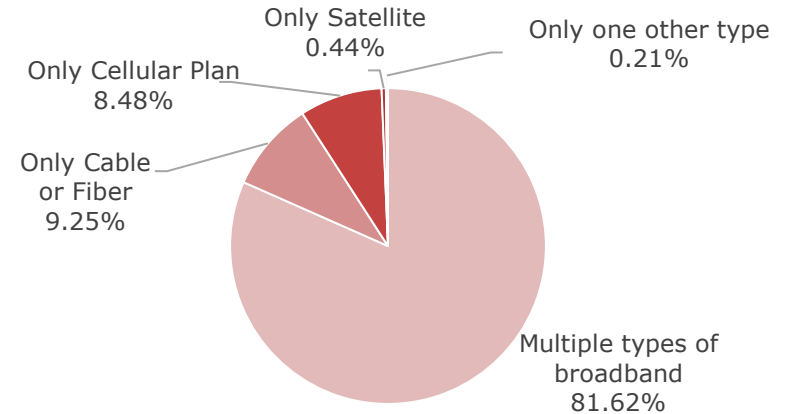Source: US Census Bureau ACS. Year: 2022. Granularity: Municipalities.

Broadband Access

While the infrastructure in the region is built out enough so that all of the region has access to broadband *technology*, this does not mean that everyone has access to computers or internet.

In 2022, about 8% of the population did not have access to a computer and 6% of households did not have internet access.
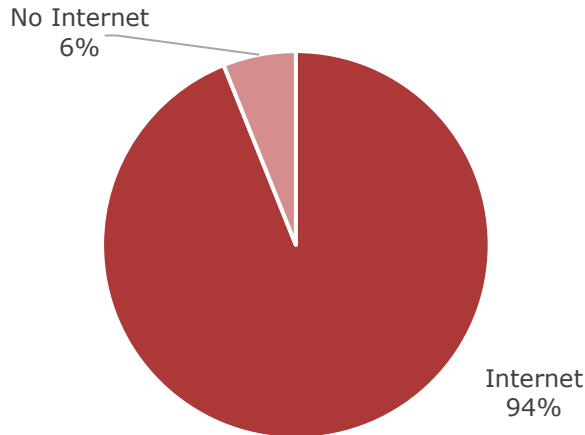
Additionally, not all broadband is created equal. About 8.48% of households have high speed internet only through their cell phone plans. Another 0.44% of households have highspeed internet via satellite internet. Cellular data plans are limited to the device with the plan, and both cellular and satellite internet can be subject to data caps and prone to higher monthly costs.

Further, approximately 2% of children under 18 do not have computer and internet access, limiting their ability to participate in remote learning.

Type of Broadband Internet Services

- Only Satellite 0.44%
- Only one other type 0.21%
- Only Cellular Plan 8.48%
- Only Cable or Fiber 9.25%
- Multiple types of broadband 81.62%

Households by Internet Access

- No Internet 6%
- Internet 94%

Access to Computers and Internet

- 88% of the region have a Computer and Internet
- 8% of the region have No Computer
- 8% of people over 65 have a Computer but No Internet
- 4% of people 18-64 have a Computer but No Internet
- 2% of people under 18 have a Computer but No Internet
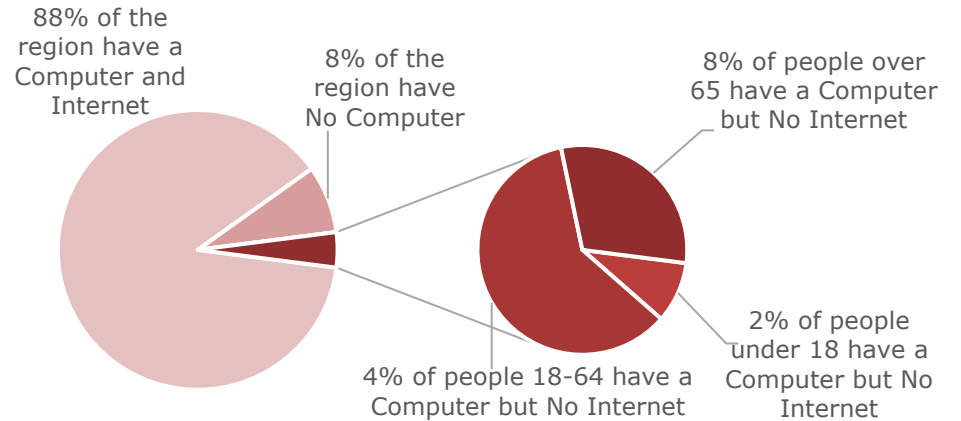
* Percents in the right pie chart represent the percent of the specified age group, not a percent of the population as a whole. (i.e. 2% of people under 18, **not** 2% of the population)

Source: US Census Bureau ACS, 2022. Granularity: Municipalities.

Passenger Rail & Airports

Railroads

Two major railroads are in use in the region. PanAm* currently owns the rail line traveling through Newmarket, Durham, Dover, and Rollinsford. This line is used by Amtrak to provide for its Downeaster line as well as by freight operators, including New Hampshire Northcoast (NHN). The Amtrak Downeaster provides passenger rail service that runs from Brunswick Station, Maine to Boston's North Station with stops at the Dover Transportation Center and Durham-UNH Station.

The other railroad in use is owned by NHN outright and connects the PanAm line to Ossipee via Somersworth, Rochester, Milton, and Wakefield. Information about rail freight can be found in the Freight section of this chapter.

*At the time of publication, PanAm was in the process of being acquired by CSX.

Airports

Skyhaven Airport (DAW) in Rochester is a small regional airport. Runway expansion projects in recent years are intended to increase capacity for the facility. However, Skyhaven will likely not expand to a capacity in which commercial airlines or freight are feasible, but small charter planes may be possible.

Skyhaven is owned by Pease Development Authority which also owns nearby Portsmouth International Tradeport at Pease (PSM) in Portsmouth. Major airports accessible to the region are Manchester-Boston Regional Airport (MHT) in Manchester and Boston Logan International Airport (BOS) in Boston.

Source: UNH GRANIT. Year: 2020. Granularity: SRPC.

Legend
- Airports
- Rail Stations

Railroads
- Active
- Inactive / Abandoned

N

0   2.5   5   10 Miles
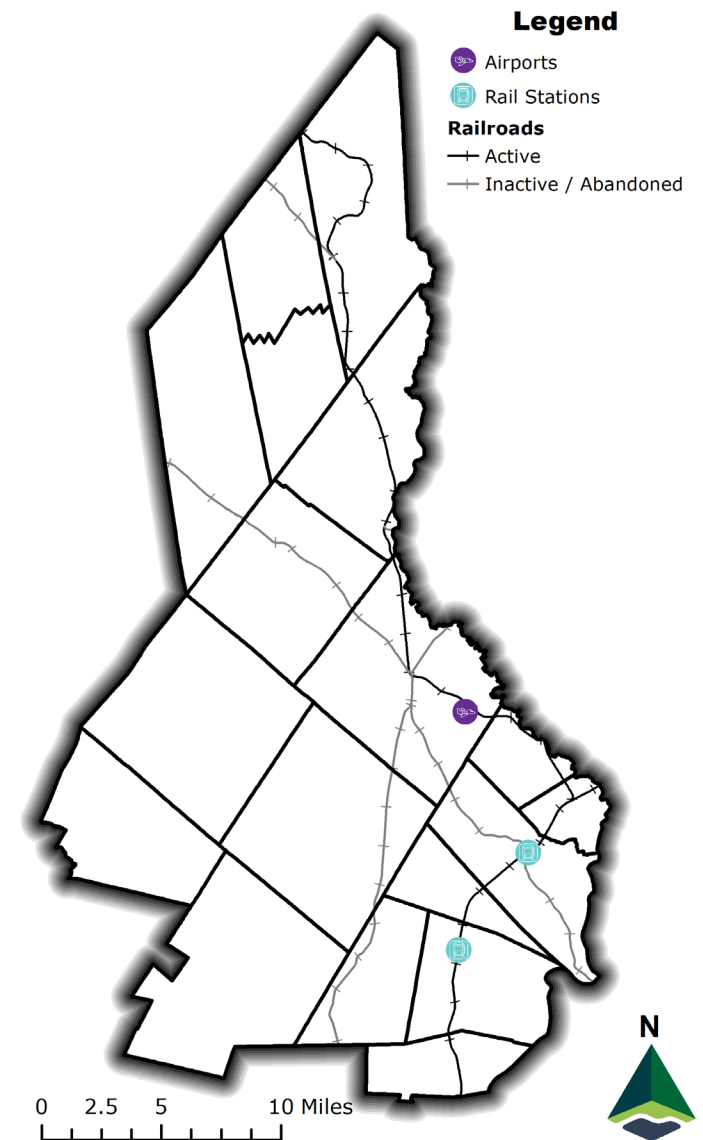
Passenger Rail Ridership

The Amtrak Downeaster is operated by the Northern New England Passenger Rail Authority (NNEPRA). The Downeaster runs between Brunswick, Maine and Boston, Mass., with New Hampshire stops in Dover, Durham, and Exeter. Claremont, the fourth New Hampshire station, is along the Vermonter line in the western New Hampshire.

The Downeaster, like other northeastern Amtrak lines, is popular, but ridership is restricted by current track capacity. The Downeaster also connects with Boston's North Station. Passengers must navigate downtown Boston to travel to South Station to reach connections to New York, Washington, Chicago, and others.

Downeaster ridership continued to improve in 2023, with ridership exceeding pre-pandemic ridership, although revenue figures have not quite caught up yet.

Top New Hampshire Amtrak Trips by Ridership (2022)

Dover ↔ Boston North Station MA
#2
Durham ↔ Boston North Station MA
#3
Dover ↔ Portland ME
#4

Historical Downeaster Monthly Ridership

Legend: Average 2009-19, 2020, 2021, 2022, 2023
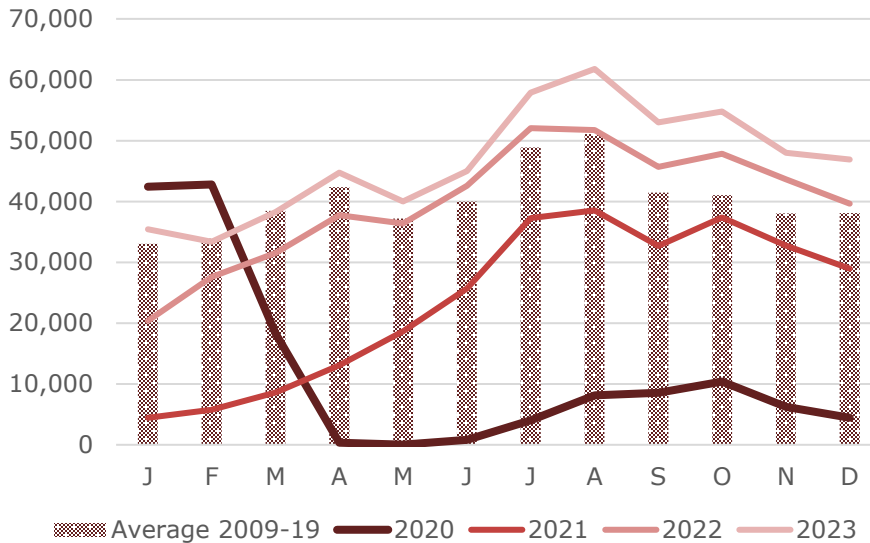
Amtrak New Hampshire Revenue

Legend: Dover, Durham-UNH, Exeter, Claremont
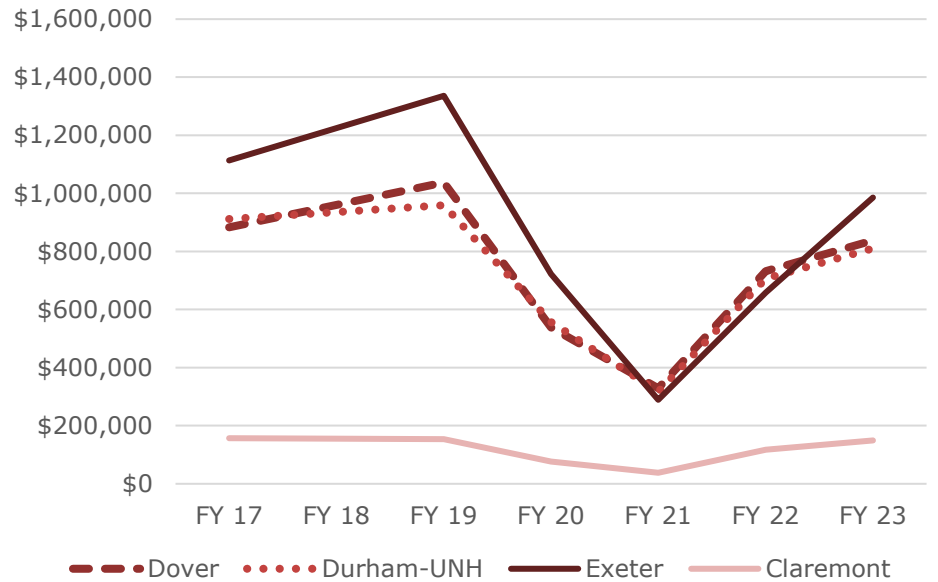
Source: Rail Passenger Association & Northern New England Passenger Rail Authority; Amtrak. Year: 2009-2023. Granularity: New Hampshire.

Freight Commodities

The New Hampshire state freight plan was published in 2019 and identified several goals and objectives that MPOs strive to facilitate. As part of the plan development process, NHDOT and RPCs worked to identify candidates for critical freight corridors. The state plan divides these into critical urban and critical rural corridors. SRPC will be conducting corridor-based analysis of routes including, but not limited to, NH 125, US 4, NH 108, and NH 16, all major thoroughfares for freight traffic. Existing tools common for MPOs like SRPC, such as the travel demand model and travel time data, aid in this analysis.

This subsection contains metrics about:

- Rail Freight.

- Domestic Freight Value and Weight (Tonnage).

- Exports & Imports.

Rail Freight

New Hampshire Northcoast (NHN) has been moving freight by rail though the SRPC region since 1986. Major commodities include aggregates for Boston Sand & Gravel and propane for Eastern Propane.

NHN has made several repairs and upgrades to the 43 miles of track and siding it owns, but any expansion is limited by the capacity of track through Dover that is owned and operated by CSX and shared with the Amtrak Downeaster. In September of 2020, NHN received a $4.5 million grant to renovate and modernize its network of track and siding. Volume data from NHN is not available for Q4 2020.

Between 2015 and 2018, NHN contributed almost 10% less to the total amount of rail freight moved within New Hampshire.

Rail Commodities Transported by New Hampshire Northcoast

Legend: Aggregates & Sand — Fuels — Steel — Total

*2020 figures reflect only materials moved January through October of that year.
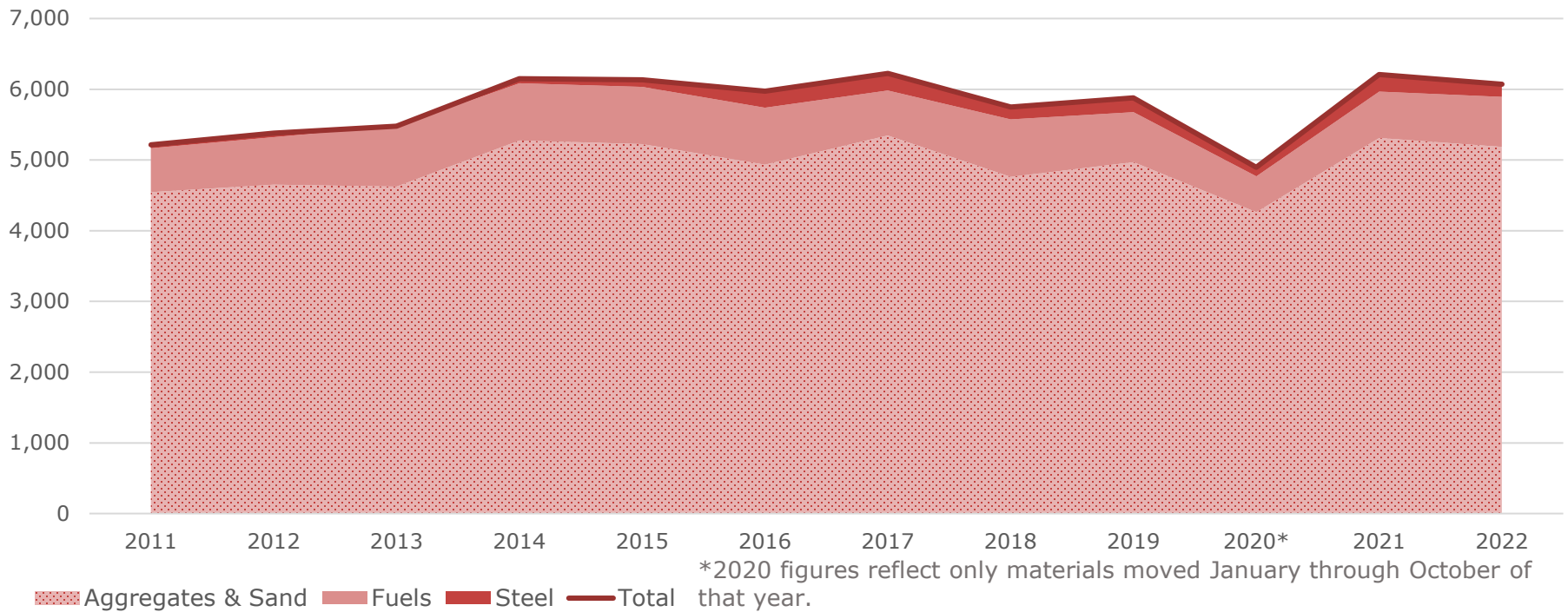
Source: New Hampshire Northcoast. Year: 2012-2022. Granularity: NHN Service area.

Domestic Freight Value

Much of the freight value in New Hampshire is freight that *passes through* the state. Rail transport of freight is limited in the SRPC region and trucks are the dominant mode for freight movement. The COVID-19 pandemic has had a considerable influence on the future of freight as demand for door-to-door shipments increased dramatically. The long-term implications are uncertain, but regional planning will need to consider the potential for continued demand for this kind of shipping and impacts to the transportation network.

Value of Freight Movement in Southeastern New Hampshire
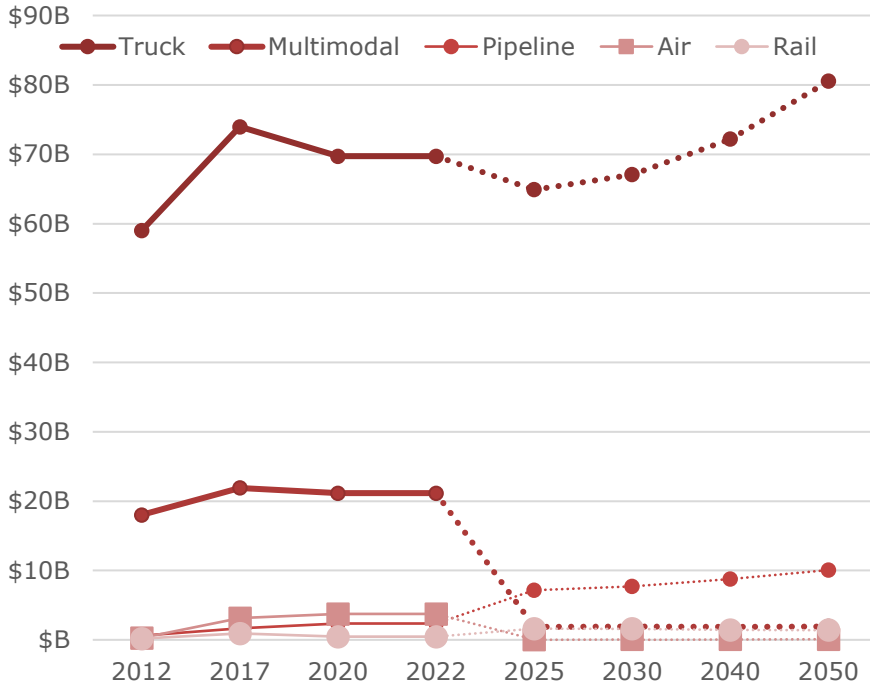
Southeastern New Hampshire in this definition includes Belknap, Hillsborough, Merrimack, Rockingham, and Strafford counties.

Source: Federal Highway Administration. Year: 2017, 2020, 2022, 2025-2050. Granularity: Seacoast and Merrimack Valley Regions.

2022 Value of Freight Transport Modes in Southeastern New Hampshire

Freight Value by Transport Type in Southeastern New Hampshire

Domestic Freight Tonnage

Trucks carry nearly 90% of freight in New Hampshire. Heavier vehicles cause the greatest amount of damage to roadways and contribute to maintenance costs. Large trucks often begin their journeys on high-volume routes that are rated for heavy loads but also travel on secondary roads that can carry a limited capacity of these vehicles. Trucks that are diverted onto small local roads (due to road incidents and other events) can cause significant damage to pavement.
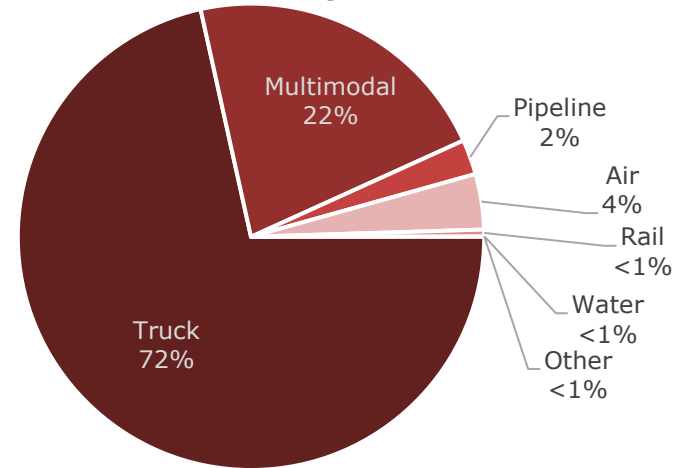
Tonnage of Freight Movement in Southeastern New Hampshire

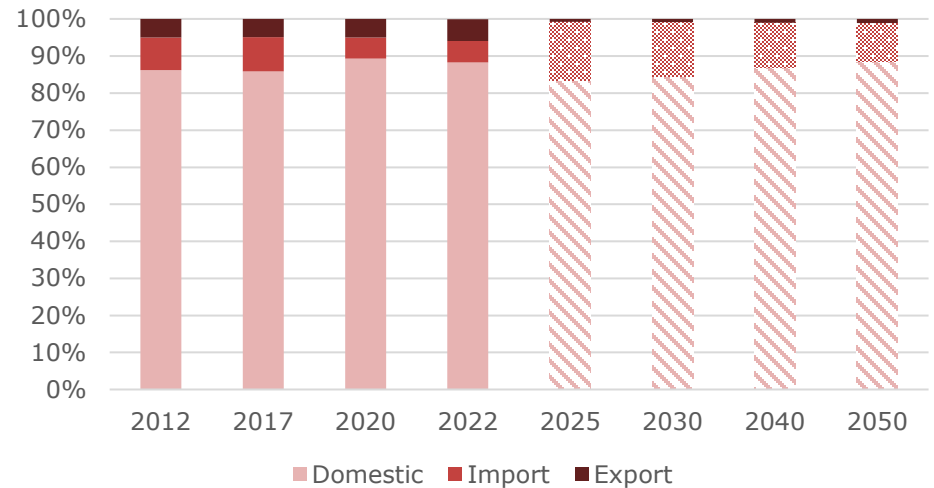
Southeastern New Hampshire in this definition includes Belknap, Hillsborough, Merrimack, Rockingham, and Strafford counties.

Source: Federal Highway Administration. Year: 2017, 2020, 2022 2025-2050. Granularity: Seacoast and Merrimack Valley Regions.

