GREATER NEW HAVEN

Community Index 2016

Understanding Well-Being, Economic Opportunity, and Change in Greater New Haven Neighborhoods

A CORE PROGRAM OF

DataHaven

In collaboration with **The Community Foundation for Greater New Haven** and other community partners and a **Community Health Needs Assessment** for the towns served by Yale-New Haven Hospital and Milford Hospital.

The Community Foundation *for* Greater New Haven

Yale NewHaven **Health**
Yale New Haven Hospital

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MAJOR FUNDERS

DataHaven

The Community Foundation *for* Greater New Haven

Yale NewHaven Health
Yale New Haven Hospital

Other Funders

The Greater New Haven Community Index makes extensive use of the 2015 DataHaven Community Wellbeing Survey, which completed in-depth interviews with 16,219 randomly-selected adults in Connecticut last year. In addition to the major funders listed above, supporters of the survey's interviews with 1,810 adults in Greater New Haven as well as related data dissemination activities included the **City of New Haven Health Department**, **United Way of Greater New Haven**, **Workforce Alliance**, **NewAlliance Foundation**, **Yale Medical Group**, **Connecticut Health Foundation, Connecticut Housing Finance Authority**, and the **Community Alliance for Research and Engagement at the Yale School of Public Health** among others. Please see ctdatahaven.org for a complete list of statewide partners and funders.

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CHAPTER 1

Introduction

Measurements of our economy have power when they capture our attention and propel change. How do we know that they measure the quality of people's lives? For 25 years, DataHaven and its community partners have worked to find alternative methods to provide more accurate and human pictures of our neighborhoods, our neighbors, and our families.

The Gross Domestic Product (GDP) and unemployment rates were initially developed to help society distribute taxes and understand working conditions. These numbers are used today as the most powerful gauges of the current health of our economy. But they also highlight the risks of relying on single measures. GDP growth does not describe differences in economic opportunity between neighborhoods, and can underestimate the effects of long-term joblessness or the potential long-term impacts of industrial change.

For 25 years, DataHaven and its community partners have worked to find alternative methods to provide more accurate and human pictures of our neighborhoods, our neighbors, and our families. We find deep, long-term impacts of the Great Recession on families and children in Greater New Haven and Connecticut — impacts that continue today, even as measures like unemployment rates fall to recent lows. Data reveal a community with resilient cities and towns where people love to live and where residents are in good health. They also paint a picture of great variability, in which opportunities to achieve an optimal level of health and happiness differ dramatically from one zip code to another. This demands the attention of all who seek to secure our region's long-term prosperity.

DataHaven's 2013 Greater New Haven Community Index introduced a new measure of well-being for our region, incorporating information related to financial security, quality of life, health, and youth opportunity. Community members, academic partners, health care providers, and government officials provided input into the selection of what to include in the Index. Overall, our region scored well relative to other large metropolitan areas, but well-being was not shared equally. Most suburban towns and prosperous neighborhoods within the city of New Haven were well above the national average, faring as well as the highest-ranked metropolitan areas in the nation — but neighborhoods just a few blocks away scored near the bottom of the Index.[1]

Using unprecedented new sources of data on quality of life in our region, this 2016 report helps us compare our neighborhoods and towns with other areas throughout Connecticut. We also look closely at what has changed or not changed over time. While many individual findings might not be surprising, they provide windows allowing us to focus on how neighbors and neighborhoods are doing. Where do we succeed and where do we fail?

We hope that you dig into the details and find issues that matter to you. We invite you to share these stories with family, friends, and neighbors and discuss what needs to be done. As we move forward, we welcome the wisdom of your advice and encourage your new or continued involvement.

Mark Abraham, Executive Director, DataHaven

About the Document

We do not claim that the Greater New Haven Community Index is comprehensive; it is a work in progress that we intend to add to over time based on input from readers and regional partners. While some of the topics here have been the subject of other studies, we believe that there has never been a program that attempted to synthesize all of them into a single report on the interrelationship of quality of life, health, and economic competitiveness of Greater New Haven and its individual towns and neighborhoods. We

believe that this single-source approach is effective because it creates an inclusive, approachable product and allows readers and partners to see how the work they do across different sectors contributes to a broader whole.

After gathering feedback from readers of our 2013 Greater New Haven Community Index, we developed this updated report based on an extensive analysis of information gathered directly from local residents in 2015 and 2016. Data collection included focus groups, as well as in-depth, live cell phone and landline interviews with randomly-selected adults (1,810 living in the 13 towns of Greater New Haven and 16,219 living statewide) during the landmark **DataHaven Community Wellbeing Survey**. The Index also draws upon secondary data produced by dozens of agencies and organizations, including the U.S. Census Bureau, Connecticut state agencies, and the Connecticut Hospital Association. Care was taken to ensure that all persons living in Greater New Haven, regardless of age, gender, race, ethnicity, national origin, or other demographic characteristics, would be represented within these sources of information. All data sources are documented in Chapter 5.

This report is designed to meet Yale-New Haven Hospital's and Milford Hospital's individual IRS requirements in Form 990 Schedule H and Notice 2011-52 that discuss the creation of a **Community Health Needs Assessment (CHNA)**, as well as to meet the similar needs of local health departments as part of a national accreditation process. This report's **health chapter (Chapter 3)** is intended to document key health needs in the communities served by all of the hospitals, while using a unified approach to reach the broadest possible audience. **An additional CHNA chapter** has been created separately based on the work of the Healthier Greater New Haven Partnership, a multi-agency community-hospital coalition which represents the primary service area of the hospitals. The additional chapter contains details on community needs that were identified within each town and selected adjacent areas, and documents the process used to conduct the community health needs assessments within each area including the production of the main Community Index report. The chapters discuss the **Community Health Improvement Plan** which is being developed and updated within the region. Like the main report, the chapters have benefited from input from dozens of local public health experts. The additional chapter may be found on the individual hospital or DataHaven website when finalized.

GEOGRAPHY

In this report and the additional CHNA chapter, Greater New Haven is generally defined as 13 towns: the city of New Haven, the Inner Ring suburbs (East Haven, Hamden, West Haven), and the Outer Ring suburbs (Bethany, Branford, Guilford, Madison, Milford, North Branford, North Haven, Orange, Woodbridge). In some cases, data are also presented for specific neighborhoods or groups of neighborhoods within New Haven.

In 2016, DataHaven and partner organizations have also published separate reports that cover the adjacent Lower Naugatuck Valley and Fairfield County regions (see website for details).

Measuring How Communities Shape Well-Being

Using our unprecedented statewide survey plus U.S. Census Bureau data, DataHaven constructed concise indicators to illustrate the connection between communities and individuals. More than 16,000 randomly-selected adults living throughout Connecticut participated in the 2015 DataHaven Community Wellbeing Survey (CWS). The survey's questions on health, happiness, and quality of life help us create an understanding of how people evaluate and experience day-to-day life.

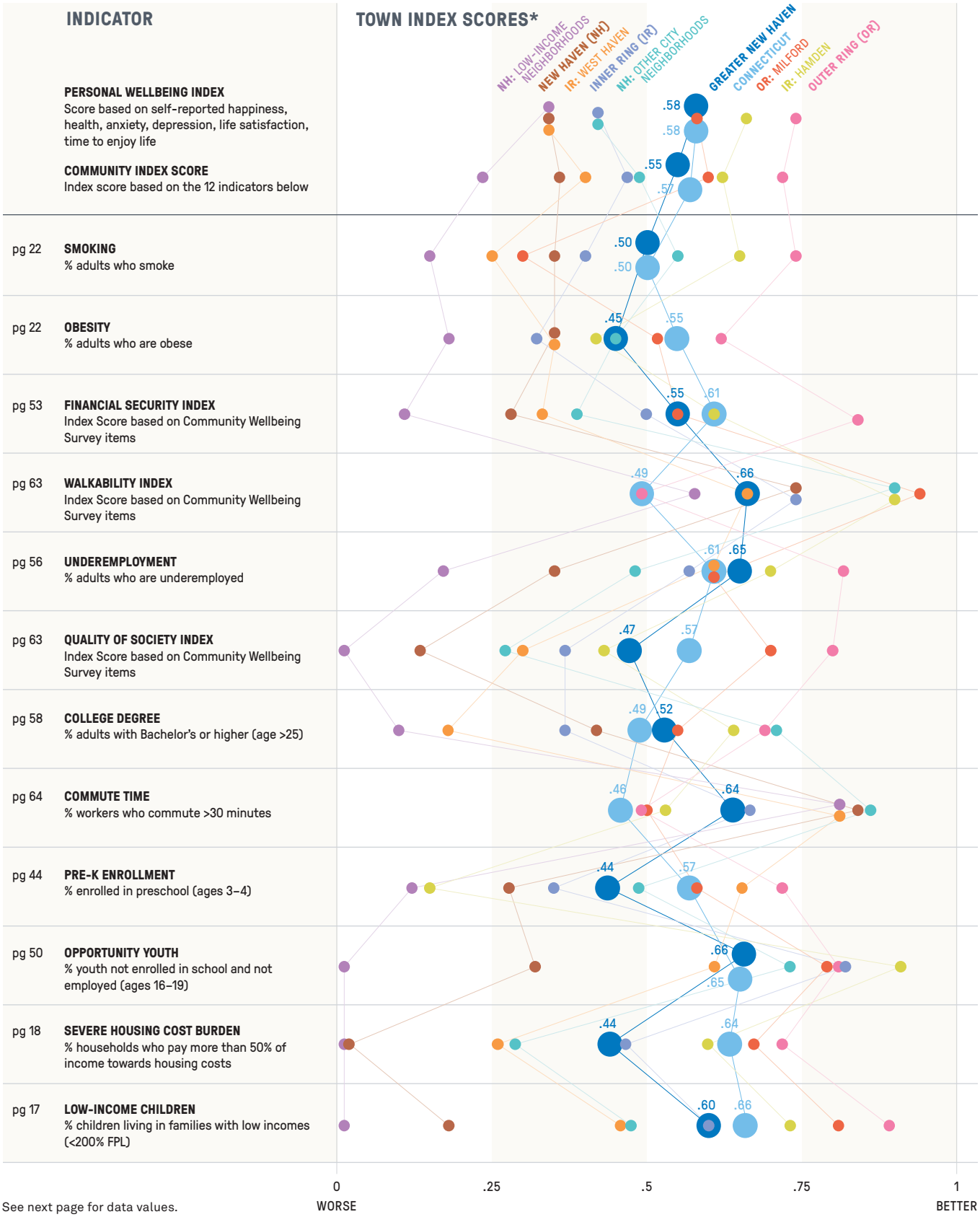
Designed by a panel of local and national experts and drawn from well-known surveys in the United States and United Kingdom, the CWS included a series of questions that are regularly used to evaluate personal well-being:

- How would you rate your overall health?
- How satisfied are you with your life nowadays?
- How happy did you feel yesterday?
- How anxious did you feel yesterday?
- Overall, to what extent do you have the time you need to do things that you really enjoy?
- During the last month, how often have you been bothered by feeling down, depressed, or hopeless?
- Do you have relatives or friends who you can count on to help you when you need them?

Meanwhile, we developed a broader Community Index that includes Census data plus survey participants' perceptions of what life was like in their communities. These indicators seek to capture

1.1

Personal Wellbeing Index and Community Index



* See next page for data values.

ABOUT THE INDICES

Part of what makes this study unique is that we approach well-being from both the individual and community-wide angles. Community well-being — a neighborhood's shared assets and strengths, and the feeling of trust and cohesiveness between its residents — impacts the personal well-being of residents. Healthy communities are made up of individuals who feel safe and included, have access to opportunities, and are civically engaged.[2] We used residents' evaluations of their own physical and mental health, happiness, personal relationships, and life satisfaction to create a Personal Wellbeing Index. We also identified 12 key indicators of community well-being, which collectively form our Community Index.

The chart gives a visual overview of index scores by indicator. Higher scores are better, and are based on how each geographic area compares to a wide distribution of neighborhoods throughout Connecticut. The table provides the actual data values for comparison. Page numbers link to additional analysis of each indicator.

Index scores are normalized so that all range from 0 to 1, with 1 representing the preferred (better) outcome. Each town or neighborhood is compared to a large sample of Connecticut zip codes. A town with a score of 1 for an indicator means it performed as well as the top 95th percentile of the zip codes, while a score of 0 indicates the town fits in the bottom 5th percentile for that indicator. Actual values for individual community indicators (described in more detail on the previous page) are shown in the table.

the physical and social environments that people live in — including measures of community-wide health, infrastructure, education, and economics.

Certain indicators in the community index appear personal, but have social components. Obesity is a prime example. To some extent obesity is under an individual's control, but public health research suggests it can spread through social networks and also is influenced by the environment in which one lives."[3,4]

Greater New Haven's extensive economic, educational, cultural, and health-related assets could translate into a high quality of life for all residents. Yet, levels of well-being are not evenly distributed across communities or neighborhoods, even within the same town. The indices here highlight these differences. We often find correlations between community well-being and personal well-being, with happier, more satisfied residents often living in neighborhoods with stronger indicator scores and less satisfied residents in neighborhoods with weaker scores. Studying both these measures together allows us to better understand the interplay between community strength and individual health and happiness.

The aspiration of this report is that data will reveal the hidden features of our communities and provide a starting point for action of community leaders and policymakers. The indices shown here preview what follows.

1.2

Community Index Components Data Values

	PERSONAL WELL-BEING INDEX	COMM-UNITY INDEX	SMO-KING	OBE-SITY	FINANCIAL SECURITY INDEX	WALKA-BILITY INDEX	UNDER EMPLOY-MENT	QUALITY OF SOCIETY INDEX	COLLEGE DEGREE	COM-MUTE TIME	PRE-K ENROLL-MENT	OPPOR-TUNITY YOUTH	SEVERE HOUSING COST BURDEN	LOW INCOME CHILDREN
Connecticut	**0.58**	**0.57**	15%	26%	0.61	0.49	14%	0.57	37%	34%	64%	6%	18%	30%
Greater New Haven	**0.58**	**0.55**	15%	29%	0.55	0.66	13%	0.47	39%	29%	59%	5%	21%	34%
New Haven	**0.34**	**0.36**	18%	32%	0.28	0.74	20%	0.13	34%	24%	53%	10%	30%	61%
Low-income neighborhoods	**0.34**	**0.23**	22%	37%	0.11	0.58	22%	0.01	17%	25%	47%	14%	35%	75%
Other city neighborhoods	**0.42**	**0.49**	14%	29%	0.39	0.90	17%	0.27	48%	24%	61%	4%	24%	42%
Inner Ring	**0.42**	**0.47**	17%	33%	0.50	0.74	15%	0.37	31%	29%	56%	3%	21%	34%
Hamden	**0.66**	**0.62**	12%	30%	0.61	0.90	12%	0.43	45%	32%	48%	2%	18%	25%
West Haven	**0.34**	**0.40**	20%	32%	0.33	0.66	14%	0.30	21%	25%	67%	6%	25%	43%
Outer Ring	**0.74**	**0.72**	10%	24%	0.83	0.49	9%	0.80	47%	33%	70%	3%	16%	14%
Milford	**0.58**	**0.60**	19%	27%	0.55	0.94	14%	0.70	40%	33%	64%	4%	17%	20%

See Figure 1.1 for a definition of each component

State Rankings

Connecticut compares well to other states on well-established national rankings of community well-being and economic opportunity. When created by respected organizations in a valid way, these types of rankings can help bring context to any discussion of regional issues. However, regional or citywide trends can be misleading, because even as a city improves, conditions within its most disadvantaged neighborhoods may be getting worse. Throughout this report, we have drilled down into the statewide and region-wide data by town, neighborhood, and demographic group to assess how specific communities fare on measures of well-being and opportunity. DH

1.3

State Rankings

NEIGHBORING STATE RANKINGS FOR COMPARISON

REPORT (YEAR) — PUBLISHER	CT	MA	RI	NY	NJ
Measure of America (2013–2014) — Social Science Research Council Composite ranking of life expectancy, education and median earnings	1	2	14	8	3
State Equality Index (2015) — Human Rights Campaign Places states in one of four categories based on their LGBT-related legislation and policies (From best to worst: Working Toward Innovative Equality (WTIE), Solidifying Equality (SE), Building Equality (BE), and High Priority to Achieve Basic Equality (HPABE)	1	8	14	8	8
State Integrity Investigation (2015) — The Center for Public Integrity Grading based on the laws and systems states have in place to deter corruption	3	11	5	31	19
Opportunity Index (2015) — Measure of America and Opportunity Nation Composite measure of economic, educational, and civic factors that expand opportunity	3	2	25	15	6
Bloomberg State Innovation Index (2016) — Bloomberg Scored states on R&D intensity, productivity, high-tech density, concentration STEM employment, science and engineering degree holders, and patent activity	5	1	14	17	4
Quality Counts (2016) — Education Week Ranks states on three indices developed by the Education Week Research Center, including factors such as the role education plays in career outcomes, academic performance, and school finances	5	1	13	9	2
America's Health Rankings (2015) — United Health Foundation Study of health behaviors, environmental and social barriers to health, health care and disease risk	6	3	14	13	11
State Energy Efficiency Scorecard (2015) — ACEEE Assessment of policies and programs that promote energy efficiency	6	1	4	9	21
Kids Count (2015) — Annie E. Casey Foundation Composite index of children's economic security, education and health	6	3	31	28	8
New Economy Index (2014) — Information Tech & Innovation Fdn (ITIF) Index of digital economy, economic dynamism and global integration	8	1	19	12	10
State Technology and Science Index (2014) — Milken Institute Study of economic performance in technology and science	9	1	13	11	16
State Long-Term Services and Supports Scorecard (2014) — AARP Measures systems that help older people and adults with disabilities	12	18	38	25	26
State of American Wellbeing (2015) — Gallup Composite score based on happiness, emotional health, economic wellbeing and other topics	18	30	26	40	32
Volunteer Rate Rankings (2014) — Corporation for National & Community Service Ranking based on average volunteer rates	20	33	38	50	45
Assets & Opportunity Scorecard (2016) — Corporation for Enterprise Development Ranking based on 67 outcome measures to assess the financial security and economic opportunity of U.S. households, including categories such as financial assets and income, business and jobs, housing and homeownership, healthcare, and education	23	14	35	32	25
Average ranking among all 50 U.S. states	**8**	**9**	**20**	**21**	**16**

CHAPTER 2

A Changing Region

An Introduction to the Chapter

- In Greater New Haven, 42 percent of both African-American children and Latino children live in poor neighborhoods – those where the average family income (AFI) is less than half the state AFI. Just 3 percent of white children live in poor neighborhoods.
- From 2005 to 2014, the number of households that were severely cost-burdened (paying more than half of their total income towards housing costs) rose by 16 percent in New Haven County.

THE GREATER NEW HAVEN POPULATION

Population and Growth

In 2014, Greater New Haven had a total population of 465,200. New Haven, the most populous and densest of the 13 towns, is the region's major city. Hamden, East Haven, and West Haven surround the city and are considered to be "inner ring" suburbs; some parts of the Inner Ring have population and density characteristics that are similar to city neighborhoods. The other towns form the region's "Outer Ring."[5]

Since 1990, the region's population increased by 7 percent, at a rate slower than Connecticut's population overall (up 9 percent). Every town in the region grew in population; Hamden grew the most, adding more than 9,100 people and Madison grew the fastest, at a population growth rate of 18 percent. As a whole, the Outer Ring towns grew faster than the city or Inner Ring from 1990 to 2014.[6]

Recently, however, the city and Inner Ring have experienced growth; New Haven gained 6,900 people — more than any other town in the region — from 2000–14.[7] Over this period, New Haven, Hamden, and West Haven grew at faster rates than the regional level, while many of the Outer Ring towns had near-zero or negative population growth.

Age Groups and Aging

In Greater New Haven between 1990 and 2014, the number of young adults (ages 18–34) decreased by 11 percent, or 13,850 people, and the population of children (ages 0–17) grew by just 1,000. Meanwhile, the older age groups increased in size; the population of middle-aged adults (ages 35–64) grew the fastest, at a rate of 22 percent (+33,600 people).

Fewer young people and more aging adults have made the total region population older in general, trends that mirror the statewide changes. The growth in older adults is due to Baby Boomers, who began turning 65 in 2011, and is occurring nationally and internationally.[8] This trend had the largest impact on Outer Ring suburbs, which have seen a significant increase in median age since 1990; for example, the median age in Branford rose from 41 in 2000 to 48 today.

From 1990 to 2014, the city of New Haven experienced population loss in every age group except for middle-aged adults. However, its median age (31) is still much younger than that of other towns, and in recent years the city has witnessed an increase in the number of young adults and preschool-age children living there. The Inner Ring also had decreasing populations of young and older adults, but the numbers of children and middle-aged adults grew. The Outer Ring towns, on average, had increasing numbers of children, middle-aged adults, and older adults; however, the number of young adults living there decreased.[9]

Over the next decade, older adults (ages 65 and over) are projected to be the only group to increase significantly in size. From 2014 to 2025, the older adult population will grow by 43 percent, or 30,100.[10] This trend will have a major impact on all towns within the region. (FIG 2.2)

Racial/Ethnic Groups and Increasing Diversity

In 2014, 35 percent of Greater New Haven residents identified as racial or ethnic minorities compared to 21 percent in 1990. Over this period, the minority population increased by 73,200 individuals, up 80

2.1

Population and Growth in Greater New Haven

POPULATION IN GREATER NEW HAVEN AND TOWNS, 1990–2014

	TOTAL POPULATION 1990	TOTAL POPULATION 2014	PERCENT CHANGE 1990–2014	DENSITY, 2014 POP. PER SQUARE MILE	MEDIAN AGE 2000	MEDIAN AGE 2014	MEDIAN CHANGE
United States	248,709,873	**314,107,084**	26%	91	35	37	+2
Connecticut	3,287,116	**3,592,053**	9%	742	37	40	+3
Greater New Haven	436,552	**465,227**	7%	1,528	--	--	--
Bethany	4,608	**5,546**	20%	262	41	45	+4
Branford	27,603	**28,066**	2%	1,286	41	48	+7
East Haven	26,144	**29,139**	11%	2,369	39	43	+4
Guilford	19,848	**22,405**	13%	475	42	48	+6
Hamden	52,434	**61,605**	17%	1,887	38	38	+0
Madison	15,485	**18,284**	18%	506	41	47	+6
Milford	49,938	**53,039**	6%	2,391	39	44	+5
New Haven	130,474	**130,553**	0%	6,989	29	31	+2
North Branford	12,996	**14,387**	11%	581	39	46	+7
North Haven	22,247	**23,997**	8%	1,151	42	46	+4
Orange	12,830	**13,947**	9%	812	43	45	+2
West Haven	54,021	**55,290**	2%	5,143	36	36	+0
Woodbridge	7,924	**8,969**	13%	477	43	47	+4

2.2

The Changing Age Structure of Greater New Haven

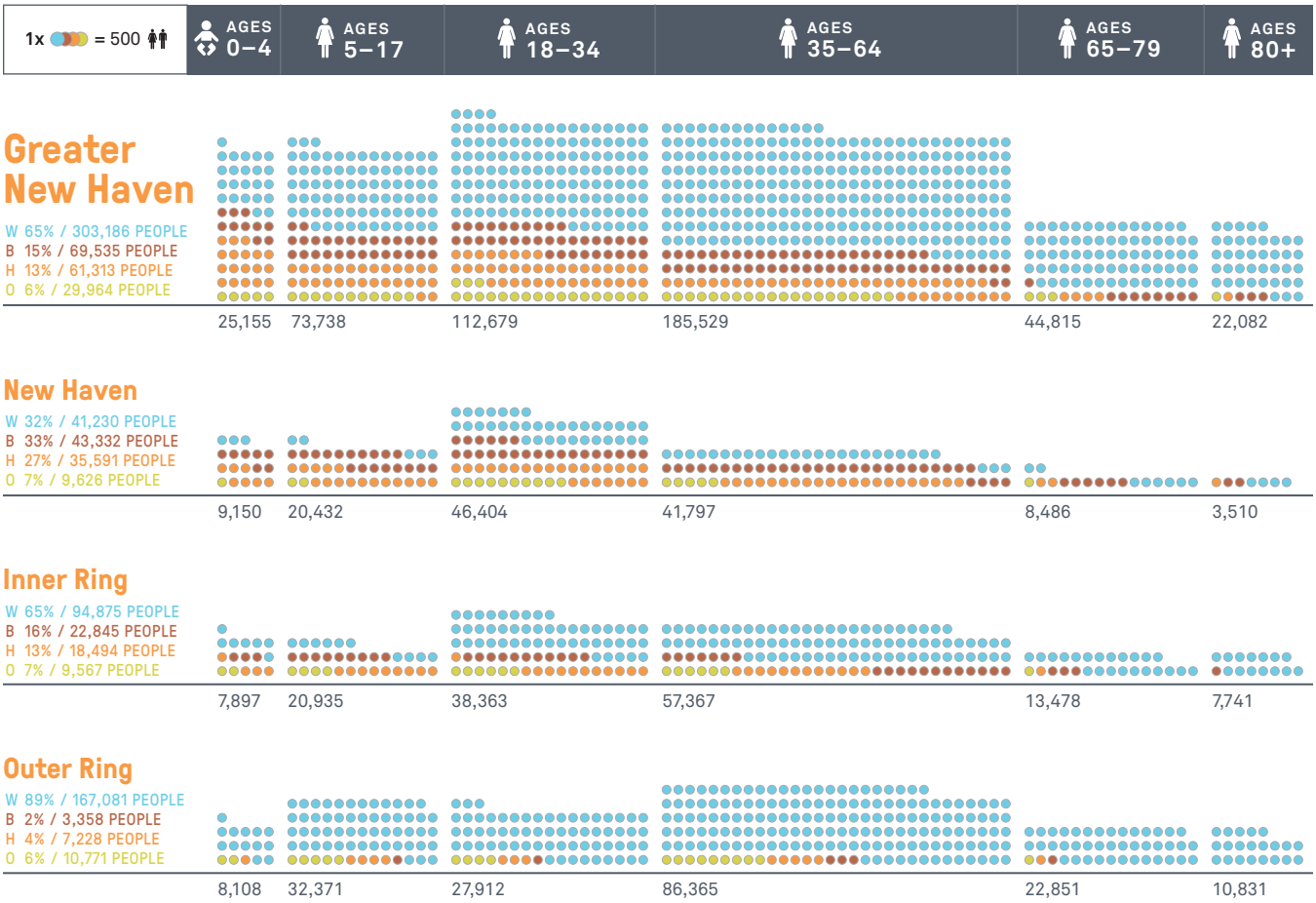
POPULATION AND CHANGE BY AGE GROUP, 1990–2025

2.3

Race and Ethnicity in Greater New Haven

POPULATION BY RACE/ETHNICITY AND AGE, 2010

US	WHITE	64% / 196,817,552 PEOPLE	
	BLACK	12% / 37,685,848 PEOPLE	
	HISPANIC	16% / 50,477,594 PEOPLE	
	OTHER	8% / 23,764,544 PEOPLE	
CT	WHITE	71% / 2,546,262 PEOPLE	
	BLACK	9% / 335,119 PEOPLE	
	HISPANIC	13% / 479,087 PEOPLE	
	OTHER	6% / 213,629 PEOPLE	



* Percentages may not add up to 100 percent due to rounding.

percent. Meanwhile, the size of the self-identified white population decreased by 44,500 people (down 13 percent).[11] Racial and ethnic diversity is highest among the youngest Greater New Haven residents, a trend suggesting that the diversity of the region's population will continue to increase in the future.[12]

In this report, we will refer to racial or ethnic minorities, or people of color, as people who do not identify as non-Hispanic white. This group includes people who do not identify racially as white, as well as all people who identify ethnically as Hispanic, regardless of their race. For a variety of reasons related to historical and current policies, race and ethnicity are closely linked to differences in residential settlement patterns, access to economic opportunity, and other social factors.

A majority of Greater New Haven residents are white non-Hispanic (65 percent); 15 percent identify as Black or African American, 7 percent as some other race but not ethnically Hispanic, and 13 percent as Hispanic. New Haven is the most racially and ethnically diverse town in the region, with 68 percent of the total population, or 88,500 individuals, identifying as people of color. Thirty-seven percent of Inner Ring residents and 11 percent of the Outer Ring are people of color.[13]

The "majority minority" racial/ethnic composition of the city's population, in contrast to

the predominantly white suburbs, indicates that regional diversity is not indicative of diversity at the community-level; similar to many other U.S. metropolitan areas, neighborhoods tend to be either mostly people of color or mostly white people. The relatively high levels of neighborhood-level racial residential segregation are linked to high economic segregation as well (see Income Inequality section on page 15).[14]

Residential divisions by race and income are particularly apparent among children. Among the population ages 0–17 in Greater New Haven, 44 percent of all African-Americans and 54 percent of all Latinos live in "poor" neighborhoods, where the average family income (AFI) is less than half the state AFI. Twenty-four percent of white and 24 percent of Asian children live in poor neighborhoods. The average white student in New Haven County attends a primary school (grades K–8) with a poverty rate of 28 percent, compared to rates of 72 percent and 71 percent for the average African-American and Hispanic student, respectively.[15]

MIGRATION TO GREATER NEW HAVEN

In 2014, Greater New Haven had a residential mobility rate of 13 percent, (60,300 people) with that share of the total population moving to a new home during the year. Five percent of all residents moved to the area from outside New Haven County. Out of those who moved, 6 percent, or nearly 3,400 people, relocated to Greater New Haven from a foreign country. Residential mobility rates are higher among city residents and renters.[19]

Analysis of tax records suggests that in 2014, New Haven County had net out-migration, with more people leaving the county than moving to it from somewhere else. The largest numbers of in-migrating New Haven County residents lived previously in Fairfield County, Hartford County, or New York City. Fairfield County and New York City had net "in-migration populations" to New Haven County — meaning that there were more people who moved from those locations to New Haven County, than New Haven County residents who moved to those locations.[20] Florida and Hartford County were the most popular destinations for former New Haven County residents who moved away; both areas had more residents moving there from New Haven County, than vice versa.

Immigration in Greater New Haven

From 1990 to 2014, the number of foreign-born people living in Greater New Haven increased by 27,200, nearly doubling in size and reflecting a recent uptick in immigration nationwide.[16] In 2014, 12 percent of the county-wide population, or 56,100 individuals, were immigrants. More than one-third of the region's immigrants reside in New Haven, where 16 percent of all residents are foreign-born people.[17] Hamden, Milford, and West Haven also had large immigrant communities: each greater than 5,000 people and representing more than 1 in every 10 residents.

Immigrants bring to Greater New Haven the cultural perspectives of their more than 120 home countries from every region around the world.[18] The largest communities of immigrants residing in the region, by country of birth, are Mexican, Chinese, Indian, Jamaican, and Italian.

In general, immigrants increase the economic resilience of the region: four-fifths of immigrants are of working age, and a majority of working-age

2.4

Characteristics of Immigrants in Greater New Haven

FOREIGN-BORN RESIDENTS OF GREATER NEW HAVEN, 2014

	TOTAL POPULATION	PERCENT FOREIGN-BORN	TOTAL FOREIGN-BORN POPULATION	NATURALIZED CITIZENS	AGE 18–64	ENTERED US 2000–14	BA OR HIGHER ED	1990–2014 CHANGE POPULATION FOREIGN-BORN
United States	314,107,084	13%	41,056,885	46%	80%	38%	28%	108%
Connecticut	3,592,053	14%	490,460	48%	79%	40%	33%	76%
Greater New Haven	465,227	12%	56,105	44%	80%	45%	43%	94%
New Haven	130,553	16%	20,569	27%	85%	60%	44%	94%
Inner Ring	146,034	13%	19,270	45%	82%	43%	36%	103%
East Haven	29,139	9%	2,687	60%	73%	31%	27%	121%
Hamden	61,605	13%	8,062	48%	80%	44%	51%	115%
West Haven	55,290	15%	8,521	38%	86%	45%	24%	88%
Outer Ring	188,640	9%	16,266	63%	72%	29%	50%	84%
Milford	53,039	10%	5,099	51%	75%	36%	50%	110%

immigrants (71 percent statewide) are employed and pay taxes.[21] In Greater New Haven, immigrants are more likely to hold bachelor's degrees (43 percent) than residents born in the U.S. (38 percent).

In total, 44 percent of immigrants living in Greater New Haven are naturalized U.S. citizens. Of the region's 31,535 non-citizen residents, more than half are legal U.S. residents, while an estimated 14,500 are undocumented immigrants.[22] Forty-five percent of foreign-born residents of the region entered the U.S. recently, at some time since 2000.[23]

Within Greater New Haven, differences exist between groups of immigrants. New Haven foreign-born residents are more likely to have recently arrived in the U.S or to be of working age, and less likely to be naturalized citizens — compared to their counterparts in suburban towns.[24] Immigrants who live in New Haven are more likely to be either highly educated or not to have graduated high school, compared to immigrants residing in other towns.[25]

Refer to *Understanding the Impact of Immigration in Greater New Haven* (2015) for more information on this topic.[26]

HOUSEHOLDS & INCOME IN GREATER NEW HAVEN

Households and the Homes Where They Live

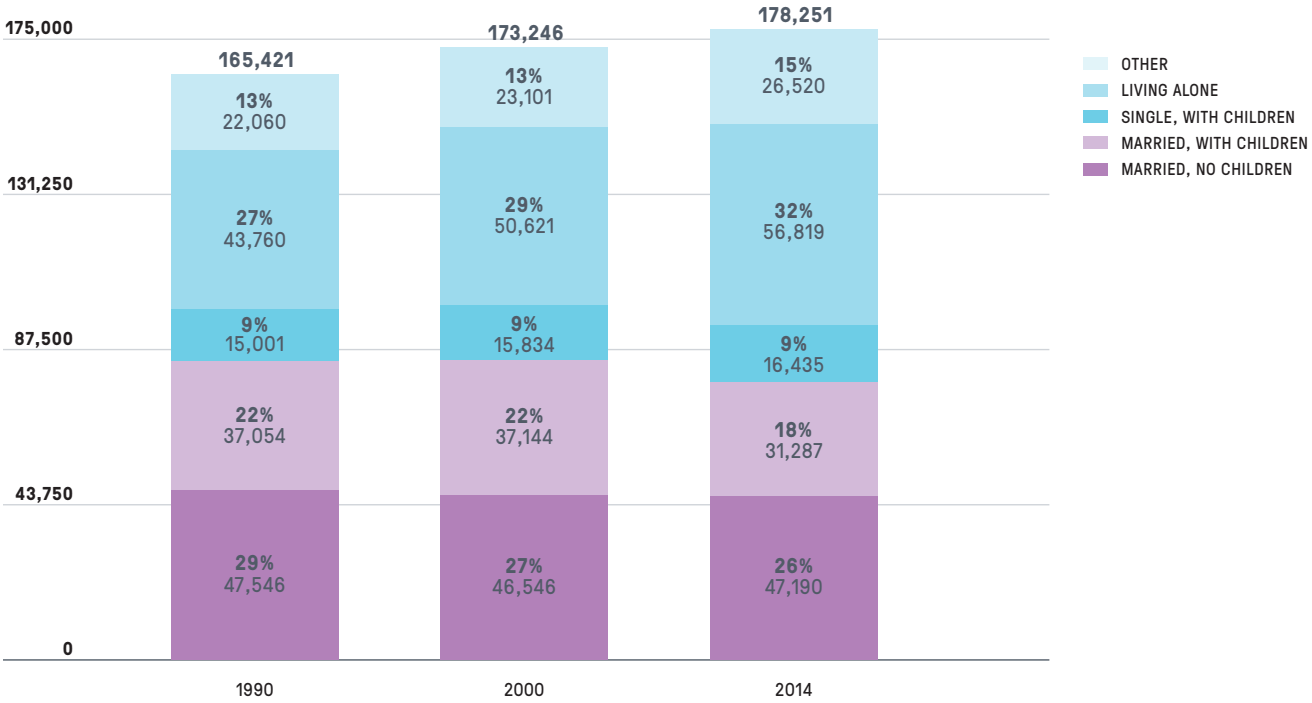
Of the 178,250 households in Greater New Haven, more are single adults living alone, non-related adults living together, or single adults with children, compared to past decades. From 1990 to 2014 the numbers of "traditional households" — married couples and married couples with children — decreased.[27] This trend is occurring across the nation and is projected to continue. The changes are due to people marrying and having children later in life, higher divorce rates, and more and longer-living older adults (statewide, 40 percent of adults living alone are 65 years or older).[28]

A majority of existing houses in the region (58 percent) are single-family homes, though multi-family apartments or condominiums are more concentrated in the city of New Haven and parts of neighboring suburbs.[29] Multi-family units are more likely to be rental or affordable units, attracting

2.5

The Changing Household Structure of Greater New Haven

HOUSEHOLDS IN GREATER NEW HAVEN, 1990–2014



2.6

Income and Income Inequality in Greater New Haven

MEDIAN, BOTTOM, AND TOP HOUSEHOLD INCOMES IN GREATER NEW HAVEN TOWNS, 2014

UNITED STATES

$53,482 MEDIAN INCOME
$22K BOTTOM 20% INCOME
$108K TOP 20% INCOME

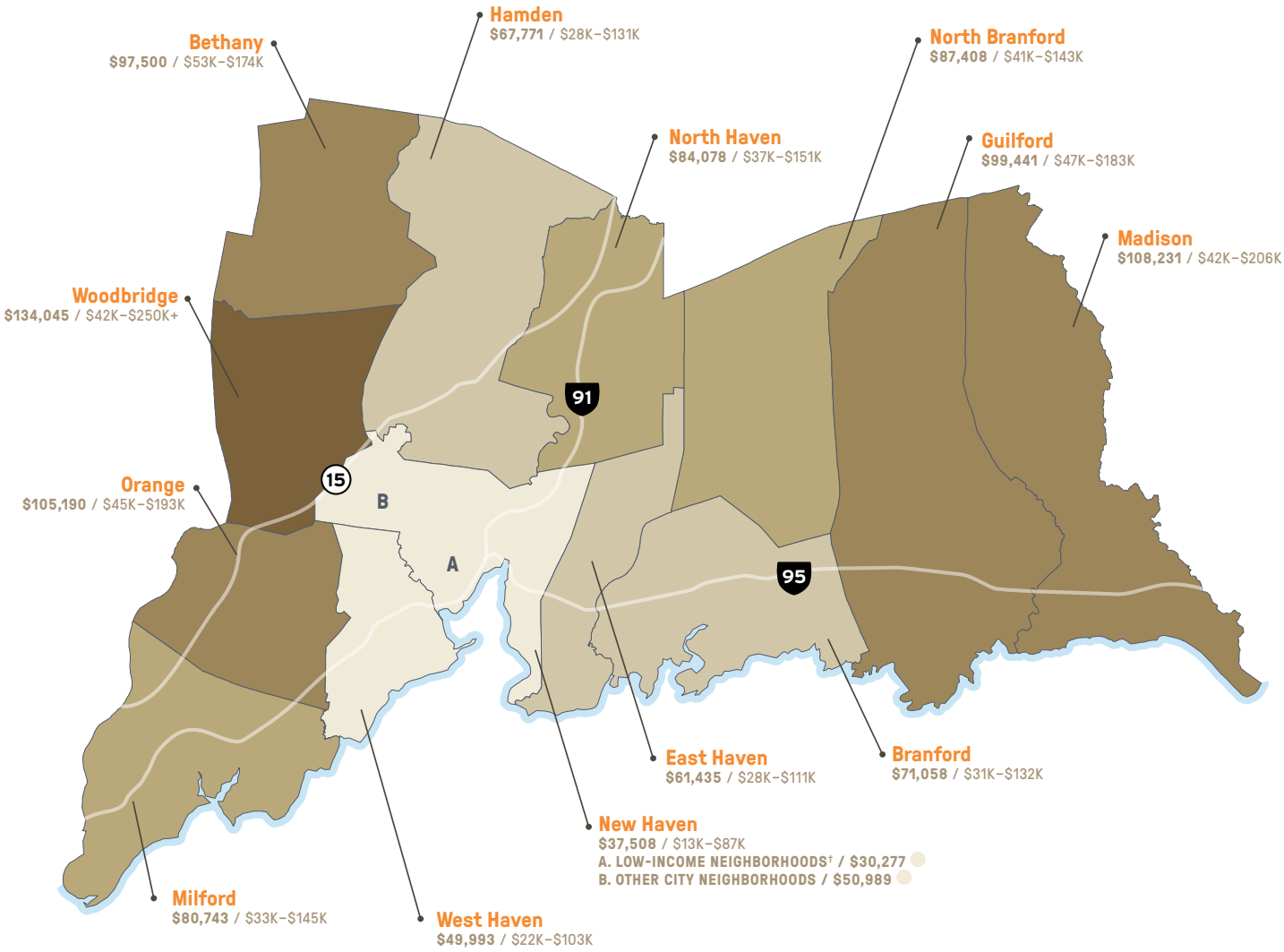
CONNECTICUT

$69,899 MEDIAN INCOME
$27K BOTTOM 20% INCOME
$139K TOP 20% INCOME

GREATER NEW HAVEN*

$65,618 MEDIAN INCOME
$24K BOTTOM 20% INCOME
$124K TOP 20% INCOME

$30,000 TO $54,999
$55,000 TO $74,999
$75,000 TO $94,999
$95,000 TO $114,999
$115,000 OR MORE



* "Median Income" for Greater New Haven is the weighted average of the median income of 13 towns. Bottom 20% and Top 20% Income are for New Haven County.
† "Median Income" for the Low-Income Neighborhoods and Other City Neighborhoods are the weighted average of the median income of all Census Tracts in those areas.

young workers, single adults, or households that otherwise do not want, or cannot afford, to own their home.

The increase in "non-traditional" households and those households' preference for smaller units in urban settings have helped to shift regional housing demand towards multi-family units in cities.[30] Fifty-eight percent of homes built in Greater New Haven from 2010 to 2014 were multi-family, compared to 26 percent built from 2000 to 2004.[31] The city of New Haven captured 38 percent of the region's total housing construction from 2010 to 2014, versus to just 11 percent from 2000 to 2004.

County-wide, the homeownership rate is 61 percent: this represents an overall increase in homeownership since 2000 but is still below a peak of 65 percent in 2009.[32] Homeownership is significantly lower in the city (30 percent) compared to Outer Ring suburbs (81 percent).[33]

Income Inequality in Greater New Haven

Households in Greater New Haven have a median income of $65,618 — around $12,000 higher than the nation and about $4,000 below the state.[34] However, income is not evenly distributed between the region's households. In New Haven County, the top 20 percent of households earned at least $124,250, about 5.25 times more than what the bottom 20 percent earned. Inequality is highest in the city, where the top 20 percent of households earn 6.5 times more than the bottom 20 percent of households.

According to the Brookings Institution, income inequality in Greater New Haven is higher than in all but a few regions nationwide.[35] The gap between rich and poor in the region is also widening faster than in all but a few other areas in the U.S.

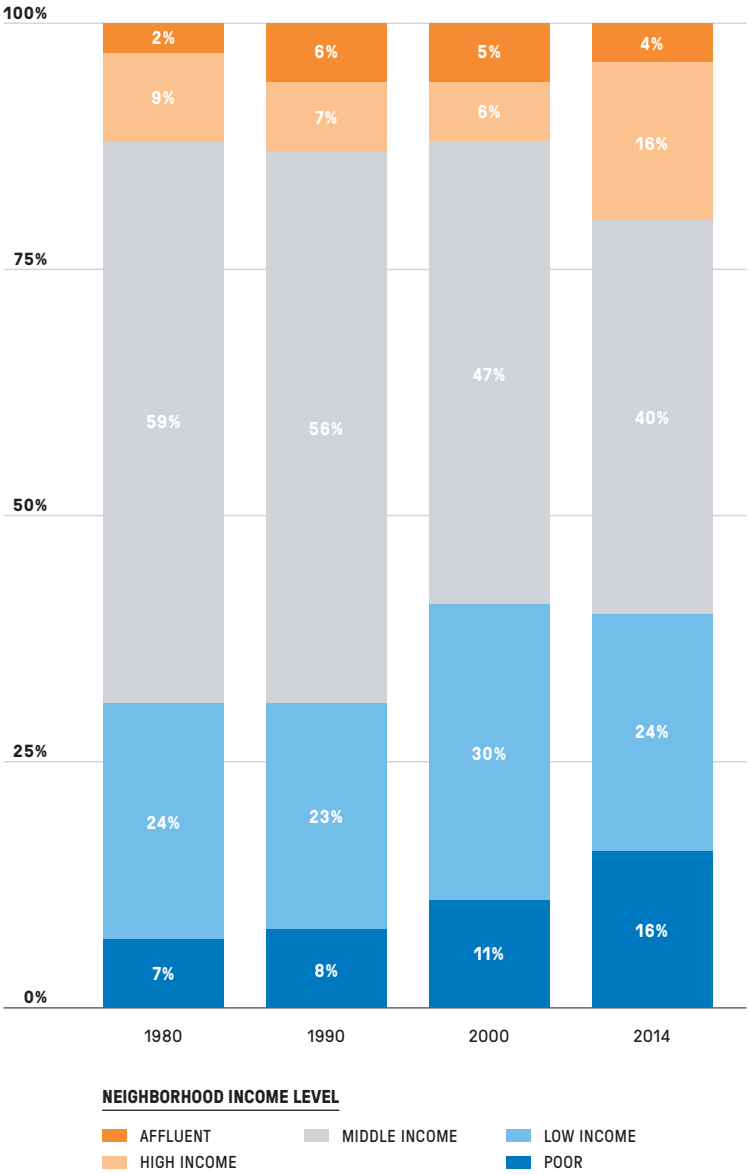
Neighborhood-income segregation occurs when people with extreme incomes — who are very rich or very poor — mostly live in neighborhoods where other residents have similar levels of income. In Greater New Haven, the poverty rate is 3 percent in "affluent" neighborhoods, where the average family income (AFI) is $208,000, 1.75 times the statewide average, compared to a 33 percent poverty rate in "poor" neighborhoods, where the AFI is $45,250, less than half the statewide average.[36]

The county population living in these extreme-income neighborhoods has steadily increased, at the expense of "middle-income" neighborhoods — those with AFI between 75 and 125 percent of the statewide average. Forty percent of Greater New Haven residents lived

2.7

Growing Neighborhood Income Inequality in Greater New Haven

DISTRIBUTION OF POPULATION BY NEIGHBORHOOD INCOME LEVEL, GREATER NEW HAVEN, 1980–2014



	DEFINITION BASED ON AVERAGE FAMILIY INCOME	1980 POPULATION	2014 POPULATION	1980–2014 CHANGE IN TOTAL POPULATION
Affluent	> 1.5x State AFI	7,754	19,753	⬆ 155%
High Income	1.25–1.49x State AFI	36,575	75,321	⬆ 106%
Middle Income	0.75–1.24x State AFI	242,634	188,130	⬇ 22%
Low Income	0.5–0.74x State AFI	100,509	109,693	⬆ 9%
Poor	< 0.5x State AFI	27,149	72,330	⬆ 166%

in middle-income neighborhoods in 2014, down from 59 percent in 1980. Just 35 percent of the region's children lived in these middle-income neighborhoods in 2014.[37]

Income segregation results in unequal access to community resources. Through taxes, charitable giving, and other spending, high-earning households help communities support resources such as well-funded schools, parks, and other infrastructure. In general, residents of poor neighborhoods themselves have low incomes and are less able to support their communities financially.[38]

2.8

The Low-Income Population in Greater New Haven

LOW-INCOME POPULATION BY AGE GROUP, GREATER NEW HAVEN, 2000–2014

	POPULATION, POVERTY INCOME KNOWN*	POPULATION, LOW-INCOME	POPULATION, LOW-INCOME RATE	AGE 0–17, POVERTY INCOME KNOWN	AGE 0–17, LOW-INCOME	AGE 0–17, LOW-INCOME RATE	AGE 0–5, POVERTY INCOME KNOWN	AGE 0–5, LOW-INCOME	AGE 0–5, LOW-INCOME RATE
United States	306,226,394	105,773,407	35%	72,637,885	32,116,429	44%	23,709,036	11,329,330	48%
Connecticut	3,481,115	823,045	24%	785,691	233,352	30%	232,654	78,316	34%
Greater New Haven	446,790	119,925	27%	96,672	32,902	34%	28,739	10,521	37%
New Haven	121,638	59,203	49%	28,384	17,427	61%	9,755	5,857	60%
Inner Ring	137,863	36,179	26%	29,026	9,840	34%	9,347	3,297	35%
East Haven	28,872	7,027	24%	5,659	1,863	33%	1,631	572	35%
Hamden	56,596	12,239	22%	11,588	2,913	25%	3,891	1,034	27%
West Haven	52,395	16,913	32%	11,779	5,064	43%	3,825	1,691	44%
Outer Ring	187,289	24,543	13%	39,262	5,635	14%	9,637	1,367	14%
Milford	52,701	8,517	16%	10,439	2,085	20%	3,212	651	20%

* The US Census Bureau can identify poverty status — or if people live above or below the poverty threshold — for people who are not: inmates in institutions; in college dorms; or under age 15 and not related by birth, marriage, or adoption to a reference person. The same definition applies for other "poverty income known" populations.

Living in Economic Hardship

In 2014, 13 percent of the total Greater New Haven population lived in poverty, meaning they were in households with annual incomes below the federal poverty line (or FPL, equivalent to $15,730 per year for a family of two, $23,850 for a family of four). Twenty-seven percent of residents were low-income, living in households with annual incomes of less than two times the FPL (low-income status includes people living in poverty).[39]

The low-income rate in Greater New Haven overall is slightly above the state average, but certain neighborhoods have much higher rates than the county or state average. Children are significantly more likely to live in low-income households than the population as a whole; the low-income rate is 34 percent among the population ages 0–17 in Greater New Haven (and it is even higher, at 37 percent, among the population ages 0–5).[40] (FIG 2.8)

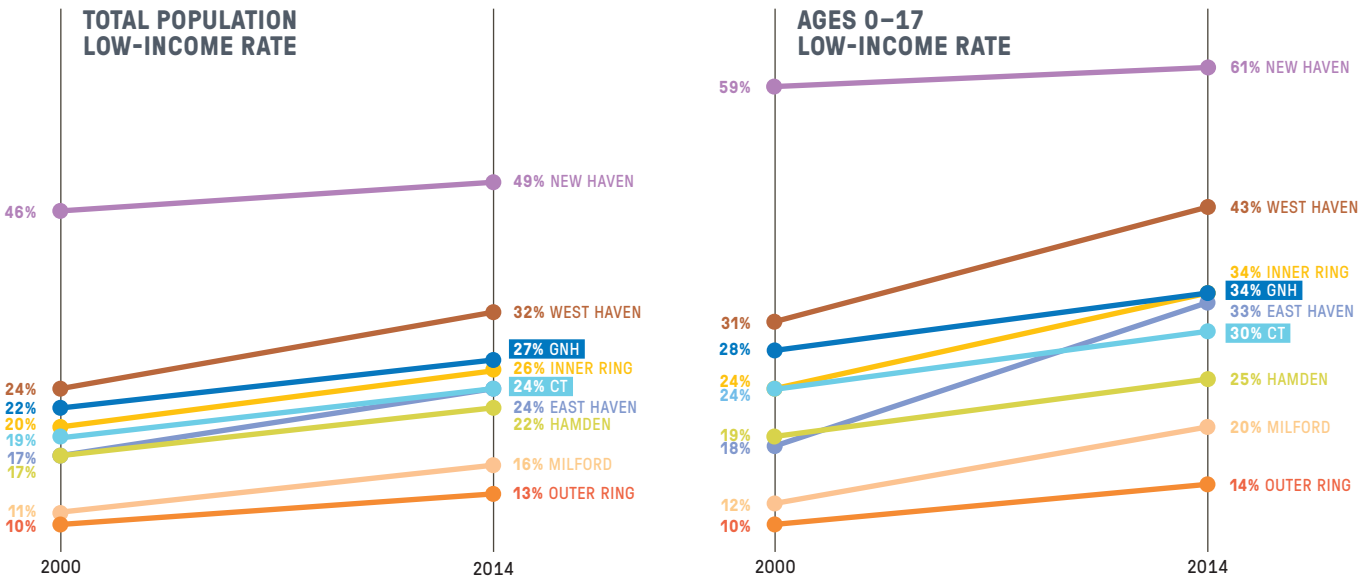
The low-income threshold used in this report identifies individuals and households who are likely to be living in severe economic hardship; however, this income-based definition does not perfectly capture financial stress. On the 2015 DataHaven Community Wellbeing Survey, 33 percent of all adults living in the region, including many with household incomes above the low-income threshold, said they were just getting by financially or finding it difficult to manage.[41]

For many of these adults, the costs of certain basic needs constitute an unaffordable share of their household budget. For example, in New Haven County in 2012, a typical family of four needed $66,088 to cover all living costs, according to the United Way. Based on this cost of living estimate, 45 percent of New Haven County households earned less than what they needed to pay for food, housing, transportation, childcare, healthcare, and other necessary expenses.[42] Inability to pay for these necessities can create harmful outcomes on individual physical and economic well-being, such as food insecurity (see page 28), lack of child care (see page 40), limited access to cars or reliable transportation (see page 52), or housing cost-burden.