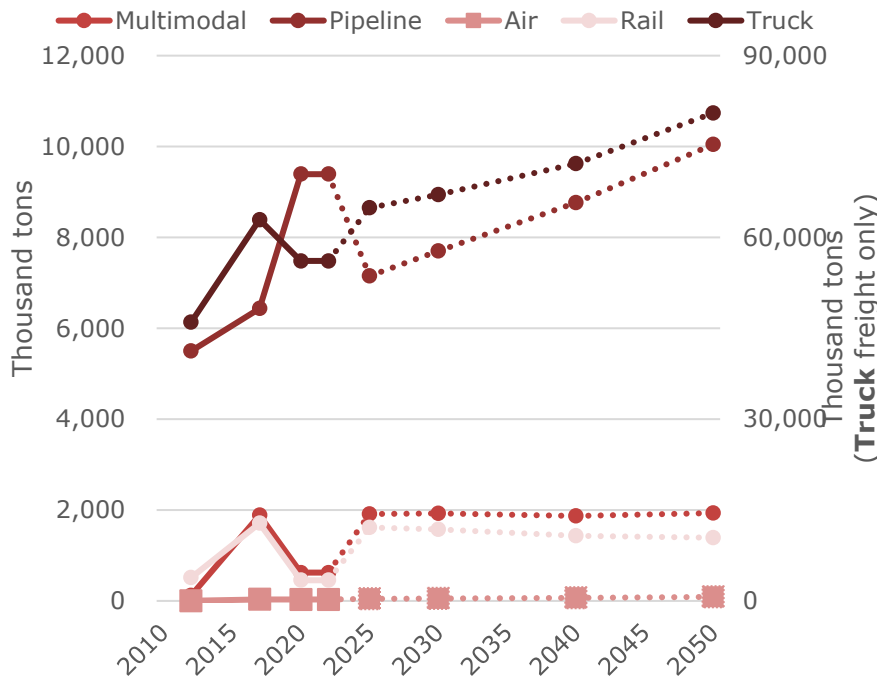**2022 Volume of Freight Transport Modes in Southeastern New Hampshire**
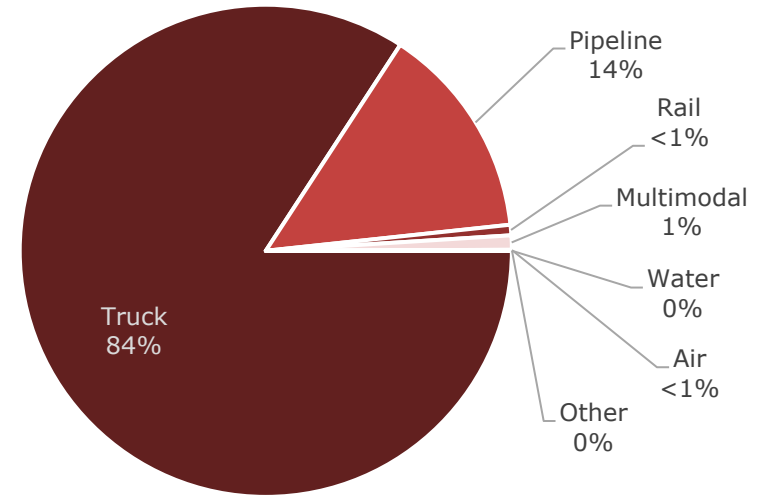
Freight Tonnage by Transport Type in Southeastern New Hampshire
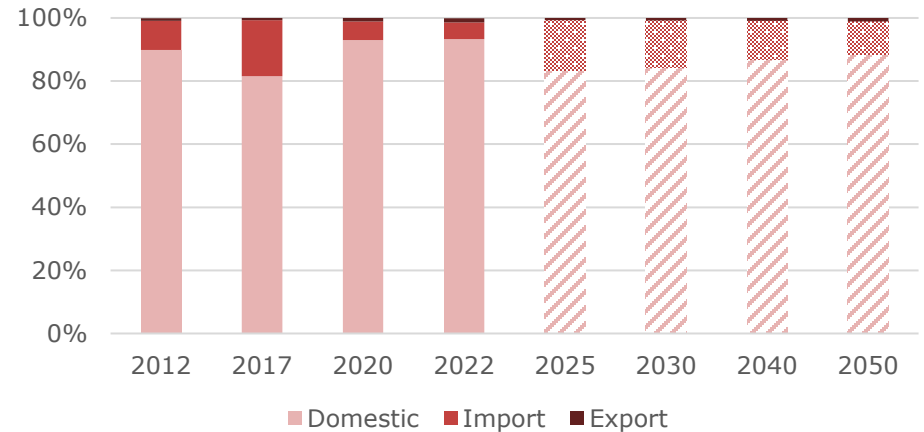
Domestic Freight Origins

Southeastern New Hampshire receives a large amount of industrial equipment from other New England and northeastern regions. There is trade of fuels and building materials such as sands and gravels, building stone, and lumber products. This trade region sends more electronics and domestic consumables than it receives, including alcohol, meat and seafood, and other food.

The Bureau of Transportation Statistics released 2022 data since the previous SRPC Data Snapshot. The release of this data allows planners to see which interstate trade relationships have recovered since the pandemic. New York, Chicago, and Los Angeles remain major trade partners for both goods received and sent. Fort Wayne, Louisville, and other rust belt regions continued to send goods, largely machinery and automobiles.
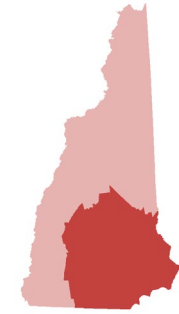
Dark red indicates the region of NH covered in this analysis.

Top Origins by Volume	Thousand tons	Change 2020-2022
Stayed within southeastern New Hampshire	28,435	7%
Boston metro (inc. Worcester)	11,136	10%
Maine	2,824	3%
Remainder of New Hampshire	1,510	5%
Vermont	607	8%
Top origins outside the northeast		
Nonmetro Virginia	112	2%
Chicago metro	72	-7%
Nonmetro South Carolina	68	-3%
Hampton Roads metro	60	50%
Nonmetro Indiana	56	-2%

| Top Origins by Value	2022 million USD	Change 2020-2022
Boston metro (inc. Worcester)	$18,258	8%
Stayed within southeastern New Hampshire	$11,920	3%
Northern New Jersey	$2,397	10%
Maine	$2,295	5%
Downstate New York	$2,039	19%
Top origins outside the northeast		
Los Angeles metro	$1,360	0%
Chicago metro	$1,312	-2%
San Diego metro	$623	30%
Atlanta metro	$619	2%
Louisville metro	$545	30%

Southeastern New Hampshire in this definition includes Belknap, Hillsborough, Merrimack, Rockingham, and Strafford counties.

Source: Federal Highway Administration. Year: 2022.
Granularity: United States

Top Imports and Exports of New Hampshire

Top 10 Exports

Legend:
- Electronics
- Mixed freight
- Machinery
- Fuel oils (diesel and biodiesel)
- Various domestic products
- Textiles/leather
- Precision instruments
- Plastics/rubber
- Coal, petroleum, nat. gas, other fossil prods.
- Other foodstuffs

Top 10 Imports

Legend:
- Gasoline
- Electronics
- Mixed freight
- Machinery
- Pharmaceuticals
- Fuel oils (diesel and biodiesel)
- Motorized vehicles
- Various domestic products
- Plastics/rubber
- Precision instruments

See the Standard Classification of Transported Goods (SCTG) published by the US Bureau of Transportation Statistics for more detailed information about the categories of freight listed above.

Source: Federal Highway Administration. Year: 2017-2022. Granularity: NH.

Public Transit

Public transit is a critical component of the transportation system. The Strafford and Rockingham regions have the richest multi-modal mix in the state: fixed route and demand response bus service, inter-city passenger rail, inter-city bus, and a small regional airport. Public transit is imperative workforce mobility, reducing congestion on roads, and ensuring mobility for a wide range of residents.

This section describes fixed route and demand response bus service. Fixed route service is transit service available on a consistent and recurring schedule with stops at consistent locations along defined routes. Fixed route service is provided by the Cooperative Alliance for Seacoast Transportation (COAST) and the University of New Hampshire's Wildcat Transit. Wildcat Transit is purposed for transportation for UNH students, faculty, and staff, but is ultimately open to the public. COAST riders generally do so for employment, healthcare, and shopping.

Demand response service serves older adults and people experiencing disabilities, and thus plays a critical role as a pillar of public health infrastructure as the median age of New Hampshire continues to rise. Demand response services are provided by COAST and several individual transportation providers in southeastern New Hampshire. These agencies may provide transportation for non-emergency medical appointments, while others target nutritional, social, and mental health needs, such as Meals on Wheels. In the Seacoast region, many of these services are coordinated through the Alliance for Community Transportation (ACT).

In New Hampshire, the extent and frequency of public transit service is limited by a lack of state funding for the operation of public transit, which is the most expensive part of a transit agency's budget.

This subsection contains data about:
- Transit routes and ridership.
- Access to fixed route and demand response (ADA) transit.
- Condition of transit fleet vehicles and their compliance with energy efficiency goals.

Source: COAST, UNH. Year: 2022. Granularity: SRPC, RPC.

Legend

COAST Routes
— Route 1
— Route 6
— Route 7
— Route 12
— Route 13
— Route 14
— Route 33 (Saturday)
— Route 33 (Weekday)
— Route 34
— Route 100

Wildcat Routes
— Route 3
— Route 4
— Campus Connector

0   2.5   5   10 Miles
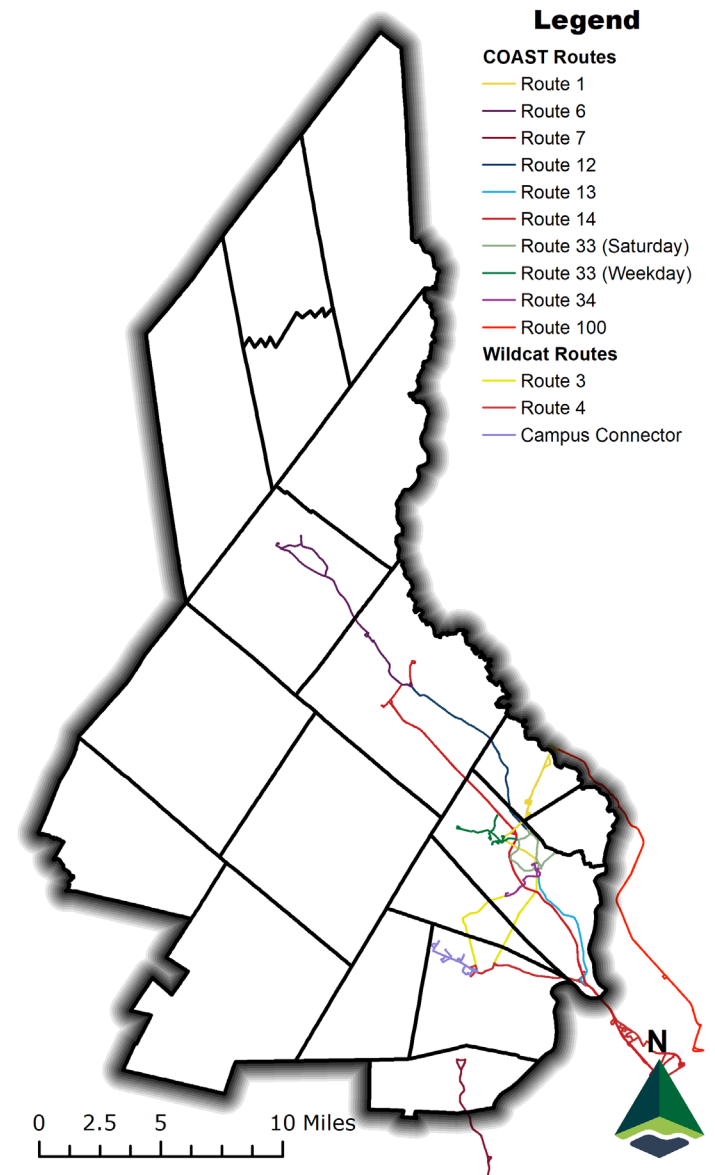
Fixed Route Transit Ridership

Fixed route service is transit service available on a consistent and recurring schedule with stops at consistent locations along defined routes. The Cooperative Alliance for Seacoast Transportation – COAST – is the public transportation provider for parts of Rockingham, Strafford, and York (Maine) counties. The other major transit provider is Wildcat Transit, operated by the University of New Hampshire. Ridership had been falling prior to the pandemic; more student housing has been built closer to the core of Durham and the campus of UNH. It has been suggested that rising housing costs in Newmarket have contributed to falling ridership on Wildcat Transit's Route 5 in particular. This route will be eliminated following the spring 2023 semester.

COAST and Wildcat Transit retain reciprocal agreements for the general public to use Wildcat service with purchase of a COAST fare, and COAST to likewise allow free boarding for students, faculty, and others with a UNH ID.

COAST ceased operation for several weeks early in the COVID-19 pandemic. Fixed route ridership has been slower to improve in contrast to paratransit services (see next page), however 2023 ridership recovery was much improved from 2022. 2023 ridership was as high as 82% of pre-pandemic ridership in December compared to 2022 ridership which hovered around 58% for most of that year.

Unrelated to the pandemic, COAST launched a new route system in June 2020 that increased the efficiency of routes and better utilized the Spaulding Turnpike. In 2023, COAST severed its Route 5 that served Newmarket.

Source: FTA, UNH. Year: 2010-2022. Granularity: SRPC, RPC.

UNH Wildcat Transit Ridership
2017-19 Month Average vs. 2020-23

····· 2017-2019 Average —— 2020 —— 2021 —— 2022 —— 2023
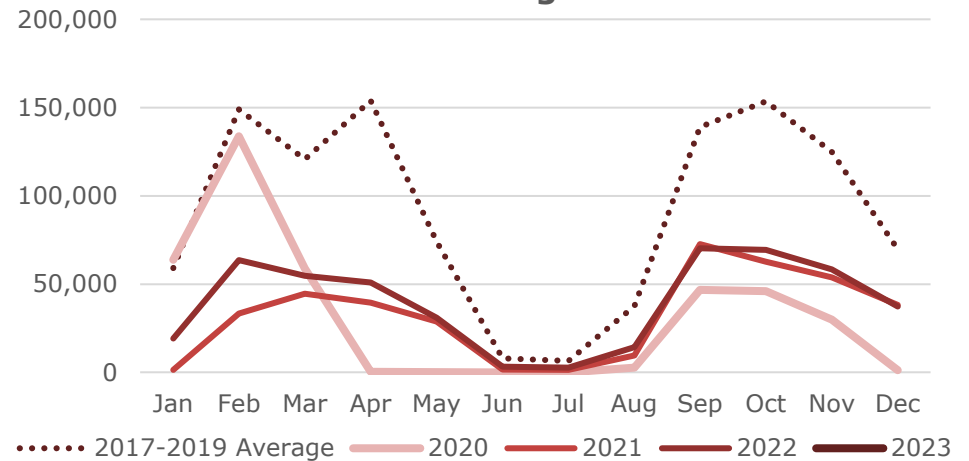
COAST Fixed Route
2017-19 Month Average vs 2020-23

····· 2017-2019 Average —— 2020 —— 2021 —— 2022 —— 2023
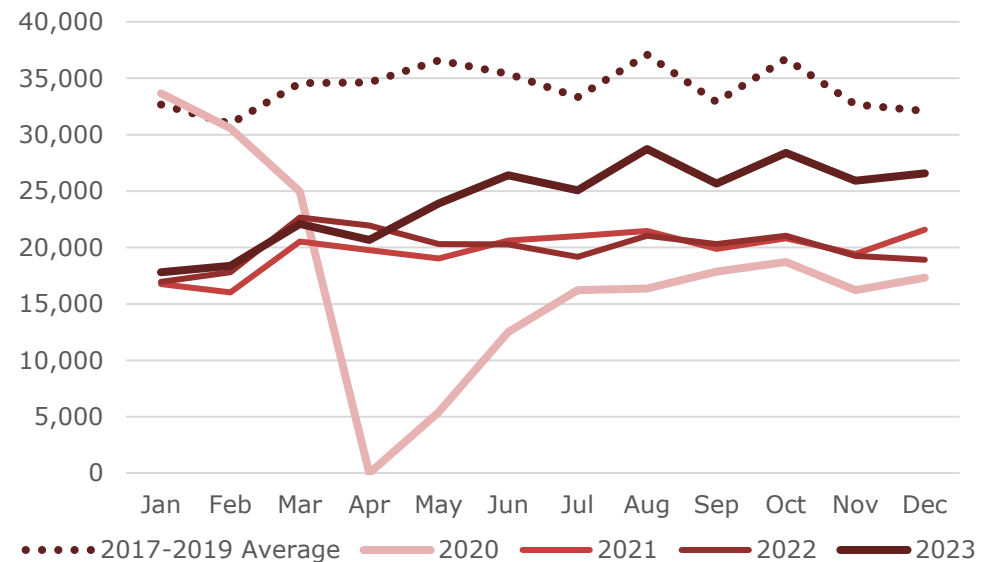
Demand Response Transit Ridership

Demand response transportation, also known as "paratransit," is a special type of door-to-door service offered by public transit agencies for individuals with disabilities and/or limited mobility who experience difficulty reaching transit access points (bus stops). Vehicles used for this purpose are also intended to be more compatible with the use of walkers, wheelchairs, or service animals. Demand response service may be free or subsidized for the user, although this is not the case for COAST in the SRPC region.

COAST's paratransit is available to eligible users who have an origin and destination within ¾ mile of a COAST bus stop, with some exceptions. The fare is twice the base cash fare of the equivalent trip on the fixed route bus network. Use of COAST paratransit requires advanced reservation, which is not uncommon for paratransit networks of any size.

COAST demand response ridership was rising prior to the COVID-19 pandemic, reaching a peak of nearly 24,500 yearly trips in 2019. Demand for paratransit has exploded in New Hampshire, and COAST's paratransit services have recovered 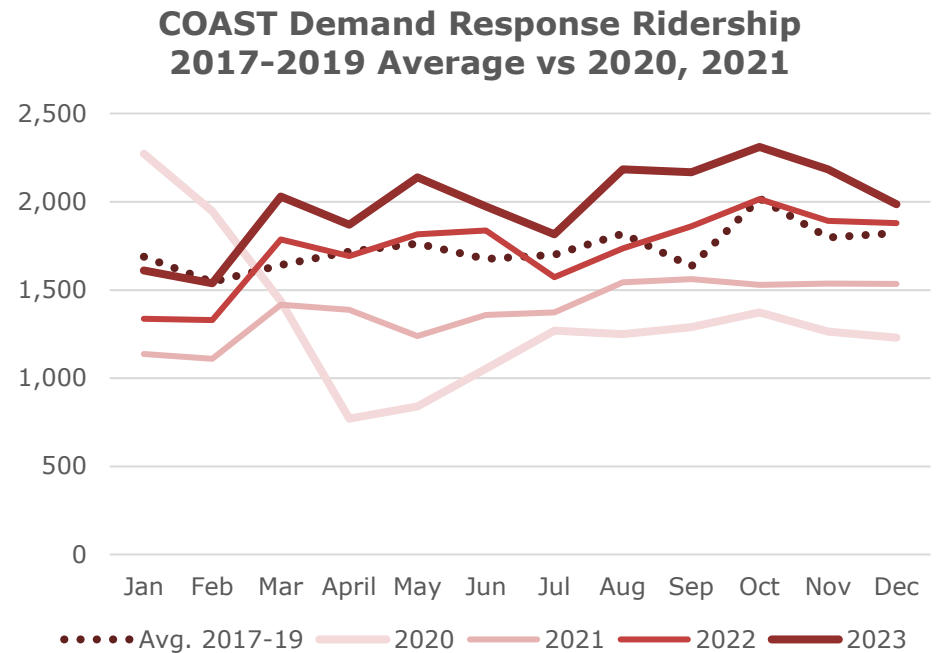much faster than traditional fixed-route service since the pandemic. 2023 paratransit ridership was 95% to 123% of its pre-pandemic levels, in contrast to traditional fixed-route ridership which hovers around 75% of its pre-pandemic ridership.

COAST can expect its demand response ridership to continue to increase with New Hampshire's aging population in the years to come.

Source: FTA. Year: 2010-2023. Granularity: SRPC, RPC.

COAST Ridership

Legend: Bus, Demand Response

COAST Demand Response Ridership 2017-2019 Average vs 2020, 2021

Legend: Avg. 2017-19, 2020, 2021, 2022, 2023
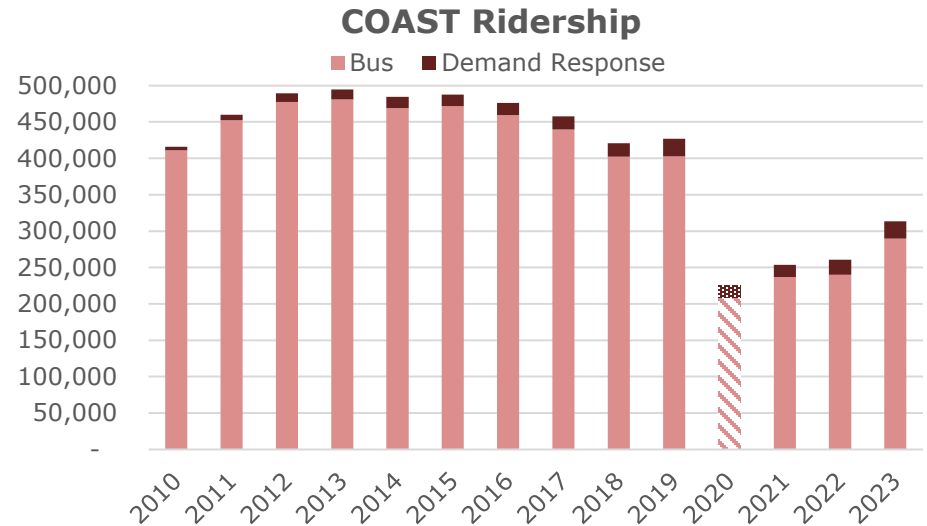
ACT Ridership and Services

The Alliance for Community Transportation (ACT) is a state-designated Regional Coordination Council (RCC) organizing community transportation services for older adults and individuals with disabilities in southeastern New Hampshire. ACT operates a regional call center to schedule rides with various transportation providers according to clients' needs.

Several providers operate transportation capabilities and serve communities in the SRPC and RPC regions. Not all rides recorded in the chart (right) occurred in the SRPC region. The chart displays ridership by owner of the vehicle providing the ride.

The most recent coordinated transit plan is found on the SRPC website at http://strafford.org/plans/coordinated-transit-plan/.

Local Transportation Services Ridership

Legend:
- Community Action Partners of Strafford County (CAP)
- Alliance for Community Transportation (ACT)
- Ready Rides
- Rockinghom Nutrition Meals On Wheels
- COAST paratransit only
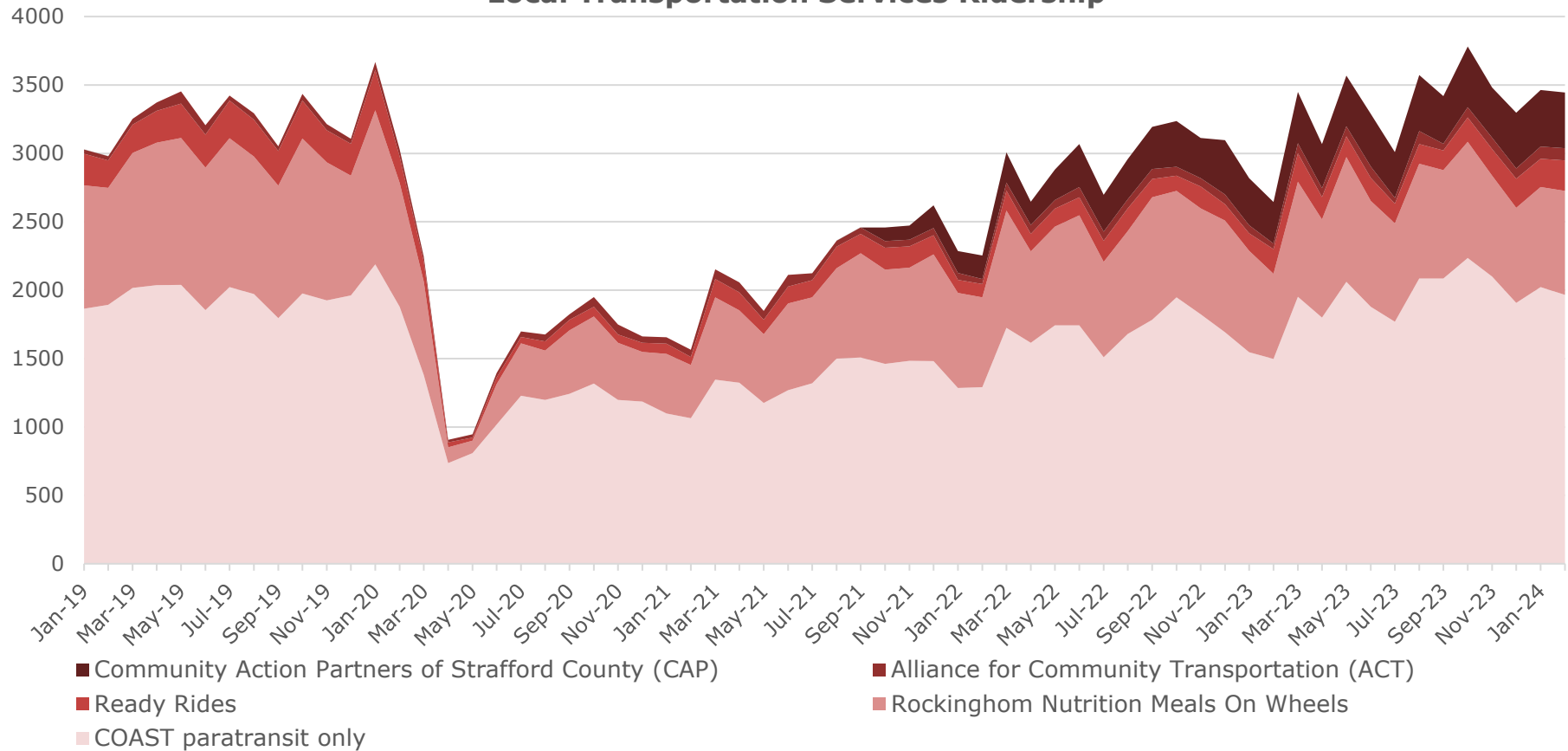
Source: ACT. Year: 2019-2021. Granularity: SRPC, RPC.

Transit Vehicles Beyond Their Useful Life

This is a performance measure defined by FTA in 49 USC 625 Subpart D. Transit Agencies are required to set targets every year and MPOs are required to set targets when updating the Metropolitan Transportation Plan. Since transit agencies manage their own asset procurement, SRPC sets targets that correspond to the targets set by COAST and UNH.

COAST and UNH report their asset inventories to the FTA. Note that transit fleets require replacement throughout the year so annual targets may not be representative of the current fleet makeup.

A Useful Life Benchmark (ULB) is the expected lifespan of a vehicle and varies by vehicle type and use. The ULD and year of manufacture provide an approximation of when a vehicle will require replacement.

The FTA TERM Scale is a series of criteria for assessing the condition of non-vehicle assets owned by transit agencies. These include storage and maintenance facilities, parking lots, and others. The TERM scale is a scale from 1-5, where 1 is poor and 5 is Excellent.

Asset Category	Performance Measure	Asset Class	Current
Rolling Stock	Percent of revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB), by vehicle class	Cutaway	0%
		Van	62.5%
		Bus	17%
		Over-the-road Bus	None
		Minivan	0%
Equipment	Percent of non-revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)	All vehicles	60%
Facilities	Percent of facilities with a condition rating below 3.0 on the FTA TERM Scale	Passenger	0%
		Administrative	0%
		Maintenance	33%
		Storage	NA

Source: FTA. Year: 2020. Granularity: SRPC, RPC.

MOBILITY AND ACCESSIBILITY

Remaining Useful Life of Transit Vehicles

These calculations illustrate the frequency with which transit agencies can expect to replace vehicles based on their current ages and expected ULBs. Three averages are calculated:

- For buses that have exceeded their ULB, the average number of years they have exceeded it by.

- For buses that have some remaining years before reaching their ULB, the average number of years remaining.

- For all buses in the fleet, the average years over or under the ULB.

Category	Class	Average Years Beyond ULB (for vehicles exceeding their ULB)	Average Years Remaining (for vehicles not exceeding their ULB)	Average Years Remaining for all vehicles
Rolling Stock	Cutaway	None	1.6	1.5
	Van	-2.2	3.0	-0.3
	Bus	-2.9	4.8	3.0
	Over-the-road Bus	None	None	None
	Minivan	None	2	2

Age of Transit Fleet
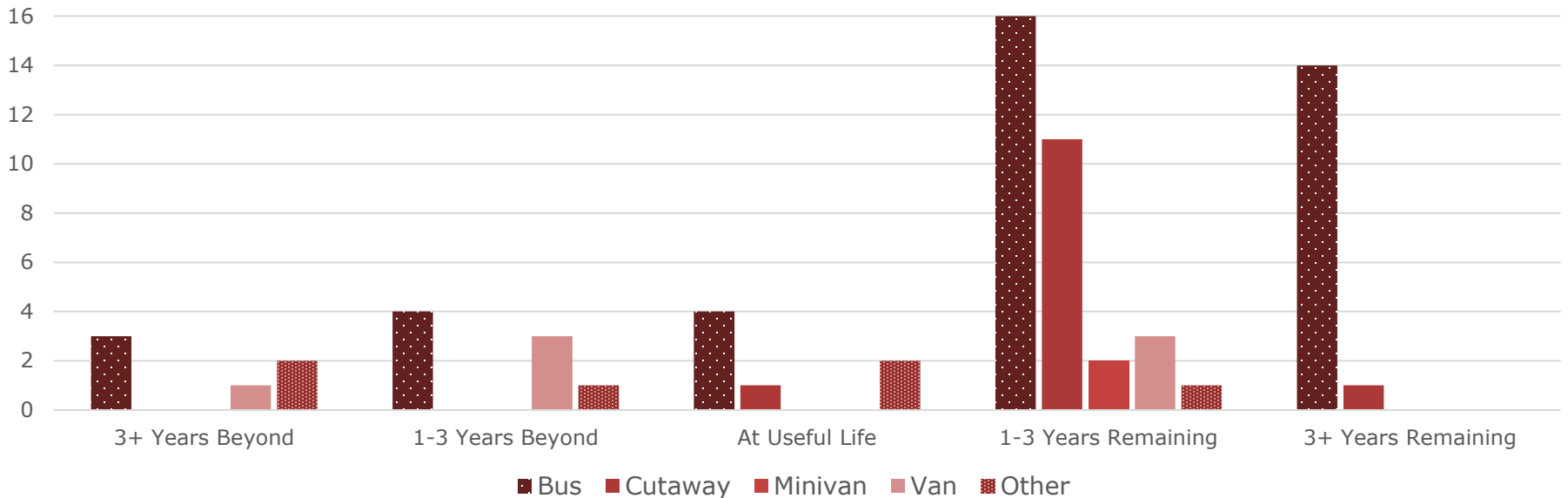
Source: FTA. Year: 2020. Granularity: SRPC, RPC.

Transit Fleet Using Alternative Fuels

This data is supplied by COAST and Wildcat Transit asset inventories reported to FTA transit database. These alternative fuels come from dedicated fueling stations. Wildcat Transit has dedicated CNG and bio-diesel facilities in Durham and COAST has a dedicated bio-diesel facility in Dover.

COAST regularly assesses the feasibility of converting to alternative fuel options such as electric, but the technology for electric buses is not yet feasible in a service area such as southeastern New Hampshire. In 2019, the longest-range electric bus models could run 225 miles on one charge without on-board charging or HVAC on. COAST's routes can range from 200-440 miles a day, meaning that some of these routes would not be possible for a single bus without an on-board charger.

In 2020, Wildcat Transit received a grant through the Congestion Mitigation & Air Quality Improvement Program (CMAQ) to purchase two more CNG heavy duty buses.

Category	Class	Percent using CNG
Rolling Stock	Cutaway	23%
	Van	0%
	Bus	29%
	Over-the-road Bus	None
	Minivan	0%

Source: Wildcat Transit. Year: 2021. Granularity: SRPC, RPC.
Source: COAST. Year: 2021. Granularity: SRPC, RPC.

Access to Vehicles

In rural areas, personal vehicles are a dominant form of transportation and transportation systems nationwide have historically been implemented with an assumption that most residents have access to a personal vehicle. The cost of housing in New Hampshire forces many to live outside urbanized areas where employment is concentrated. This often results in increased personal transportation costs and makes transit service more expensive and less efficient. When public transportation is not available, inconsistent access to a vehicle can still create difficulty in accessing housing, healthy food (including fresh produce), employment, education, and healthcare. Renters constitute a larger share of the households without vehicle access.

Households with No Access to Vehicles by Tenure

■ Owner ■ Renter

Legend
- ▯ Concentration
- ☐ 0%
- 0.01% - 1%
- 1% - 2.5%
- 2.5% - 5%
- 5% - 10%
- > 10%
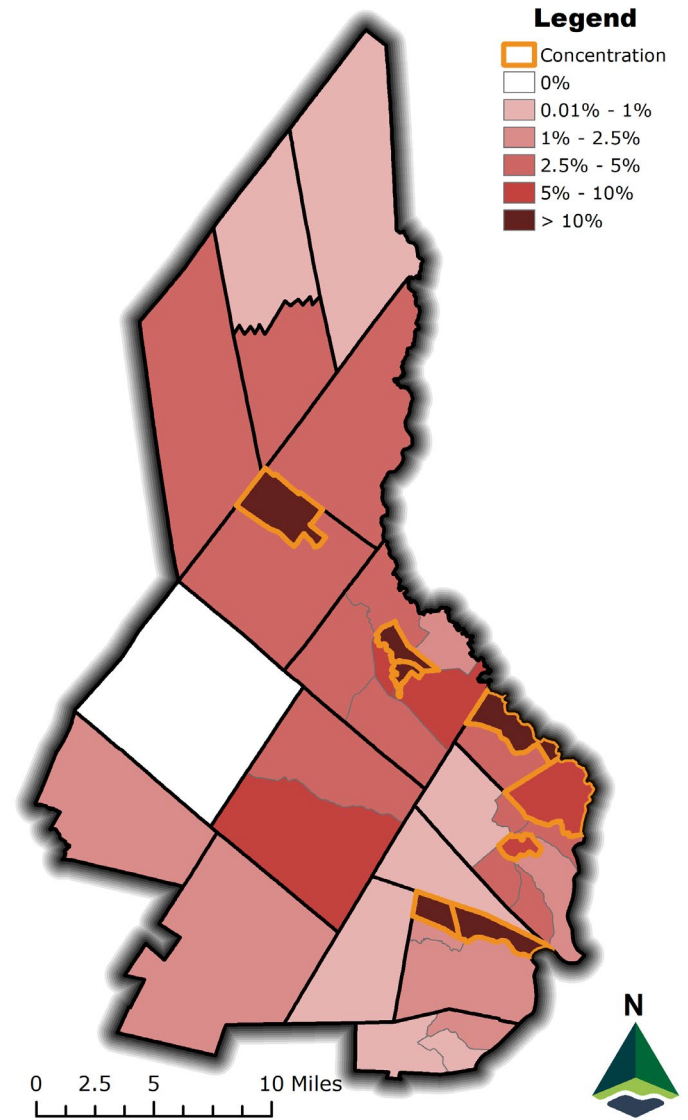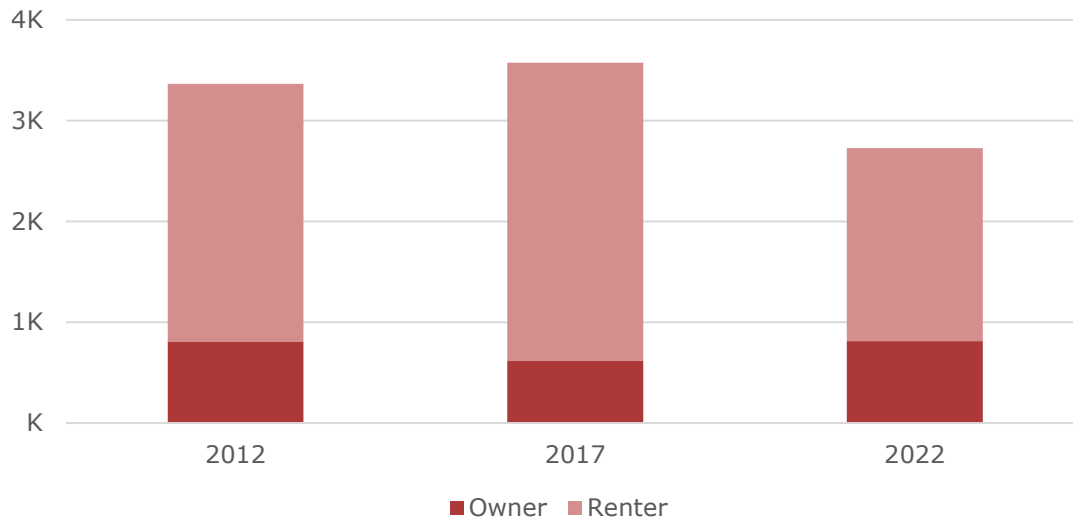
Source: US Census Bureau ACS, 2011-2021. Granularity: Counties, Municipalities, Census Tracts.

Commute Times

While Northern New England has seen an increase in remote workers since the COVID-19 pandemic, many jobs have since recalled workers "back to the office" on a limited basis and employees of low-paying service industry jobs continue to commute long distances due to rising costs of living.
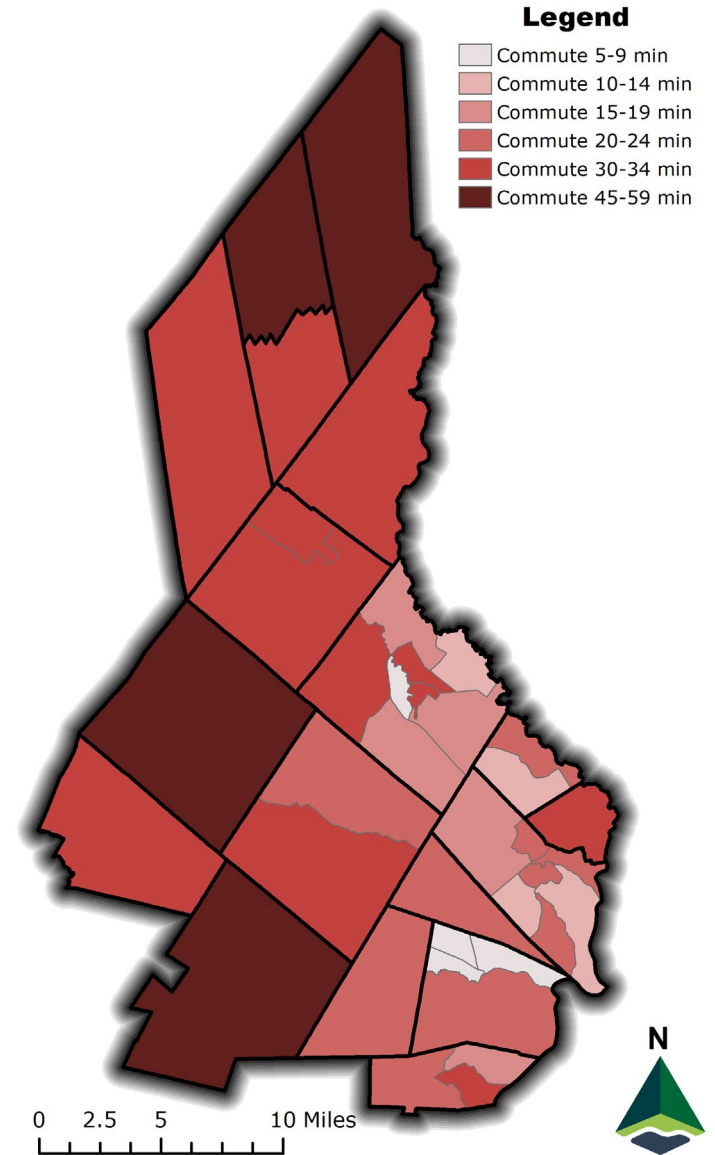
Housing costs especially are forcing workers to live farther from jobs. For example, many people who work in hotels and restaurants in Portsmouth or Dover cannot find or afford housing in those communities. COAST and UNH Wildcat Transit transport people to a wide range of jobs throughout the region. Public transit providers must cover a large, mostly rural area, which makes it expensive to run buses more frequently than one per hour.

78%	**3%**	**2%**
of commutes were under 40 minutes in 2022	decrease in commutes under 20 minutes from 2012-2022	increase in commutes 40-59 minutes from 2012-2022

Commute Times

Legend for chart: ■2012 ■2017 ■2022

Bar chart of Commute Times with categories: Under 5 min., 5-9 min., 10-14 min., 15-19 min., 20-24 min., 25-29 min., 30-34 min., 35-39 min., 40-44 min., 45-59 min., 60-89 min., Over 90 min. Y-axis ranges from K to 12K.

Legend
- Commute 5-9 min
- Commute 10-14 min
- Commute 15-19 min
- Commute 20-24 min
- Commute 30-34 min
- Commute 45-59 min

N

0   2.5   5   10 Miles
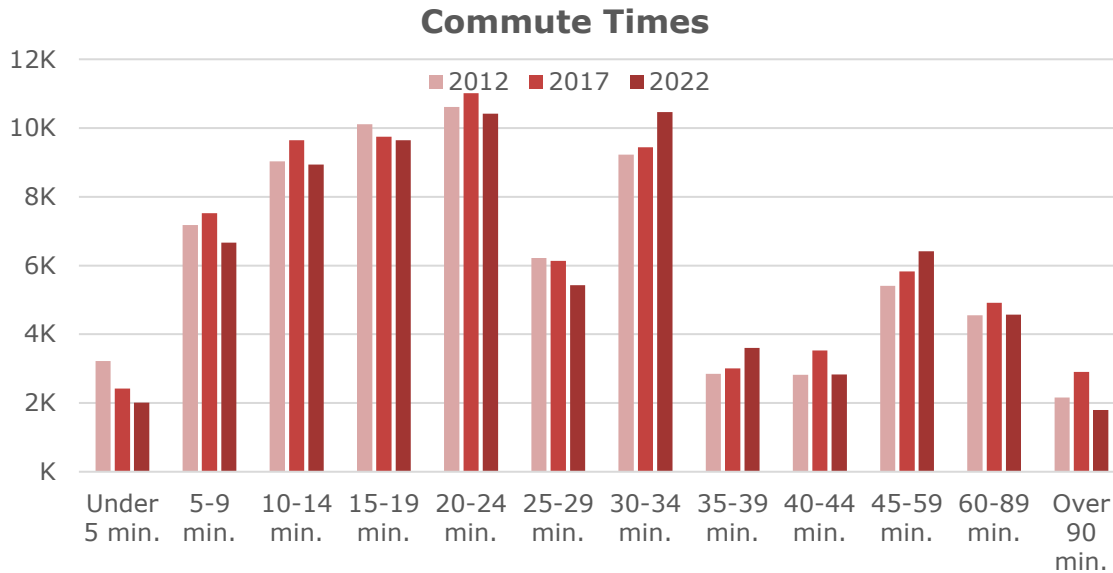
Source: US Census Bureau ACS, 2011-2021. Granularity: Municipality, Tract

Active Transportation

This subsection contains information about where the road network in the SRPC region is suitable for supplemental active transportation (e.g. walking and biking).

SRPC maintains data about bicycle level of traffic stress (BLTS) for the region's roads. BLTS uses a scale to assess road segments based on different presumed comfort levels of cyclists near motor vehicle traffic. See the following page for more information.

SRPC routinely collects data about the presence and condition of sidewalks upon request by municipalities. SRPC completed a city-wide assessment of Rochester's sidewalks, curb ramps, and crosswalks in the summer of 2019 using a comprehensive data collection protocol. The rest of the region was collected using a shortened methodology that is for planning purposes only.

SRPC is working to build up bike and pedestrian count data for additional analysis. SRPC has 3 bicycle and pedestrian counters that can be set on posts. Historically they have only been set at a few locations in any given summer. Starting in 2022, bike and pedestrian counting will be incorporated into the data collection season so that data can be collected at 40 locations.

SRPC will be publishing a Bicycle and Pedestrian Plan later this year that will incorporate this data.

Bicycle Level of Traffic Stress (BLTS)

SRPC maintains data on the bicycle level of traffic stress (BLTS) for the region's road network. BLTS uses a four-tiered scale to assess road segments based on presumed comfort levels of cyclists near motor vehicle traffic (below). For instance, a road with a separated path dedicated to pedestrians and cyclists would have the lowest level of stress, while a high-speed road with no shoulders and lots of traffic would constitute the highest level of stress.

SRPC Miles of Road by LTS Score

Pie chart values: 420.04 (LTS 1), 488.17 (LTS 2), 206.60 (LTS 3), 167.93 (LTS 4), 67.67 (LTS 5)

- LTS 1
- LTS 2
- LTS 3
- LTS 4
- LTS 5
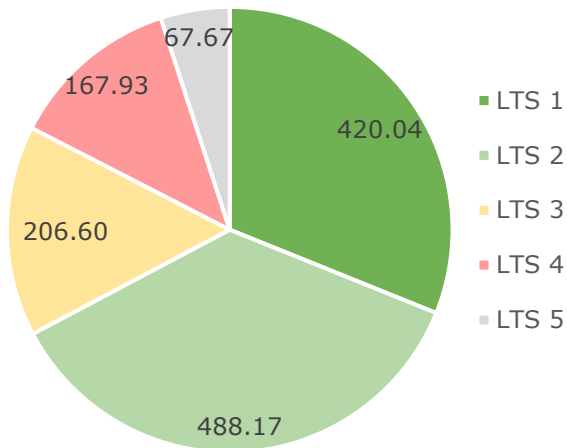
LTS Rating	LTS Rating Description	Population Class
LTS 1	**Lowest stress**; suitable for all riders	Kids and Beginners
LTS 2	**Lower stress**; suitable for adults with some experience	Willing but Wary Riders
LTS 3	**Moderate stress**; suitable for those who ride regularly	Comfortably Confident Riders
LTS 4	**High stress**; suitable for experienced riders with tolerance to high speeds and traffic	Exposure-Experienced Riders
LTS 5	**Bicycles prohibited**	

Source: Bicycle Level of Traffic Stress. Year: 2019. Granularity: SRPC.

Legend

LTS
- 1
- 2
- 3
- 4
- 5

0 2.5 5 10 Miles

N
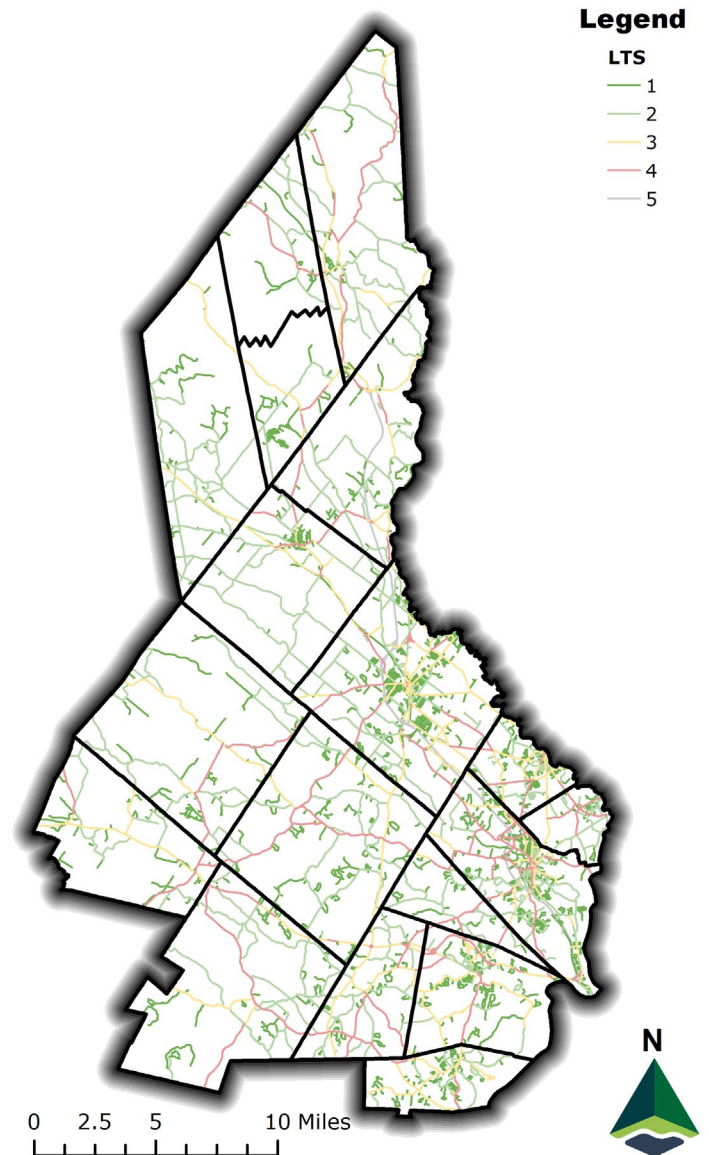
Sidewalks

SRPC routinely collects data about the region's sidewalks and pedestrian friendliness. The most recent full inventory of sidewalks was conducted regionally in 2020. SRPC is in the process of prioritizing select sidewalks in the region for counts of foot traffic in the 2022 data collection season, with additional counts being conducted at some recreational locations outside the immediate urban areas of the region's communities.

Dover leads the way for pedestrian infrastructure in the region with nearly 80 miles of sidewalks! In fact, it's likely much more as this data does not account for the nearly 4-mile Dover Community Trail of which half is paved. Regional and local connectivity of sidewalks are constantly being addressed to reduce the dependence of cars in our everyday lives.

*SRPC does not have access to UNH sidewalk data.

Municipality	Miles
Dover	79.3
Durham	10.5*
Farmington	4.7
Madbury	0.1
Milton	3.2
Newmarket	3.9
Northwood	1.1
Rochester	46.3
Rollinsford	1.4
Somersworth	26.4
Wakefield	1.1

Source: SRPC. Year: 2020. Granularity: SRPC.

Legend
— Sidewalks

N

0   2.5   5   10 Miles

126
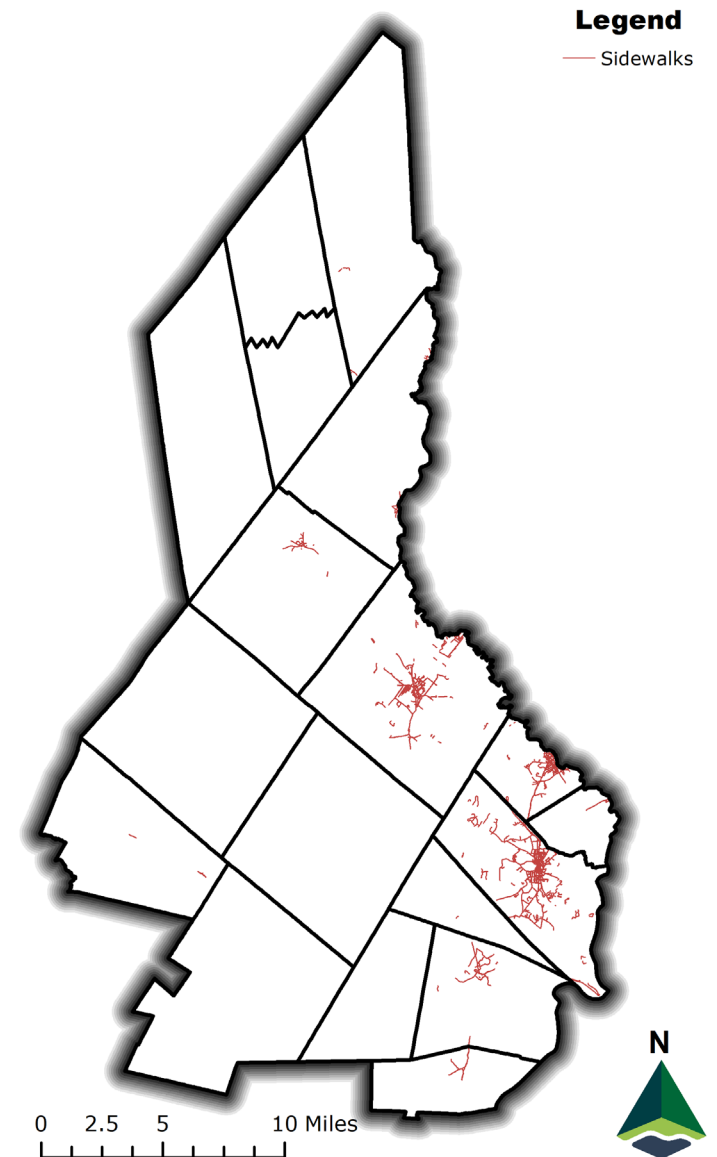
Road Classification Systems

The maps and data of this subsection outline the types and extent of roads that make up the transportation network in the SRPC region. Different classification systems are used to describe segments of road based on capacity, ownership, and maintenance responsibility.

In New Hampshire, there are three legal classifications of roads:

• Functional System – defined by FHWA.

• Legislative Class – defined by NH RSA 229.5.
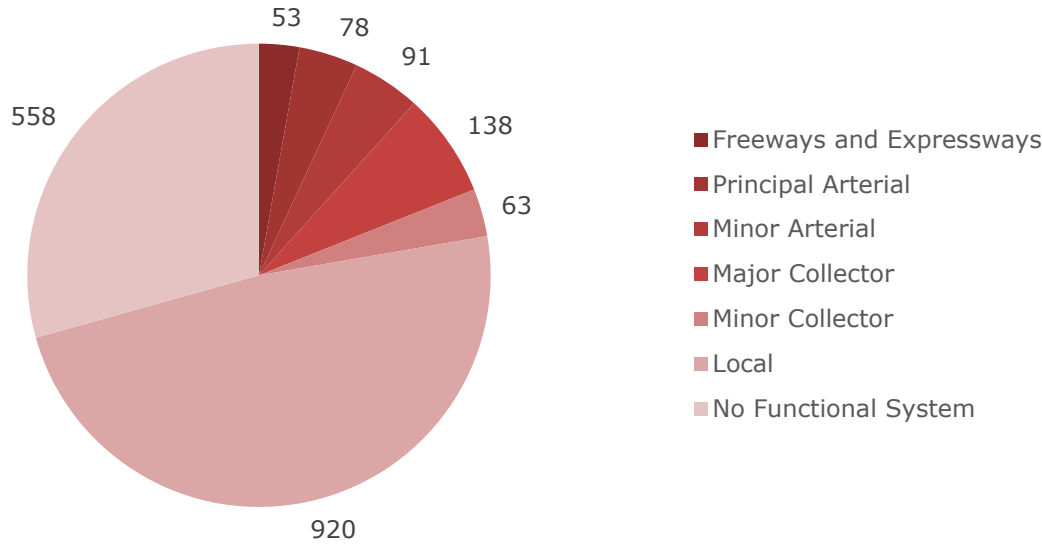
• Tiers – defined by NHDOT.