2.9

The Growing Low-Income Population in Greater New Haven

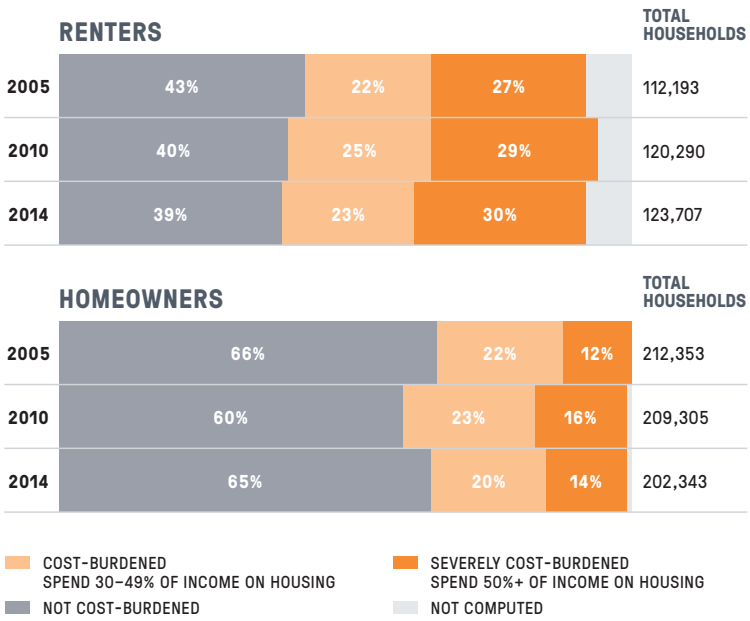
LOW-INCOME POPULATION IN GREATER NEW HAVEN, 2000–2014



2.10

Housing Cost Burden in Greater New Haven

HOUSEHOLDS PAYING MORE THAN 30 PERCENT OF INCOME ON HOUSING COSTS, 2005–14*



* Percentages do not add up to 100% because households for whom cost-burden is not computed are not included

2.11

Characteristics of Greater New Haven Households

HOUSEHOLDS BY HOMEOWNERSHIP AND SEVERE COST-BURDEN RATES, 2014

	HOUSEHOLDS	HOMEOWNERS	HOME OWNERSHIP RATE	SEVERELY COST BURDENED	SEVERE COST BURDEN RATE
United States	116,211,092	74,787,460	64%	18,552,117	16%
Connecticut	1,356,206	913,043	67%	239,454	18%
Greater New Haven	178,251	108,625	61%	38,085	21%
New Haven	49,945	14,722	29%	14,735	30%
Inner Ring	55,052	34,454	63%	11,620	21%
East Haven	11,215	7,989	71%	2,218	20%
Hamden	23,374	15,312	66%	4,301	18%
West Haven	20,463	11,153	55%	5,101	25%
Outer Ring	73,254	59,449	81%	11,730	16%
Milford	21,199	16,379	77%	3,621	17%

Housing Affordability

Seven percent of Greater New Haven adults reported not having enough money for housing or shelter, indicating that they faced housing insecurity.[43] Many more residents in the region — 44 percent — are housing-cost burdened, spending more than the federally-recommended 30 percent of total income on housing costs. Twenty-one percent were severely cost-burdened, putting more than half of their budget towards mortgage and ownership costs or rent.[44] The housing cost-burden rate is slightly higher in the New Haven area than statewide, in part due to higher housing costs: at minimum, a single adult pays $926 per month in housing costs in New Haven County, compared to the $786 state average.[45] Housing cost-burden is even more prevalent in some New Haven neighborhoods: 35 percent of households in the city's low-income neighborhoods pay more than 50 percent of income on housing. The problem is also more serious among renters compared to homeowners.[46] Further, the rates of housing cost burden have increased dramatically over the past few decades, as household incomes have grown slower than the average cost to rent or own a home in the region.[47] From 2000 to 2014, the number of households in the region that were severely cost-burdened increased by 68 percent.[48]

While housing cost-burden does not always result in housing insecurity, it does limit money available for other basic necessities, leaving households to choose which bills to pay.[49] For example, a national survey found that of the 21 percent of Americans who reported struggling to pay their rent or mortgage this year, 57 percent said they made cuts to their spending on groceries.[50]

CHAPTER 3

A Healthy Region

Greater New Haven overall is healthy when compared to national benchmarks of health and well-being. The typical Greater New Haven resident reports levels of overall health and well-being that are better than those of the typical US resident. Similarly, death rates—compared either in terms of all-cause mortality or premature deaths—are significantly lower than national averages.

In Greater New Haven, indicators that measure some the social determinants of health, such as access to health insurance, economically-secure families, safe neighborhoods, and school systems with higher graduation rates, are mostly better than national averages. The Federal Government's Healthy People 2020 initiative includes some of these social determinants among their "Leading Health Indicators" because of their ability to predict and contribute to the health of area residents.[51]

The high health status of Greater New Haven overall can be traced back to its historical economic advantages, infrastructure, and social policies, as well as to the health of the places its people arrived from throughout recent decades. Health may also be a predictor of the region's future success, as healthy communities are more likely to retain productive businesses and individuals.[52]

Differences by Place, Race, and Age

The high health status of the population as a whole hides vast differences in measures of health and well-being. Towns and neighborhoods vary greatly according to age, race, and economic status. These factors greatly affect the burden and types of health conditions that are of concern in each community.

Areas which are older have a greater burden of age-related illnesses, such as cancer. Issues such as dementia will grow as a concern in all towns as the population of older seniors rises, within both cities and suburban areas (see Chapter 2).

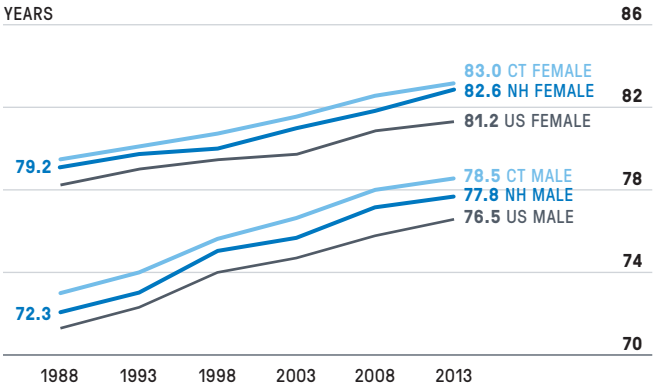
Throughout Greater New Haven, economically-distressed neighborhoods see the effects of their residents having lower socio-economic status as well as being significantly younger in average age. These factors result in a concentrated burden of conditions such as adverse birth outcomes, childhood asthma, lead poisoning, violence, and sexually transmitted diseases. In addition, it appears that chronic diseases—especially heart disease, diabetes, and kidney disease—begin to impact populations living in distressed neighborhoods at a younger age.

Health inequities are a particular concern within communities of color, as well as other communities that have faced longstanding barriers to achieving a high health status. Barriers to achieving a high health status often overlay specific places, and are linked to the differential policies and practices that impact racially-segregated neighborhoods currently and throughout every century of American history. This document focuses on broadly reporting disparities by place, and in doing so, it reveals the differences in health status between zip codes where people of color are currently concentrated and zip codes that are almost-exclusively white.

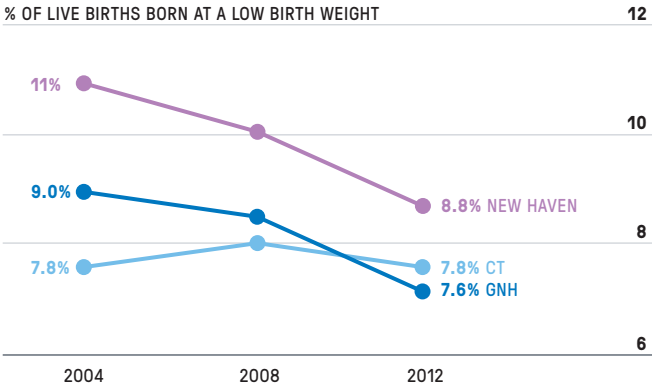
The **Community Health Needs Assessment** process (see Chapter 1 and conclusion of this chapter) creates a platform for residents and multi-sector leaders to provide input on and understand how the distribution of the region's assets can create barriers that prevent some groups from achieving an optimal health status.

3.1
Greater New Haven Health Trends

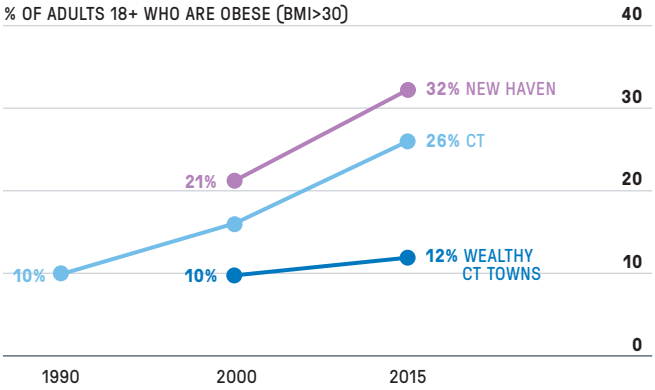
LIFE EXPECTANCY IN NEW HAVEN COUNTY (NH) EXCEEDS THE US AVERAGE



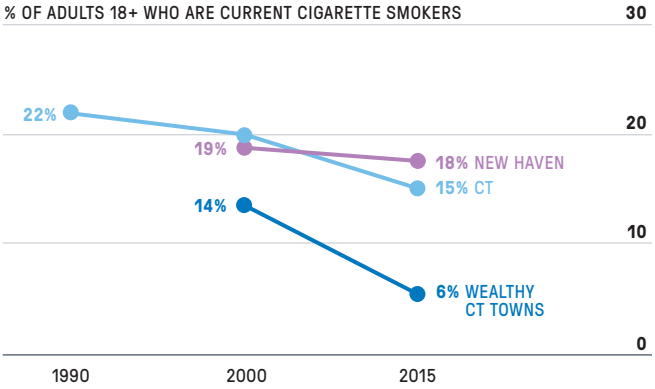
RATES OF LOW BIRTH WEIGHT HAVE BEEN DECLINING



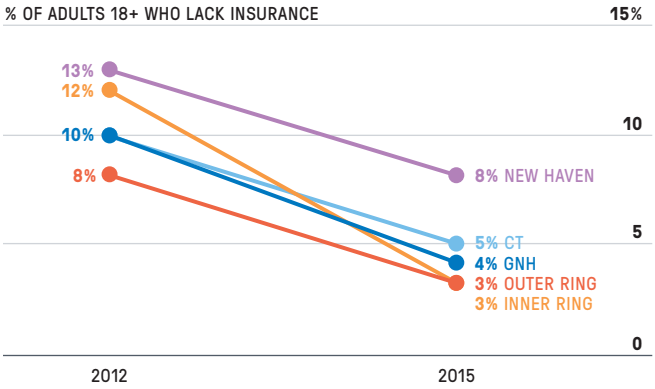
THE DISPARITY IN ADULT OBESITY RATES IS GROWING



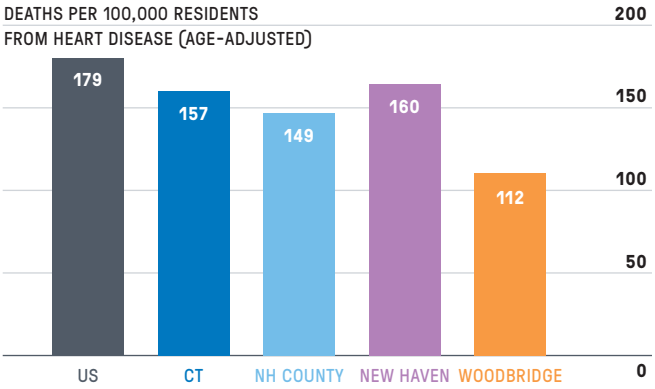
ADULT SMOKING RATES ARE DECLINING



HEALTH INSURANCE COVERAGE HAS IMPROVED DRAMATICALLY



MORTALITY RATES FROM HEART DISEASE ARE MUCH LOWER IN WEALTHY TOWNS



3.2

Well-Being and Chronic Disease Risk Factors

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF GREATER NEW HAVEN ADULTS AGE 18+

	SELF-RATED HEALTH GOOD/EXCELLENT	ANXIETY	DEPRESSION	DIABETES	OBESITY	FOOD INSECURITY	SMOKING	ASTHMA	NO HEALTH INSURANCE	DENTIST VISIT IN PAST YEAR
Connecticut	63	11	9	9	26	12	15	13	4.9	77
Greater New Haven	63	11	8	9	29	14	15	13	4.5	75
New Haven	58	15	12	11	32	22	18	17	8.3	69
Inner Ring	58	9	9	13	33	17	17	12	3.1	72
Hamden	61	10	8	13	30	11	12	6	2.9	78
West Haven	53	11	12	11	32	24	20	14	3.1	67
Outer Ring	72	10	6	5	24	7	10	11	2.8	81
Milford	65	13	8	7	27	13	19	14	4.6	76

BETTER WORSE

HEALTH OUTCOMES

Self-Rated Health and Well-being

Self-rated health is a uniquely strong predictor of future health outcomes, such as premature mortality and health care costs.[53] Because of this, it is widely used to assess the overall health of an entire population. Self-rated health, as well as anxiety, depression, and personal well-being more broadly, varies widely within the region (see also Personal Well-being Index in Chapter 1). Concerns that tend to lessen self-related health—such as premature chronic diseases—can directly impact how people evaluate their life satisfaction and experience happiness in their day-to-day lives.[55]

Infant Health

Because of its relationship to complex issues such as maternal health care access, smoking, nutrition, and stress, infant health and birth outcomes are considered to be key indicators of overall community-wide health. Birth outcome indicators in Greater New Haven are fairly similar to statewide rates, but large disparities are evident by town. From 2008 to 2013 each year, on average, 8.2 percent of all babies born in the area had a low birth weight (weighing less than 5.5 pounds (2,500 grams)). Over the same period, 1.5 percent of all babies born had very low birth weights (less than 3.3 pounds or 1,500 grams). Low birth weight increases the risk of more serious health concerns, such as fetal and infant mortality or long-term health conditions. On average, the rate of infant mortality was 5.9 per 1,000 live births in the region, and the rate of fetal plus infant mortality was 11.7 per 1,000 live births.

3.3

Infant Health Indicators

BIRTH OUTCOMES, 2008–2013

	TOTAL BIRTHS ANNUALIZED	FETAL AND INFANT DEATHS ANNUALIZED	IMR (INFANT DEATHS PER 1,000 LIVE BIRTHS)	FIMR (FETAL AND INFANT DEATHS PER 1,000 LIVE BIRTHS)	PERCENT LOW BIRTH WEIGHT	PERCENT VERY LOW BIRTH WEIGHT
Connecticut	38,007	401	5.3	10.5	7.9%	1.5%
Greater New Haven	4,965	58	5.9	11.7	8.2%	1.5%
New Haven	1,995	27	6.7	13.4	9.5%	2.0%
Inner Ring	1,586	18	5.8	11.6	8.2%	1.5%
East Haven	276	3	6.1	12.1	8.3%	1.0%
Hamden	628	7	5.6	11.1	7.9%	1.4%
West Haven	682	8	5.9	11.7	8.5%	1.7%
Outer Ring	1,385	13	4.7	9.4	6.5%	0.9%
Milford	461	3	2.9	5.8	7.1%	1.2%

MORTALITY RATES AND PREMATURE DEATH

Knowing what people die of is important to understanding the health of a population. Leading causes of death are the causes that result in the greatest number of deaths in a community. The crude mortality rate is the number of deaths adjusted for the population size. But it is also useful to consider the extent to which these causes result in premature death, typically done by measuring the total number of life years lost before age 75 (years of potential life lost to 75, or YPLL). In areas where YPLL is significantly higher, this reflects that the burden of deaths on young people is higher, and that there is a substantial loss of human potential.

The community-wide conditions and health behaviors that are linked to premature death are often considered preventable. For example, it is likely that preventing young people from smoking cigarettes would reduce lung cancer deaths, and policy changes that limited crash severity or reduced the amount of vehicle miles driven annually would have a direct relationship to the number of young adults killed in motor vehicle crashes.

Data on deaths indicate that chronic diseases are a major concern in towns throughout the region. Cancer and heart disease, and conditions such as stroke and diabetes, are leading causes of death and premature death. Injuries—consisting of suicides, homicides, and accidents, including drug overdoses—are also major concerns to the region. Many injuries are associated with the availability of drugs and firearms, and often impact much younger residents.

Additionally, fetal and infant deaths result in a great loss of human potential, ranking among the leading causes of years of potential life lost. This loss is felt most acutely by the African-American population in Greater New Haven, as it is in the nation overall.[55] Infant mortality has complex roots, and may relate to other burdens of illness in the population such as financial stress, trauma, chronic disease, and environments that lead to low birth weight.

Although people are living longer lives than they were in recent decades, objective measures like premature death and mortality rates provide an incomplete picture of chronic diseases, mental health, infectious diseases, and other issues that relate to day-to-day quality of life. Many adults are living with disabilities, chronic diseases, or mental health concerns that can begin at an early age. Mental health and addiction impact the general well-being of individuals and communities, and may be underlying causes of many of the other health needs identified here.

3.4

Leading Causes of Death

AGE-ADJUSTED MORTALITY RATES AND TRENDS, 2008–2012

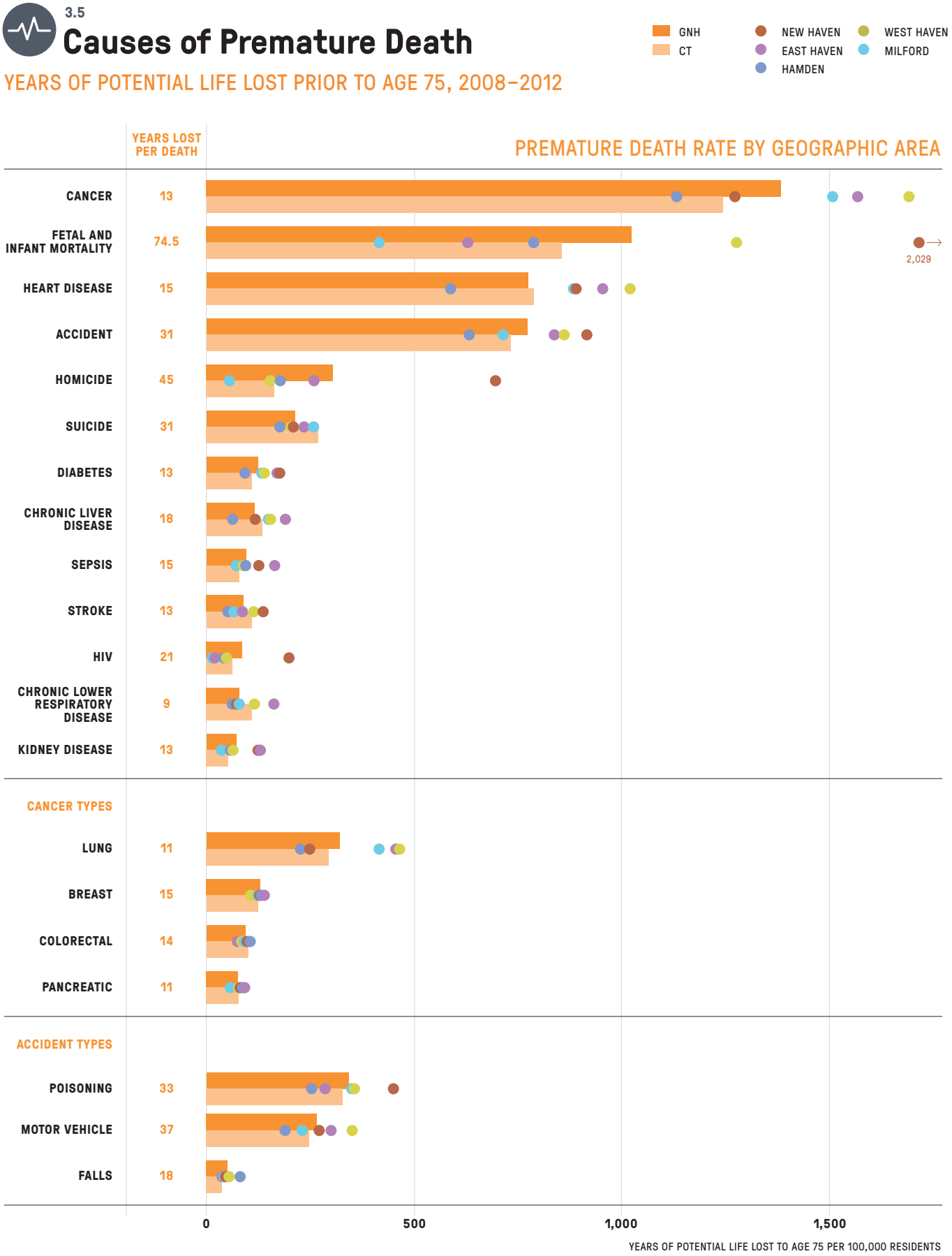
		TOTAL DEATHS 2008–2012	DEATHS PER YEAR 2008–2012	2008–2012 CRUDE MORTALITY RATE (DEATHS PER 100,000)	AGE-ADJUSTED MORTALITY RATE (AAMR) PER 100,000	TREND FROM 2003–2007 TO 2008–2012	HIGHER OR LOWER RATE THAN CT?
All Causes	**Connecticut**	144,577	28,915	809	660		
	New Haven County	37,380	7,476	867	681	⬆ Improving	Higher
	New Haven	4,190	838	646	779	⬆ Improving	Higher
	Inner Ring						
	East Haven	1,577	315	1,078	698	⬆ Improving	Higher
	Hamden	2,935	587	963	655		
	West Haven	2,289	458	824	740		Higher
	Outer Ring						
	Milford	2,438	488	924	667	⬆ Improving	
Heart Disease	**Connecticut**	35,765	7,153	200	157		
	New Haven County	8,517	1,703	198	149	⬆ Improving	Lower
	New Haven	848	170	131	160	⬆ Improving	
	Inner Ring						
	East Haven	344	69	235	143	⬆ Improving	Likely Lower
	Hamden	605	121	199	129		Lower
	West Haven	497	99	179	156		
	Outer Ring						
	Milford	571	114	217	151		
Cancer	**Connecticut**	33,775	6,755	189	160		
	New Haven County	8,929	1,786	207	171	⬆ Improving	Higher
	New Haven	978	196	151	189	⬇ Worsening	Higher
	Inner Ring						
	East Haven	407	81	278	196		Higher
	Hamden	617	123	202	157		
	West Haven	586	117	211	195		Higher
	Outer Ring						
	Milford	639	128	242	179		Higher
All Injuries	**Connecticut**	9,037	1,807	51	47		
	New Haven County	2,378	476	55	50	⬇ Worsening	Higher
	New Haven	376	75	58	59		Higher
	Inner Ring						
	East Haven	86	17	59	50		
	Hamden	165	33	54	44		
	West Haven	140	28	50	48		
	Outer Ring						
	Milford	125	25	47	42		

* Trends or differences in rates are only noted if they are considered to be statistically significant.