Functional Class

The Federal Highway Administration (FHWA) uses the highway functional classification system (functional class) to define a road's role in the transportation network. Functional class implies expectations for speed limits, capacity, and impacts on land use and future development. It is also used in determining federal funding categories that can be applied to the road, and what the minimum lane requirements are for that road. There are three functional classes: Arterial, Collector, and Local.

These are the generalized determinations and assumptions made for the respective classes:

Functional Class	Speed Limit	Daily Traffic	Distance Served	Significance
Arterial	High	High	Long	Statewide
Collector	Medium	Medium	Medium	Medium
Local	Low	Low	Short	Local

Centerline Miles by Functional Class

- 53
- 78
- 91
- 138
- 63
- 920
- 558

■ Freeways and Expressways
■ Principal Arterial
■ Minor Arterial
■ Major Collector
■ Minor Collector
■ Local
■ No Functional System

Source: NHDOT. Year: 2024. Granularity: SRPC.

Legend

- Principal Arterial
- Major Collector
- Minor Collector
- Minor Arterial
- Local
- No Functional System

0   2.5   5   10 Miles

N
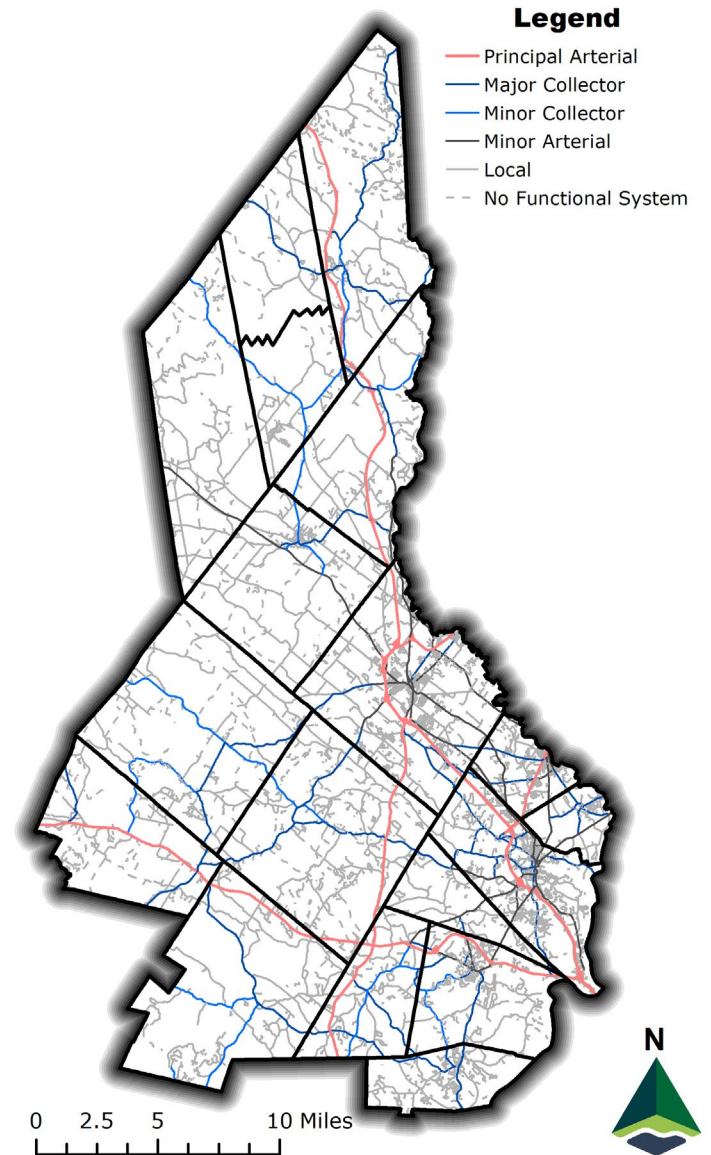
Legislative Class

The New Hampshire Legislative Classification System as defined by RSA 229.5 is comprised of seven classes of roads. The legislative classes indicate ownership and maintenance responsibility. This system is separate from the FHWA Functional Class system.

Class	Ownership	Maintenance Responsibility
I	State	State
IIa	State	State
IIb	State	Municipal
III	State	State
IV	Municipal	Municipal
V	Municipal	Municipal
VI	Municipal	Not maintained
VII	Federal	Federal

Centerline Miles by Legislative Class

Class VI 137
Class 0 424
Class I 180
Class II 173
Class III 8
Class IV 33
Class V 952

Source: NHDOT. Year: 2024. Granularity: SRPC.

Legend
— State
— Local
— Not Maintained
-- Private

0   2.5   5   10 Miles

N
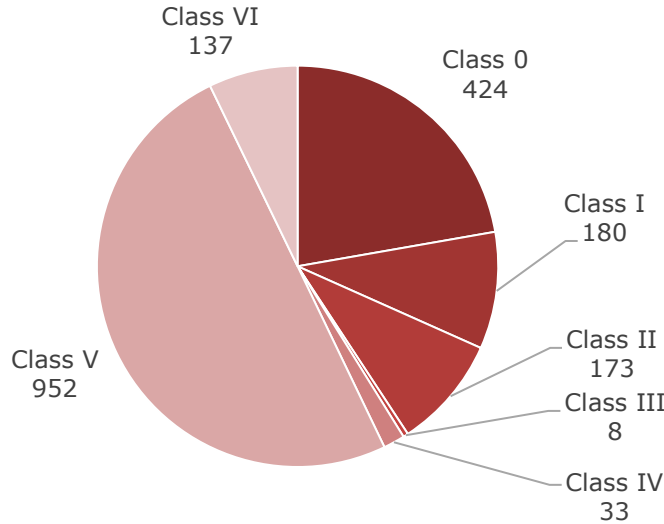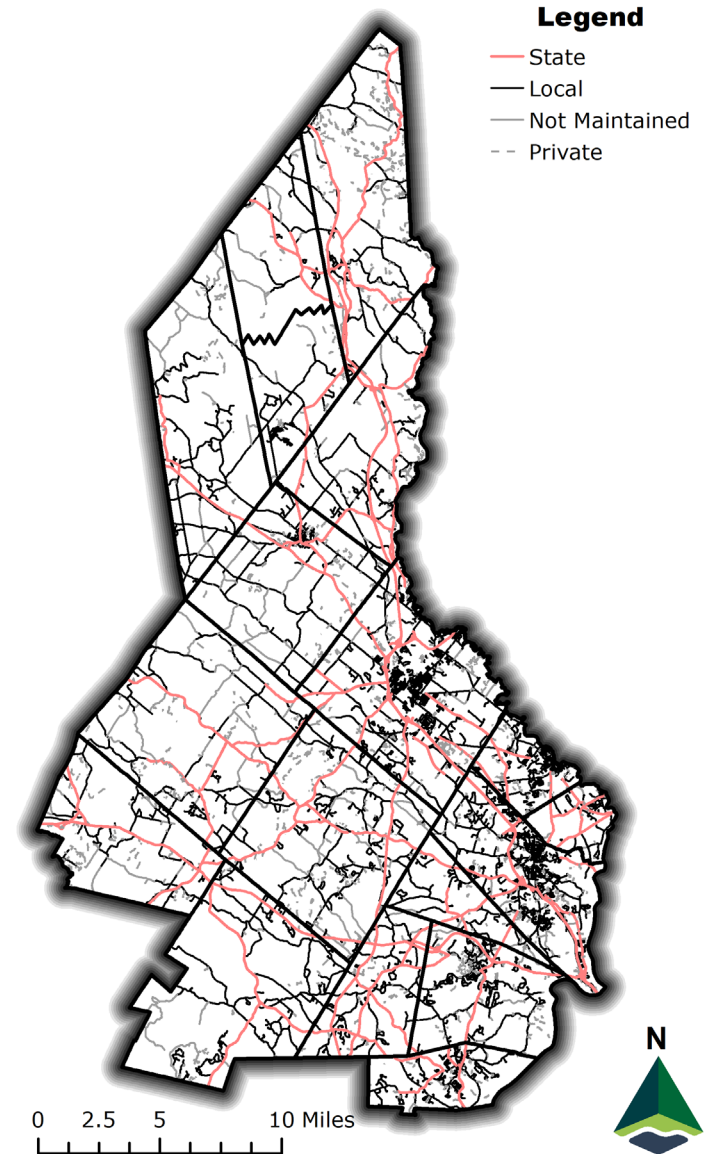
Tier

NHDOT additionally uses a six-tier system to categorize roads by volume and mobility in contrast to ownership and maintenance responsibilities. This system is used in statewide pavement programs and planning.

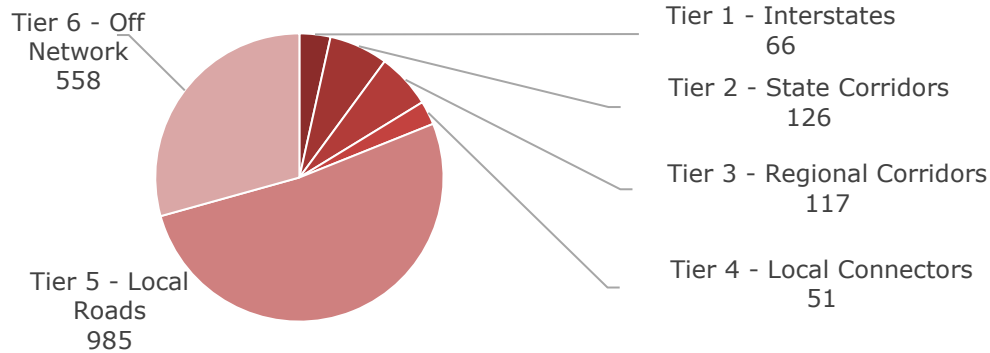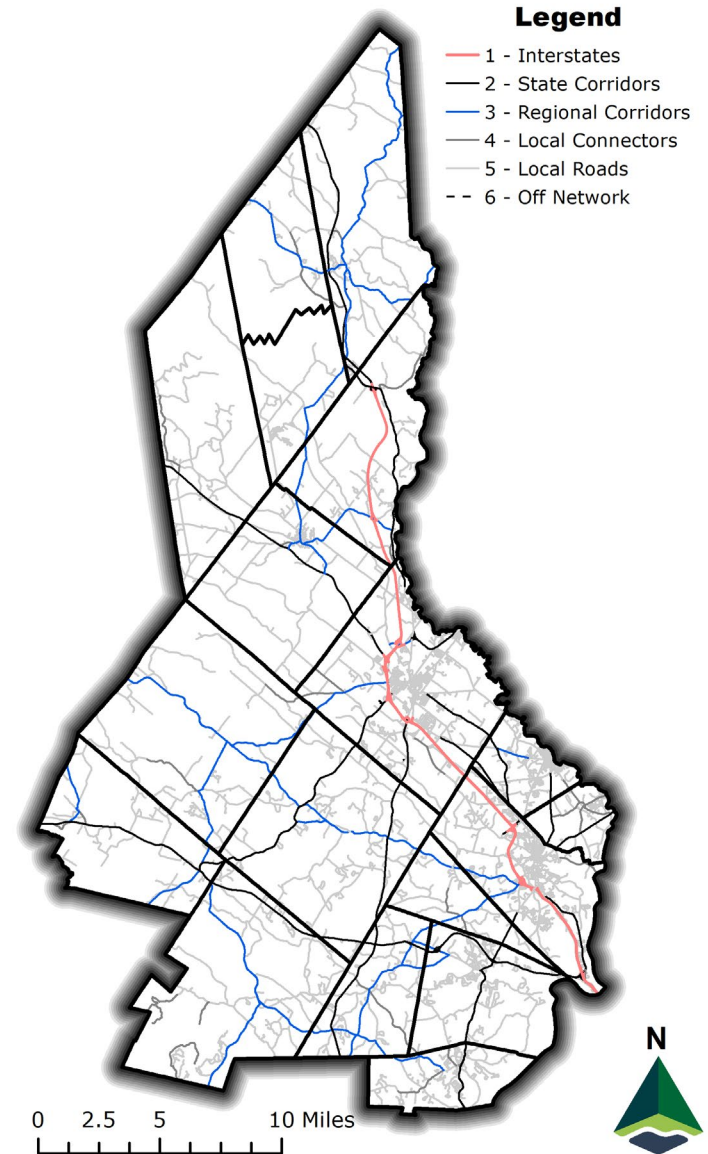| Tier	Description	Significance	Speed Limit (mph)	Daily Traffic	Connectivity	Distances served
1	Interstates, Turnpikes, & Divided Highways	Statewide	50+	Highest	State to state	Longest
2	Other Statewide corridors	Statewide	40 – 55	High	State to state	Long
3	Regional corridors	Regional	40 – 45	Moderate	Access to Tiers 1 & 2	Medium
4	Local Connectors	Regional	30 – 40	Low	Access to Tier 3	Short
5	Local Roads	Local	≤35	Lowest	Access to destination	Shortest
6	Off Network (State owned parking lots)	N/A	N/A	N/A	N/A	N/A

Centerline Miles by Tier

Tier 6 - Off Network 558
Tier 5 - Local Roads 985
Tier 1 - Interstates 66
Tier 2 - State Corridors 126
Tier 3 - Regional Corridors 117
Tier 4 - Local Connectors 51

Source: NHDOT. Year: 2024. Granularity: SRPC.

Legend
- 1 - Interstates
- 2 - State Corridors
- 3 - Regional Corridors
- 4 - Local Connectors
- 5 - Local Roads
- 6 - Off Network

0   2.5   5   10 Miles

N

RESILIENCY

Table of Contents

Pollution and Renewables

Maintaining a healthy and resilient region involves observance and removal of harmful contamination and pollutants in the ground, water and air. Pollution and inefficient infrastructure contributes to climate change and impacts public health. This section includes data on contaminated sites (locations where the New Hampshire Department of Environmental Services (DES) has identified hazardous waste, Methyl tertiary-Butyl Ether (MtBE), petroleum, or other contaminants) and Green House Gas Emissions.

To prevent future pollutants and protect the region from existing harmful contaminants, it is important to monitor progress in remediation efforts. Some of the easier-to-track initiatives are the ones surrounding the use of fossil fuels. The innovation of technology in the energy sector in the past 20 years has made transitions to cleaner energy affordable for utility networks and the average consumer.

This subsection contains metrics about:

- Contaminated (and remediated) sites.

- Alternative fueling stations.

- Renewable energy sources.

Contaminated Sites

A contaminated site can have a serious impact on human health and water supplies. Many regulations exist at the federal, state, and local levels to prevent contamination. However, ongoing mitigation strategies and clean-up protocols are imperative to this type of environmental protection. This process of "cleaning up" is known as site remediation, which removes contaminated soil, sediment, surface water, or groundwater to reduce the impact on people or the environment.

Several NHDES programs are aimed at monitoring and assessing contaminated sites, as well as providing assistance in clean-up processes and the repurposing of those sites. Closed remediation sites are sites that have already been cleaned up while open sites are still in the process of remediation.

Visit the NHDES site for more details:
https://www.des.nh.gov/waste/contaminated-sites

Open

Legend
● Remediation Sites (Open)

Closed

Legend
● Remediation Sites (Closed)

0   2.5   5   10 Miles

0   2.5   5   10 Miles

N

N
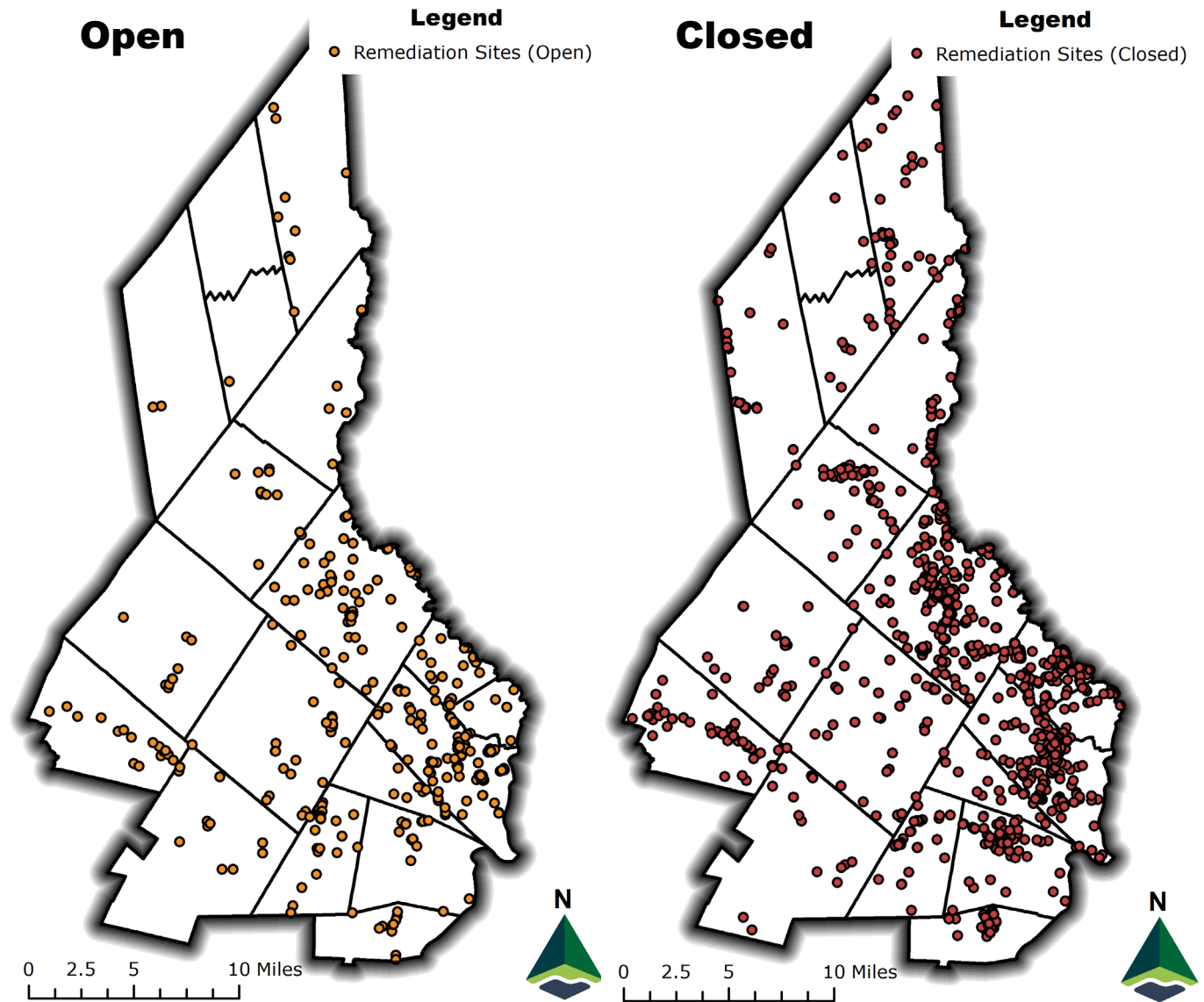
Map - Source: NHDES. Year: 2024. Granularity: SRPC.

RESILIENCY

Alternative Fuels

Adoption of alternative transportation fuels is growing nationwide and in the SRPC region. Electric and propane are the most common alternative fuel types. Charging rates vary by station "level" and planning is required to install stations at appropriate locations. Expansion of public vehicle charging will require continued public and private investment and upgrades of electric infrastructure. Most electric stations in the SRPC region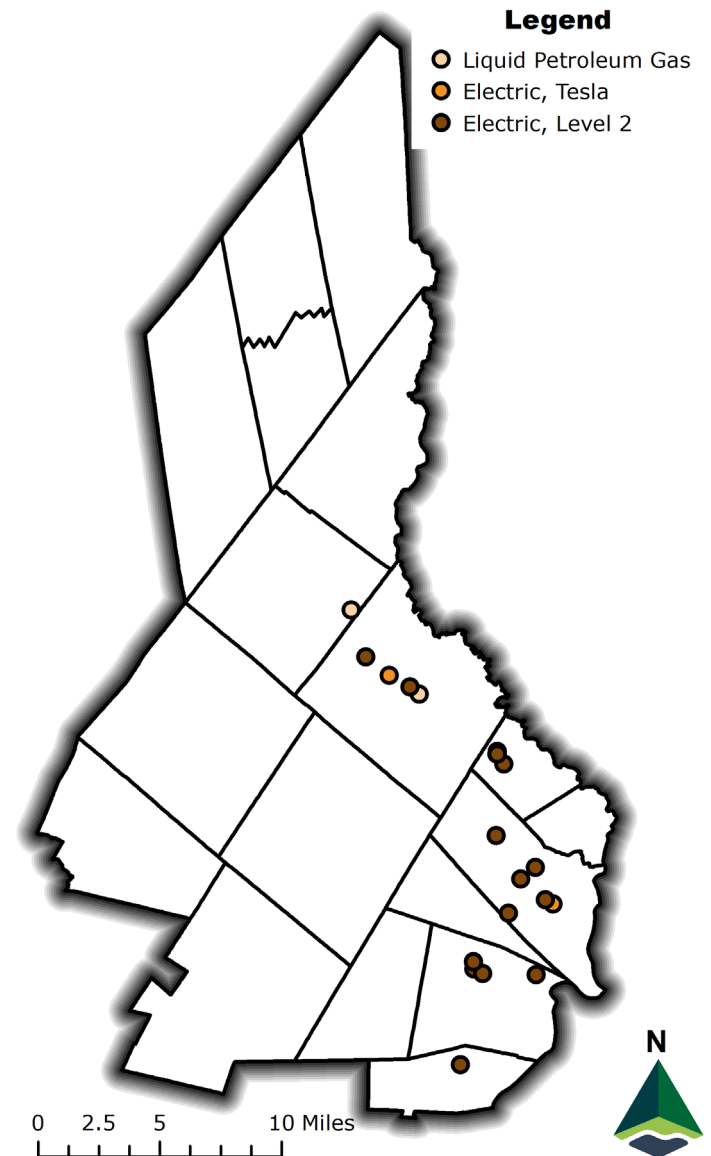 are "Level 2," except for eight DC Fast Charging (Level 3) stations at Hannaford's in Rochester and one station at Hilltop Chevrolet in Somersworth reserved for Tesla vehicles. See the table below for the differences between each level. Liquid Petroleum Gas (LPG) is also known as propane Autogas where it is used primarily for fleet applications such as buses and heavy-duty machinery. Propane vehicles are typically as efficient as gasoline but offer lower carbon and oil contaminants for a longer lasting engine.

Electric vehicle charging stations will become more common throughout the United States in the coming 5 years as the National Infrastructure bill's budget gets allocated to local projects. The increase of these stations will allow less dependance on oil, better protection for our environment, and encourage economic development during wait times.

NEW RESOURCE: In 2023, SRPC launched a new **Municipal Guide to EV Charging Stations**. Check it out here: https://arcg.is/yL1SL

Municipality	Electric Station	Liquified Petroleum Gas
Dover	6	0
Durham	5	0
Farmington	0	1
Newmarket	1	0
Rochester	3	1
Somersworth	5	0

Charging Station Table - Source: DOE. Year: 2024. Granularity: United States.
Map - Source: DOE. Year: 2024. Granularity: SRPC.

Legend
- ○ Liquid Petroleum Gas
- ● Electric, Tesla
- ● Electric, Level 2

0   2.5   5   10 Miles

N

RESILIENCY

Renewable Energy

Renewable energy within the SRPC region is very limited with a large majority of power stemming from non-renewable sources outside of Strafford County. Significant power sources in the Seacoast region are found to the right. Hydroelectric dams represent a large portion of renewable energy generation in the Strafford Region. Generation depends on river currents which are highest during Spring melting months. The UNH-Turnkey biomass project has been fully operational since 2010 helping reduce the total emissions from UNH by about 25% since then.

The current climate target goal for New Hampshire is for renewable energy to constitute 25% of total energy production in the state by 2025. Progress has been slow due to the lack of investment into utility-driven renewable power sources.

The Granite State ranks 41st in the nation with 263 MW total solar installed (over 50MW added in 2023). That's enough to power 42,626 homes in New Hampshire. Solar panel installation is expected to grow in New Hampshire with an increase of 408MW over the next 5 years. That's an increase of 50% in solar power between 2024 – 2029. The distribution of annual solar installations is split evenly between residential and commercial installations. More investment is expected in the utility sector as funding continues to trickle in from the Bipartisan Infrastructure Bill (BIL).