3.5

Causes of Premature Death

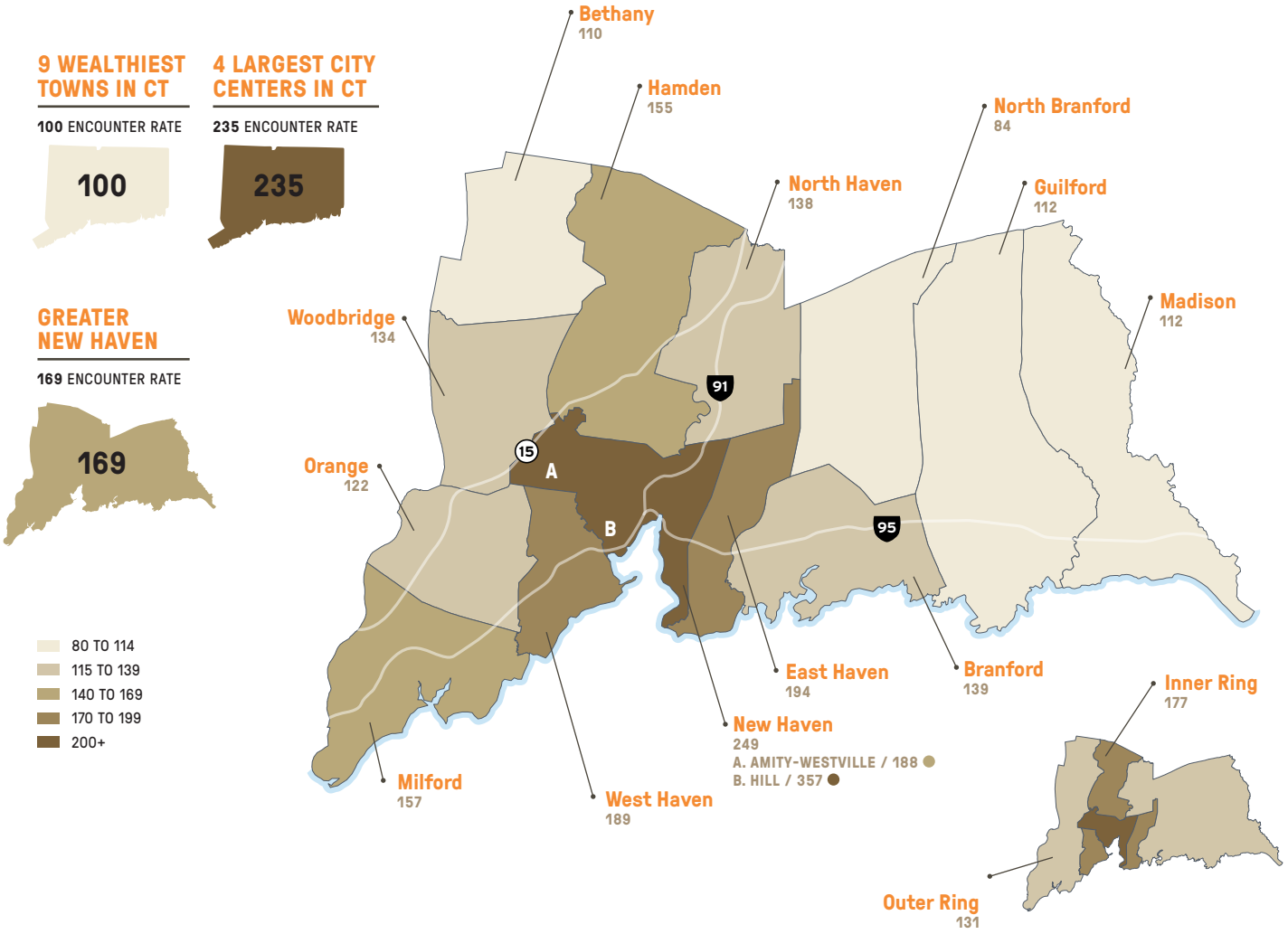
YEARS OF POTENTIAL LIFE LOST PRIOR TO AGE 75, 2008–2012



3.6

Heart Disease, Hospital Inpatient Encounters

AGE-ADJUSTED ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS, 2012–2014



	HEART DISEASE AND LUNG CANCER INPATIENT ENCOUNTER RATES PER 10,000 RESIDENTS					
	HEART DISEASE			LUNG CANCER		
	ALL AGES, AGE-ADJUSTED*	AGES 45–64	AGES 65–74	ALL AGES, AGE-ADJUSTED	AGES 45–64	AGES 65–74
Greater New Haven	169	138	454	15	13	74
New Haven	249	298	756	17	16	86
Inner Ring	177	145	506	17	14	88
East Haven	194	139	522	19	13	112
Hamden	155	120	442	12	9	65
West Haven	189	174	569	19	21	97
Outer Ring	131	68	309	12	11	61
Milford	157	99	403	15	16	78
9 Wealthiest CT Towns	100	32	216	8	4	36
4 Largest CT Urban Core Towns	235	266	730	16	18	70

* See map above

Early Chronic Diseases

Preventing the early onset of chronic diseases such as cancer, heart disease, and diabetes, in the areas where it occurs most, could bring major social and economic benefits to the region. In the previous few pages, data on mortality and premature death rates reveal very large disparities in well-being within the region.

Because mortality data only tell us about people who die, they do not allow a complete picture of the true quality of life impacts of common chronic diseases. By allowing public health officials to look at the conditions that people of all ages experience by neighborhood and other characteristics, our analyses of the DataHaven Community Wellbeing Survey combined with hospital records creates a clearer picture. Only a few of our analyses can be included within this document; others are available through our website or will inform further work. Results show that in some parts of the region, adults are much more likely to be hospitalized for severe conditions such as heart disease and lung cancer at an early age. For example, in the nine wealthiest towns in Connecticut, the annual rate of hospitalization for heart disease among middle-age adults age 45-64 was 32 per 10,000 residents from 2012 to 2014, whereas in the state's four largest urban core towns (Bridgeport, New Haven, Hartford, Waterbury), it was 266 per 10,000 residents. Middle-age adults in many urban neighborhoods were more likely to be admitted to the hospital for this condition than were seniors age 65-74 in wealthy communities. Adults impacted by early chronic disease often live with a need for special medical treatment or experience lower overall levels of well-being, regardless of whether or not they may be at a particularly higher risk of premature death. Results from the Community Wellbeing Survey also reveal large health disparities by income, wealth, neighborhood, and race/ethnicity in the rates of high blood pressure, smoking, poor nutrition, and poor mental health, which are risk factors for chronic diseases.

The prevention of early chronic disease is an area where cross-sector leaders from public and private sectors can play a larger role. For example, in focus groups, healthy food is deemed more accessible in wealthier towns. Even in these towns, some residents report the need to travel a significant distance to buy healthy food, which may be an issue if they lack access to transportation. Access to unhealthy foods and substances can be restricted through public policies that impact the cost or availability of such items. Addressing other community concerns, such as stress, employment, education, and community safety, may also help people across the lifespan maintain an optimal health status.

Nutrition, Obesity, and Diabetes

The American Medical Association recognizes obesity as a chronic disease. Being obese can contribute to other health conditions such as cancer, depression, diabetes, heart disease, high blood pressure, stroke, and other conditions that can reduce life expectancy and quality of life.

In 2015, the rate of obesity in Greater New Haven (29 percent) was below the national average (35 percent), and similar to the statewide rate of 26 percent and the Federal Government's Healthy People 2020 objective of 30.5 percent. These rates are calculated based on self-reported height and weight. Within the region, substantial differences exist by income group, age, and town of residence.

Across the nation and within Connecticut, obesity rates have increased dramatically. In Connecticut, rates have increased from 16 percent in 2000 to 26 percent in 2015. Precise historical data by town is not available for the Greater New Haven region, but all available sources suggest that most towns in Connecticut have been following the same trend.[56] In the state's wealthiest towns, however, obesity rates are significantly lower than they are elsewhere: only about 1 in 10 adults are obese. These towns also have very low rates of poverty and food insecurity. The fact that obesity rates in the wealthiest neighborhoods appear to have remained fairly stable over the past decade suggests that economic and neighborhood factors are important to obesity prevention.

Obesity, physical inactivity, advanced age, and poor diet are risk factors for Type 2 diabetes, a chronic condition that often leads to other severe long-term health problems. In 2015, the prevalence of diabetes in Greater New Haven (9 percent) was similar to rates in the state (9 percent) and nation (9.7 percent).[57] The dramatic geographic disparities in the rates of hospital visits for diabetes-related illnesses, particularly when comparing younger adults across towns, is a proxy for the impact that this disease has on quality of life in communities with lower income levels.

Food insecurity and a lack of physical activity are associated with the risk of overweight and obesity. Psychological stress, the habits of overeating when food is available, and the inability to consume higher-quality foods that cost more money or take more time to prepare, are associated with food insecurity.[58] In Greater New Haven in 2015, 14 percent of adults said that they did not have enough money to buy food at some point in the last year. This figure was 11 percent among residents who identified as white, compared to 25 percent among residents who identified as black or Latino. Research shows that people who live in safe and walkable communities are more likely to be active. While many neighborhoods have assets that can increase physical activity, concerns about physical safety and the quality of recreational facilities are major concerns in central city neighborhoods in Greater New Haven (see Chapter 4 for more information on walkability).

3.7

Nutrition, Obesity, and Diabetes

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF GREATER NEW HAVEN ADULTS AGE 18+

		% FOOD INSECURE	% OBESE	% WITH DIABETES
Race/ Ethnicity	Caucasian/White	11	27	8
	African American/Black	25	48	16
	Hispanic/Latino	24	30	10
Age Group	18–34	16	28	0
	35–49	18	31	8
	50–64	14	31	13
	65+	5	28	22
Income	Under $30,000	36	38	17
	$30,000–$100,000	11	32	8
	Over $100,000	1	25	4

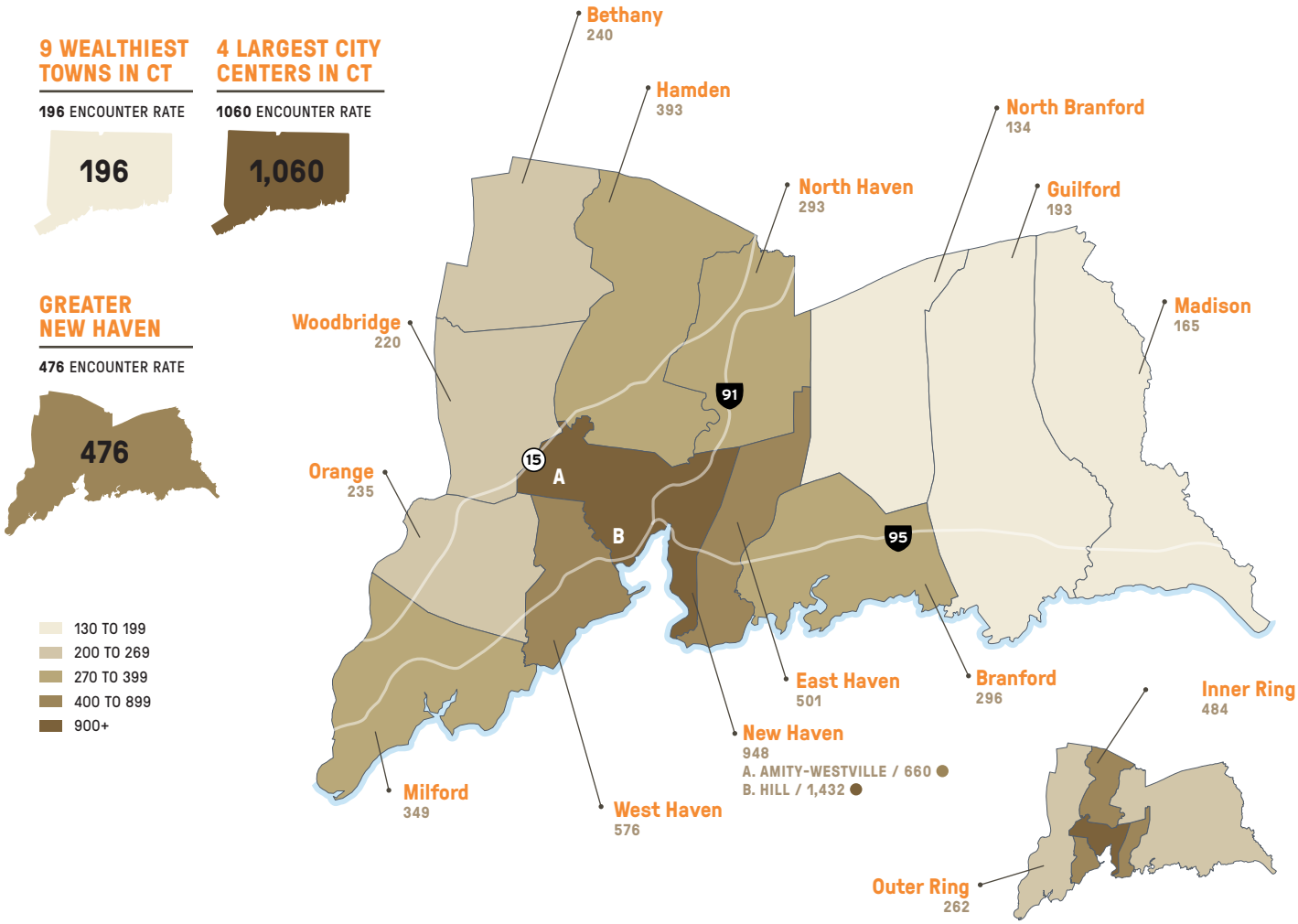
* See page 22 for rates by region and town.

BETTER WORSE

3.8

Diabetes, All Hospital Encounters

AGE-ADJUSTED ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS, 2012–2014



	DIABETES: ALL HOSPITAL ENCOUNTER RATES PER 10,000 RESIDENTS						
	ALL AGES, AGE-ADJUSTED*	AGES 20–44	AGES 45–64	AGES 65–74	AGES 75–84	DIABETES-RELATED AMPUTATION	UNCONTROLLED DIABETES
Greater New Haven	476	173	709	1,376	1,615	1.6	8
New Haven	948	282	1,725	2,539	2,646	3.2	17
Inner Ring	484	146	723	1,529	1,725	1.8	9
East Haven	501	123	727	1,589	2,009	1.8	10
Hamden	393	114	562	1,338	1,400	1.6	7
West Haven	576	192	890	1,710	1,953	2.1	10
Outer Ring	262	76	282	847	1,197	0.8	4
Milford	349	77	428	1,114	1,527	1.0	6
9 Wealthiest CT Towns	196	45	172	672	1,070	0.3	3
4 Largest CT Urban Core Towns	1,060	365	1,859	2,993	2,942	2.5	26

* See map above

Injury and Violence

Injury is among the leading causes of death, particularly among younger adults. Injuries include both unintentional injuries such as falls, crashes, and accidental drug overdose, as well suicide and homicide.

In most of the region, mortality rates from injury are similar to or in many cases significantly lower than state and national averages. However, several issues are of concern to the region. Rates of death from accidental poisoning or suicide from opioid drug use are rising and are discussed to some degree in the Substance Abuse section of this report. Accidental falls impact many older adults each year, and register as a concern as this population grows quickly; many living environments could be modified to help prevent falls. While most falls are non-fatal, for every death due to falls there are many cases of permanent disability, hospitalization, or missed work. Fatal motor vehicle crash rates, while low by national standards, remain one of the major causes of premature death and a major concern, particularly within communities where several teenage drivers have been killed or where there have been calls to improve access for pedestrians, cyclists, and transit users in recent years.

Community violence, which relates to violent crime and domestic abuse as well as higher rates of premature deaths from homicide in some city center neighborhoods, is an issue that stood out as a concern due to the extent of health disparities seen by town, neighborhood, gender, and age. In addition to its role in injury, safety is an issue that can have large impacts on the physical and mental health of residents as well as their ability to enjoy parks, public spaces, sidewalks, and streets within their neighborhoods. Although reported crime rates in most towns are low and there is a widespread perception people live within safe and supportive communities, residents in some neighborhoods frequently express that safety is the most important issue that impacts their health and quality of life.

Primary data collected in some of the poorest neighborhoods of Greater New Haven have shown that residents sometimes feel unsafe in their neighborhoods. There is a broader lack of recreational access in these areas, especially where substance abuse and violence are seen to dominate parks and other public spaces. Empowering communities to revamp these public spaces and other assets, through public programs and events, can reinforce their purpose and encourage positive uses.

Our analysis of hospital records on homicide and purposeful injuries (including assaults and attempted homicide), as well as various data reported by police departments about their policing activities, also confirm that there are large disparities in safety within the region. Because of the nuances in how this data should be interpreted across towns, neighborhoods, and city blocks, we have chosen not to present them in great detail here. However, a map and table of hospital encounter rates due to homicide and purposeful injuries illustrates that age-adjusted per capita hospital encounter rates for residents living within the state's four largest urban core towns (Bridgeport, New Haven, Hartford, and Waterbury) were more than 10 times higher than the age-adjusted rates for residents living within the state's 9 wealthiest towns. Within these towns, the disparities are even larger by neighborhood; for example, the age-adjusted rate for a hospital encounter for homicide or purposeful injury in the Hill neighborhood (zip code 06519) is more than twice the rate in the Amity-Westville area (zip code 06515). Young adults age 20-44 are more likely to visit the hospital for these types of injuries than other age groups. Additionally, men are generally significantly more likely than women to report being the victim of a violent attack or crime or require hospitalization for one, according to hospital encounter records, as well as to self-reported data on victimization collected from the DataHaven Community Wellbeing Survey of 16,219 randomly-selected adults throughout Connecticut.

3.9

Injury Mortality by Type

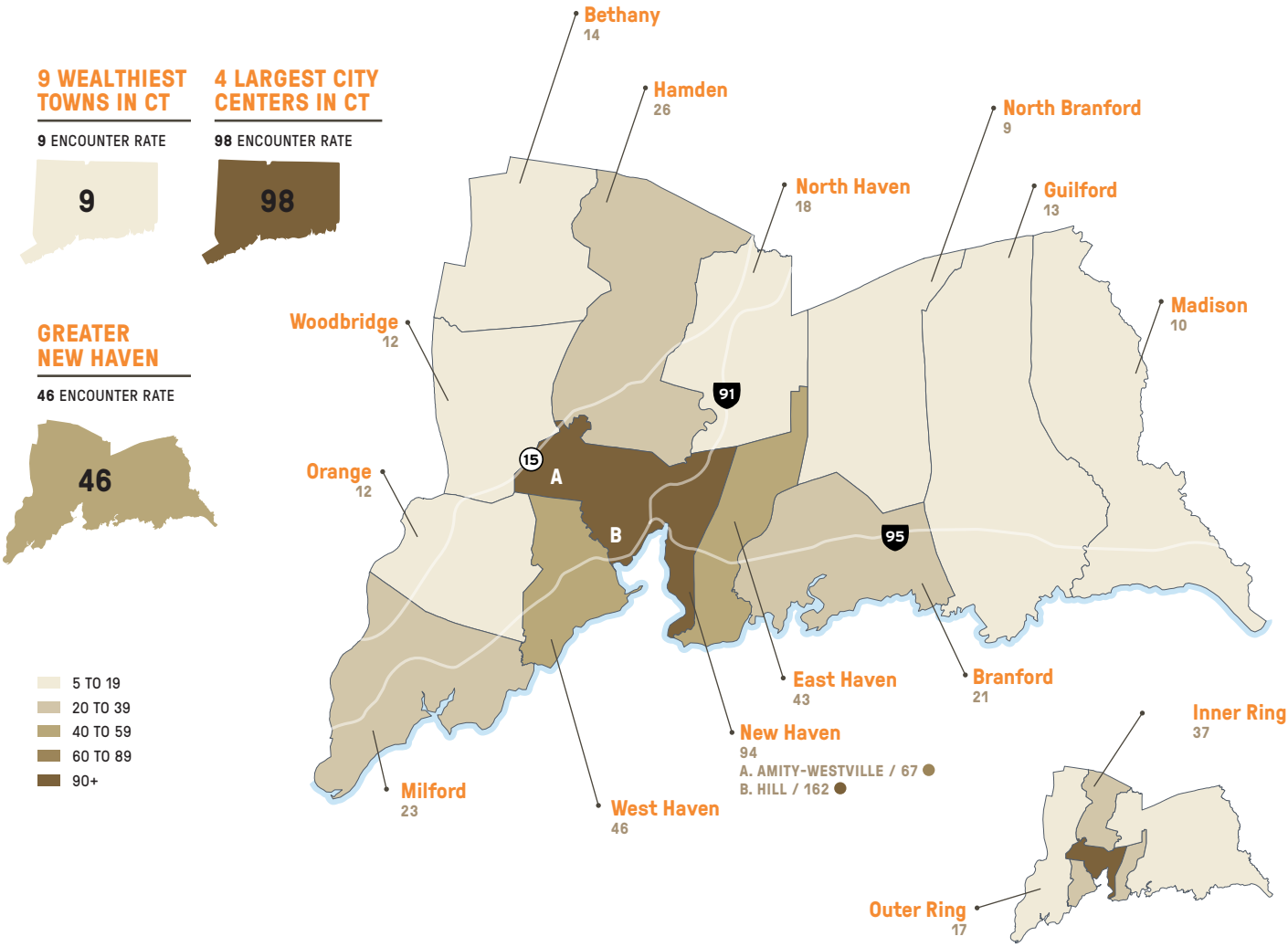
AGE-ADJUSTED MORTALITY RATES (AAMR) PER 100,000 RESIDENTS BY INJURY CAUSE, 2008–2012

	ALL ACCIDENTS	MOTOR VEHICLE CRASHES	ACCIDENTAL POISONING	FALLS	HOMICIDE	SUICIDE
Connecticut	33	7	10	8	4	9
New Haven County	36	8	12	8	5	8
New Haven	39	7	16	7	11	6
Inner Ring	--	--	--	--	--	--
East Haven	35	--	--	--	9	--
Hamden	34	7	8	11	--	6
West Haven	38	11	11	7	--	5
Outer Ring	--	--	--	--	--	--
Milford	31	7	10	9	--	9

3.10

Homicide and Purposeful Injury, All Hospital Encounters

AGE-ADJUSTED ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS, 2012–2014



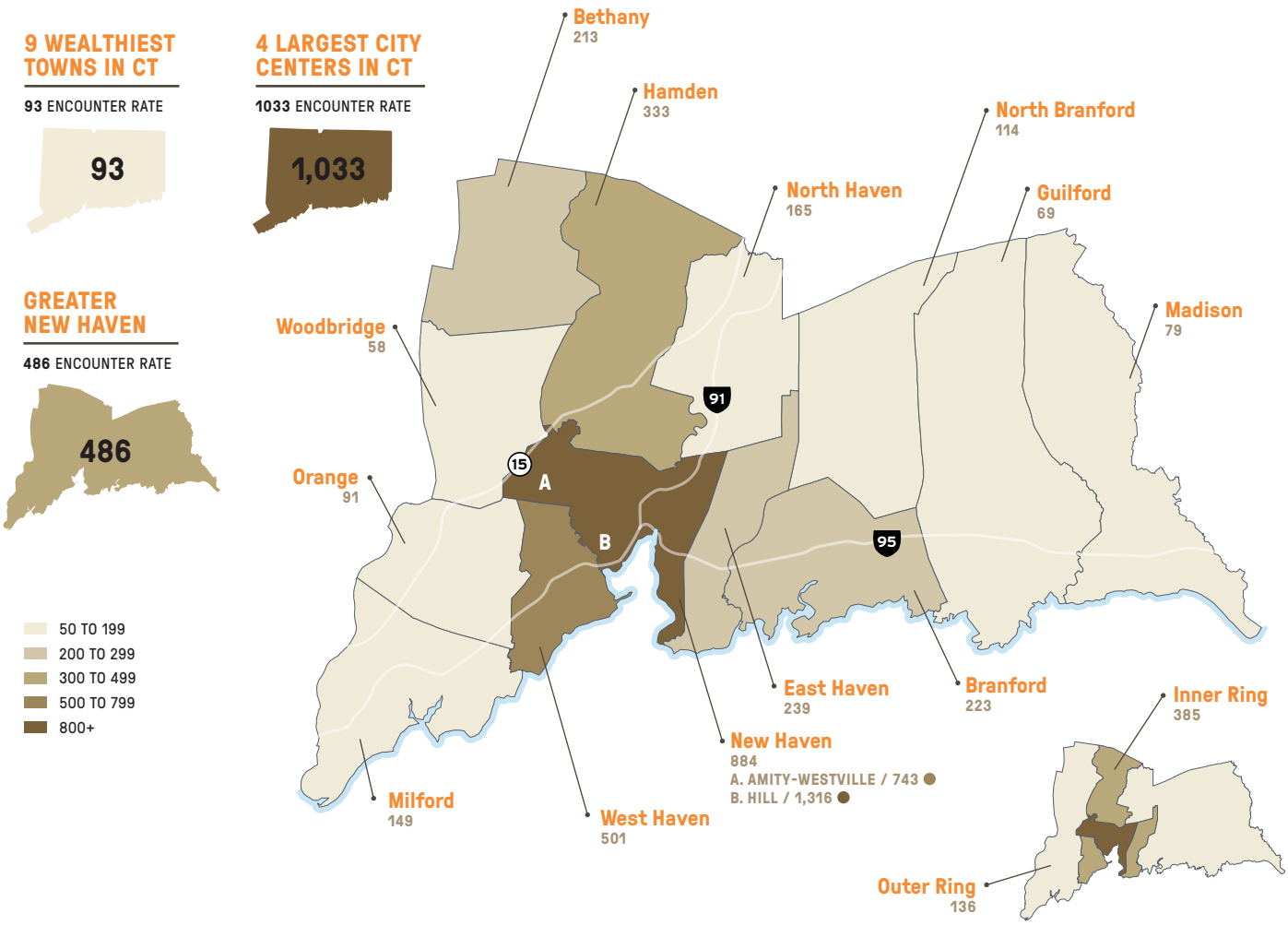
	HOMICIDE AND PURPOSEFUL INJURY, ALL HOSPITAL ENCOUNTER RATES PER 10,000 RESIDENTS						
	ALL AGES, AGE-ADJUSTED*	AGES 0–19	AGES 20–44	AGES 45–64	AGES 20–44 MALE	AGES 20–44 FEMALE	HIGH-SEVERITY CONDITIONS
Greater New Haven	46	34	85	34	104	66	4.9
New Haven	94	66	145	102	178	112	10.8
Inner Ring	37	27	67	29	80	55	4.2
East Haven	43	35	80	30	86	73	3.6
Hamden	26	21	46	18	58	36	3.1
West Haven	46	30	83	39	99	68	5.7
Outer Ring	17	13	34	10	42	25	1.2
Milford	23	18	40	19	49	31	1.2
9 Wealthiest CT Towns	9	6	19	4	27	12	0.5
4 Largest CT Urban Core Towns	98	66	172	87	211	135	9.0

* See map above

3.11

Childhood Asthma, All Hospital Encounters

AGE-SPECIFIC ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS AGE 0–4, 2012–2014



Asthma

Asthma can cause a considerable burden on health and quality of life. The prevalence of asthma among all adults in Greater New Haven (13 percent) is similar to that found statewide (13 percent) and nationally (14 percent).