Utility Renewable Power within SRPC Region

Power Type	Name of Facility	Peak Capacity
Hydroelectric	Milton Hydro	1.4 MW
Hydroelectric	GE Great Upper Hydro	2.1 MW
Hydroelectric	Somersworth Lower Great Dam	2.1 MW
Hydroelectric	Green Mountain Power Corp	1.4 MW
Biomass	Turnkey Landfill Gas Recovery	9.2 MW
Biomass	UNH - Turnkey Landfill Gas	7.9 MW

Other Significant Local (NH) Power Sources

Power Type	Name of Facility	Peak Capacity
Natural Gas	Newington Natural Gas (EP)	605 MW
Natural Gas	Newington Natural Gas (GS)	414 MW
Coal	Newington Schiller Coal	171 MW
Nuclear	NextEra Energy Seabrook LLC	1247 MW

New Hampshire Solar Installation

Legend: Residential, Commercial, Community Solar, Utility
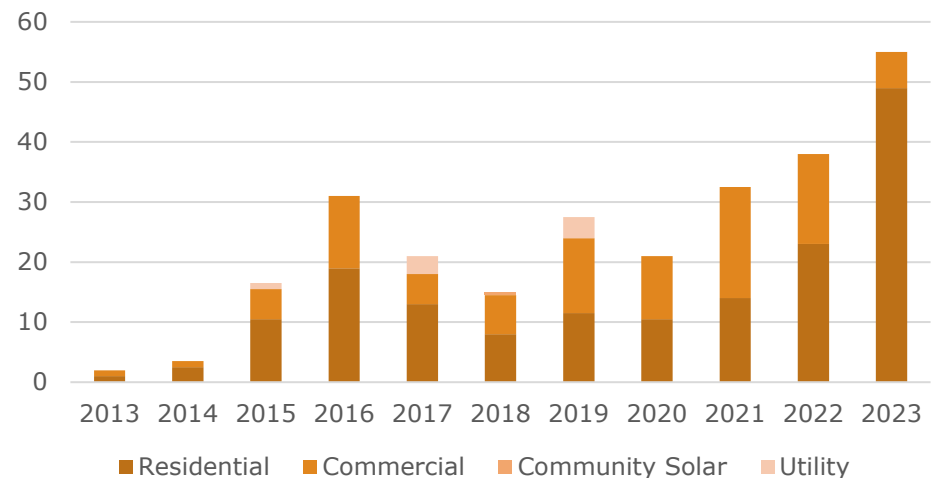
Tables - Source: DOE. Year: 2024. Granularity: SRPC, RPC.
Chart - Source: SEIA. Year: 2013-2024. Granularity: New Hampshire

RESILIENCY

Climate Change Impacts on the Region

Climate change is the process of long-term change in the average weather patterns that have been defined in today's climates. Climate change can be driven by natural factors, such as variations in solar output and volcanic eruptions. However, over the last century human activity has been the primary driver of climate change. Activities which emit greenhouse gasses, such as the burning of fossil fuels, contribute to a process which warms the Earth's atmosphere. These gasses (including carbon dioxide, methane, and nitrous oxide) prevent heat from escaping the atmosphere into space, and this is known as the greenhouse effect. As greenhouse gas concentrations increase in the atmosphere, warming accelerates at a rate exceeding naturally driven trends.

For the Strafford Region, several impacts of climate change will be seen in the next 100 years as water becomes a significant challenge to maintain a resilient region. This section will examine the following impacts of climate change in the SRPC region.
1. Sea Level Rise and Flooding
2. Infrastructure Impacted by Sea Level Rise
3. Precipitation Projections
4. Snow Cover Days Projected
5. Monthly Maximum Snow Totals
6. Temperature Projections
7. Extreme Temperature Projections
8. Heating and Cooling Day Projections
9. Urban Heat Islands
10. Plant Hardiness Zones
11. High Tide Flood Frequency
12. Cyanobacteria Warning Days
13. Shoreline Ecology
14. Living Shorelines

The New Hampshire Climate Assessment is a report published by the University of New Hampshire (UNH) in 2021. The report studies the projected impacts of global climate change on NH's local weather over the next 80 years. The next several pages will examine some of the factors studied in this report. This report was a combination of several years of scientific evidence and information sourced from several local groups. The full report can be found here:

https://scholars.unh.edu/cgi/viewcontent.cgi?article=1209&context=ersc

RESILIENCY

Sea Level Rise and Flooding

The Sea Level Rise (SLR) scenarios to the right display 3 different levels of green-house gas emissions that would lead to either 1.7, 4, or 6.3 feet of sea level rise by 2100. This data was created in 2014 and was supplemented by the "C-Rise" project that SRPC completed for the region in 2016. Each of these data points are summaries of the 5 coastal communities within the region (Dover, Durham, Madbury, Newmarket, and Rollinsford). UNH conducted a more recent analysis for climate modeling in 2019 as a matter of probability (see "High Tide Flooding frequency" section) which are not incorporated in the infrastructure tables on this page.

A **storm surge** is defined as a large coastal storm event that caused an abnormal increase in water level from normally predicted tidal levels. Several factors influence the impact of a storm surge such as wind direction, orientation of the coastline, and size/intensity of the storm. All these factors can be exacerbated by flooding during high tide called a Storm Tide. 100-year flood zones are not the same as storm surge and are a technical term from FEMA to classify insurance maps. This does not mean that it will only happen every 100 years, but that it has a 1% chance of flooding every year and is typically used by the National Flood Insurance Program to regulate insurance policies and by extension, local codes.

For example, there were two inland 100-year floods in 12 months in New Hampshire between the Mother' Day Flood of 2006 and the Patriot's Day Flood of 2007. Each of these storms brought tremendous damage to the SRPC region along riverine communities with up to 10 inches of rain. 100-year floods are becoming more regular with longer, more powerful precipitation events projected in the future. In the maps on the following pages, Dover point, Coastal Great Bay, and the Oyster/Bellamy river are anticipated to have significant flooding impact their coasts.

Infrastructure	Sea Level Rise			Sea Level Rise + Storm Surge		
	1.7 feet	4.0 feet	6.3 feet	1.7 feet	4.0 feet	6.3 feet
Homes	3	25	92	192	212	212
Bridges	17	18	18	18	18	20
Miles of Roads	0.32	1.29	3.3	7.96	8.05	8.05
Critical Facilities	0	2	3	3	3	3

SRPC Critical facilities impacted by SLR

Critical Facilities	Municipality	SLR Scenario	SLR + Storm Surge Scenario
Primary Sewer Lift Station	Durham	6.3 feet	1.7 feet
Riverwalk Park	Newmarket	4 feet	1.7 feet
Creighton Street Pump Station	Newmarket	4 feet	1.7 feet

Critical Facilities include all public and private facilities that a community considers essential for the delivery of vital services for the protection of the community, such as emergency operations centers, shelters, or utilities.

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Sea Level Rise and Storm Surge

Legend
- Mean Higher High Water (MHHW)
- Sea Level Rise (1 Foot)
- Sea Level Rise (2 Feet)
- Sea Level Rise (4 Feet)
- Sea Level Rise (6 Feet)
- Sea Level Rise (8 Feet)

Legend
- Mean Higher High Water (MHHW)
- Sea Level Rise (2 Feet) Plus Storm Surge
- Sea Level Rise (4 Feet) Plus Storm Surge
- Sea Level Rise (6 Feet) Plus Storm Surge
- Sea Level Rise (8 Feet) Plus Storm Surge

Source: UNH. Year: 2019. Granularity: Coastal NH.

RESILIENCY

Homes Impacted by Sea Level Rise and Storm Surge

Legend

- ● Homes Impacted by 2 Feet SLR or More
- ● Homes Impacted by 4 Feet SLR or More
- ● Homes Impacted by 6 Feet SLR or More
- Mean Higher High Water (MHHW)
- Sea Level Rise (1 Foot)
- Sea Level Rise (2 Feet)
- Sea Level Rise (4 Feet)
- Sea Level Rise (6 Feet)
- Sea Level Rise (8 Feet)

Legend

- ● Homes Impacted by 2 Feet SLR+SS or More
- ● Homes Impacted by 4 Feet SLR+SS or More
- Mean Higher High Water (MHHW)
- Sea Level Rise (2 Feet) Plus Storm Surge
- Sea Level Rise (4 Feet) Plus Storm Surge
- Sea Level Rise (6 Feet) Plus Storm Surge
- Sea Level Rise (8 Feet) Plus Storm Surge

Rollinsford

Dover

Madbury

Durham

Newmarket

0 1.25 2.5   5 Miles

N

Source: UNH. Year: 2019. Granularity: Coastal NH.

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Bridges Impacted by Sea Level Rise and Storm Surge

Legend
- 🔴 Bridges Impacted by 2 Feet SLR or More
- Mean Higher High Water (MHHW)
- Sea Level Rise (1 Foot)
- Sea Level Rise (2 Feet)
- Sea Level Rise (4 Feet)
- Sea Level Rise (6 Feet)
- Sea Level Rise (8 Feet)

Legend
- 🔴 Bridges Impacted by 2 Feet SLR+SS or More
- Mean Higher High Water (MHHW)
- Sea Level Rise (2 Feet) Plus Storm Surge
- Sea Level Rise (4 Feet) Plus Storm Surge
- Sea Level Rise (6 Feet) Plus Storm Surge
- Sea Level Rise (8 Feet) Plus Storm Surge

Rollinsford
Dover
Madbury
Durham
Newmarket

0 1.25 2.5 5 Miles

N

Source: UNH. Year: 2019. Granularity: Coastal NH.

RESILIENCY

Precipitation Projections

Representative Concentration Pathways (RCP) are a collection of four different global greenhouse gas concentration scenarios that consider melting ice sheets and industrial trends. For precipitation, the New Hampshire Climate Assessment only researched the two most likely scenarios. It appears under either RCP 4.5 (assuming carbon emissions begin to stabilize and then slowly decline after 2050) or RCP 8.5 (assuming carbon emissions continue to grow through the end of the century) that precipitation events will be longer and carry more water.

This is evident at Durham's weather station where it is predicted that 2" precipitation events will increase by 273% by the end of the century under the RCP 8.5 scenario. This means that 2" precipitation events will occur nearly 28 times per decade by the end of the century if nothing is done to reduce dependance of fossil fuels. Also of note is the seasonality of precipitation, where the largest increases are expected to occur in the winter – anywhere between 13-22% more precipitation could be seen.

Examples of local 2" precipitation events within 24 hours include Hurricane Irene in 2011 where the state saw 3-6" of rain, and Winter Storm Nemo in 2013 which brought two feet of snow.

Future extreme weather projections will impact the planning and development of critical infrastructure, particularly as it relates to stormwater and other facilities whose designs rely on flooding and snowmelt scenarios.

| | Historical Average (1980-2009) | Approximate Change from Historical (+ or -) | | | | | |
| | | Short Term (2010-2039) | | Medium Term (2040-2069) | | Long Term (2070-2099) | |
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Durham, NH (Precipitation in Inches)							
Annual	43.3	1.6 (4%)	1.7 (4%)	2.4 (5%)	3.2 (7%)	3.1 (7%)	4.8 (11%)
Winter	10.5	0.6 (6%)	0.5 (5%)	0.8 (8%)	1.4 (13%)	1.4 (13%)	2.2 (22%)
Spring	11	0.4 (4%)	0.7 (6%)	0.6 (5%)	1.0 (9%)	0.9 (8%)	1.7 (16%)
Summer	9.9	0.3 (3%)	0.4 (4%)	0.6 (6%)	0.4 (4%)	0.7 (7%)	0.5 (5%)
Fall	11.9	0.2 (1%)	0.3 (2%)	0.4 (4%)	0.4 (3%)	0.4 (3%)	0.3 (2%)
MAX Precip in 24 hours	2.3	0.2 (9%)	0.2 (9%)	0.2 (10%)	0.4 (16%)	0.3 (15%)	0.5 (24%)
Extreme Precipitation (# of events per year)							
1" in 24 hours	6.1	-2.6 (-42%)	-2.5 (-41%)	-2.2 (-36%)	-1.9 (-30%)	-2.0 (-34%)	-1.2 (-20%)
2" in 24 hours	1	1.6 (154%)	1.7 (163%)	1.9 (183%)	2.2 (209%)	2.1 (202%)	2.8 (273%)
4" in 48 hours	0.3	0.1	0.1	0.2	0.3	0.2	0.4
Snow Cover Days	114	-13	-14	-27	-42	-38	-95

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability
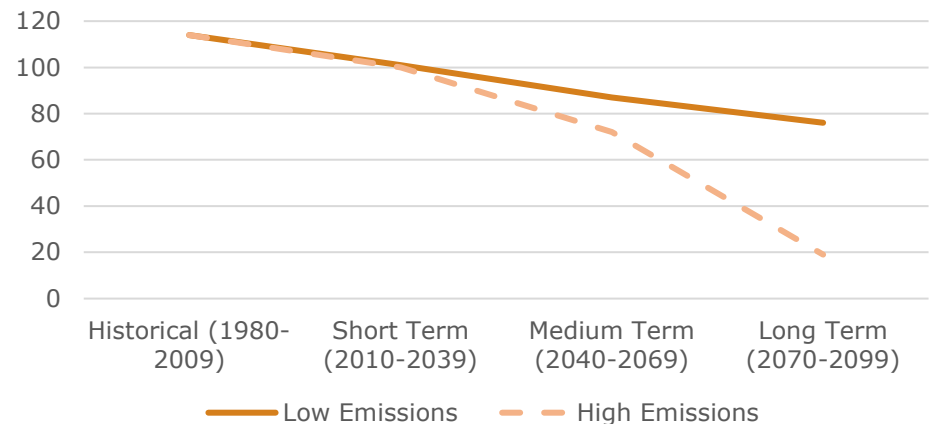Source: UNH. Year: 2021. Granularity: Town of Durham.

Snow Cover Days Projection

Representative Concentration Pathways (RCP) are a collection of four different global greenhouse gas concentration scenarios that consider melting ice sheets and industrial trends. For precipitation, the New Hampshire Climate Assessment only researched the two most likely scenarios. It appears under either RCP 4.5 (assuming carbon emissions begin to stabilize and then slowly decline after 2050) or RCP 8.5 (assuming carbon emissions continue to grow through the end of the century) that snow cover days in Coastal NH are anticipated to drop substantially. In Durham by 2100, snow cover days could total drop as low as 19 days/year if we remain on a "business as usual" trend or RCP8.5 (High Emissions). This could potentially be damaging to local ecosystems, animals, and plants.
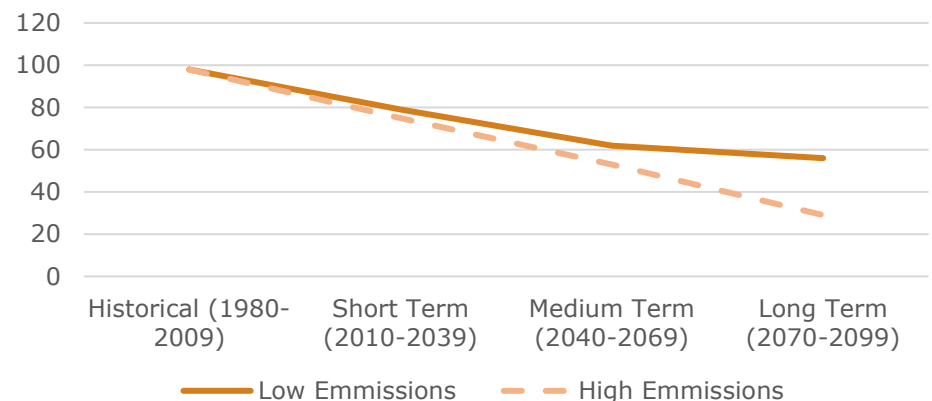
On the bottom right chart, you can see an anticipated drop in deep snow cover across NH by 2100 regardless of the emission trajectory. This could also be potentially damaging to the ecological systems across NH in multiple ways by not providing sufficient snowpack in mountainous regions to supply freshwater throughout the Spring/Summer. The snowpack itself being a habitat would also be severely diminished resulting in more migration of plants and animals.

Lastly, the effect this could have on the economic resiliency in NH could be substantial even within the SRPC region. Activities such as snowmobiling, skiing, and other winter sports could see their seasons substantial decline to 1-2 months a year with deep snow cover effecting a $500 Million-Dollar industry as of 2018.

Durham Snow Cover Days

Legend: Low Emissions (solid), High Emissions (dashed)

New Hampshire Historical and Projected Days with Deep Snow Cover (> 6 inches deep)

Legend: Low Emmissions (solid), High Emmissions (dashed)

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability
Source: UNH. Year: 2021. Granularity: Town of Durham. State of NH

RESILIENCY

Monthly Maximum Snow Totals

Monthly Maximum Snow Totals is a dataset showing maximum snow depth by month and year. The stations of Concord and Durham were chosen as they were the only weather stations available with this level of detail in proximity or within our region. SRPC typically uses the Concord weather station as more representative of our In-land communities such as Strafford, Northwood, and Nottingham while the Durham station is used for coastal communities such as Newmarket, Dover, and Durham.

This metric over 24 years shows just how quickly the weather has changed in this short period in our region. Durham has not had snow cover over 15 inches maximum since February 2017, which would include multiple snowstorms in a single month. While this is a look at recent weather, this could potentially be the beginning of the climatic decline in snowfall as pointed out in the previous page's projections for snow cover days. However, it is impossible to project if these are truly climatic changes yet or if it is annual variability from the jet stream. As seen on the right, both Durham and Concord have some inconsistencies in their snow totals from year to year especially looking at the difference between 2015-2016 and 2016-2017.

We will see these maximum snow totals decline by 2100, but the intensity of the decline will depend on which representative concentration pathway (RCP), as described on page 141, becomes a reality.

Maximum Snow Depth In Any Month Durham and Concord, NH
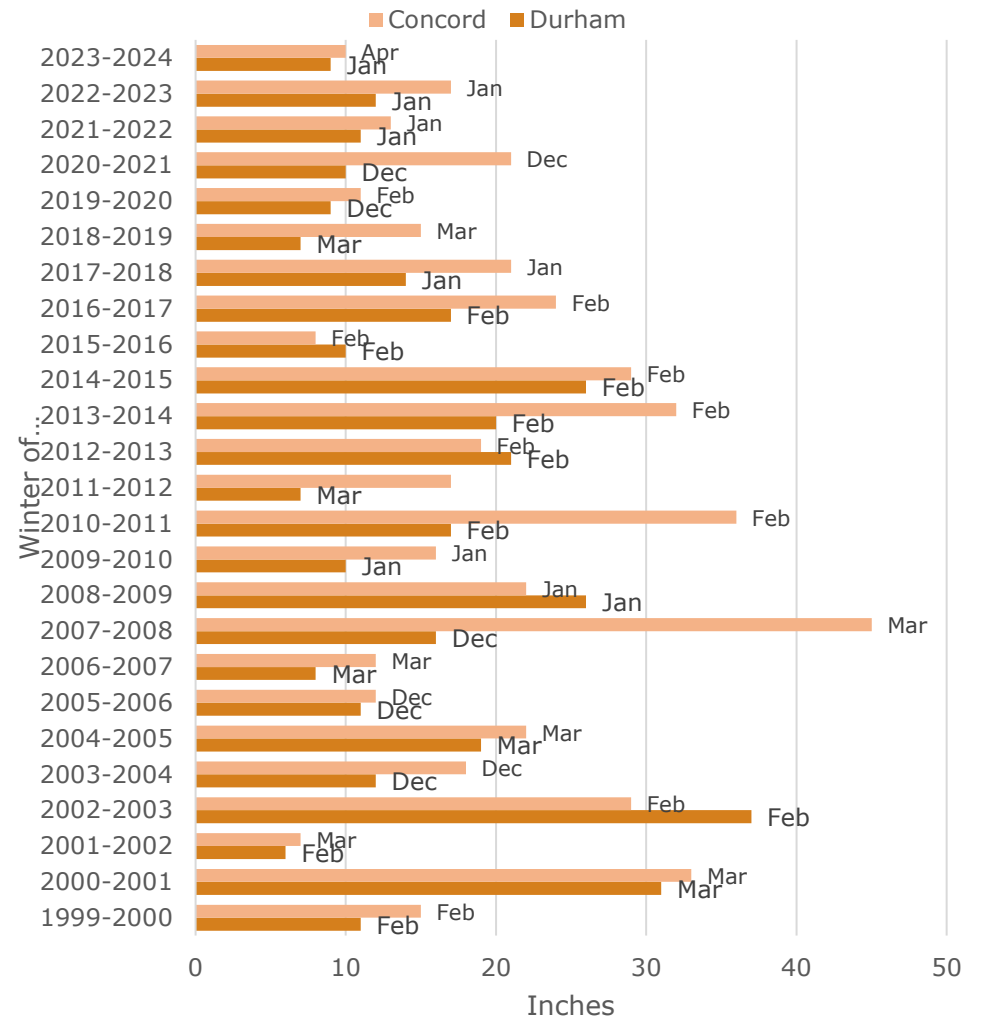
For Source Data: https://www.weather.gov/wrh/Climate?wfo=gyx
Source: NOAA. Year: 1999-2024. Granularity: Town of Durham. City of Concord.

RESILIENCY

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Temperature Projections

Representative Concentration Pathways (RCP) are a collection of four different global greenhouse gas concentration scenarios that consider melting ice sheets and industrial trends. For precipitation, the New Hampshire Climate Assessment only researched the two most likely scenarios. It appears under either RCP 4.5 (assuming carbon emissions begin to stabilize and then slowly decline after 2050) or RCP 8.5 (assuming carbon emissions continue to grow through the end of the century) that average temperatures will be higher and have fewer freezing days.

Specifically at the Durham weather station, a 5 to 9 degree rise in average max temperatures by the end of the century is predicted. If this is accurate, there will be significant impacts to the ecology of the region along with inundation from the ocean due to higher air temperatures that affect ocean temperatures. We will see an increase of 4 more degrees of average daily high temperatures in the next 40 years.

Heating degree days and cooling degree days' definitions are stated in the "Heating and Cooling Degree Day Projections" page on page 146.

	Historical Average (1980-2009)	Approximate Change from Historical (+ or -)					
		Short Term (2010-2039)		Medium Term (2040-2069)		Long Term (2070-2099)	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Durham, NH (Degrees in Fahrenheit) Max Temperatures							
Annual	59.5	2.1	2.2	3.9	5.4	5	9.2
Winter	36.4	2.2	2.5	4.3	5.7	5.3	9.4
Spring	57.6	2.2	2	3.8	5.1	4.9	8.5
Summer	81.4	2	2.1	3.7	5.2	4.6	9.3
Fall	62.1	2	2.2	3.9	5.6	5	9.7
Extreme Temperatures							
Days <0F	8	-3	-4	-6	-7	-7	-8
Days <32F	155.5	-13	-15	-26	-36	-34	-62
Days >90F	11.1	8	9	17	27	23	53
Days >95F	2	3	3	7	12	9	31
Days where heating or air conditioning are needed							
Heating Degree Days	6820	-586	-1484	-1096	-1461	-1383	-2360
Cooling Degree Days	514	+179	+192	+355	+524	+457	+1042

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability
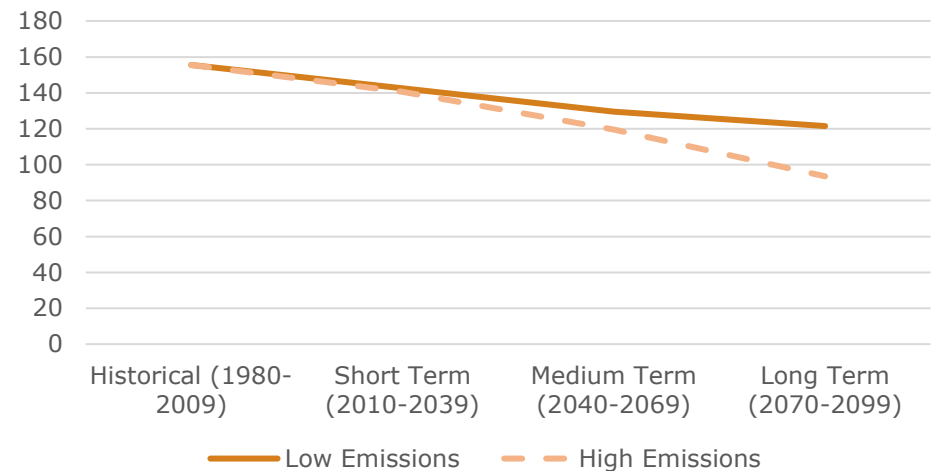Source: UNH. Year: 2021. Granularity: Town of Durham.

Extreme Temperature Projections

Extreme temperatures are defined as variations of typical weather patterns above or below "normal" conditions. While under 32 degrees is not an abnormal temperature in NH, it was the only cold metric that was significant to project out to 2100. The other metric was days below 0 degrees and we aren't projected to have more than one per year by 2100. With the days under 32 degrees anticipated to fall, we could see impacts due to an increased freeze-thaw cycle that can cause substantial damage to local infrastructure such as roads and culverts just to name a few.
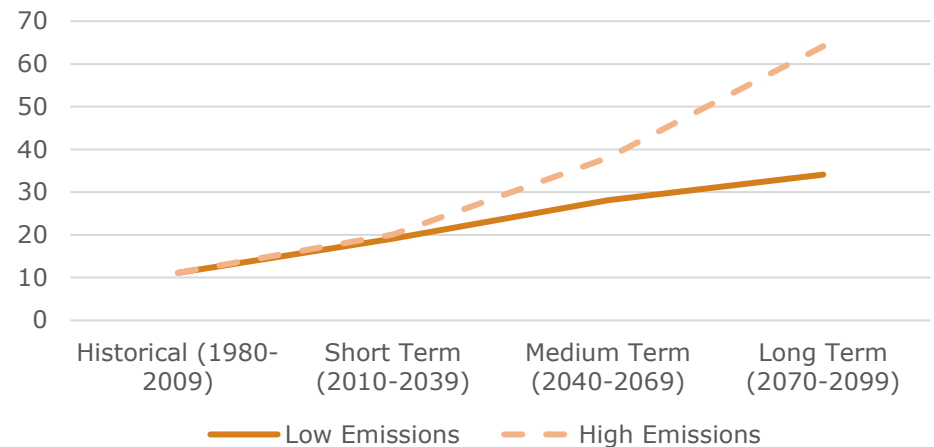
A long-term decrease in the number of freezing days and nights may reduce some of the most acute risks of cold exposure among vulnerable populations, including the hundreds of thousands of people experiencing homelessness in the U.S.

On the other side of extreme temperatures, extreme heat is expected to increase, and change significantly more than days less than 32 degrees. In a High emissions scenario, The number of 90-degree days annually could reach 600% of the historical rate in Durham by 2100. This is where we could see significant increases in health risks and hospital visits in Summer months that hospitals may not have the capacity to handle. While this is projected to get worse, it will likely be a localized issue that persists mainly in more in-land communities such as Strafford, Nottingham, and Northwood. The is evident by the fact that Concord experiences historically 13, 90-degree days a year while Durham has around 10 annually.