Asthma often develops in early childhood. By limiting a child's ability to play, learn, and sleep, asthma can also have a substantial impact on child development and educational achievement. Proper health care is important as it can reduce these impacts and also prevent asthma attacks.

From 2012 to 2014, there was a stark difference in the number of visits to an emergency room for asthma among New Haven, the Inner Ring and the Outer Ring, particularly among children age 0-4. The higher number of severe attacks requiring hospital visits is likely caused by factors such as barriers to primary care, poorer medical management of asthma, and exposure to environmental triggers.

Visits to the emergency room for asthma are considered largely avoidable if the disease is well controlled. Avoiding triggers may be more difficult in urban settings, however, where there is greater exposure to transportation-related emissions and allergens.[59]

Other Health Issues

Though this chapter focuses on health issues that were most frequently prioritized in community conversations throughout the region, many other issues are of great interest to area communities. These have been documented within the Healthy Connecticut 2020 State Health Assessment and the additional CHNA chapter referenced in Chapter 1 of this document.

Among these issues, childhood lead poisoning continues to be a serious pediatric health problem in the region; no amount of lead in the bloodstream is considered safe. The number of children in the city of New Haven under age six with elevated blood lead, using a historical standard of 10 micrograms per deciliter (10 µg/dL), dropped from 277 (6.2 percent) to 91 (2.0 percent) between 2004 and 2013—similar to the statewide downward trend, but levels in the city were still far above 2013 levels in the Inner Ring (25 children, 0.9 percent) and Outer Ring (5 children, 0.2 percent). The current, stricter standard of 5 µg/dL, shows that 9 percent of children in the city of New Haven had elevated blood lead in 2013, compared to 2.6 percent in the Inner Ring and 0.7 percent in the Outer Ring. Lead exposure is generally higher in neighborhoods where many homes were built before 1950 and contain lead-based paint.

Additionally, while the reduction and prevention of infectious disease over recent decades remains one of the greatest public health achievements, infectious disease continues to be an important cause of sickness and premature death. The Selected Infectious Diseases table shows the number of cases of certain infectious disease occurring in the region in recent years. Disparities within the region illustrate the importance of reproductive health, monitoring and care for at-risk populations.[60]

3.12

Selected Infectious Diseases

NUMBER OF CASES (N) AND RATES PER 100,000 RESIDENTS

	TB INCIDENCE PER YEAR (2007–2011)		GONORRHEA 2014		CHLAMYDIA 2014		HCV (CHRONIC & RESOLVED) 2014		HIV: NEW DIAGNOSES 2014		LIVING WITH HIV 2014		LYME DISEASE (CONFIRMED & PROBABLE) 2015	
	N	RATE	N	RATE	N	RATE	N	RATE	N	RATE	N	RATE	N	RATE
Connecticut	94	3	2,223	62	13,134	366	2,407	67	291	8	10,727	299	2,553	71
Greater New Haven	15	3	357	77	2,210	476	337	73	56	12	2,102	453	253	55
New Haven	8	6	250	191	1,400	1,071	173	133	34	26	1,452	1,119	16	12
Inner Ring	5	4	82	56	546	375	87	60	18	12	471	323	40	27
Outer Ring	2	1	25	13	264	140	77	41	4	2	179	95	197	105

BETTER WORSE

SUBSTANCE ABUSE & MENTAL HEALTH

Mental health and physical health are closely connected. Poor mental health can become a disability that has significant impacts on employment, maintenance of physical health, behavioral health, and overall well-being, ultimately imposing major financial costs to individuals and society as a whole. Self-reported health and well-being in Greater New Haven are similar to statewide averages (see Figure 3.2 as well as Chapter 1), though there are large differences by household income level, education level, previous exposure to trauma, and other factors that we are unable to explore here in detail.

Due to the social and mental health costs that they create, substance abuse and tobacco are of major concern to the region. Tobacco use, in particular, is considered to be of particular importance because of the high costs and premature mortality that it creates, as well the available evidence that interventions (such as delaying the age of first use) can make a difference in reducing these social burdens. Exposure to cigarette smoke is a major risk factor for chronic obstructive pulmonary disease (COPD), heart disease, and lung cancer, which are leading causes of death as well as a source of large disparities in the mortality and hospital encounter rates across Greater New Haven, as shown elsewhere in this chapter.

Adults in Greater New Haven are about as likely to smoke cigarettes (15 percent) as are adults living in Connecticut (15 percent). Smoking rates vary by household income level in Greater New Haven; 29 percent of adults earning less than $30,000 per year are current smokers, compared to 6 percent of adults earning $100,000 per year or more. The proportion of smokers who say they have attempted to quit in the past year is 58 percent, a rate that is not statistically different from the statewide average.[61]

In addition, many residents use e-cigarettes, including some who are also current cigarette smokers. About one out of five adults reports that they have tried e-cigarettes at some point in their life, and half of these adults report using them regularly. Compared to adults age 35 or over, young adults are twice as likely to have tried or to be currently using e-cigarettes.[62]

3.13

Chronic Obstructive Pulmonary Disease (COPD)

HOSPITAL INPATIENT ENCOUNTER RATES PER 10,000 RESIDENTS PER YEAR, 2012–2014

	ALL AGES, AGE-ADJUSTED	AGES 45–64	AGES 65–74	AGES 75–84
Greater New Haven	121	126	419	668
New Haven	175	258	596	761
Inner Ring	134	142	494	725
East Haven	167	162	627	968
Hamden	91	84	349	494
West Haven	163	192	574	854
Outer Ring	91	62	308	601
Milford	125	93	424	816
9 Wealthiest CT Towns	54	20	167	381
4 Largest CT Urban Core Towns	142	188	508	663

In 2015, 7 percent of Greater New Haven adults, including 12 percent of adults age 18-34, reported that they felt that they needed to cut down on their drinking or drug use at some point in the past year.[63] Additionally, surveys show that about a quarter of Connecticut high school students are offered, sold, or given illegal drugs, particularly marijuana, on school property each year. Data on hospital encounters for substance abuse, which include hospital visits for a variety of reasons not related to tobacco or alcohol, also show that young adults and residents of urban neighborhoods are particularly impacted.

Drug overdose has become a leading cause of premature death, and continues to be a rising concern in the region. In recent years, there has been an increase in the number of deaths attributable to the use of heroin as well as other narcotics such as fentanyl. The total number of drug overdose deaths in Connecticut rose from 357 in 2012 to 723 in 2015. Heroin and other opioid substances are generally encountered in about 90 percent of these drug overdose deaths. All age groups are impacted, and many deaths are linked to the abuse of prescription drugs or use of pain relievers for non-medical purposes. Given the limitations of existing data, further analysis and policy development related to this emerging issue is needed.[64]

3.14

Substance Abuse, All Hospital Encounters

AGE-ADJUSTED ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS, 2012–2014

9 WEALTHIEST TOWNS IN CT

51 ENCOUNTER RATE

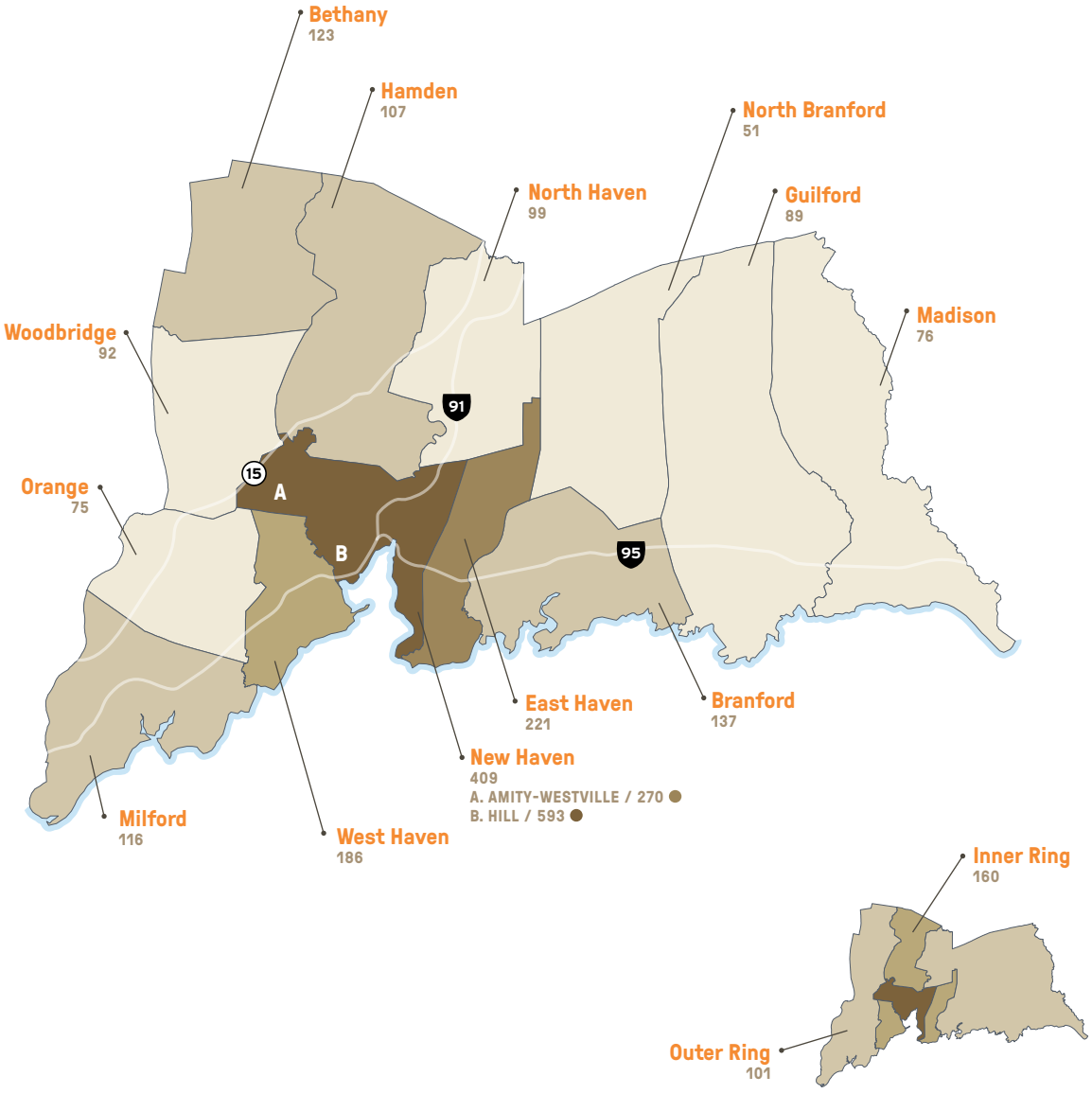
4 LARGEST CITY CENTERS IN CT

346 ENCOUNTER RATE

GREATER NEW HAVEN

196 ENCOUNTER RATE

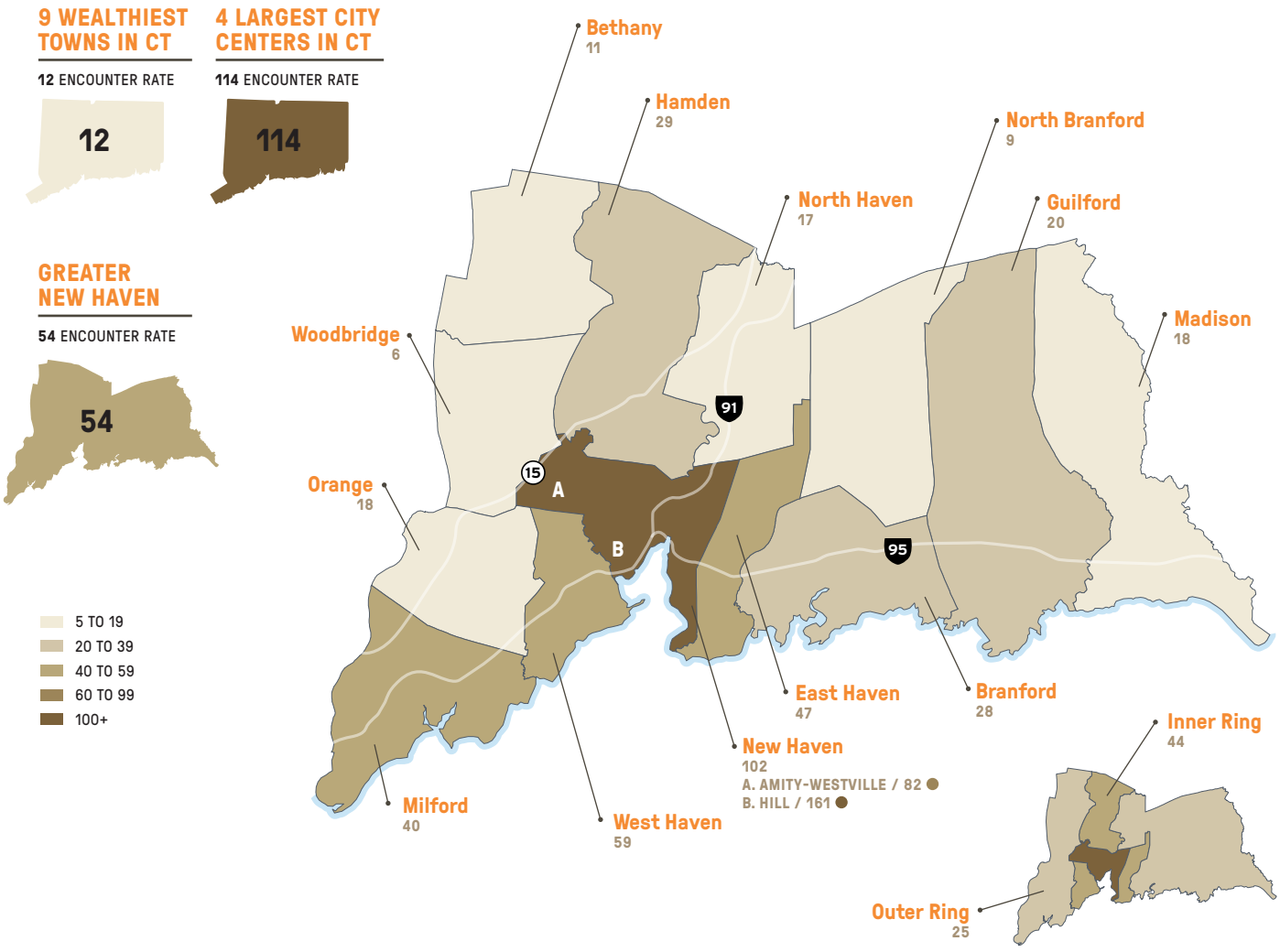
50 TO 99
100 TO 149
150 TO 199
200 TO 299
300+



3.15

Preventable Dental Conditions, Hospital ED Encounters

AGE-ADJUSTED ANNUALIZED ENCOUNTER RATE PER 10,000 RESIDENTS, 2012–2014



	PREVENTABLE DENTAL CONDITIONS, HOSPITAL EMERGENCY DEPARTMENT ENCOUNTER RATES PER 10,000 RESIDENTS					
	ALL AGES, AGE-ADJUSTED*	AGES 0–19	AGES 20–44	AGES 45–64	AGES 65–74	AGES 75–84
Greater New Haven	54	31	99	43	19	12
New Haven	102	60	162	112	40	20
Inner Ring	44	27	79	35	17	12
East Haven	47	25	92	34	20	11
Hamden	29	18	51	24	10	15
West Haven	59	38	103	49	21	9
Outer Ring	25	10	49	19	12	10
Milford	40	14	76	37	15	16
9 Wealthiest CT Towns	12	6	20	10	8	8
4 Largest CT Urban Core Towns	114	53	213	105	35	21

* See map above

ACCESS TO HEALTH CARE

Access to Care

In conversations with area residents throughout Greater New Haven, the ability to access quality, affordable, and convenient medical care often emerges as a major concern. In 2015, 43 percent of adults in Greater New Haven earning $30,000 or less, and 28 percent earning between $30,000 and $100,000 per year, reported that they postponed or did not get the health care they needed in the past year. Additionally, about 1 in 10 adults said they could not get prescription medicines they needed in the past year because they could not afford it. The 2015 DataHaven Community Wellbeing Survey identifies some of the reasons why many adults may not be getting the medical care that they thought they needed. Cost is a barrier to obtaining care that impacts residents of nearly all income levels, particularly low-income adults, echoing findings from more detailed recent national studies.[65] Whether or not adults are covered by health insurance, there are frequently other barriers to obtaining care, including an inability to find time to get to the doctor's office (sometimes due to caregiving responsibilities or the need to hold multiple jobs), the fact that their health plan does not cover the cost of a procedure that they believe is needed, a lack of transportation access, or a belief that routine medical care or check-ups are not required.[66]

For a significant number of adults, a lack of health insurance is a major barrier to receiving medical care. In 2015, adults in Greater New Haven were as likely as adults in Connecticut not to have health insurance—1 out of every 20 adults ages 18 and over do not have health insurance. The largest differences in health insurance access are observed by age, income level, and immigration status. The proportion of adults with a medical home (a coordinated, ongoing source of primary medical care) varies along similar lines. Additionally, about one in five residents who didn't get or postponed care in the past year report that the health insurance that they do have was not accepted.

The proportion of adults in Greater New Haven who report using the emergency room as a source of medical care is similar to the statewide average. Five percent of adults in Connecticut used the emergency room three or more times in the past year. Adults with low household incomes are substantially more likely than other adults to have used the emergency room on more than one occasion in the past year. Adults may use the emergency room for severe conditions, but also to seek more routine medical treatment if they are unable to access an alternative source of care, such as a primary care provider or clinic.

Access to Oral Health

Visiting the dentist is a key factor in maintaining good oral health and is linked to other health outcomes. Connecticut has the highest percentage of any state in the United States of adults who self-report visiting a dental health professional.[67] In 2015, the rate of dental visits among adults in Greater New Haven as a whole was not statistically different from the statewide rate (see Figure 3.2). The percent of adults who visited a dentist in the past year varies widely by income level and neighborhood. Disparities in the rate of emergency room encounters for dental conditions, among both children and adults, indicate that there are major barriers to accessing preventive dental care in low-income neighborhoods.

3.16

Health Care Access

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF GREATER NEW HAVEN ADULTS AGE 18+

		NO HEALTH INSURANCE	DENTIST VISIT IN PAST YEAR	COULD NOT AFFORD PRESCRIPTION MEDICINES DURING PAST YEAR	DID NOT GET OR POSTPONED MEDICAL CARE DURING PAST YEAR
Race/ Ethnicity	Caucasian/White	3	77	7	27
	African American/Black	4	70	11	28
	Hispanic/Latino	16	71	13	33
Age Group	18–34	7	74	5	32
	35–49	5	78	10	31
	50–64	4	76	11	29
	65+	1	74	5	16
Income	Under $30,000	12	59	12	43
	$30,000–$100,000	2	75	9	28
	Over $100,000	1	90	4	16

BETTER WORSE

* For insurance and dentist visits, see page 22 for rates by region and town.

Conclusion: Towards a Healthier Greater New Haven

In the Greater New Haven region, health is important. Local governments prioritize it and are regularly working on public health initiatives. Interest groups abound, with municipalities, foundations and local coalitions collaborating in order to improving the region's health. Across eight focus groups, residents revealed that concerns about the health landscape of their region are at the forefront of everyone's minds. People want themselves and their families to be able to lead healthy lives.

Health disparities are a common theme, emerging in discussions about physical and mental health, as well as access to high quality and affordable care. In a metropolitan area like Greater New Haven, socioeconomic conditions span the entire range from the wealthiest households in outer shoreline towns with access to all the resources required to maintain one's health, to the families living below the poverty line, often in economically-distressed neighborhoods, where prioritizing health may feel like an unrealistic luxury. Insurance is just one of an abundance of financial obstacles to finding high-quality healthcare in distressed neighborhoods. Yet these are the areas where it is most important to invest in preventative health care and other infrastructure, as under-resourced or unsafe neighborhoods can create obstacles to healthy behaviors.

Other issues transcend socioeconomic and geographic boundaries. Uninsured adults, immigrants, and senior citizens find themselves in need of specialized services that they cannot easily access. Mental health issues are widespread, but reliable access to treatment is not as plentiful. Communities themselves are not always cohesive, lacking the public spaces, transportation infrastructure, and events that can draw together and unify residents.

How can these issues be addressed? These problems require a two-pronged approach: a combination of targeted policies to address the issues and creating a healthier environment to support and sustain these solutions. After all, where we live plays a formative role in determining how we live.[68]

Take chronic disease, for example. Conditions like heart disease, lung disease, obesity, and diabetes, are prevalent in Greater New Haven, and most concerning is their incidence among younger individuals. These issues often arise due to inadequate medical care and unhealthy behaviors. In focus groups, access to healthcare was deemed a major barrier to achieving good health. One issue that emerged was the concentration of specialized medical services in city centers, which inconvenienced patients outside of the downtown region who lacked reliable transportation. This strain could be relieved by increasing access to specialists and clinics throughout the region, in addition to coordinated transportation to the clinics.

There also needs to be improvement of the health care system for neighborhoods that are historically under-resourced and disproportionately plagued by chronic disease. Often citing insufficient insurance as a deterrent to seeking medical attention, people with limited incomes find themselves struggling to navigate a convoluted system. Expansion of community health centers and other services targeted toward low-income individuals can satisfy this need, and including more specialists and mental health professionals under state insurance coverage could alleviate a great deal of stress.

More so than just growing the medical landscape, reinforcing access to healthy behaviors can prevent health conditions from arising in the first place. Eating healthy, quitting smoking, getting adequate physical activity, reducing substance use and abuse—these lifestyle changes are associated with decreased obesity, improved heart and lung health, and overall increased life expectancy.[69] But these are behaviors that are often out of reach, particularly for low-income individuals. In a focus group, residents commented on the abundance of farmer's markets in the area, but noted that they were often more expensive and more difficult to access, or limited to the summer months. Community members called for increased options for healthy, affordable, and accessible food, whether through community gardens, new farmer's markets in areas with highest need, or efforts organized by local governments.

Other habits, such as smoking and drug use, can also be products of the environment. In community conversations, residents expressed their views that a lack of recreational activities for teens can leave them exposed to violence and substance abuse. One focus group participant noted that community parks were full of people with "bad intentions," and many people mentioned that parks were in poor condition and unsafe. Neighborhood violence generally kept people indoors and fearful for their children's

safety. This environment needs to be changed. If neighborhoods, parks, and community centers are kept cleaner and safer, they create an opportunity for individuals to fully utilize their outdoor spaces, which can be beneficial for their health. Offering recreational options for youth, from preschool for the youngest children to afterschool activities for teenagers, and easily accessible substance abuse counseling can redirect at-risk youth to the alternate activities and professional support they may need.

As part of the **Community Health Needs Assessment (CHNA)** process, an additional chapter has been developed by the Healthier Greater New Haven Partnership. The chapter describes identified health needs in more detail, documents the process that was used to conduct the CHNA, and discusses planning efforts by collaborative partners throughout the region. You may find this chapter, titled "2016 Greater New Haven Region Community Health Assessment and Implementation Strategies," on the Yale New Haven Hospital or DataHaven websites. It is designed to complement the information in this report.

Health initiatives in Greater New Haven are on the right track. The first steps have been taken: people are having conversations about health. The CHNA process helps identify the issues that are important to people throughout the region, and the potential opportunities to improve health within their communities. The next step is to address these issues by coordinating policy changes to improve health, evaluating health-related expenditures at the regional level, advocating for built and social environments in which individuals can improve and maintain their health, and tracking progress as the CHNA is periodically updated. With this combined approach, solutions can be sustainable and foster lasting changes to the health status of Greater New Haven. DH

For further detail about the information in this chapter, as well as additional data specific to individual towns, please see the additional CHNA chapter referenced in Chapter 1.

CHAPTER 4

A Region of Opportunity

An Introduction to the Chapter

- The region's 1,630 subsidized infant/toddler slots in childcare centers (including 180 free slots) could serve at most only 31 percent of the 5,260 infants and toddlers living in low-income households in Greater New Haven.
- Six years after high school graduation, 47 percent of all Greater New Haven Class of 2008 students had earned a post-secondary degree – but enrollments and completions vary widely by town, race, gender, and economic status.
- Young adults, as well as people who are unemployed or underemployed, are much less likely to have access to a car when compared to other groups.
- Since 2000, the health care, education, administration, and accommodation and food service industries in New Haven County have added about 26,000 jobs.
- Greater New Haven libraries have $39 on average to spend per person per year, compared to $53 statewide. Woodbridge library has a per-person operating income of $93 dollars per person per year, while West Haven and East Haven libraries both have $30 per person.
- In Greater New Haven, 4 out of 5 adults report trusting neighbors, having neighbors who could work together, and having confidence in police – all measures of community cohesion.

EARLY CARE & EDUCATION

Why Early Care and Education Are Important

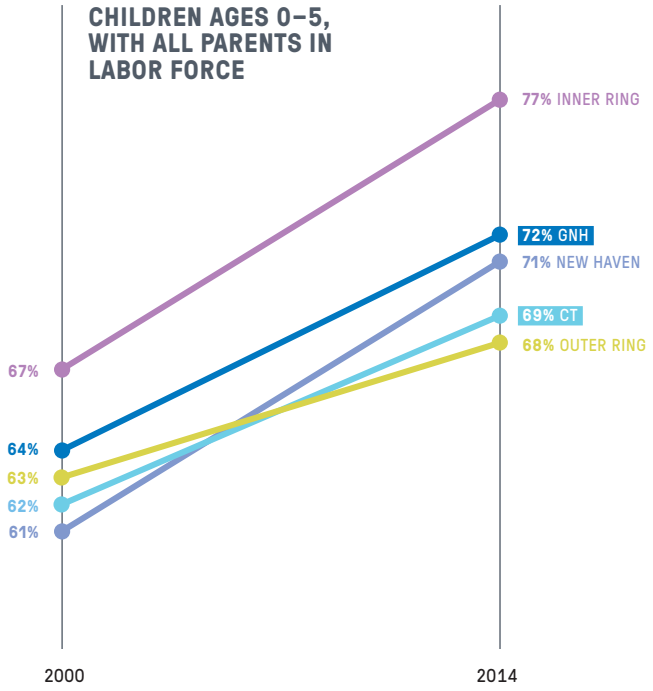
Investing in high-quality early care and education benefits young children, their parents, and the communities in which they live. Young children who participate in well-resourced and regulated early care and education programs are less likely to be retained in school or to require special education services, and more likely to graduate from high school. They are also less likely to become involved in the criminal justice or welfare systems and more likely to be productively employed.[70] Parents with access to affordable, reliable child care are less likely to miss work and more likely to retain steady employment. These parents and their children ultimately are able to contribute more, and cost less, to their communities.

Demographics of Children and Families

In 2014, there were 97,465 children (ages 0–17) in Greater New Haven, 24,000 of whom were young children, under the age of 5.[71] Thirty-seven percent

4.1

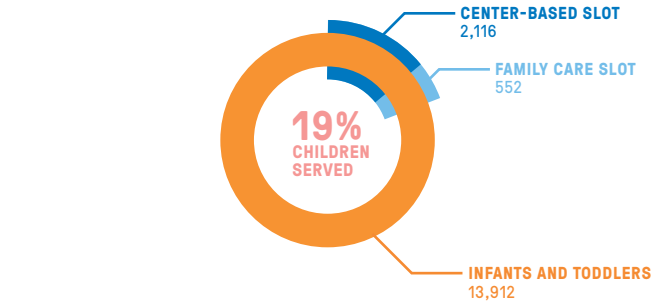
Working Parents, 2000–2014

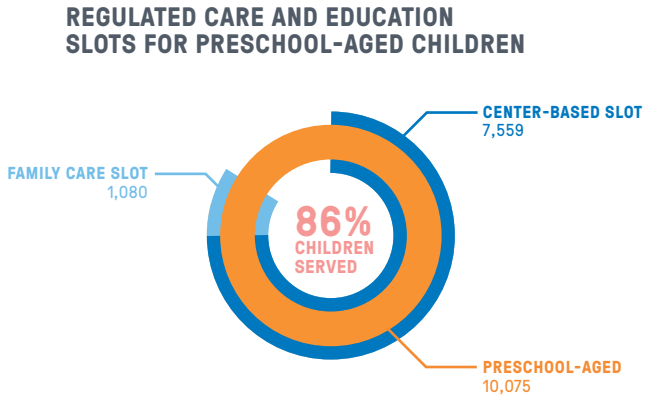


of the region's young children live in low-income households, though this share is higher in certain towns and neighborhoods. Overall young children are more likely to be from low-income households compared to the total population (27 percent of the total population are low-income, see page 17).[72] Low-income status indicates serious economic hardship — living in a household that earns less than $47,700 for a family of four or 200% of the Federal Poverty Line.[73] Despite the fact that the total number of young children in the region has been decreasing (down 19 percent since 1990), the past decade witnessed a 10 percent rise in the number of young children (up 960 children) living in low-income families in the region. This number grew the most in the Inner Ring suburbs (up 940) and Milford (up 270).

4.2

Availability of Childcare and Education in Greater New Haven, 2014





The number of single-parent families in Greater New Haven grew by 10 percent from 1990 to 2014; over the same period, the number of married couples with children at home decreased (down 16 percent).[74] Single-parent families are more likely to be economically-disadvantaged: in Greater New Haven, single-parent families are 5 times more likely to live in poverty than married couple families living with children.[75]

In Greater New Haven, the share of children ages 0–5 from families where all parents worked or were looking for work grew, from 64 percent in 2000 to 72 percent in 2014.[76] This increase may reflect the growing number of single-parent families as well as societal shifts, as more women, including mothers, join the workforce compared to past decades.[77] It also marks an increased need for childcare, since most working parents cannot care for their children while on the job. (FIG 4.1)

Access to Early Care and Education

There are many early care and education options for young children. Parents, family members, friends, or nannies look after some children at home. Center-based programs are managed by public or private schools, nursery schools, community groups, or municipalities. Family child cares are operated from a child care professional's house.

All family child care and center-based providers are "regulated," which includes licensed and license-exempt programs. Connecticut mandates the vast majority of family child care and center-based programs to be "licensed," meeting state-established minimum health and safety standards; a few center-based programs — such as those in public schools — are license-exempt.[78] To receive state subsidies for such programs as School Readiness or Smart Start, child care centers must also be accredited by the National Association for the Education of Young Children, which requires meeting an additional set of quality standards.[79] Programs that receive federal dollars, such as Head Start, must meet federal quality standards.

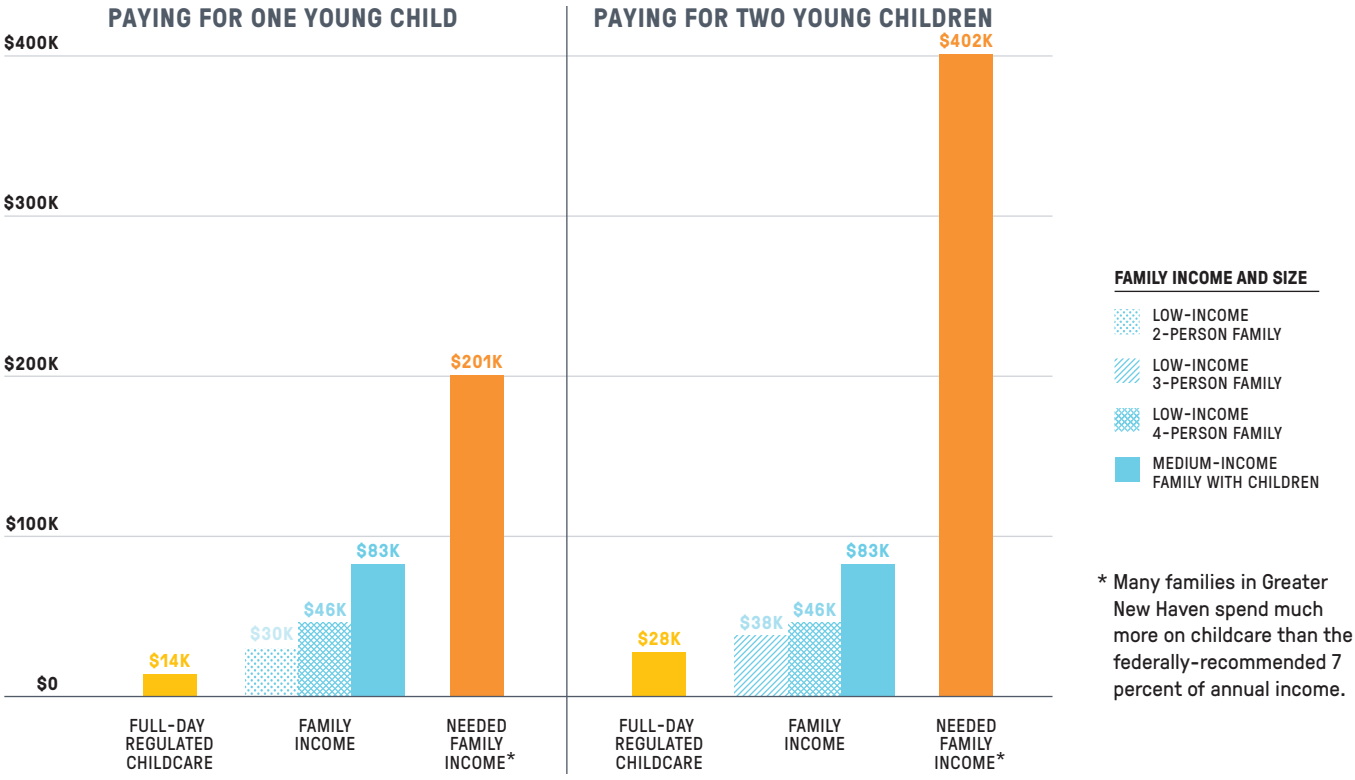
In 2014, there were 11,300 slots at regulated early care and education programs in Greater New Haven. Fourteen percent were in family child care homes; the rest were at centers, public schools, or nursery schools. Of these slots, 8,640 were reserved for preschool-aged children, and the rest were for infants and toddlers.

There is a serious shortage of early care and education options for infants and toddlers: there are only enough regulated infant/toddler

4.3

Affordability of Childcare for Families

COSTS OF REGULATED, FULL-DAY CHILDCARE AND FAMILY INCOMES IN GREATER NEW HAVEN, 2012



* Many families in Greater New Haven spend much more on childcare than the federally-recommended 7 percent of annual income.

slots in Greater New Haven to serve one in every five children ages 0–2.[80] Providers supply nearly sufficient early care and education options for preschool-aged children: there are enough regulated slots for most (86 percent) of the 3- and-4-year-olds in the region, including enough slots in center-based programs for 75 percent of preschoolers.

However, the actual enrollment rate of 3- and 4-year-olds at center-based preschools is only 59 percent, suggesting that factors other than availability — such as a program's cost, location, or hours of operation — influence enrollment in child care and education as well.[81]

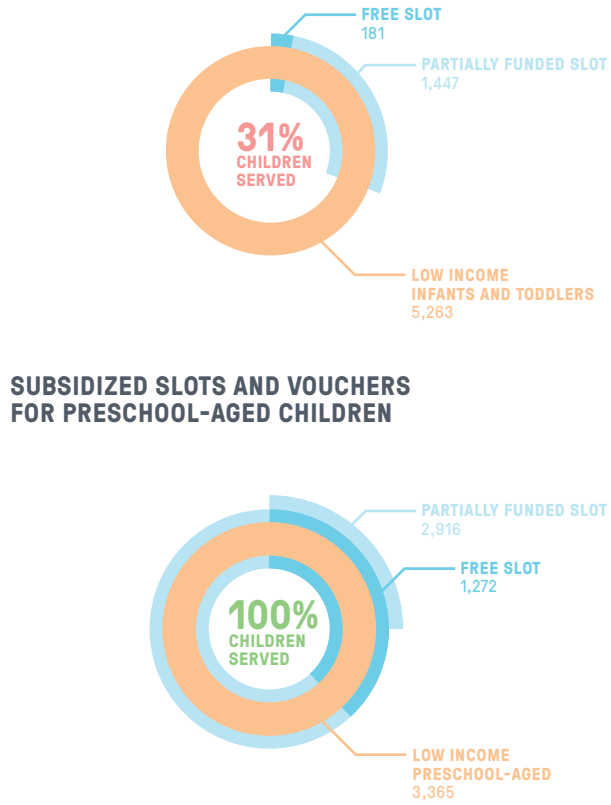
Early Care and Education Cost

In 2012, costs for full-day, full-year regulated early care and education programs in Greater New Haven averaged between $9,200 and $14,100 per year per child.[82] Programs in centers and for infants and toddlers were more expensive than those in family child care homes or for preschool-aged children. Costs for early care and education are rising — the state average increased by 14 percent from 2007 to 2012.[83]

The federal government recommends that families spend at most 7 percent of income on child care.[84] However, in 2012, the average cost of care for one child, before subsidies, amounted to between 11 and 17 percent of median incomes of Greater New Haven families with children.[85] Some families spend even more of their income on childcare: for example, a New Haven family earning that town's median family income would spend 43 percent of their annual budget on child care for an infant.[86] A low-income, single-parent household (earning less than 200% FPL) would spend nearly half its budget on care for an infant or toddler.[87]

4.4

Availability of Childcare and Education Subsidies in Greater New Haven, 2014



THE CHALLENGE OF FUNDING INFANT AND TODDLER CHILDCARE

Early care and education for infants and toddlers receive significantly less funding than do preschool programs. At the same time, the costs of caring for the youngest children are significantly higher, due mainly to a higher mandated staff to children ratio.[93] Between October 2010 and October 2013, the number of infants and toddlers statewide who received some form of subsidy for early care and education fell by 5 percent, while, during that same time period, the number of preschoolers statewide who received some form of subsidy for early care and education rose by 5 percent.[94]

The government's increased investment in preschoolers may also have unintended, negative effects on the supply and price of infant-toddler care. Anecdotal evidence suggests that when the government offers free or subsidized preschool in settings that serve only preschoolers, programs that serve a range of ages may lose some preschoolers. Without that revenue stream, they may be unable to afford to offer infant/toddler care, or will only be able to offer it at higher rates.

Subsidies for Costs of Early Child Care and Education

There are not enough government subsidies to assist all families in Greater New Haven who cannot afford early care and education. In 2014, the government funded or provided vouchers for a total of 5,820 slots in the region, making them free or partially subsidized for eligible families: 1,630 for infants and toddlers, 4,190 for preschool-aged children.[88]

Funding is extremely limited for families with infants and toddlers: the 1,630 subsidized infant/toddler slots could serve at most only 31 percent of the 5,260 infants and toddlers living in low-income households in Greater New Haven. Only 180 of these slots, or 11 percent, are free; the rest require a parent contribution.[89]

Meanwhile, the 4,190 subsidized slots and vouchers for preschool-aged children theoretically could serve all of the 3,365 children ages 3–4 from low-income households (earning less than 200% FPL) in Greater New Haven.[90] Thirty percent (1,270) of these slots are free; the rest require families to pay some costs.[91] In reality, not all preschool-aged children from low-income families are funded, since families must apply for subsidies first, before receiving them. The comparison is not perfect because some children use more than one form of subsidy, costs may be prohibitive even after considering an available subsidy, and families earning above the low-income threshold can also qualify for some of these subsidies.[92]

Preschool Enrollment

Statewide Census data suggest that a family's ability to pay impacts preschool enrollment: in 2014, 3-and-4-year olds from low-income families (earning less than 200% FPL) were less likely to enroll in center-based preschools (54 percent) when compared to children from higher-income families earning more than twice the federal poverty line (67 percent).[95] In this same year enrollment rates of 3-and-4-year-olds were considerably higher in the Outer Ring towns overall (70 percent) compared to in the Inner Ring (56 percent) or New Haven (53 percent).[96]

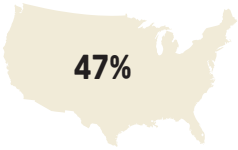
4.5

Preschool Enrollment in Greater New Haven, 2014

CHILDREN AGES 3–4, ENROLLED IN CENTER-BASED PRESCHOOL

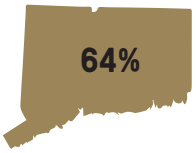
UNITED STATES

47% ENROLLMENT RATE
8,325,844 CHILDREN AGES 3–4



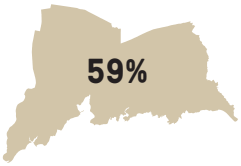
CONNECTICUT

64% ENROLLMENT RATE
82,972 CHILDREN AGES 3–4

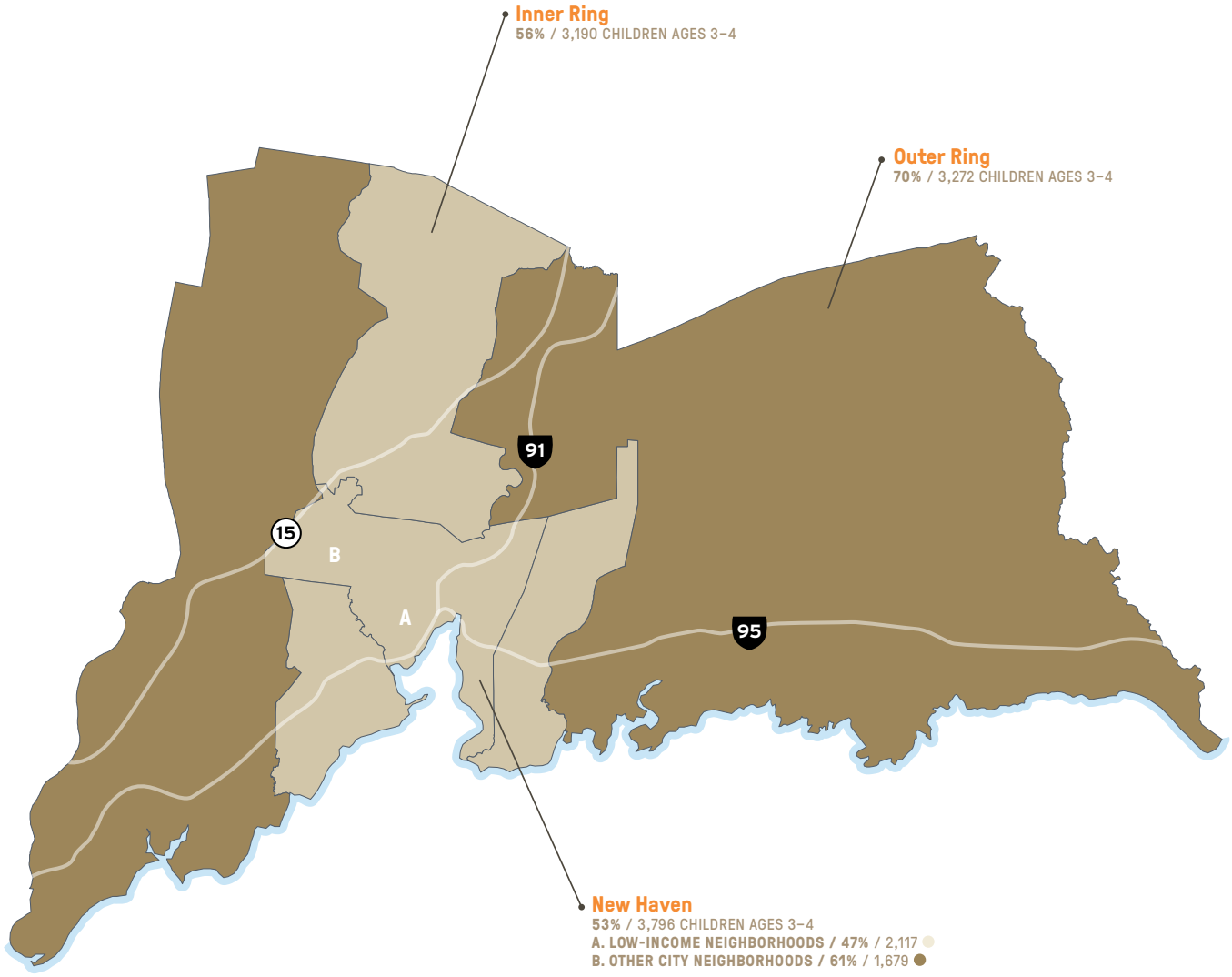


GREATER NEW HAVEN

59% ENROLLMENT RATE
10,258 CHILDREN AGES 3–4



49% AND DOWN
50% TO 59%
60% AND UP



EDUCATIONAL OPPORTUNITIES FOR CHILDREN & YOUTH

Importance of Education

Education is key for determining positive outcomes for individuals and communities. People with high school diplomas or college degrees have more employment options and higher potential earnings, on average, than people who do not finish high school.[97] In turn, individuals with good financial stability support the local economy through tax contributions and consumer purchases. Also, people with more years of education are more likely to be civically engaged and to be in good health.[98]

Demographics of K–12 Students

During the 2014–15 school year, there were 61,900 students in grades K–12, at 14 public school districts in Greater New Haven (not including students at charter schools).[99] Eleven percent of all K–12-aged children attended private schools.[100]

Fifty percent of Greater New Haven public school students are white, and 50 percent are children of color: 21 percent African-American, 22 percent Hispanic, and 7 percent some other race. A higher share of young children identify as minorities, compared to older children (see page 12) — indicating that the student body will increase in racial and ethnic diversity as older students age out of the student body. New Haven public schools mostly enroll children of color — 85 percent are children of color — compared to students at Outer Ring school districts, where 82 percent are white.[101]

A student who takes special education classes, who qualifies for free or reduced-price meals (FRPM) at school based on low family income (below 185% the federal poverty line), or who is an English Language Learner (ELL) is considered to be high-needs.[102] Of students in preschool through twelfth grade at Greater New Haven public schools, 13 percent are special education, 38 percent are FRPM-eligible, and 8 percent are ELL; some students have more than one high-needs status.[103] These rates are similar to statewide averages.

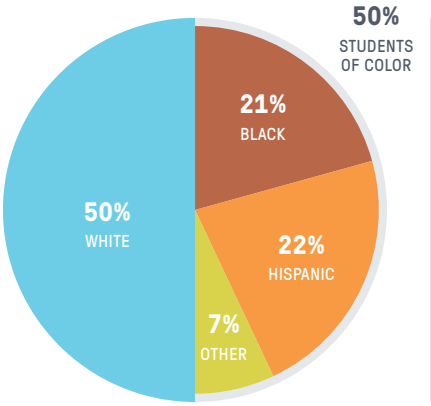
In New Haven, over 60 percent of students have at least one high-needs status, while less than a quarter of students at Outer Ring school districts are high-needs.[104]

Students are considered to be transient if they change schools at least once within a school year, but counts of this population kept by Greater New Haven schools are unreliable. Census data show that nine percent of all school-aged children (ages 5–17, attending private or public schools) living in the region move homes each year (although this overestimates the rate of transiency at public schools, since not all children who move must change schools). This rate ranges from 16 percent in New Haven, to 7 percent in the Outer Ring towns.[105]

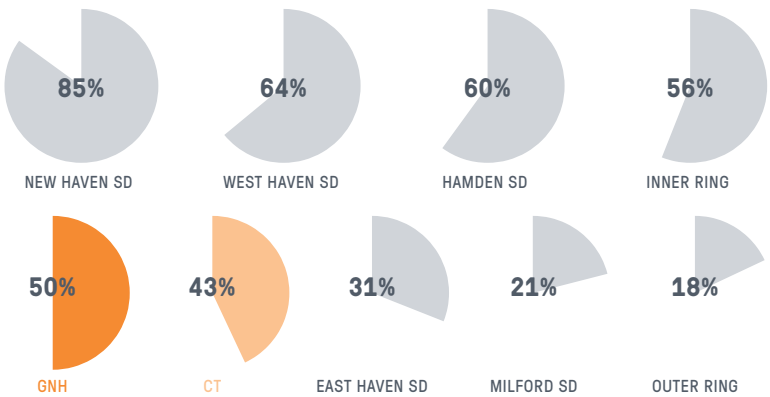
4.6

Race and Ethnicity of Greater New Haven Students, 2014–15

GREATER NEW HAVEN PUBLIC SCHOOL STUDENTS, K–12



STUDENTS OF COLOR, BY DISTRICT



4.7

High-Needs Students

GREATER NEW HAVEN PUBLIC SCHOOL STUDENTS BY HIGH-NEEDS STATUS, PREK–12, 2014–15*

	TOTAL STUDENTS	SPECIAL EDUCATION	SPEC ED PERCENTAGE	ENGLISH LANGUAGE LEARNER	ELL PERCENTAGE	FREE AND REDUCED-PRICE MEAL ELIGIBLE	FRPM ELIGIBLE PERCENTAGE
Connecticut	546,347	72,773	13%	34,919	6%	205,921	38%
Greater New Haven	61,912	7,953	13%	4,856	8%	23,641	38%
New Haven SD	21,711	2,708	12%	3,080	14%	12,743	59%
Inner Ring	14,631	2,200	15%	1,276	9%	7,299	50%
East Haven SD	3,011	390	13%	225	7%	1,503	50%
Hamden SD	5,680	879	15%	272	5%	2,375	42%
West Haven SD	5,940	931	16%	779	13%	3,421	58%
Outer Ring	25,570	3,045	12%	500	2%	3,599	14%
Milford SD	6,278	766	12%	153	2%	1,350	22%

* Some students belong to more than one high-needs group.