Days Less than 32 Degrees

Low Emissions — — High Emissions

Days Greater Than 90 Degrees

Low Emissions — — High Emissions

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability
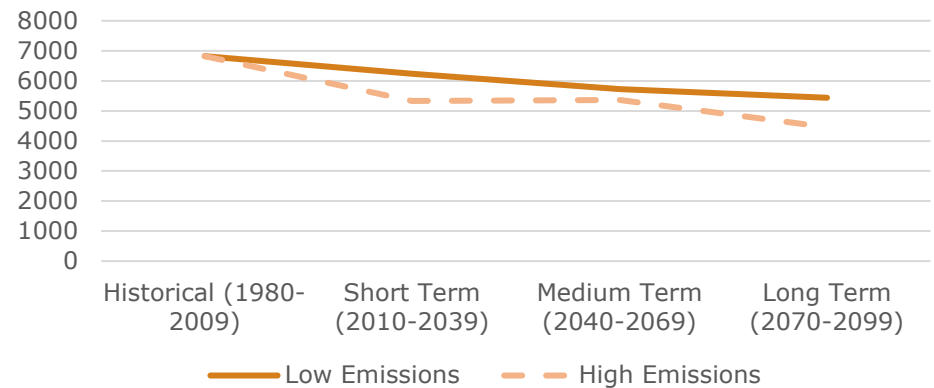Source: UNH. Year: 2021. Granularity: Town of Durham.

RESILIENCY
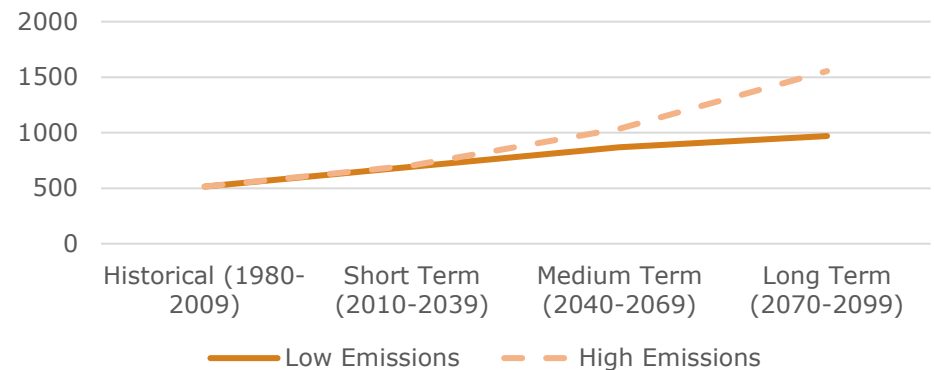
Heating and Cooling Degree Day Projections

Heating and cooling degree days are defined by the difference between 65°F and the mean temperature. Extreme temperatures are likely to see a lot of change as a result of increased temperatures and moisture in the atmosphere. Days under 0 degrees may not happen by the end of the century in the region even assuming carbon emissions slowly decline after 2050. Conversely, days over 90 degrees could double if not triple by the end of the century leading to the doubling of cooling degree days by 2100. This will lead to greater reliance on energy for cooling our homes while heating will decrease by 20-35% by the end of the century.

This will have both positive and negative effects. Positively, you will likely have to pay less for heating in NH on an annual basis but conversely you will likely pay a lot more for cooling your home. Due to the majority of home cooling coming from air conditioning (90%), there will be a large influx to the power grid during the day. This will likely inflate the cost of the electricity especially as other new infrastructure will also be pulling from the grid by 2100 such as electric vehicle charging stations.

Heating Degree Days

Legend: Low Emissions, High Emissions

X-axis: Historical (1980-2009), Short Term (2010-2039), Medium Term (2040-2069), Long Term (2070-2099)

Cooling Degree Days

Legend: Low Emissions, High Emissions

X-axis: Historical (1980-2009), Short Term (2010-2039), Medium Term (2040-2069), Long Term (2070-2099)

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1071&context=sustainability
Source: UNH. Year: 2021. Granularity: Town of Durham.

RESILIENCY

Urban Heat Islands

Extreme heat is a hazard becoming more commonplace as 19 of the last 20 summers set record highs for temperatures. Due to lack of efforts to significantly cut the greenhouse gas emissions responsible for climate change, the Union of Concerned Scientists predicts that the number of Americans experiencing 30 or more days with a heat index above 105 degrees in an average year will increase from 900,000 people today to more than 90 million by mid-century. New Hampshire can expect many more 90-degree days. The Environmental Protection Agency (EPA) defines urban heat islands as urbanized areas which experience higher temperatures as compared to outlying areas due to their lack of greenery and high concentrations of hard infrastructure that re-emit the sun's heat much more than natural landscapes do. Urban areas may experience temperatures 1-7 degrees higher than outlying areas during the day, and 2-5 degrees higher during the night. Green spaces can reduce the amount of heat being absorbed in urban infrastructure surfaces such as asphalt and concrete and reduce the urban heat island effect. Areas within a 10-minute walk of a park can be as much as 6 degrees cooler than neighborhoods outside that range.

Recreation sites are often the most readily accessible shaded areas of the region, in addition to municipal pools and formal and informal beaches or lake access points. 13% of the region's recreation sites have manmade shade structures while 64% have shaded trees. The remaining 23% have no shade at all. Cooling centers, frequently operated by municipalities or social service providers, are operated for vulnerable groups who face housing challenges or in the event of power outages.

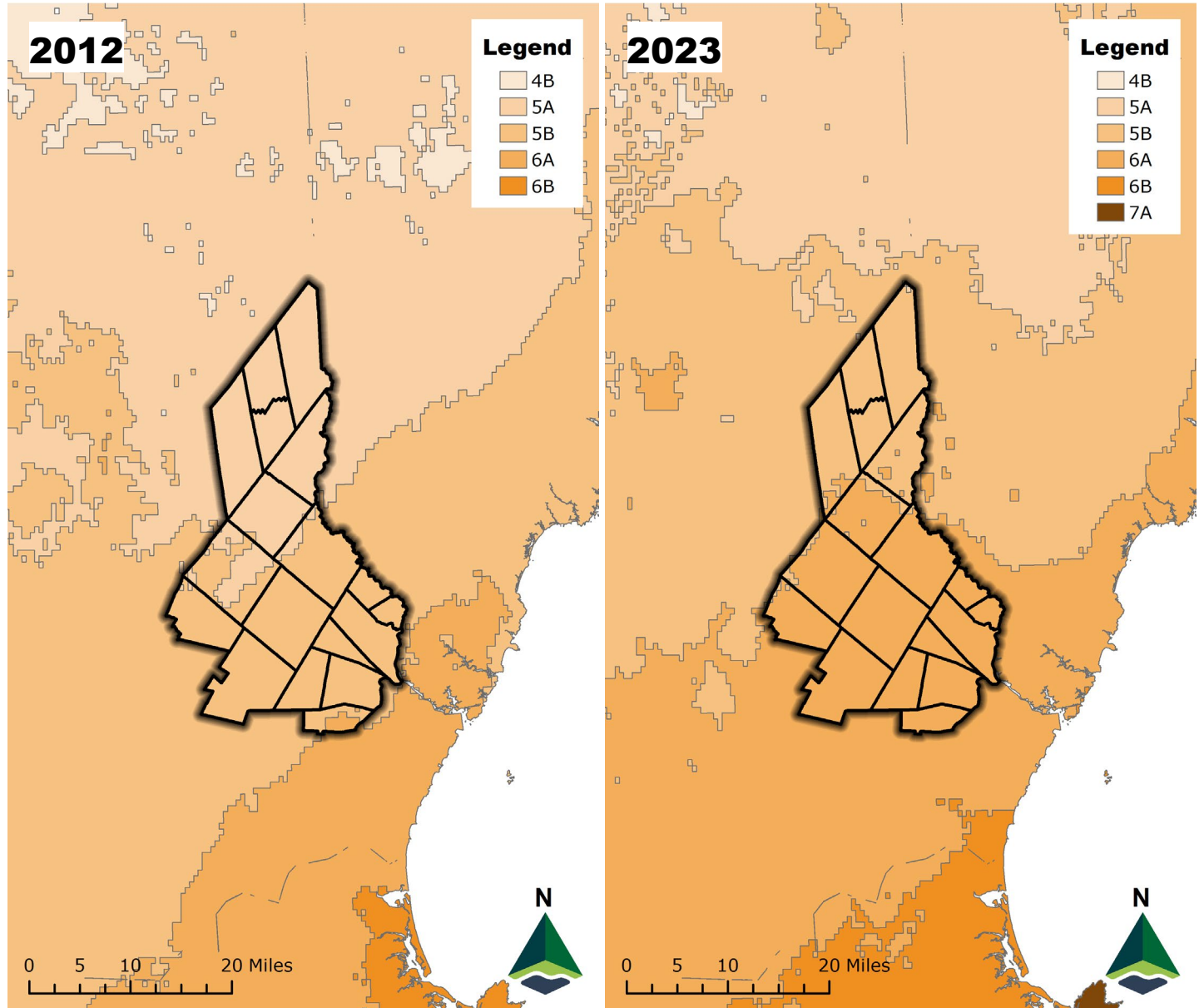| Annual NH Heat Index Frequencies	Annual Historical	Midcentury		Late century		Rapid action
		Slow action	No action	Slow action	No action	
NH with 90 + degree days	3	16	23	22	49	17
NH with 100 + degree days	0	2	6	4	19	2
NH with 105 + degree days	0	0	2	1	10	0

Legend
Low Impact
High Impact

Text - Source: SRPC. Year: 2020. Granularity: SRPC.
Text - Source: Trust for Public Land. Year: 2020. Granularity: United States.
Text – Source: EPA. Year: 2024. Granularity: United States
Map - Source: UNH. Year: 2020. Granularity: SRPC
Table - Source: Union of Concerned Scientists. Year: 2019. Granularity: New Hampshire.

0   2.5   5   10 Miles

RESILIENCY
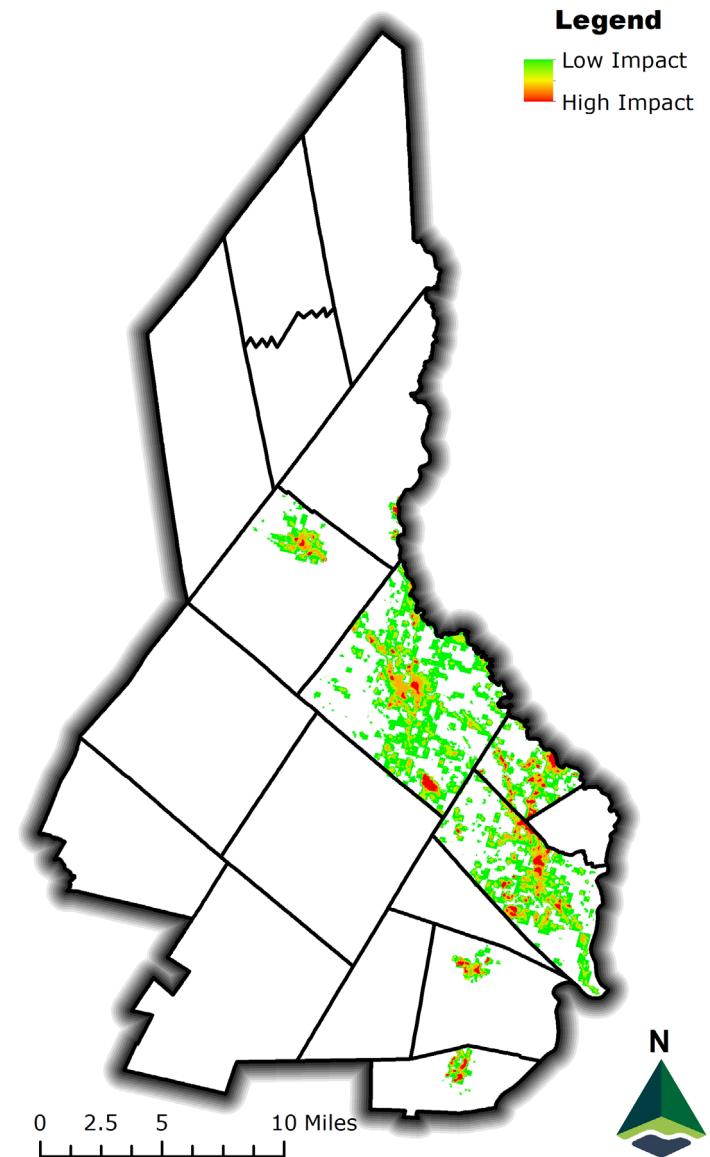
Plant Hardiness Zones

The USDA's Plant Hardiness Zones indicate what types of plants can survive and where. In 2012, the region was mostly 5A and 5B, with a bit of 6A in Newmarket. In 2023, there are mere acres of 5A in Wakefield, and the majority of the region is 6A with a band of 5B in the northern communities.

As a result, plants that could previously survive in MA are starting to survive in NH, and many crops are growing longer into October before the first frost. This is great for crops like peaches and tomatoes. Conversely, the now milder winters with shorter springs means shorter maple tapping seasons and less maple syrup.

Average Extreme Minimum Temperatures by Zone	
5A	-20 to -15
5B	-15 to -10
6A	-10 to -5

2012

Legend
- 4B
- 5A
- 5B
- 6A
- 6B

2023

Legend
- 4B
- 5A
- 5B
- 6A
- 6B
- 7A

N

0 5 10   20 Miles

Source: USDA Agricultural Research Service, 2012-2023. Granularity: US
See the full interactive map here: https://planthardiness.ars.usda.gov

High Tide Flooding Frequency

As relative sea level rise continues in coastal New Hampshire, the frequency of high tide flooding will also increase. High tide in the Northeast is predicted to reach or exceed 10 feet above Mean Lower-Low Water a total of 56 times in 2019 according to NOAA, not including storm surge. Under the Intermediate Global mean sea level rise (GMSLR) scenario of 3.3, high tide flood frequencies could increase to 132 days per year by 2050 in the Northeast. For reference, water levels of 10 feet, 11 feet, 12 feet, and 13 feet above the Mean Lower-Low Water level correspond with Hampton's threshold for "taking action" on minor flooding, moderate flooding, and major flooding, respectively, as defined by the National Weather Service.

"A separate analysis found that under a 3.9 feet of SLR scenario by the end of the century, 40% of all East Coast communities will be chronically inundated (defined as flooding that occurs at least 26 times per year) (UNH New Hampshire Coastal Flood Risk Summary)"
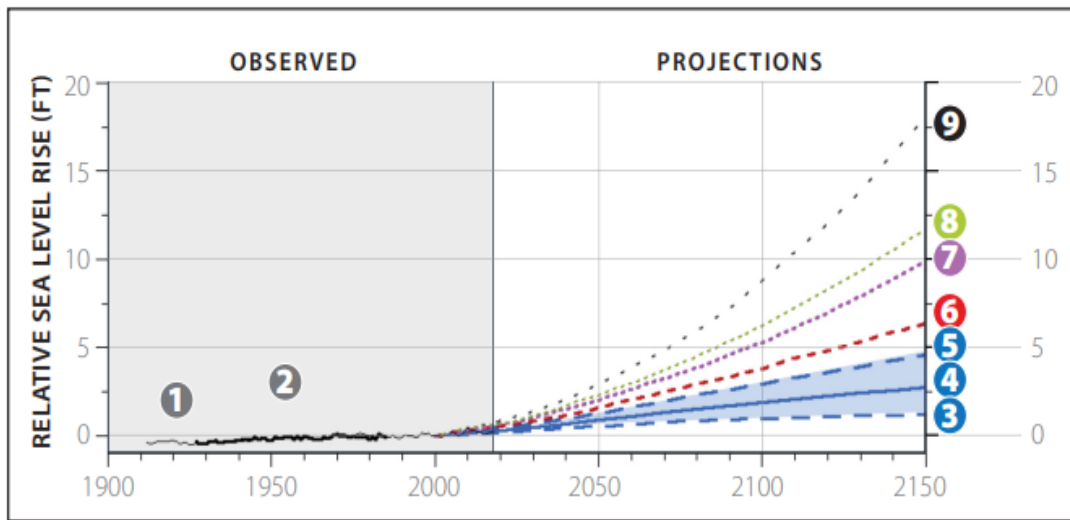
Sea Level Rise Scenario	High Tide Flood Frequency	Year
Current (Hampton, NH)	56 (not including storms)	2019
3.3 feet (GMSLR) NE US	132+/-26 days per year	2050
3.3 feet (GMSLR) NE US	Daily (365 days)	2100

Figure 4.5. Observed and Projected Relative Sea-Level Rise for Seavey Island Tide Gauge K14 Projections | Stabilized Greenhouse Gas Concentrations (RCP 4.5).

1. Historical data for Portland, ME (1912-2018; thin black line)
2. Historical data for Seavey Island, ME (1927-1986; thick black line)
3. Lower end of "likely range"
4. Central estimate
5. Upper end of "likely range"
6. 1-in-20 chance estimate
7. 1-in-100 chance estimate
8. 1-in-200 chance estimate
9. 1-in-1000 chance estimate

The graph to the left was the approach to sea level rise calculations taken by UNH by examining the probabilities of each of these sea level rise scenarios rather than having 3 concrete scenarios. It is also indicative of the continuous change in the research field, where analysis is completed for several possible scenarios to account for the complex changes in our planet's climate.

For Report: https://scholars.unh.edu/cgi/viewcontent.cgi?article=1209&context=ersc
Source: UNH. Year: 2019. Granularity: Northeast United States, Town of Hampton.
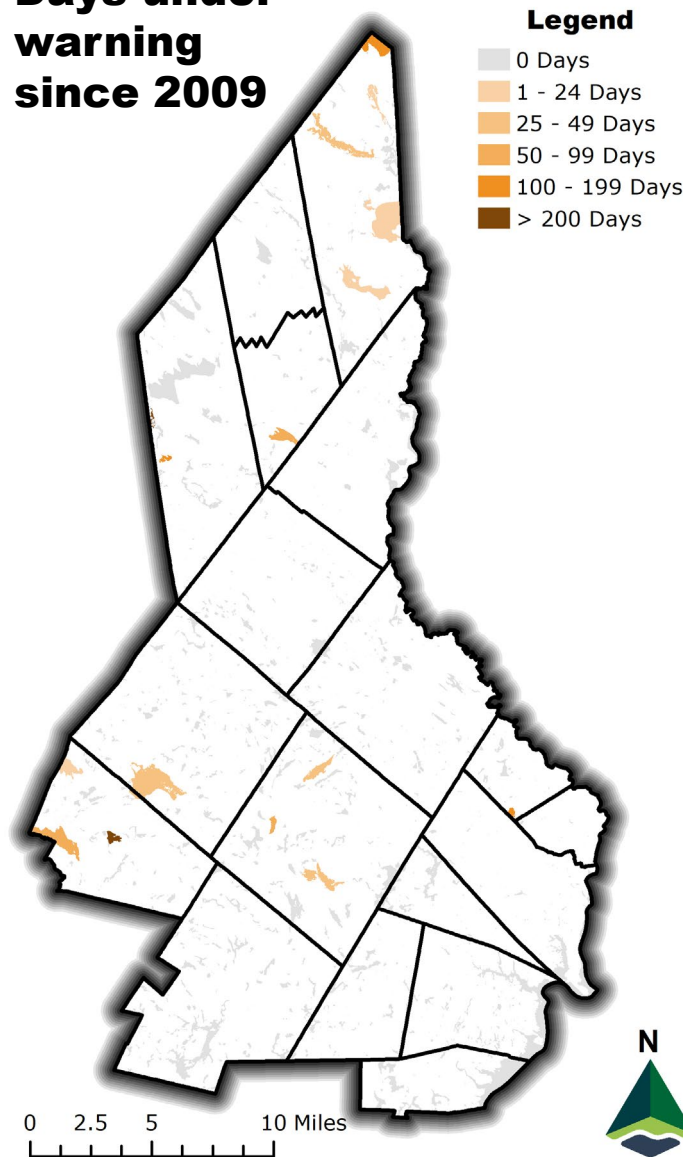
RESILIENCY

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Cyanobacteria Warning Days

Cyanobacteria blooms are algae blooms that contain potentially harmful cyanotoxins that can cause potential health dangers to the public. These are typically caused by nutrient inputs that allow these organisms to bloom and produce large concentrations. Each bloom is often unique from previous years or from lake-to-lake making it impossible to eliminate and hard to prioritize.
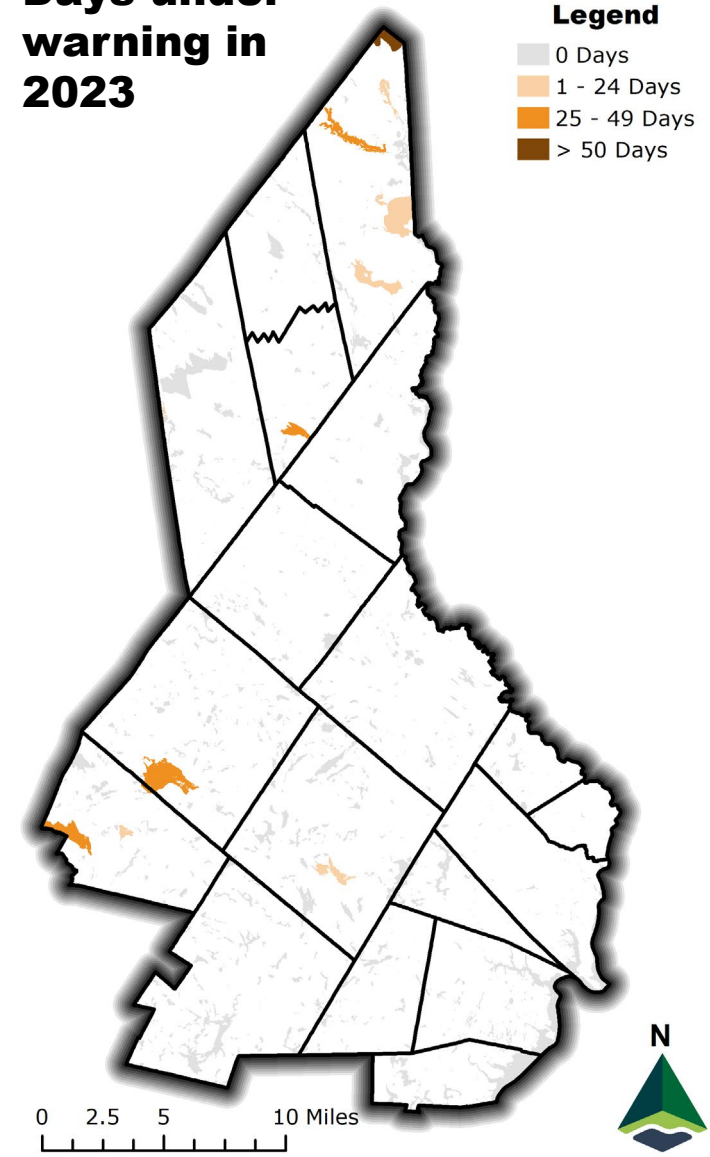
The maps on the right are aggregations of cyanobacteria warnings and their total days active. Not every cyanobacteria bloom has been documented as NHDES only reports what they receive from the public or discover in-house.

2023 saw several days of cyanobacteria blooms in 15 waterbodies in our region restricting recreation swimming during those days.

RESILIENCY

Days under warning since 2009

Legend
- 0 Days
- 1 - 24 Days
- 25 - 49 Days
- 50 - 99 Days
- 100 - 199 Days
- > 200 Days

0   2.5   5   10 Miles

N

Days under warning in 2023

Legend
- 0 Days
- 1 - 24 Days
- 25 - 49 Days
- > 50 Days

0   2.5   5   10 Miles

N

Map - Source: NHDES. Year: 2023. Granularity: SRPC.

Shoreline Ecology

Salt Marshes are defined as coastal wetlands that typically flood due to tidal intervals that can range from twice per day to twice per month depending on the geography of the marsh. They are among the most productive ecosystems in the world that provide shelter from high-energy ocean wave action.

Shoreline ecology has become an integral part of combatting the impacts of climate change in the past several years. The health and consistency of our shoreline allows our region to be more resilient from effects such as sea level rise, coastal storm surge, and other erodible processes. Maintaining these riverine and coastal ecosystems allows the region to have a natural capacity for flood mitigation.

In New Hampshire, an estimated 18-50% of the state's original salt marsh habitat has been lost to development or inadequate tidal flow, further exacerbated by the spread of invasive species. These invasive species are likely to spread much further as the impacts of climate change such as reduced salinity content in the water column and excess nutrients from higher river discharges create ideal locations for these invasive species to thrive.
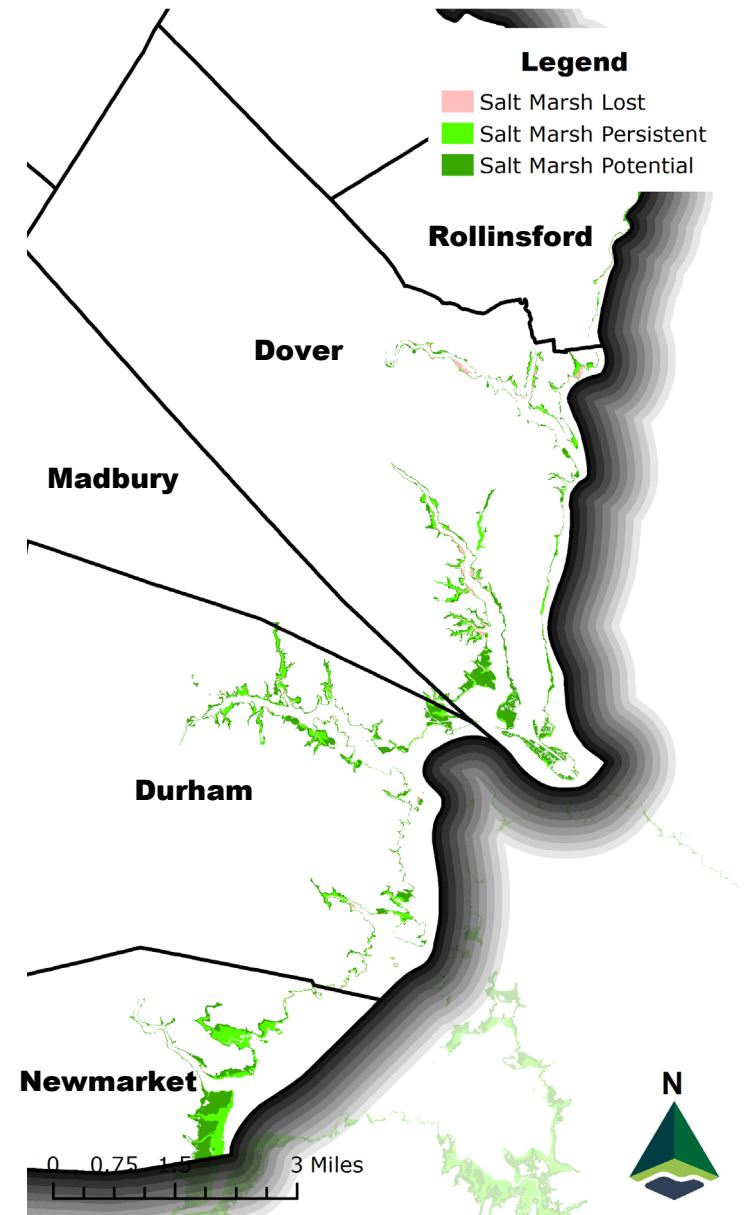
The SRPC region has not lost much salt marsh due to local conservation efforts and protected natural erosion barriers, but there are areas where the salt marsh has potential to protrude inland due to sea level rise. Because the region is largely located on the inland side of the Great Bay Estuary, the Town of Newmarket has the greatest concentration of salt marshes in the region along the mouth of the Squamscott and Lamprey Rivers. This area has a significant salt marsh that could be pushed inland due to factors listed above.

Persistent salt marshes are defined by the ability of the plant life to persist despite rising waters. These marshes must grow at or greater than the rate of sea level rise.

Status	Acres
Salt marsh lost	81.9
Salt marsh persistent	440.5
Salt marsh potential	816.8

Text - Source: New Hampshire Fish and Game. Year: 2015. Granularity: New Hampshire.
Map & Table - Source: UNH GRANIT. Year: 2014-2021. Granularity: SRPC.

Legend
- Salt Marsh Lost
- Salt Marsh Persistent
- Salt Marsh Potential

Rollinsford

Dover

Madbury

Durham

Newmarket

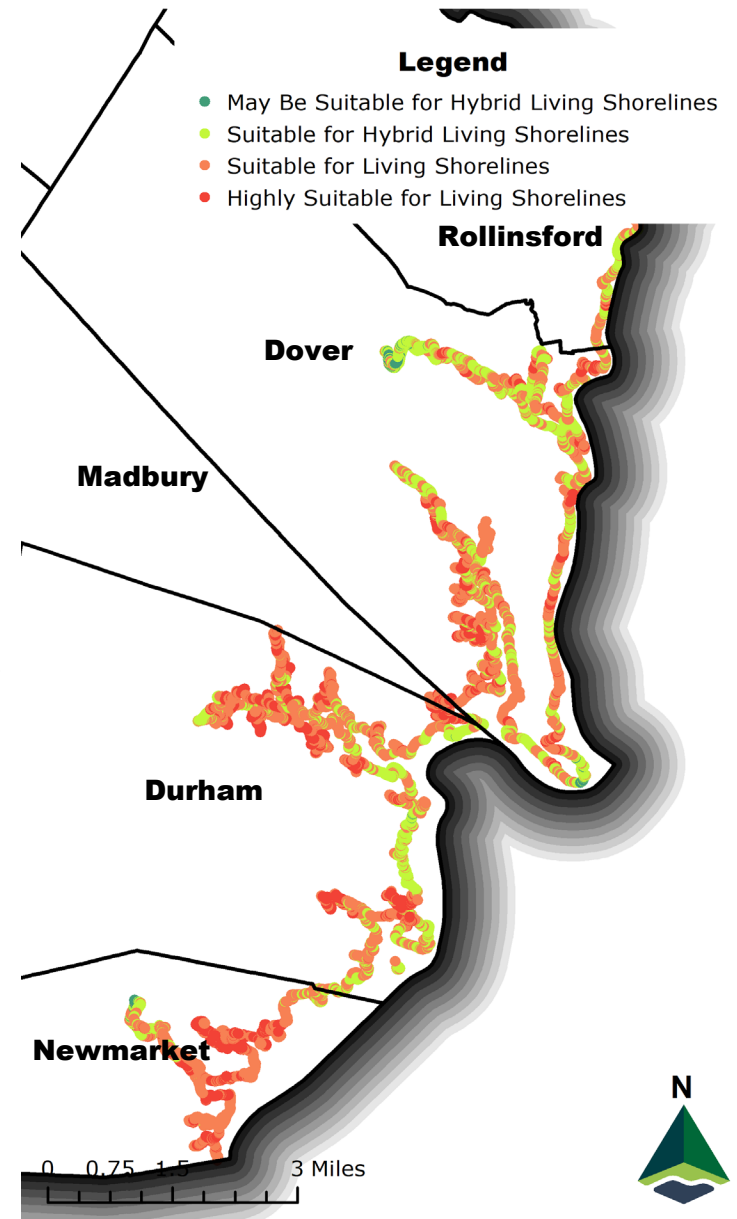0   0.75   1.5   3 Miles

N

RESILIENCY

Living Shorelines

A living shoreline is a protected, stabilized coastal edge made of natural materials such as plants, sand, or rock. Unlike a concrete seawall or other hard structure, which impede the growth of plants and animals, living shorelines grow over time. Natural infrastructure solutions like living shorelines provide wildlife habitat and natural resilience to communities near the waterfront. Living shorelines are sometimes referred to as nature-based, green, or soft shorelines. They are an innovative and cost-effective technique for coastal management to improve flood resilience.

Recent efforts are identifying a pipeline of living shoreline projects that enhance resilience of salt marsh habitat and coastal community assets and avoid future hard shoreline stabilization. However, adoption remains slow in New Hampshire, partly due to a lack of visible projects and a small community of professional engineers experienced enough to recommend projects to their clients. Momentum is mounting to advance living shoreline adoption as the preferred alternative to hard structural stabilization in coastal New Hampshire.

Eighty-two percent of the New Hampshire tidal shoreline received biophysical suitability index numbers between 4 and 6(red to light green), suggesting that the majority of the New Hampshire tidal shoreline may be suitable for no stabilization action, low impact management, or nature-based stabilization.

SRPC partners with the New Hampshire Coastal Adaption Workgroup (CAW) on the Great Bay Living Shoreline project, centered on creating more living shoreline projects in the Seacoast. More information can be found at https://www.nhcaw.org/greatbaylivingshorelineproject/

Map - Source: NHDES. Year: 2019, 2022. Granularity: New Hampshire.

Legend
- May Be Suitable for Hybrid Living Shorelines
- Suitable for Hybrid Living Shorelines
- Suitable for Living Shorelines
- Highly Suitable for Living Shorelines

Rollinsford

Dover

Madbury

Durham

Newmarket

0   0.75   1.5   3 Miles

N

Mitigation and Emergency Response

Hazard mitigation is the process of reducing or eliminating loss of life or property damage for future events. This is done by undertaking activities that will minimize the impact on the community in advance of a possible hazard. These hazards can be manmade like oil spills or gas leaks but are primarily natural phenomena such as thunderstorms and flooding. Mitigation is a key component in preventing hazards from becoming costly repairs and saving lives.

The United States government has attempted to mitigate the impact on flood-prone areas by establishing the National Flood Insurance Policy (NFIP) in 1968 to reduce future flood damage and protect property owners. The goal of the NFIP was to disincentivize property owners from buying in flood areas by paying a monthly premium. This premium was to offset the costs of a potential flood impact and to promote the property owner to follow good practices of floodplain management. All municipalities participating in the program must establish floodplain management regulations, and all SRPC municipalities participate in the NFIP. The private industry will have greater influence on flood insurance in the coming years, as is seen in many localities in Florida.

Lastly, one major "litmus test" of resilience in the past 3 years has been health care and emergency response services. The COVID-19 pandemic has pushed the whole nation to capacity as we navigate the most significant pandemic since Yellow Fever nearly 100 years ago. This section contains information about the following in the SRPC region:

1. Hazard Mitigation

2. FEMA RISK Maps

3. Emergency Response Capacities

RESILIENCY

Hazard Mitigation

Municipalities must update Hazard Mitigation plans every five years, which will enable them for mitigation funding for projects that will help reduce the loss of life and property (i.e. culvert upgrades and more). This process involves creation of a hazard mitigation committee to collect information regarding ongoing mitigation projects and procedures that may have been instituted in recent years as well as to set goals for the next five years. The map to the right shows the status of the region's Hazard Mitigation Plans. Each community is labeled with the expiration date of the current plan. Several hazard mitigation plans in the region are out of date.

Across the US, billion-dollar disaster events are becoming more common. In New Hampshire, single weather events have not yet reached the billion-dollar level, however multiple events in 1998 had a combined disaster cost of over a billion dollars for the first time in the 40 years of data. As these events become more common and widespread, it is important for New Hampshire communities to prepare now through mitigation to reduce the cost of damages to infrastructure that are inevitable for New Hampshire.

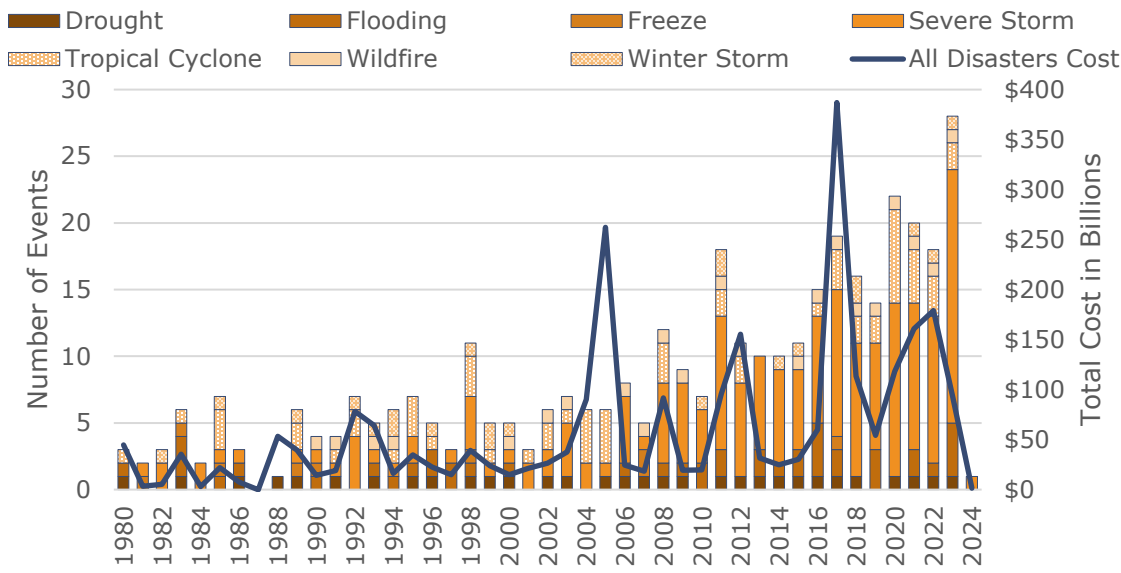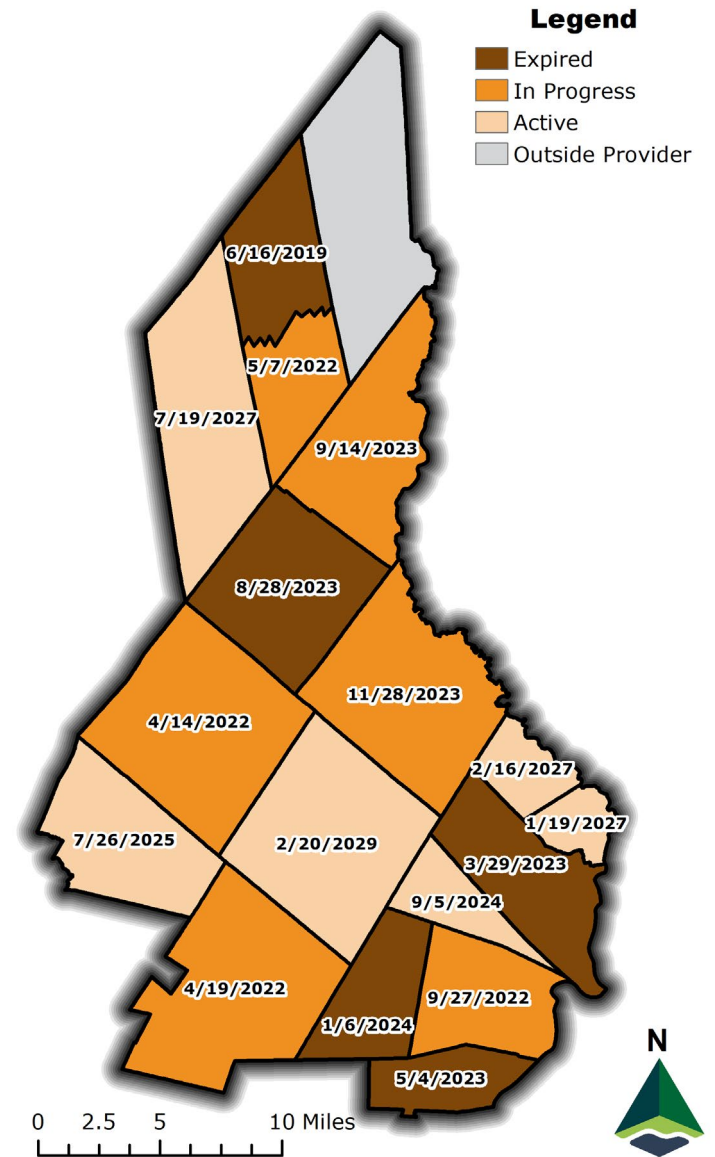## United States Billion-Dollar Disaster events 1980-2023 (CPI Adjusted)

Chart - Source: NOAA. Year: 1980-2023. Granularity: United States
Map - Source: NHHSEM. Year: 2024. Granularity: SRPC

RESILIENCY

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FEMA Hazard Risk Summary

The Federal Emergency Management Agency (FEMA) National Risk Index is a national comparative dataset that covers all towns and census tracts in the 50 states. The Risk Index can be defined as potential negative impacts caused by a natural disaster. The risk is calculated using the following equation:

Risk = Expected Annual Loss x Community Risk factor

Community Risk factor = f(social vulnerability/community resilience)

Expected Annual Loss is determined by aggregation of population and building data from block group data from the 2020 census. Determination of frequency of events was not done with a historical context and was determined by "likelihood of exposure" on a national scale. There may be some discrepancies in low-risk areas that had historical recent disasters as a results of the way the frequency of the hazards was determined. For example, Northwood had a tornado in 2008 but FEMA scored the risk as relatively low. Here are the breakdowns of each of the nationally ranked risk categories as seen on the maps:

Very High: 80th to 100th percentiles

Relatively High: 60th to 80th percentiles

Relatively Moderate: 40th to 60th percentiles

Relatively Low: 20th to 40th percentiles
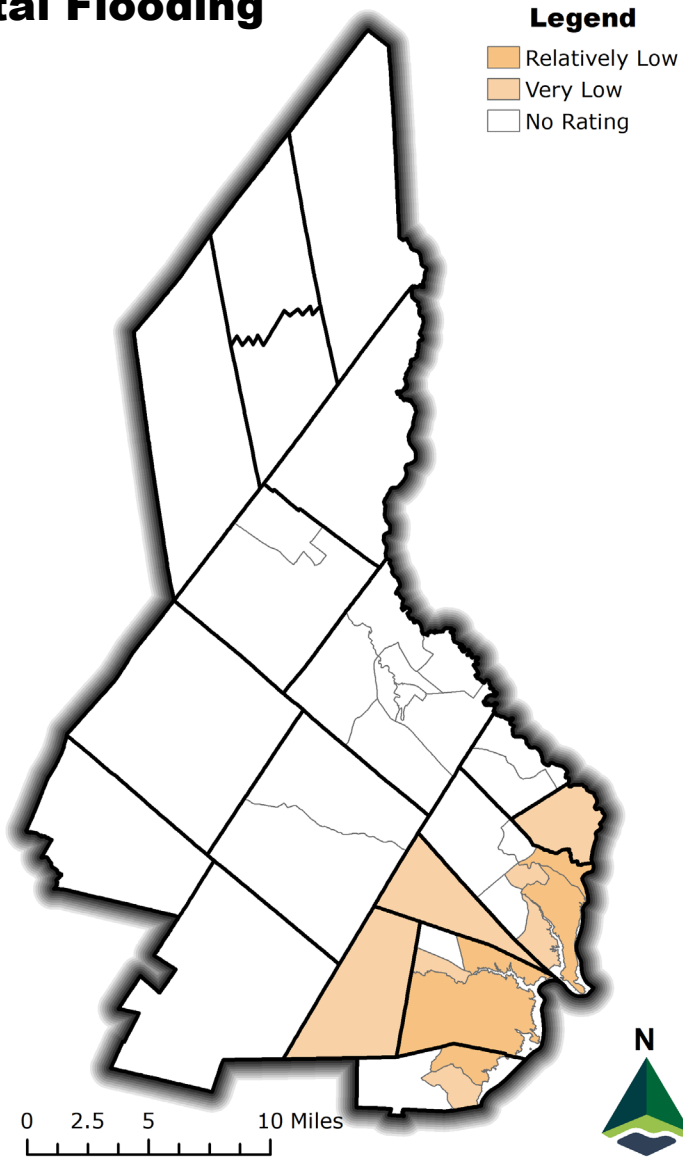
Very Low: 0th to 20th percentiles

This is valuable data that will help assist with hazard mitigation plan writing and identification. By using this data in-conjunction with historical records from previous hazard mitigation plans, we can supply our steering committees with an education base for better decision making.

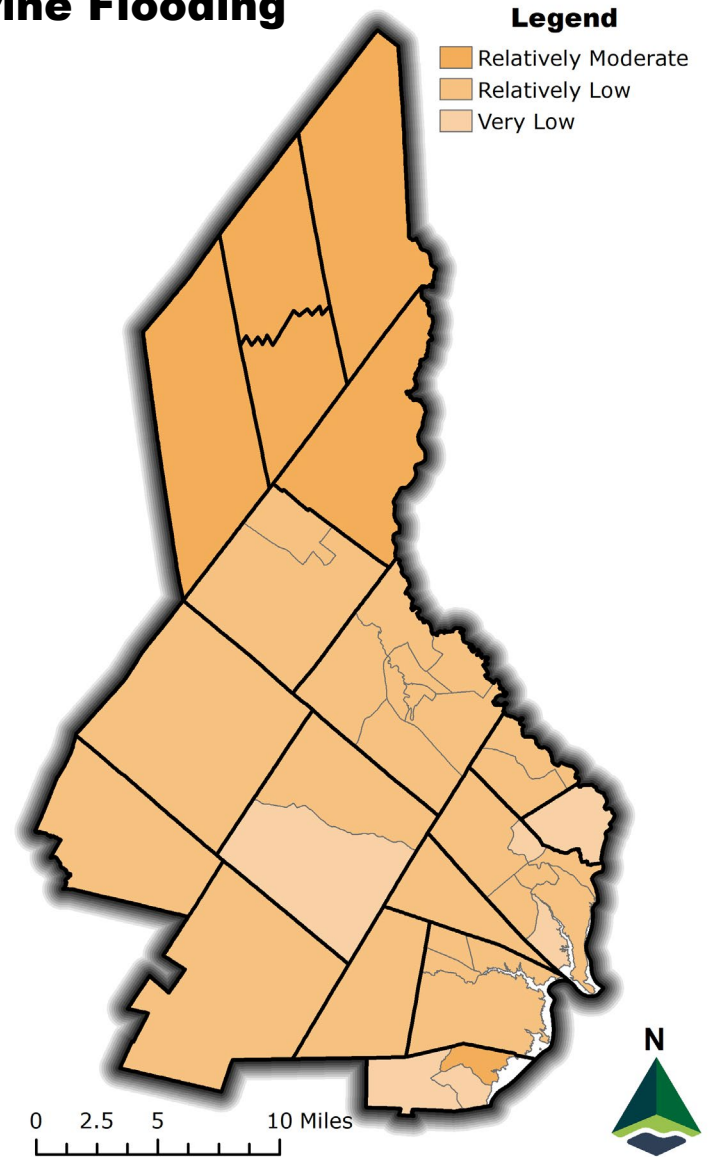For more in-depth summary of the dataset, technical documentation can be found here:
https://www.fema.gov/sites/default/files/documents/fema_national-risk-index_technical-documentation.pdf

RESILIENCY

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FEMA Hazard Risk Maps

Coastal Flooding

Legend
- Relatively Low
- Very Low
- No Rating

0   2.5   5   10 Miles

N

Riverine Flooding

Legend
- Relatively Moderate
- Relatively Low
- Very Low

0   2.5   5   10 Miles
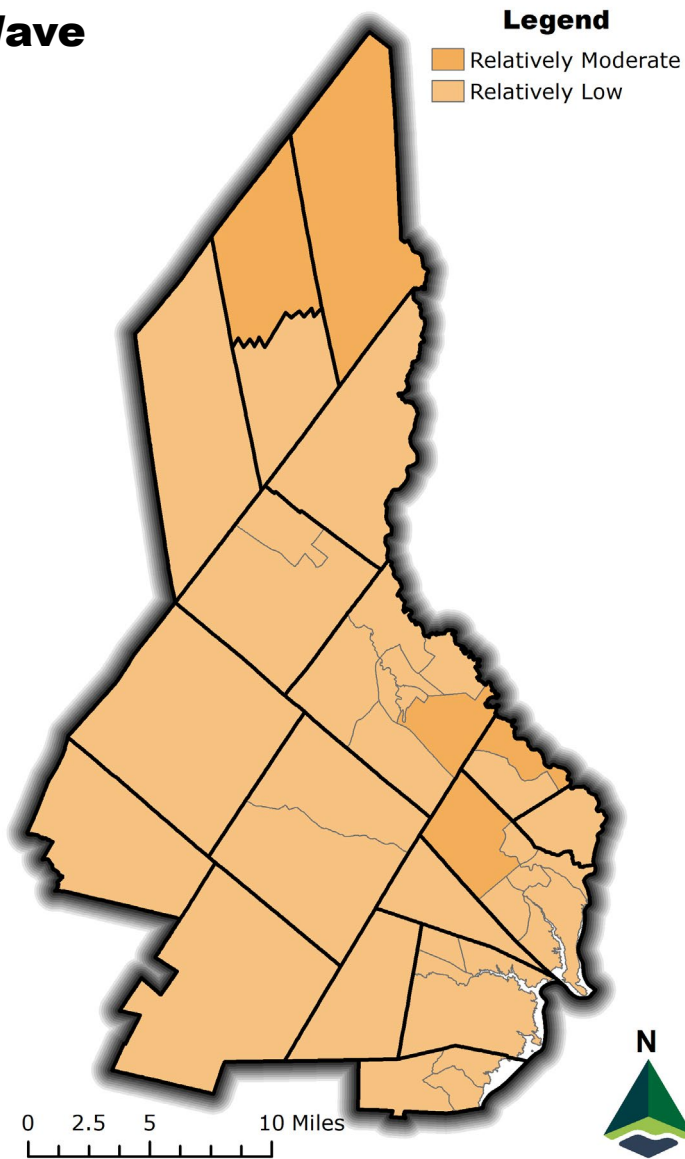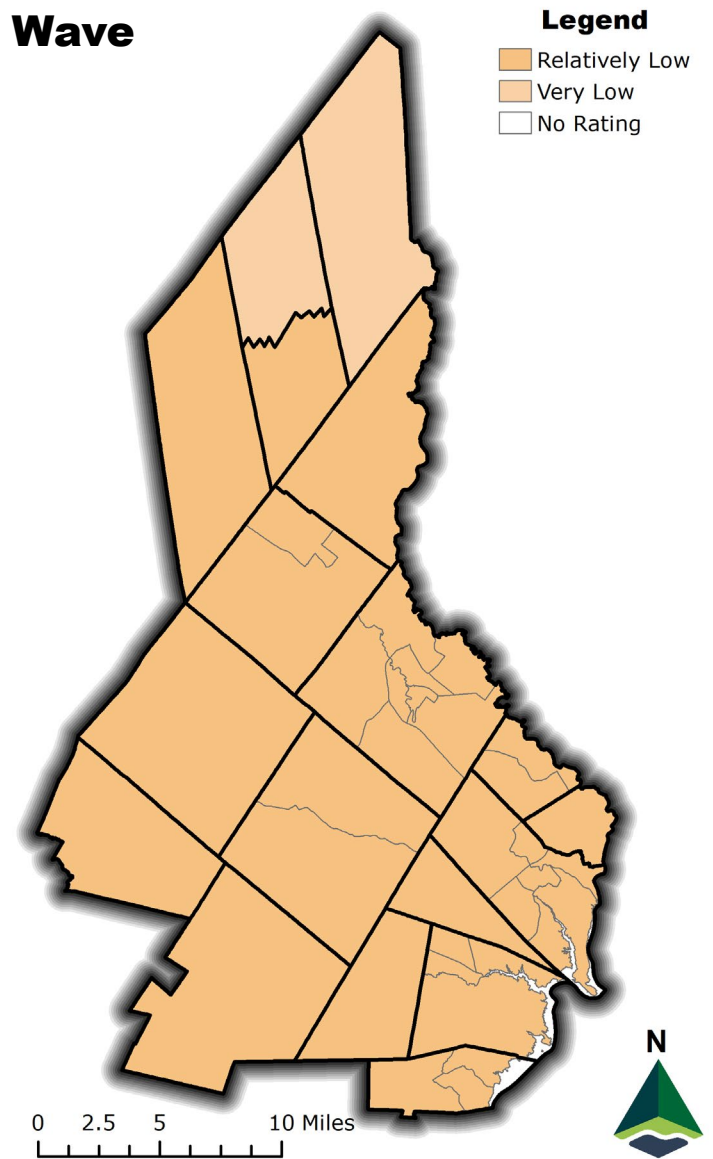
N

Map - Source: FEMA. Year: 2024. Granularity: SRPC.