Skill-Building and Academic Achievement

Early school success is highly linked to later achievement. Reading and math ability in kindergarten are predictors of proficient skills in more advanced subjects.[106] A study by the Annie E. Casey Foundation found that about 16 percent of children who are not reading proficiently by the end of third grade do not graduate from high school on time, a rate 4 times greater than that for proficient readers.[107] Achievement in middle school is even more highly correlated with high school graduation. One study found a 30-percentage point difference in graduation rates between students who had completed algebra by the 8th grade and those who had not.[108] Math skills in eighth grade also indicate preparedness for technical classes in high school.[109]

According to the Connecticut State Department of Education, Greater New Haven public school students overall perform slightly below statewide averages on standardized tests (the Smarter Balance Assessment Consortium, or SBAC). In 2015, 47 percent of third graders in the region demonstrated proficient skill by passing the reading test, 38 percent of fourth graders passed the math test, and 32 percent of eighth graders passed the math test. Greater New Haven pass rates were about 6 percentage points lower than corresponding statewide rates. Achievement differed by school district: for example, the third grade reading pass rate was 78 percent at Guilford School District, 3 times the pass rate at New Haven schools.[110]

Attendance and Academic Achievement

In Connecticut, a student is considered "truant" if he has more than four unexcused absences in any one month or more than ten in one school year, while he is considered "chronically absent" if he misses more than 10 percent of school days for any reason.[111] Absenteeism, whether excused or unexcused, has significant effects on academic achievement. Children who are chronically absent in both kindergarten and first grade are much less likely to read proficiently by the end of third grade. One Baltimore study found that sixth-graders who are chronically absent are two and a half times less likely to graduate from high-school than their non-chronically absent peers.[112]

During the 2013–14 school year, Greater New Haven students had higher rates of chronic absence (15 percent of all students) than the state as a whole (11 percent). Among the region's students, high schoolers are approximately twice as likely to be chronically absent than students in grades K–8 — a pattern that holds true at most school districts in the region. Chronic absence rates range from 2 percent for all Madison public school students, to more than 25 percent among New Haven students.[113]

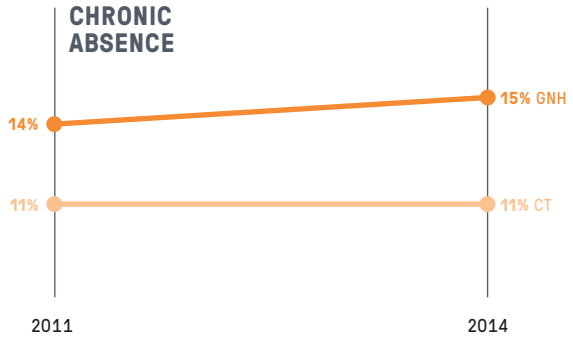
Like students who are absent, students who are suspended lose valuable class time. For students who are otherwise attending school and passing their courses, a single suspension in ninth grade is significantly correlated with later chronic absence and academic failure.[114] Being suspended once

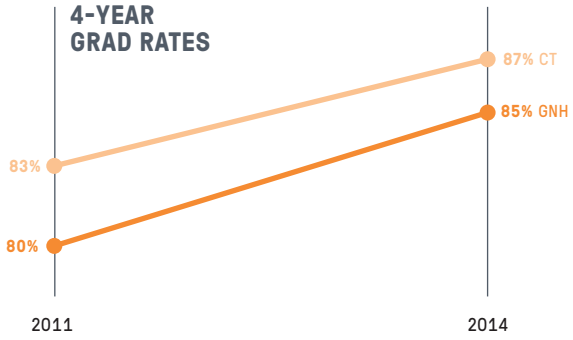
4.8

Academic Achievement in Greater New Haven Schools

STUDENTS SCORING "PROFICIENT" ON STANDARDIZED TESTS (SBAC), 2015, AND 4-YEAR GRAD RATE, 2014

	3RD GRADE READING	4TH GRADE MATH	8TH GRADE MATH	4-YEAR GRAD RATE
United States	--	39%	32%	82%
Connecticut	54%	44%	37%	87%
Greater New Haven	47%	38%	32%	85%
New Haven SD	24%	11%	15%	76%
Inner Ring	50%	36%	23%	82%
East Haven SD	47%	35%	16%	81%
Hamden SD	58%	43%	27%	89%
West Haven SD	45%	29%	22%	74%
Outer Ring	66%	61%	48%	93%
Milford SD	54%	49%	38%	92%





in ninth grade doubles a student's likelihood of dropping out.

Suspension rates at Greater New Haven schools are below the state average. During the 2012–13 school year, regional schools had an overall rate of 60 out-of-school suspensions (OSS) per 1,000 students, compared to 75 per 1,000 students statewide.[115] However, district and state-level data reveal dramatically higher OSS suspension rates for students at poorer school districts and for non-white students. For example, the OSS suspension rate in New Haven School District (93 per 1,000) is nearly 8 times higher than the rate at Madison schools.[116] Analysis of statewide data reveals that compared to white students, black students are more than 6 times more likely to be suspended, and Hispanic students are 4 times more likely.[117]

On-Time High School Graduation

Ultimately, 85 percent of Greater New Haven seniors graduated on time — in 4 years — in 2014, slightly lower than the Connecticut-wide rate of 87 percent. Corresponding with district-wide rates of student need, academic achievement, and absence from school during the K–12 years, graduation rates differ by school district. At the Outer Ring districts, the four-year graduation rate was 93 percent, compared to 76 percent at the New Haven district.[118]

Barriers to Academic Achievement

In 2015, high-needs Greater New Haven students of any grade (including FRPM-eligible, special education, and ELL students) passed the SBAC reading test at half the rate of non-high needs students.[119] Similarly, high-needs students of any grade passed the SBAC math test at less than half the rate of non-high needs students. Across a majority of academic measures, large disparities in performance rates exist between groups that differ by race/ethnicity, family income, and English language proficiency.[120] Chronic absence, suspension, and transience also put students at greater risk for poor academic performance.[121] Students from groups who perform below average on earlier measures of achievement ultimately are less likely to graduate from high school on time.[122]

These disparities are evidence of what is commonly referred to as the "achievement gap": the persistent difference in academic performance between two groups of students, particularly groups defined by race/ethnicity or socioeconomic status.[123] It is linked to an "opportunity gap," related to family income and resulting resources — such

as access to books or educational games, nutrition, and social environment — that affect students' performance.[124] The opportunity gap begins during early childhood — by age 3, children living in poverty have heard 30 million fewer words than children from high-income families[125] — and it lasts through high school graduation and beyond.[126] It persists in school districts and regions across the state and nation.[127]

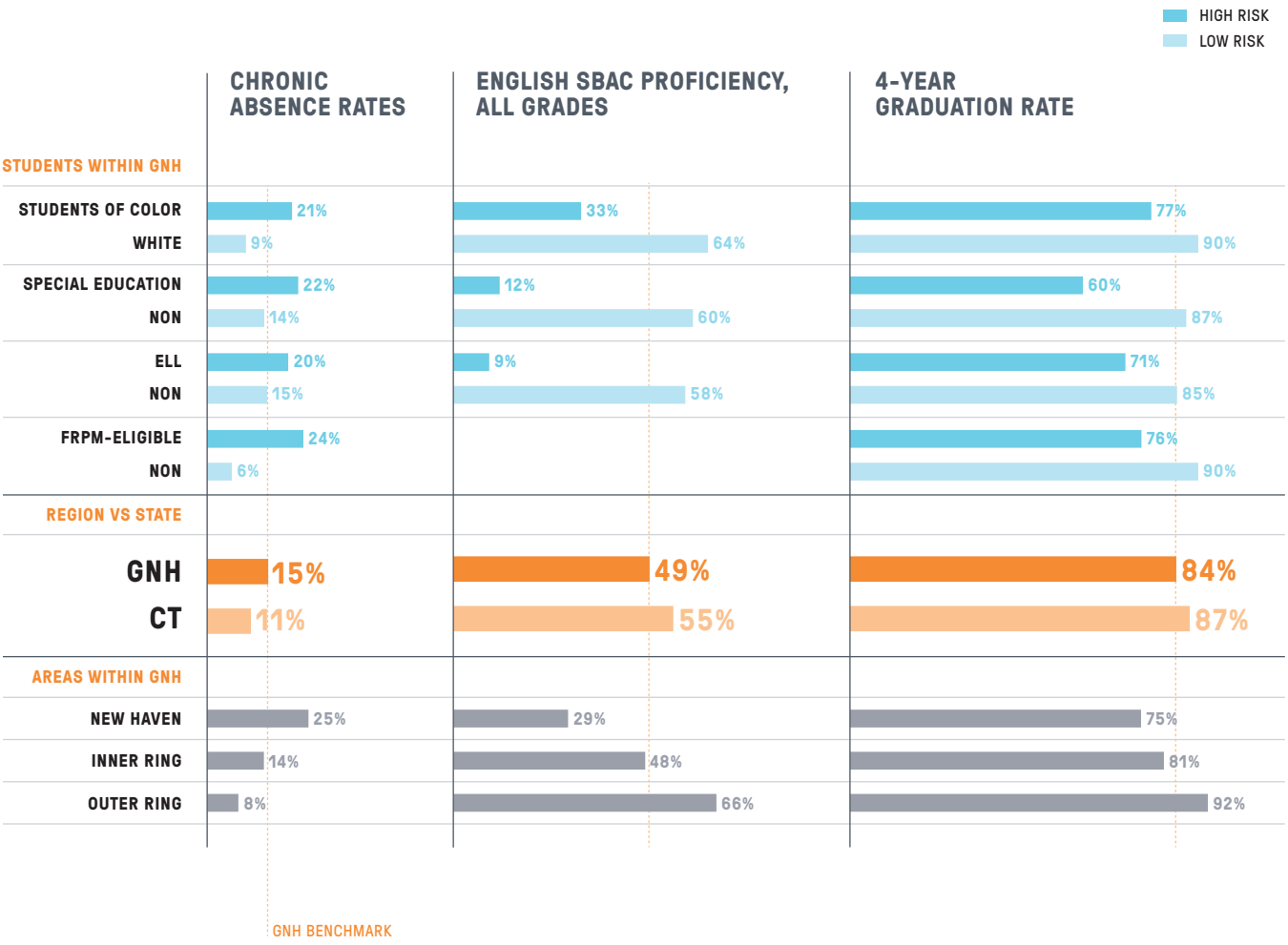
Higher Education

In 2013, 74 percent of Greater New Haven public high school graduates enrolled in college, about three-quarters of whom started four-year programs. Between 2007 and 2013, the number of students who enrolled in any two or four-year program grew by 4 percent. Each year about 90 percent of all former Greater New Haven students who started college persisted on to a second year of college. Six years after high school graduation, 47 percent of all Greater New Haven Class of 2008 students had earned a post-secondary degree, a majority emerging with four-year degrees.[128]

4.9

The Opportunity Gap Impacts Achievement at Greater New Haven Schools

STUDENT PERFORMANCE ON ACADEMIC ACHIEVEMENT MEASURES: 2015 SBAC "PROFICIENCY" RATES, 2014 CHRONIC ABSENCE RATES, 2014 4-YEAR GRADUATION RATES



A quarter of Greater New Haven high school graduates enroll at state or community colleges, and of those students, more than 80 percent are placed in remedial courses to relearn high school material.[129] This signals that they are not prepared for college-level classes and ultimately results in costing them extra time and money to finish their degrees.

Further, college enrollment and completion vary widely for graduates of different districts. In 2013, 65 percent of New Haven high school graduates continued on to college. Only 26 percent of the New Haven Class of 2008 finished a two or four-year college degree in six years. By comparison, the Outer Ring towns' districts had a collective college enrollment rate of 81 percent, and a six-year degree attainment rate of 62 percent.[130] (FIG 4.10)

Opportunities for Young People

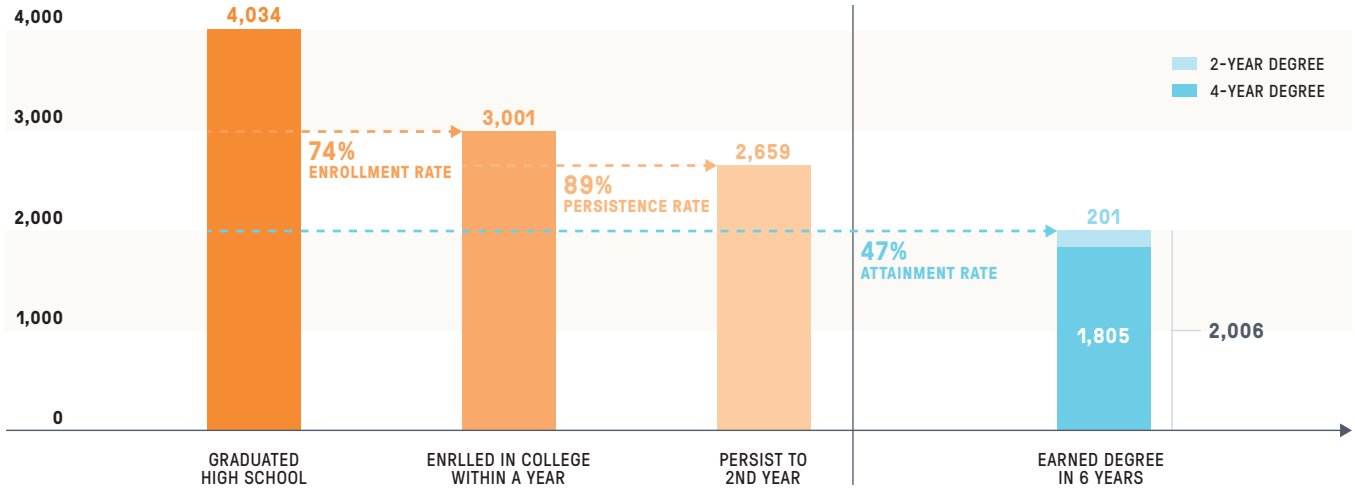
Young people need access not only to jobs, but jobs with potential for professional advancement, in order to transition from dependence on parents to economic self-sufficiency.

Nearly two-thirds (63 percent) of young people from Greater New Haven report that they have the education and training they need to advance their careers, more than the 53 percent statewide.

4.10

Higher Education of Greater New Haven Students

COLLEGE ENROLLMENT, PERSISTENCE*, AND COMPLETION† OF GREATER NEW HAVEN PUBLIC SCHOOL GRADUATES, 2008 AND 2012



	GRADUATED HIGH SCHOOL	ENROLLED IN COLLEGE WITHIN A YEAR	ENROLLMENT RATE	PERSIST TO 2ND YEAR	PERSISTENCE RATE	EARNED DEGREE IN 6 YEARS	ATTAINMENT RATE	WITH 4-YEAR DEGREE	WITH 2-YEAR DEGREE
Connecticut	38,666	27,971	72%	24,826	89%	17,953	47%	15,740	2,213
Greater New Haven	4,034	3,001	74%	2,659	89%	2,006	47%	1,805	201
New Haven SD	958	627	65%	493	79%	257	26%	198	59
Inner Ring	918	631	69%	542	86%	420	37%	362	58
East Haven SD	168	122	73%	108	89%	101	40%	79	22
Hamden SD	453	315	70%	274	87%	206	40%	189	17
West Haven SD	297	194	65%	160	82%	113	31%	94	19
Outer Ring	2,158	1,743	81%	1,624	93%	1,329	62%	1,245	84
Milford SD	463	344	74%	313	91%	243	52%	211	32

* Data received from Greater New Haven Public School Class of 2012, most recent data available.
† Data received from Greater New Haven Public School Class of 2008, most recent data available.

Overall, Greater New Haven youth (compared to state averages) are less likely to agree that local residents have excellent or good ability to find suitable employment or that their town has positive role models for children and youth. However, young people from the Outer Ring towns have more favorable opinions on these opportunities for youth, compared to the state averages.[131]

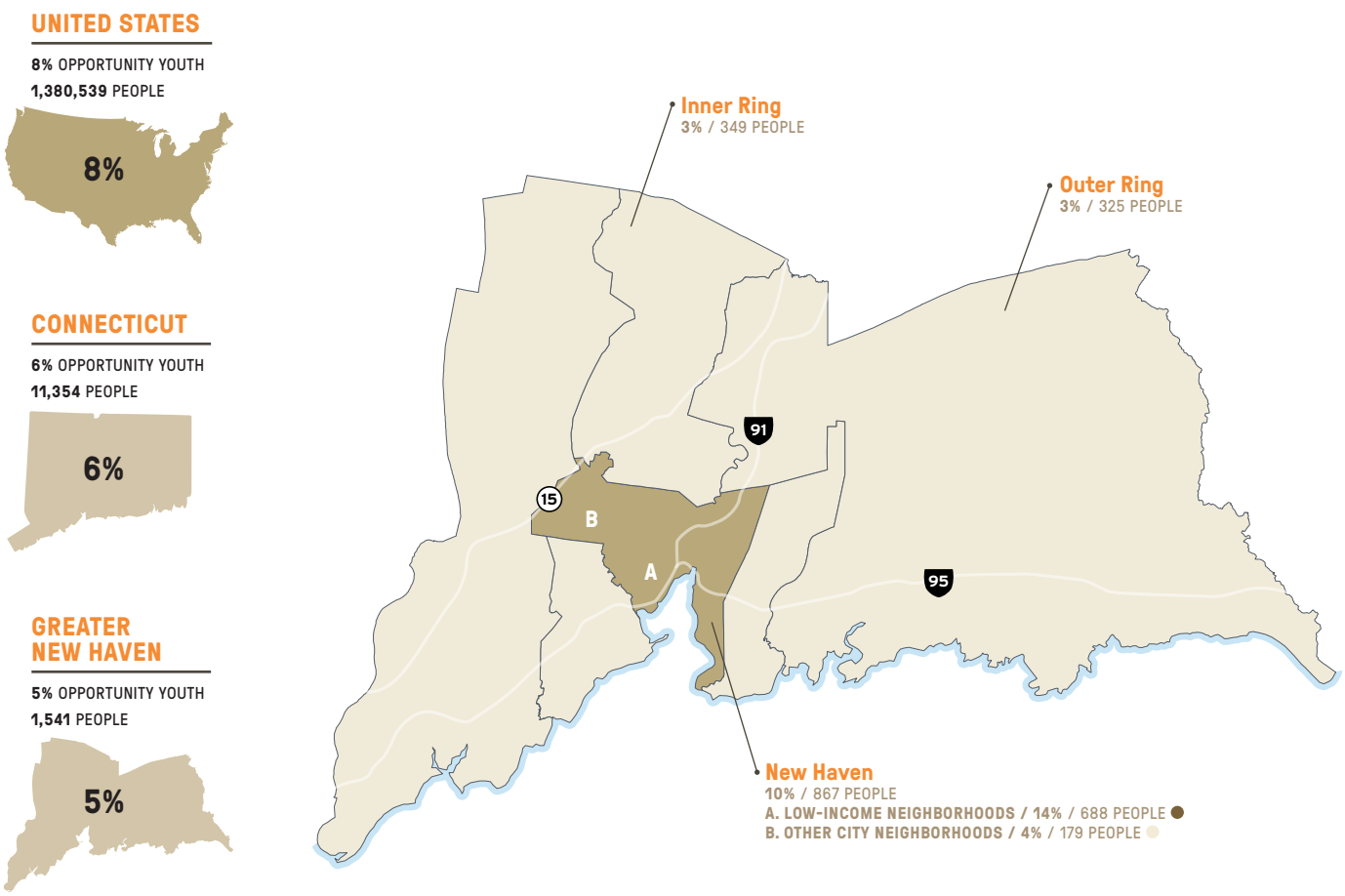
Many young people still struggle to obtain employment. Statewide, the official unemployment rate in 2015 was 10 percent for residents ages 16 to 24, compared to 5.6 percent for all adults.[132] A fifth of young residents of Greater New Haven report underemployment — either being unemployed but looking for work, or being employed part-time but preferring full-time work.[133]

Thirteen percent of this age group is neither employed nor attending school (although the share is lower among 16–19 year olds).[134] These people are not connected to the social and economic opportunities that their peers can access through school or places of employment. They are more likely never to complete high school or college and to experience hardships, such as chronic unemployment, poverty, or involvement in the criminal justice system, which cost themselves and their communities.[135] However, members of this group can be called "opportunity youth," because they represent great potential for the community and workforce.[136] There are high concentrations of

4.11

Opportunity Youth in Greater New Haven, 2014

RESIDENTS, AGES 16–19, WHO ARE NOT ATTENDING SCHOOL AND NOT EMPLOYED



opportunity youth in urban and periphery areas.[137]

Depending on where they live, young people in Greater New Haven have drastically different degrees of opportunity. The high neighborhood income inequality in the region (see page 16) means that many low-income people live in areas of concentrated poverty.[138] Isolated from the overall regional prosperity, youth residing in concentrated poverty areas have limited access to the economic, educational, and social resources that promote upward mobility.[139] One Harvard study estimated that a low-income child growing up in New Haven County would earn 8 percent less at the age of 26, compared to a low-income child from an average place in the U.S. (where poverty is less concentrated). The earnings loss in New Haven County mostly impacts boys, for whom there is an estimated 15 percent earnings loss. Conversely, New Haven County children from high-income families have similar earnings in adulthood as their average counterparts.[140]

Opportunities for young people are also stratified based on gender. Overall, young women in Greater New Haven have lower rates of unemployment and are more likely to say that they have enough training and education to advance professionally.[141] More female students complete bachelor's degrees than males at Connecticut universities.[142] These differences build from higher achievement for girls compared to boys during the K–12 education period, including a higher four-year graduation rate.[143]

However, serious disparities in salary and employment opportunities exist for young women. In 2014, about 10 percent of women graduating from four-year Connecticut universities completed STEM majors (Science, Technology, Engineering, and Math), half the share of men (20 percent).[144] In 2012, Connecticut women overall were more likely to work in industries paying low or below-average wages, such as service, arts, education, and community service. Connecticut women earn 78 cents on the dollar compared to men who hold the same positions. Pay gaps are even larger for women of color: black and Hispanic women earn 60 cents and 47 cents, respectively, for every dollar that the average white man makes (the highest by median earnings).[145]

4.12

Opportunities for Young People in Greater New Haven

RATES AND PERCEPTIONS OF ECONOMIC AND SOCIAL OPPORTUNITIES, PEOPLE UNDER 25

	OPPORTUNITY YOUTH, AGES 16–19	UNEMPLOYMENT RATE, AGES 16–24	UNDER EMPLOYED, AGES 18–24	HAVE ENOUGH EDUCATION IN CAREER, AGES 18–24	BELIEVE JOB OPPORTUNITIES ARE GOOD, AGES 18–24	BELIEVE THERE ARE ROLE MODELS IN COMMUNITY, AGES 18–24
Connecticut	6%	10%	23%	53%	46%	71%
Greater New Haven	5%	--	21%	63%	37%	65%
New Haven	10%	--	25%	46%	27%	55%
Inner Ring	3%	--	20%	56%	37%	65%
Outer Ring	3%	--	16%	81%	47%	83%
Males	7%	--	22%	57%	31%	70%
Females	4%	--	19%	68%	42%	67%

ECONOMIC OPPORTUNITY IN GREATER NEW HAVEN

A community's well-being is inextricably tied to its economy. It is, in many ways, a symbiotic relationship: a flourishing economy provides the financial support for healthier lifestyles, and healthier individuals are able to pursue more opportunities to better their financial state.

In this section, we examine job trends in Greater New Haven, with a particular focus on differences between industries, which impact the economy at large, and differences in access to jobs, which impact individuals. We also examine how inequitable access to transportation and education impact job opportunities, especially those that pay a relatively high wage or "living wage," defined here as $40,000 per year, or $3,333 per month (though some researchers estimate the county's cost of living to be higher than this level.[146] Fifty-five percent of the region's and the state's working residents earn a living wage. The remaining 45 percent of employed people have "low-wage" jobs, which pay less than $40,000 per year (less than $3,333 per month).[147] Access to education, transportation, and financial services all factor into securing good jobs.

Jobs Access

The city of New Haven is the main employment hub for the region. The city has 78,000 jobs, or almost 40 percent of the thirteen-town region's jobs. The region's high-wage jobs (defined above) are also centered in New Haven; the city has 51,000 high-wage jobs, equal to a disproportionately high 47 percent of regional high-wage. Twenty-nine percent of regional low-wage jobs (defined above), or 27,000 jobs, are in the city. By comparison, Milford, which has the second highest number of jobs by town, has 27,700 jobs total (14 percent of all regional jobs), of which 13,300 are high-wage jobs (12 percent of regional high-wage jobs), and 14,400 are low-wage (15 percent of low-wage).[148]

Across the region, the share of high- or low-wage workers who commute to another town relates to the number of suitable jobs in their town. In the Outer Ring towns as a whole, 88 percent of high-income workers leave their town for work, and 77 percent of low-income workers do. Among residents of New Haven, where the highest numbers of high- and low-wage jobs are located, only 47 percent of high-income workers and 66 percent of low-income workers commute to another town for work. In fact, high-wage residents of New Haven are the only group of which less than half commutes to another town to work, out of all high- and low-wage workers in other towns throughout Connecticut.[149]

New Haven, Milford, North Haven, and Orange have net influxes of workers; more people commute in from other towns to work than residents commute out. The opposite is true in the other towns, which have more working residents than jobs located there. Still, residents in every town hold only a small share of jobs in that town; New Haven has the highest share of residents holding jobs in their town, with one-fifth of high-wage jobs and 30 percent of low-wage jobs filled by city residents.[150]

Like other communities, Greater New Haven faces "spatial mismatch," in that many people live far from jobs that are suitable for them. The regional distribution of high-wage jobs in the city and low-wage jobs outside the city stands in opposition to the concentrations of low-income city residents and high-income suburban residents. Many higher-paid workers commute from the suburbs to their city jobs. Meanwhile, the majority of lower-skill workers living in the city cannot find suitable employment within the limited pool of lower-wage jobs there and find it difficult to access suitable jobs in surrounding towns, due to housing costs and unreliable transportation access in those areas (see Transportation section below).[151]

As a result, there is great disparity in job opportunity and access for high- and low-wage workers in Greater New Haven. According to the 2015 CWS, 52 percent of adults with household incomes over $100,000 thought the ability of residents to find suitable employment was excellent or good, compared to just 30 percent of adults with an income of $30,000 or less.[152] Access is perhaps most stratified among city residents. The "underemployment" rate—unemployed or wanting full-time work but only working part-time—is 2 percent among New Haven workers with a household income over $100,000. For those in households earning $30,000 or less, underemployment is 39 percent (see Underemployment section below).[153]

Transportation

Good transportation access enables people to take jobs throughout the region and beyond; those without it have fewer economic opportunities. "Job sprawl" over recent decades has resulted in the relocation of entry-level jobs and jobs with lower educational requirements from city centers

to suburban areas. In a 2014 focus group, New Haven residents said transportation was a more influential factor in finding a job than either skills or job growth. The same group cited ineffective bus routes and financial barriers to owning a car as two main impediments to transportation access.[154] The 2015 CWS found that in Greater New Haven, unemployment rates are 21 percent among people without access to a car, more than three times the rate among those with access to a car (6 percent).[155]

The 2015 CWS data show that both age and race are linked to transportation access. Adults between the ages of 35 and 49 reported the best access to transportation, while younger and older adults reported greater difficulty. People who identify as white reported better access to transportation than people of color. In particular, nearly all white individuals between the ages of 35 and 49 reported "often" having access to reliable transportation (97 percent). Much lower shares of black and Latino individuals reported access to reliable transportation, typically about 20 percentage points less than their white counterparts in each age group. Latino young adults (ages 18¬–34) had the lowest rates of reliable access, at 59 percent.[156]

Racial disparities in transportation are partially explained by household wealth. Compared to an unemployed person of color in Greater New Haven, an unemployed white person is roughly six times as likely to live in a household with a total household income over $100,000.[157] Nationally in 2011, the typical white household owned $16 for every $1 owned by a Black household, and $13 for every $1 owned by a Latino household. White adults were also many times more likely to receive large inheritances or gifts.[158] Given the importance of reliable transportation to obtaining a job, unemployed white people are likely better positioned to access jobs than unemployed people of color.