FEMA Hazard Risk Maps

Cold Wave

Heat Wave

0   2.5   5   10 Miles

N

0   2.5   5   10 Miles

N

Map - Source: FEMA. Year: 2024. Granularity: SRPC.

RESILIENCY

FEMA Hazard Risk Maps

Tornados

Legend
- Relatively High
- Relatively Moderate
- Relatively Low

0   2.5   5   10 Miles

N
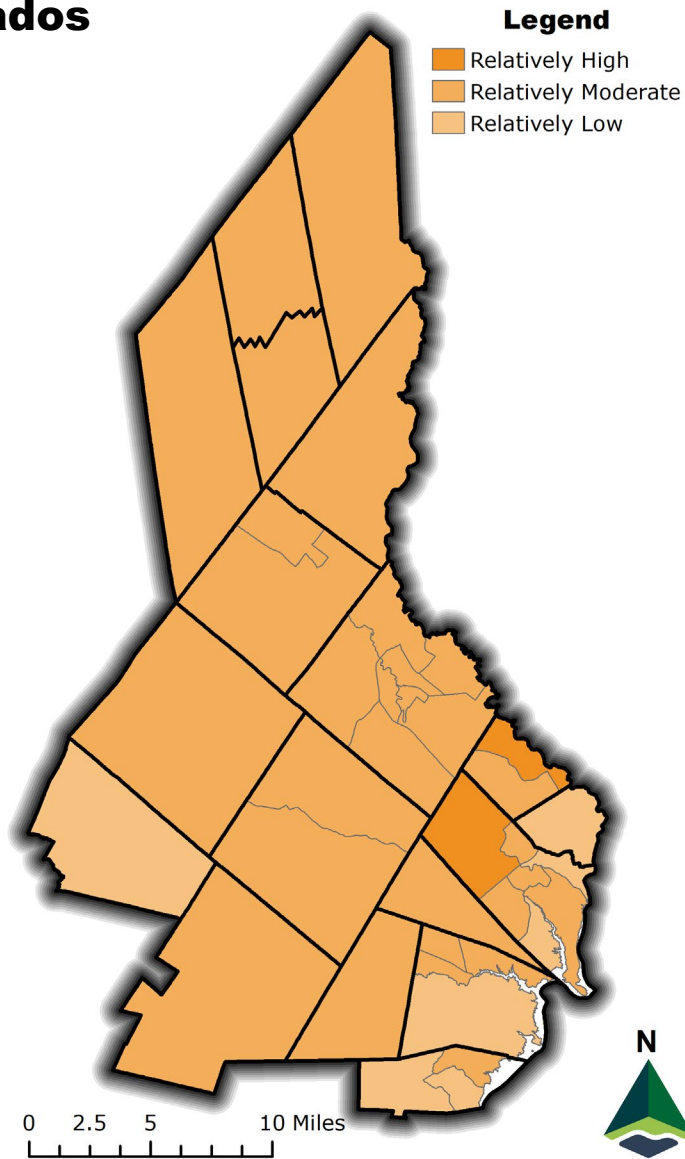
Hurricanes and Tropical Storms
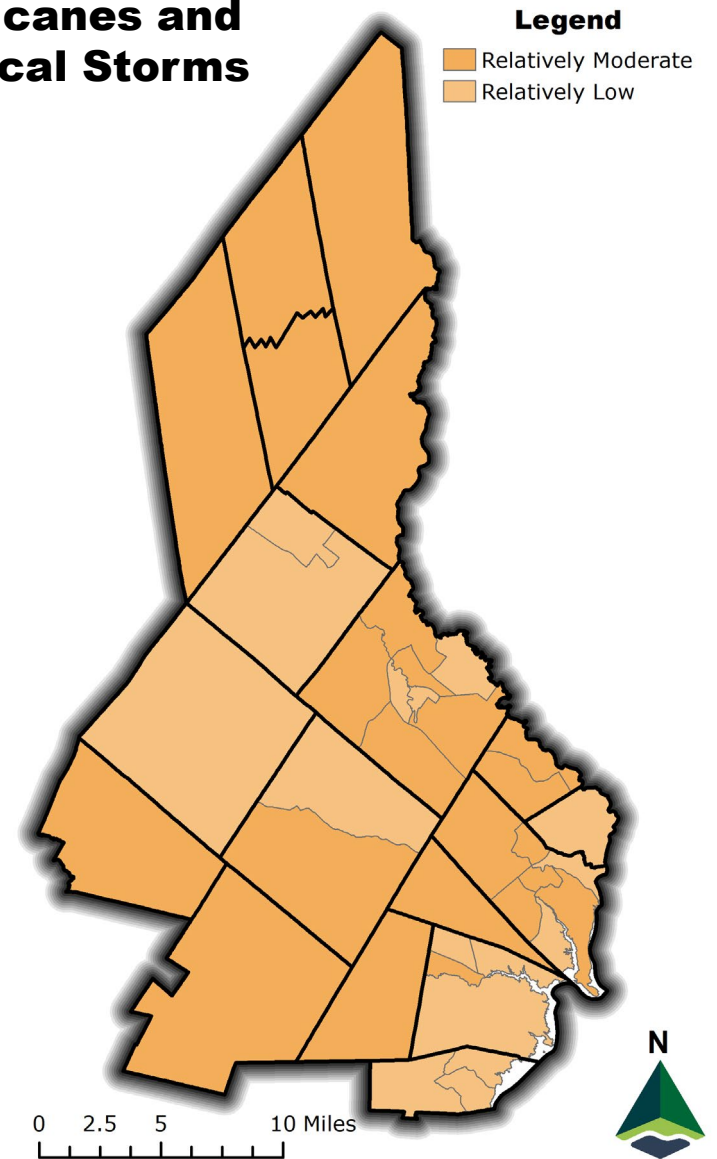
Legend
- Relatively Moderate
- Relatively Low

0   2.5   5   10 Miles

N

Map - Source: FEMA. Year: 2024. Granularity: SRPC.

FEMA Hazard Risk Maps

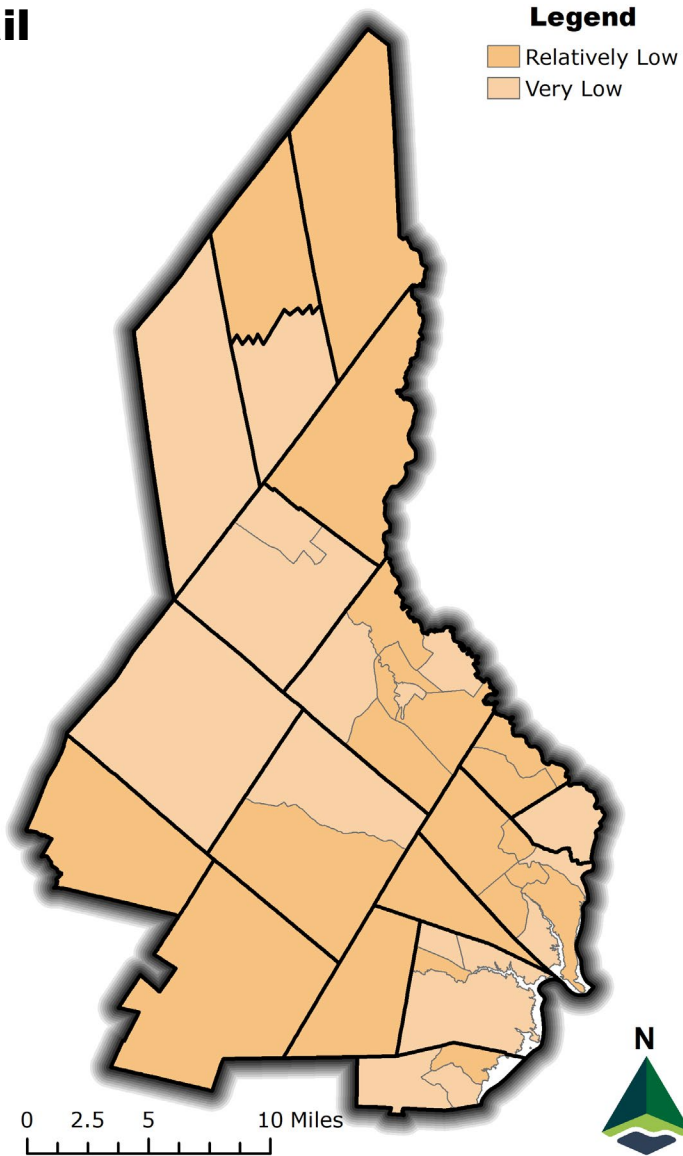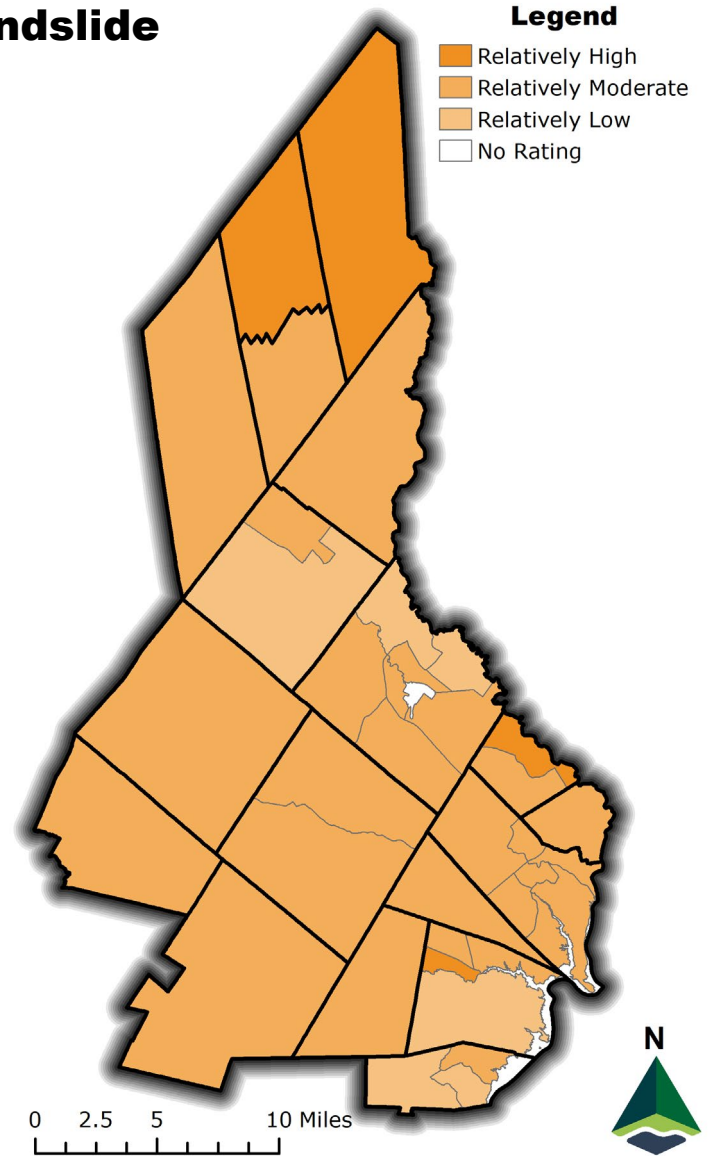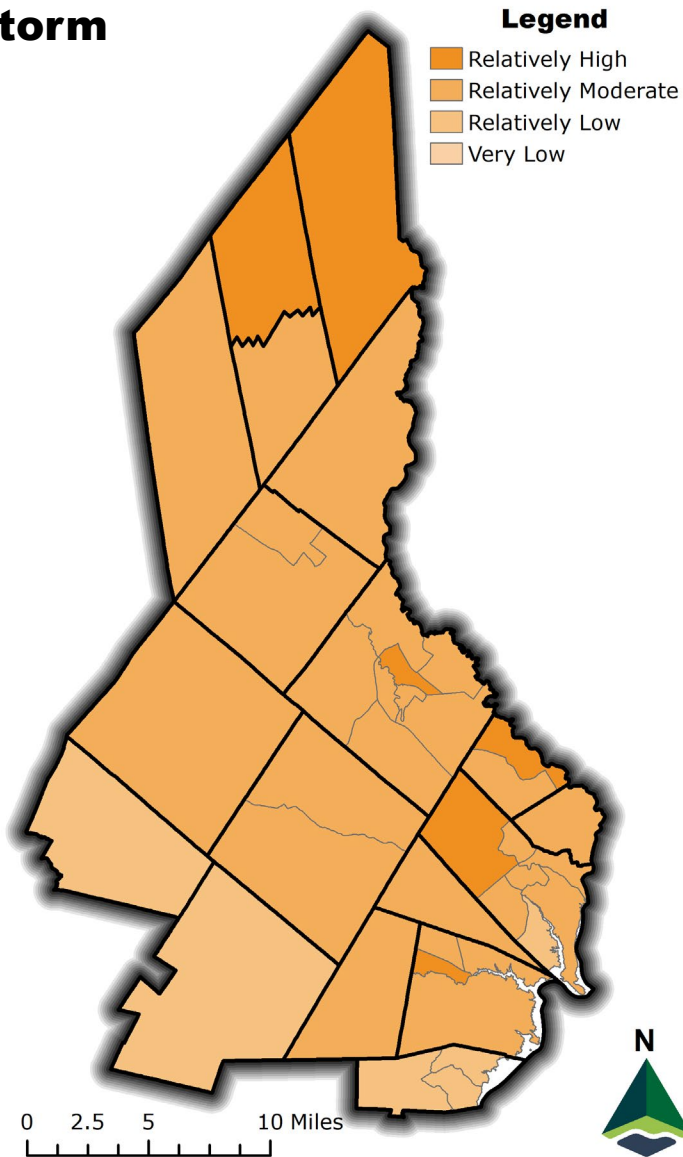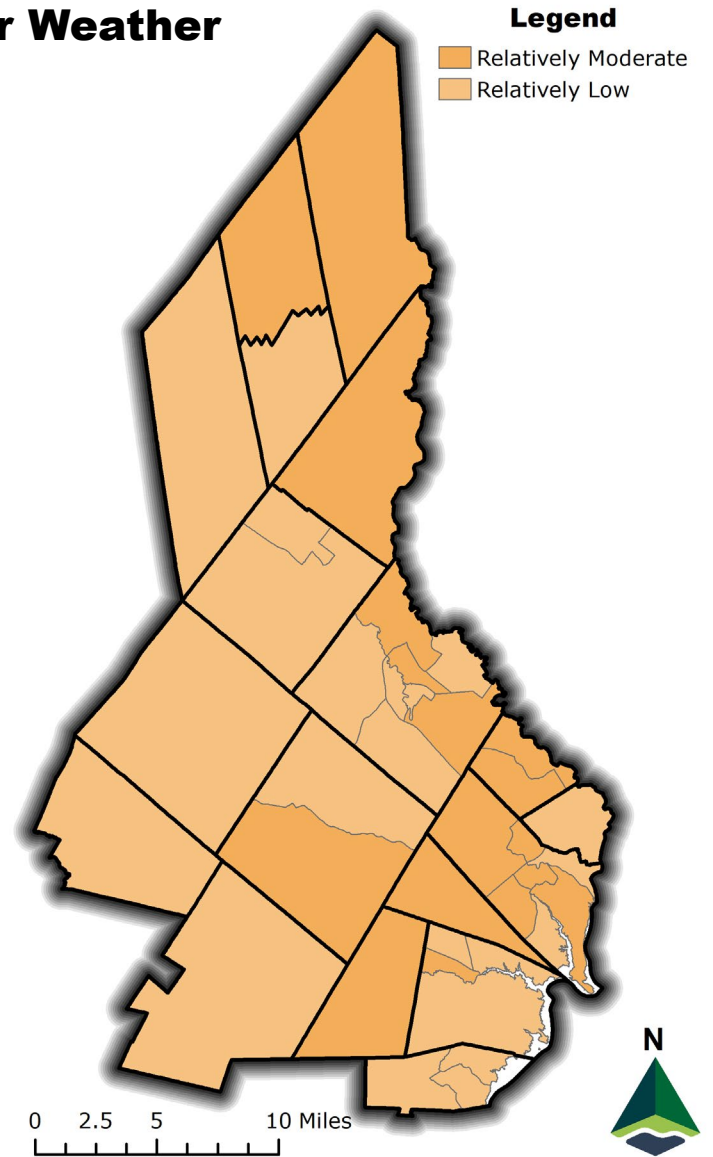Map - Source: FEMA. Year: 2024. Granularity: SRPC.

FEMA Hazard Risk Maps

Ice Storm

- Relatively High
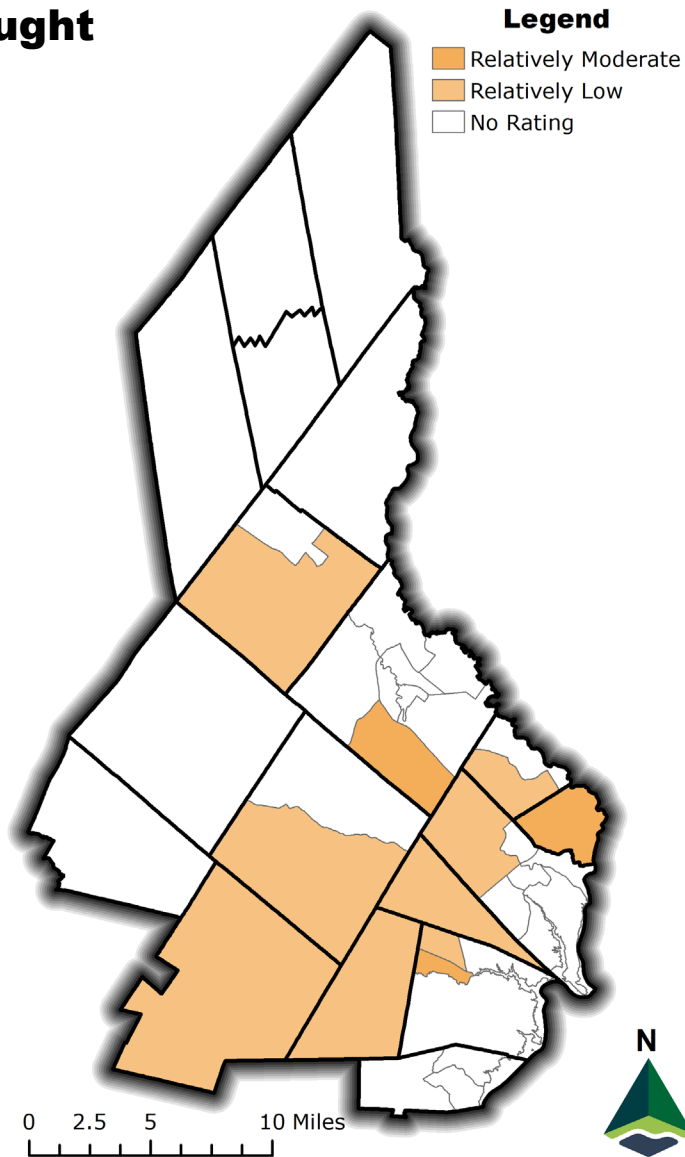- Relatively Moderate
- Relatively Low
- Very Low

0   2.5   5   10 Miles

N

Winter Weather

Legend
- Relatively Moderate
- Relatively Low

0   2.5   5   10 Miles

N

RESILIENCY

Map - Source: FEMA. Year: 2024. Granularity: SRPC.

FEMA Hazard Risk Maps

Drought

- Relatively Moderate
- Relatively Low
- No Rating

0   2.5   5   10 Miles

N

Wildfire

Legend
- Relatively Low
- Very Low

0   2.5   5   10 Miles

N

Map - Source: FEMA. Year: 2024. Granularity: SRPC.

RESILIENCY
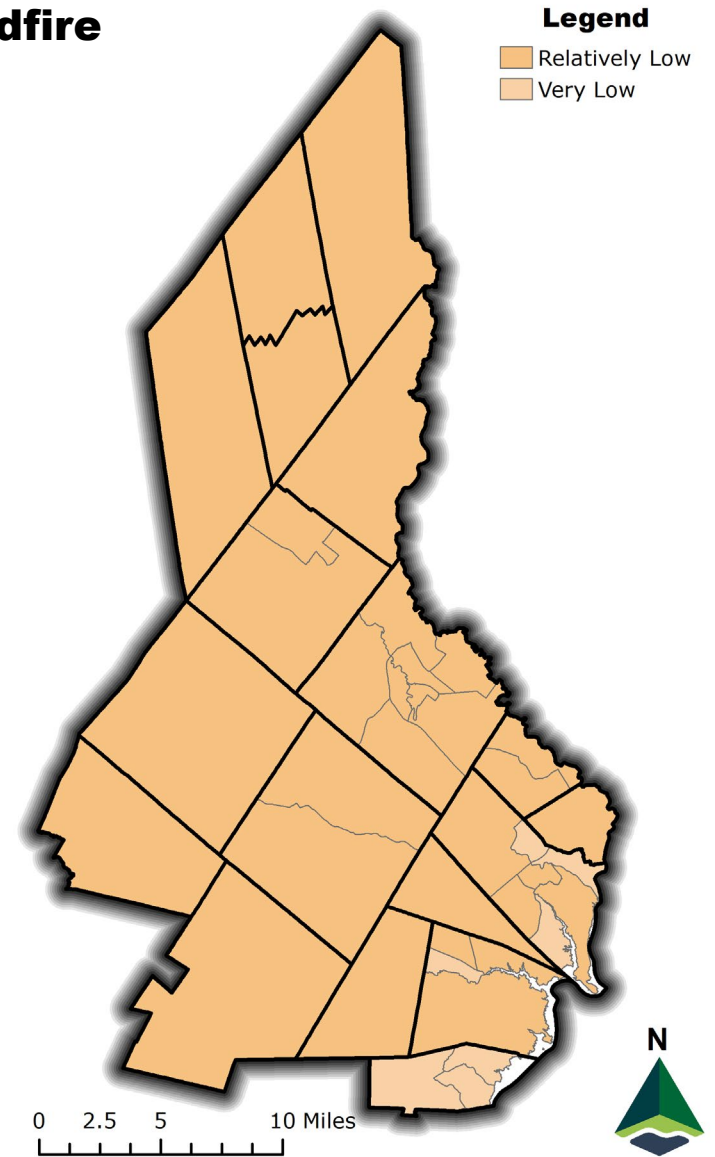
Emergency Response Capacities

During the COVID pandemic, hospitals in our region were pushed to levels of care they had not seen historically for numbers of hospitalizations and demand for beds. For example, Frisbee Memorial Hospital in Rochester was pushed to its capacity of ICU beds (6 such beds) for nine weeks straight during the fall of 2020. Case numbers fluctuated over the course of 2020-2022, especially during winter months where there were significant changes to weekly case numbers.

Wentworth Douglass Hospital in Dover has had to continuously adjust their capacity throughout the pandemic to accommodate hospitalizations for both COVID and other routine conditions.

The map on the right refers to the availability of hospital and emergency medical service locations throughout the SRPC region. There is a greater concentration and availability of emergency medical services (EMS) to the more urban southern communities as a result of population density. Each town either operates their own EMS team, enters into multi-municipal agreements, or outsources those operations to private ambulance services.

Legend
High Density
Low Density

Hospitals	Frisbee Memorial Hospital (Rochester)	Wentworth Douglass Hospital (Dover)
MAX Inpatient Beds	85	187
Used beds percentage	>20% since October 2022	>80% since October 2022
Beds Since September 2020	68	>150
ICU Beds	6	21

0   2.5   5   10 Miles

N

Table - Source: NHHHS. Year: 2024. Granularity: SRPC.
Map - Source: GRANIT. Year: 2015. Granularity: SRPC.

RESILIENCY
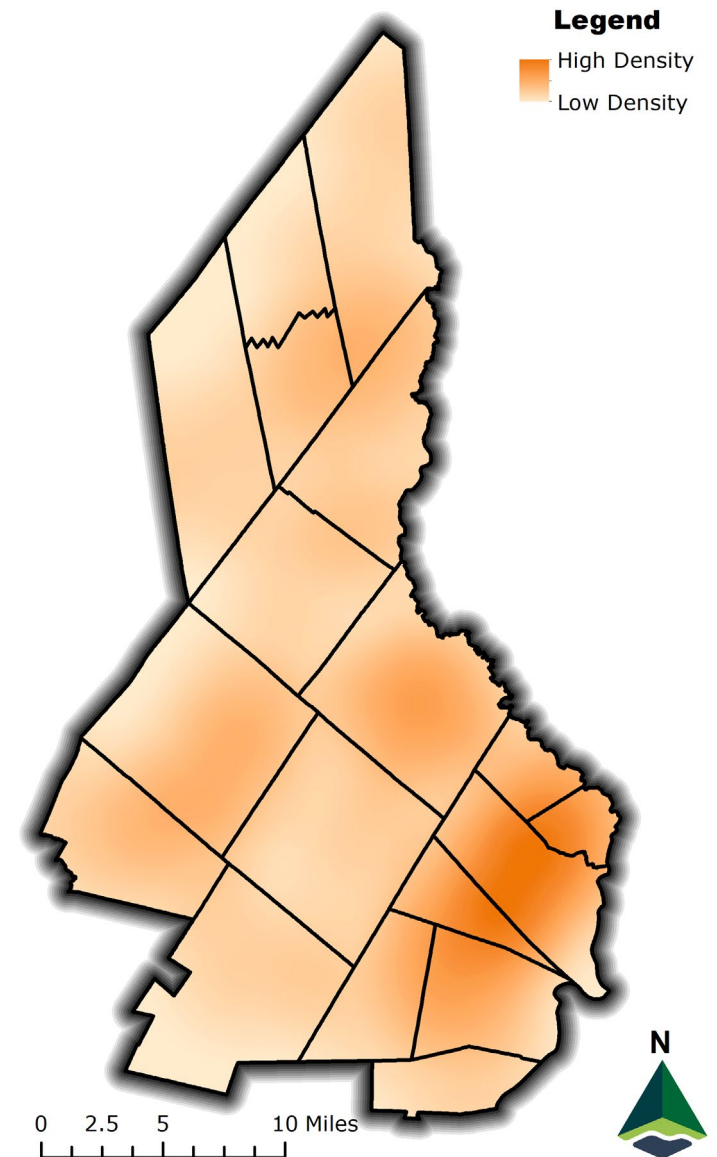
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