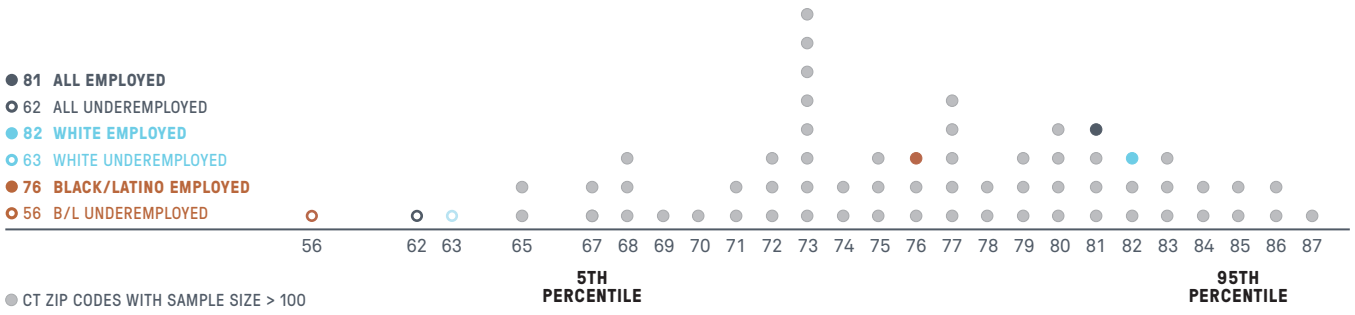
Limited access to transportation is compounded by limited access to financial services and other financial stressors. The less often a respondent had access to a car, the less likely they had a checking or savings account. The DataHaven Financial Security Index combines responses to

4.13

Financial Security and Underemployment

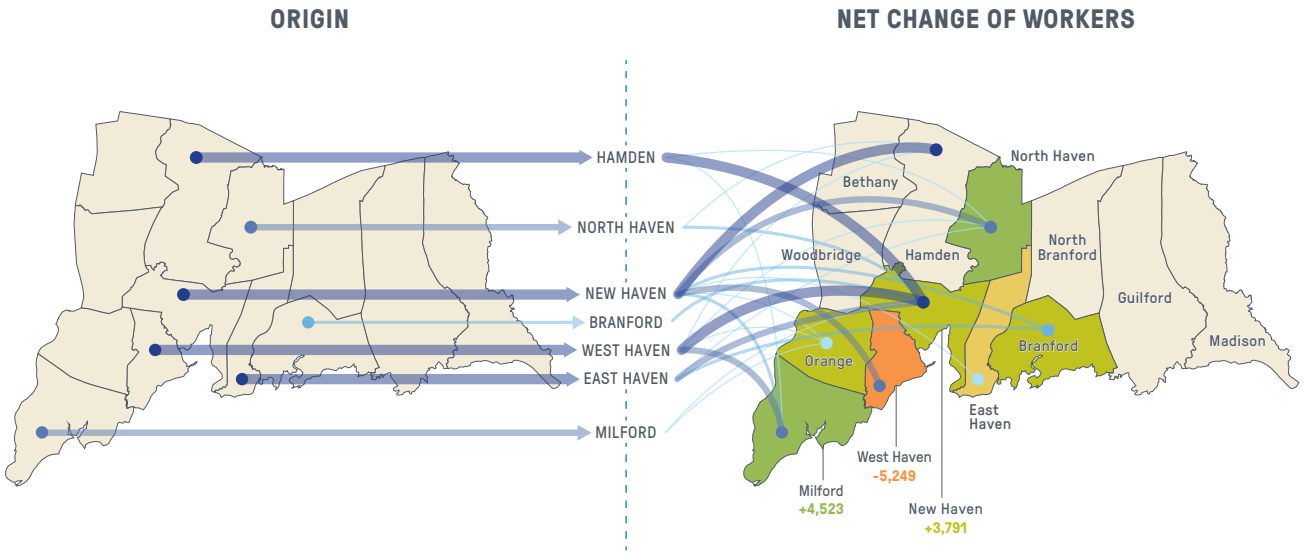
INDEX SCORE COMPARISON

Financial Security Index for workers living within Greater New Haven



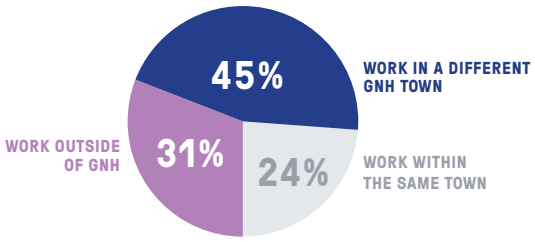
4.14

Movement of Low-Income Workers (Salary < $40,000)



MOVEMENT OF COMMUTERS

- 400 TO 699 COMMUTERS
- 700 TO 999 COMMUTERS
- 1,000 TO 1,499 COMMUTERS
- 1,500 OR MORE COMMUTERS



NET CHANGE OF WORKERS

- +10,000 OR MORE
- +4,000 TO +9,999
- +1,000 TO +3,999
- -999 TO +999
- -1,000 TO -3,999
- -4,000 TO -9,999
- -10,000 OR MORE

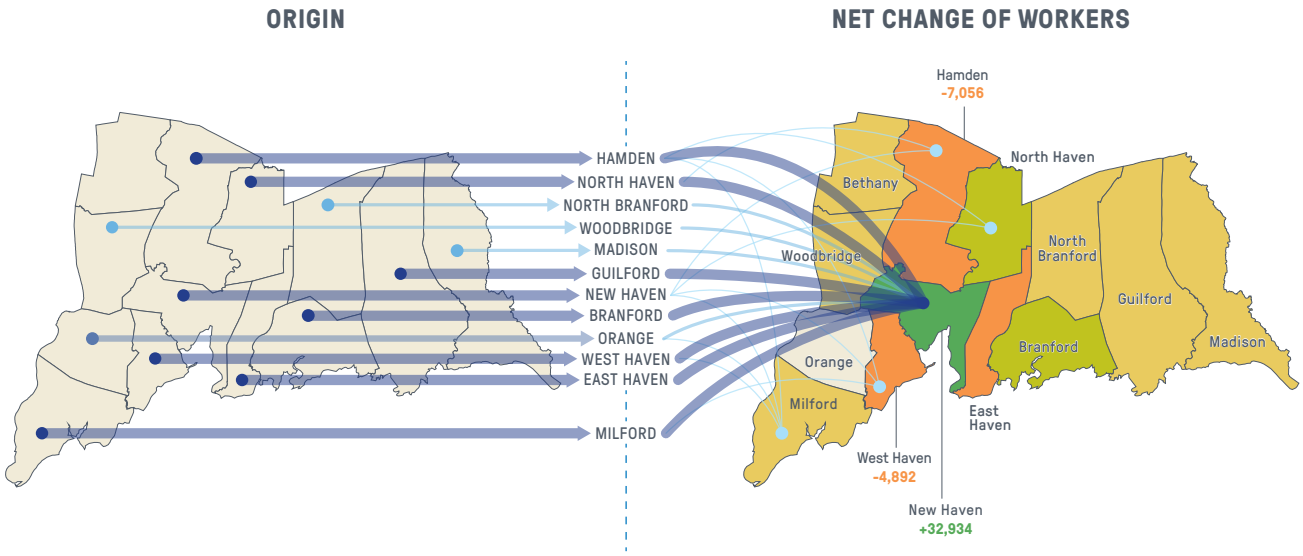
DESTINATIONS FOR WORKERS WHO WORK OUTSIDE OF GNH

= 500 PEOPLE

DESTINATION	TOTAL LOW INCOME COMMUTERS	
Fairfield County, CT		11,303
Greater Hartford, CT		9,032
New York City (5 Counties)		901
Other CT		2,153
Other NY		1,917
Massachusetts		793
Other States		1,283

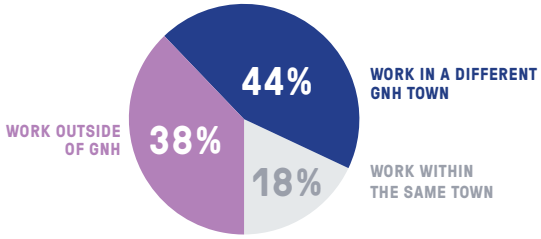
4.15

Movement of High-Income Workers (Salary > $40,000)



MOVEMENT OF COMMUTERS

- 400 TO 699 COMMUTERS
- 700 TO 999 COMMUTERS
- 1,000 TO 1,499 COMMUTERS
- 1,500 OR MORE COMMUTERS



NET CHANGE OF WORKERS

- +10,000 OR MORE
- +4,000 TO +9,999
- +1,000 TO +3,999
- -999 TO +999
- -1,000 TO -3,999
- -4,000 TO -9,999
- -10,000 OR MORE

DESTINATIONS FOR WORKERS WHO WORK OUTSIDE OF GNH

= 500 PEOPLE

DESTINATION	TOTAL HIGH INCOME COMMUTERS	
Fairfield County, CT		19,736
Greater Hartford, CT		11,852
New York City (5 Counties)		1,698
Other CT		2,132
Other NY		2,679
Massachusetts		673
Other States		934

eleven survey questions that include access to transportation and financial services. The index also considers whether respondents faced specific financial stressors in the previous 12 months, such as lacking money to provide adequate shelter for their families.[159]

Employed Greater New Haven respondents scored 81 points on the index, above the state and overall county averages. Underemployed residents scored 62 on the index, equivalent to residents of the bottom 5th percentile of the state's zip codes in financial security. When disaggregated by race, the disparities are exacerbated.[160]

Underemployment

The official unemployment rate measures the proportion of people who are not working but are actively looking for work.[161] This metric excludes people who may feel "discouraged" from looking during the past few weeks, as well as "underemployed" part-time workers who would prefer to work full-time. The DataHaven Community Wellbeing Survey captures the underemployed population as well as the unemployed population of workers. The CWS underemployment rate consists of the working-age population that is not employed but actively looking for work, plus those who hold a part-time job but would prefer a full-time job.[162]

In Greater New Haven, the underemployment rate was 13 percent in 2015,[163] compared to an official unemployment rate of 6 percent.[164] The underemployment rate was highest in New Haven, particularly in the low-income neighborhoods, where it stood at 22 percent.

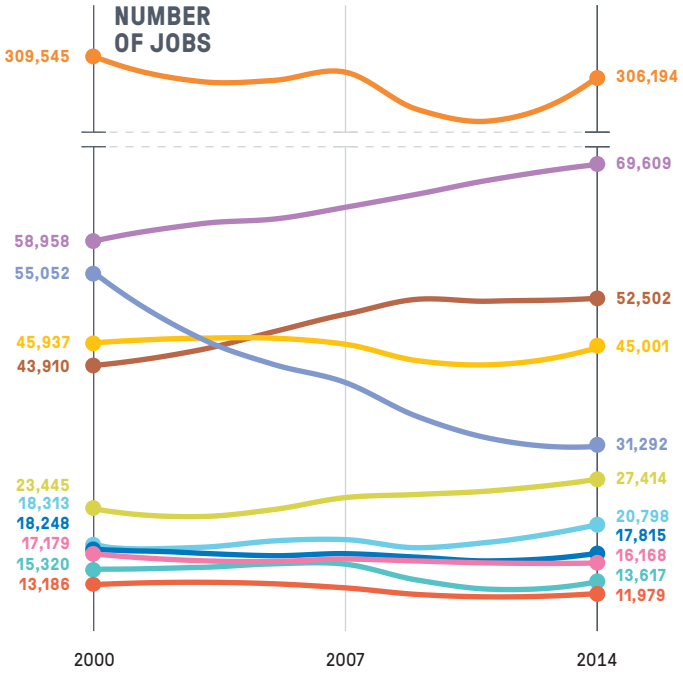
Underemployed workers can face some of the same health risks as unemployed individuals; in particular, workers who are employed at a lower wage or hold lower-status jobs experience symptoms of depression, low self-esteem, and low job satisfaction.[165] Underemployment can generally contribute to job-related stress, which can have numerous effects not only on an individual's health, but also on many other areas of their life.[166]

A Changing Economy

Since 2000, the Connecticut economy has weathered two economic recessions (2000–2003 and 2008–2010); while the state saw a period of recovery (2005–2006) from the first, it is still pushing through recovery from the second.[167] From 2000 to 2014, the total number of New Haven County jobs decreased by 4,500—roughly one percent,

4.16

New Haven County Jobs and Wage Trends by Sector, 2000–2014



2000–14 CHANGE IN WAGES

	2014 WAGES	PERCENT CHANGE	DOLLAR CHANGE
All Industries	$54K	⬆ 1.3%	+$696
Health Care and Social Assistance	$49K	⬇ 0.5%	-$269
Educational Services	$67K	⬆ 28.1%	+$14,727
Retail Trade	$30K	⬇ 13.3%	-$4,520
Manufacturing	$65K	⬇ 3.4%	-$2,298
Accommodation and Food Services	$18K	⬇ 11.7%	-$2,422
Administrative Support and Waste Management	$42K	⬆ 19.5%	+$6,888
Professional, Scientific, and Technical Services	$94K	⬆ 1.0%	+$970
Wholesale Trade	$78K	⬇ 0.1%	-$34
Construction	$64K	⬇ 0.6%	-$409
Finance and Insurance	$86K	⬆ 11.5%	+$8,857

paralleling a one percent state-wide decrease. During this period, the region's employment has risen or fallen according to the state's economic climate. Most recently, the number of jobs in New Haven County has steadily increased since a fifteen year low in 2010. At 366,700 jobs in 2014, however, employment is still 5,000 jobs below 2007's fifteen year high.[168]

From 2000 to 2014, county-wide employment in the Manufacturing sector decreased by 43 percent, shedding 24,000 jobs. Construction and Finance & Insurance had smaller decreases in employment. Manufacturing job loss has been constant since before 2000,[169] reflecting technological changes and globalization trends that are reducing the concentration of jobs in that industry.[170] Finance & Insurance also experienced steady decline in jobs since 2000, though with smaller losses than Manufacturing. Construction jobs were lost between 2008 and 2014, reflecting slow-downs in development as a result of the Great Recession. Other sectors like Retail Trade saw dips in the number of jobs—starting around the 2008 recession and reaching a low point in the early 2010s—but since then have nearly recovered to their former size.[171]

4.17

Changing Industry Footprints

SHARE OF TOTAL INDUSTRY PAYROLL, BY INDUSTRY SECTOR, IN GREATER NEW HAVEN

	PAYROLL 2014	SHARE OF PAYROLL 2004	SHARE OF PAYROLL 2014	CHANGE IN SHARE OF TOTAL PAYROLL
Educational Services	$3,500M	11.6%	17.7%	⬆ 6.1%
Health Care and Social Assistance	$3,400M	14.7%	17.3%	⬆ 2.6%
Administrative and Support and Waste Management and Remediation Services	$900M	3.2%	4.4%	⬆ 1.2%
Accommodation and Food Services	$500M	2.4%	2.5%	⬆ 0.1%
Finance and Insurance	$1,000M	5.1%	5.2%	⬆ 0.1%
Professional, Scientific, and Technical Services	$1,700M	8.6%	8.4%	⬇ 0.1%
Wholesale Trade	$1,300M	6.7%	6.3%	⬇ 0.4%
Construction	$900M	4.9%	4.3%	⬇ 0.6%
Retail Trade	$1,300M	7.9%	6.7%	⬇ 1.2%
Manufacturing	$2,000M	18.7%	10.3%	⬇ 8.4%

Health Care, Educational Services, Administration, and Accommodation & Food Services all added jobs from 2000 to 2014. Health Care had the largest expansion in jobs over the period, gaining over 10,500 jobs (up 18 percent). Educational Services gained the second most in employment, adding 8,500 jobs (up 20 percent), though nearly all growth occurred from 2000 to 2008.[172]

The Connecticut Department of Labor projects some of these trends will continue state-wide through 2022. They forecast Health Care will continue to be the fastest growing sector, followed by Educational Services and Professional Services. They also forecast a growth in Manufacturing, bucking a 40-year reduction in that sector's employment.[173]

Wages and Payroll

Average wages in each sector help contextualize the changes in job figures. While sector-wide averages mask the wide range of wages among occupations, they provide a useful approximation of the quality of jobs within each industry sector as a whole.[174]

In 2014, the average wage in New Haven County was $54,336. Wage growth has been relatively stagnant between 2000 and 2014. Average annual wages have been within $1,500 of this level every year since 2000.[175]

From 2000 to 2014, Professional Services remained the highest paid sector (2014 average wage was $94,366) but had no significant net wage increase. Average wages in Finance & Insurance, on the other hand, increased by 12 percent, making it the second most highly paid sector at $85,815 in 2014. The Educational Services and Administrative sectors had even larger wage gains (28 percent and 20 percent, respectively), but their average wages were still well below the top-paying sectors in 2014.[176]

The greatest decreases in average wage can be found in Retail Trade (down 13 percent) and Accommodation & Food Services (down 12 percent). These two sectors are also the two lowest paying sectors; with average wages of $29,521 and $18,341, respectively, they are both significantly lower than the overall average wage.[177]

Overall from 2000 to 2014, there was no change in New Haven County's payroll, or the total amount in wages paid to all employees working in the county. A slight (1 percent) increase in payroll from 2000 to 2007 was counteracted by a 1 percent decrease in payroll from 2007 to 2014.[178]

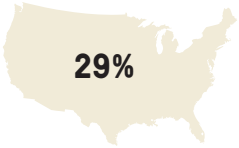
4.18

Educational Attainment

PERCENT OF ADULTS AGE 25+ WITH A BACHELOR'S DEGREE OR HIGHER, 2014

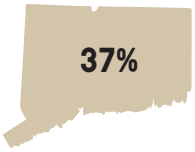
UNITED STATES

29% HAS BACHELOR'S DEGREE OR HIGHER
61,250,000 PEOPLE



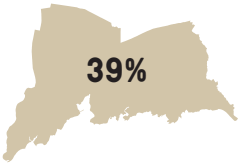
CONNECTICUT

37% HAS BACHELOR'S DEGREE OR HIGHER
908,551 PEOPLE

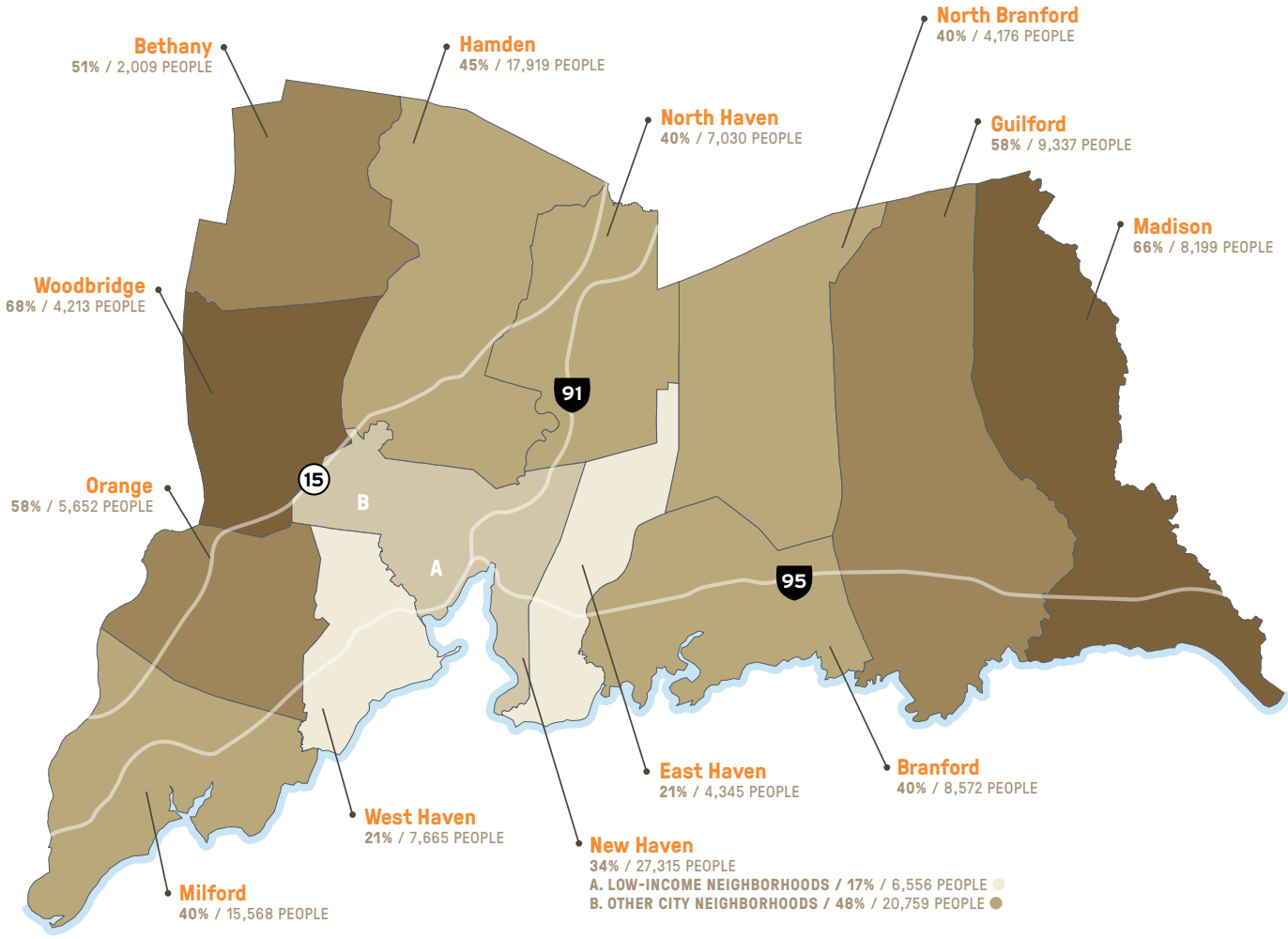


GREATER NEW HAVEN

39% HAS BACHELOR'S DEGREE OR HIGHER
122,000 PEOPLE



20% TO 29%
30% TO 39%
40% TO 49%
50% TO 59%
60% AND UP



	HAS LESS THAN HIGH SCHOOL DIPLOMA	PERCENTAGE	HAS BACHELOR'S OR HIGHER	PERCENTAGE	HAS MASTER'S OR HIGHER	PERCENTAGE
Connecticut	257,011	10%	908,551	37%	401,889	16%
Greater New Haven	31,257	10%	122,000	39%	59,383	19%
New Haven	14,339	18%	27,315	34%	15,015	18%
Inner Ring	9,904	10%	29,929	31%	13,704	14%
Outer Ring	7,014	5%	64,756	47%	30,664	22%

4.19

Municipal Financial Capacity in Greater New Haven

MUNICIPAL TAX CAPACITY AND COST PER CAPITA, 2015

	TAX CAPACITY PER CAPITA	MUNICIPAL COST PER CAPITA	MUNICIPAL SURPLUS PER CAPITA
Bethany	$1,434	$1,251	⬆ $183
Branford	$1,625	$1,305	⬆ $320
East Haven	$924	$1,267	⬇ $343
Guilford	$1,826	$1,186	⬆ $640
Hamden	$916	$1,252	⬇ $336
Madison	$2,255	$1,111	⬆ $1,144
Milford	$1,252	$1,414	⬇ $162
New Haven	$548	$1,649	⬇ $1,101
North Branford	$1,229	$1,163	⬆ $66
North Haven	$1,599	$1,346	⬆ $253
Orange	$1,580	$1,334	⬆ $246
West Haven	$700	$1,450	⬇ $750
Woodbridge	$1,739	$1,272	⬆ $467

The Educational Services sector has seen the greatest increase in the proportion of total regional payroll that it represents, resulting from its positive growth in both job counts and wages. In 2014, Educational Services paid a total of over $3.5 billion to its 52,502 employees, climbing from 12 percent to almost 18 percent of the total payroll in New Haven County. As a share of the county's total payroll, Educational Services surpassed Health Care (17 percent of the payroll). Health Care and Administrative Services were the only other industries to grow significantly in payroll, though primarily due to job growth (stagnant wage growth in these industries had no impact on payroll).[179]

The payroll growth in medium-high wage sectors like Educational Services and Health Care is offset by other sectors whose payrolls are either shrinking or staying the same. Sectors like Accommodation & Food Services and Retail Trade have increased in jobs. But with decreasing wages that are already the lowest on average by industry, the changes within these sectors have had a negative net impact on average county wages.[180] As these industries add workers, the number of low-wage workers also increases, and income inequality is exacerbated.

Education and the Workforce

Increasing wage inequality by industry sector highlights the relationship between education and job quality. In 2016, a high-school diploma is required for most non-minimum wage jobs, and a college education is necessary for many of the high-paying occupations in Greater New Haven.[181] Compared to adults with at least bachelor's degrees, Greater New Haven adults without high school diplomas are nearly four times more likely to be unemployed,[182] and had one-third to one-half the average earnings.[183] Approximately 41 percent of all workers without four-year degrees report needing more education or training to advance their careers, compared to 19 percent of workers with at least bachelor's degrees.[184]

Between 2000 and 2014, the region saw changes in the education levels of its residents, similar to state-wide changes. The number of adults ages 25 and older without high school diplomas decreased by 14,500 (down 32 percent). Over the same period, the number of college graduates living in the region grew 27,000 people (up 28 percent). In 2014, 10 percent of adults were without high school diplomas, while 39 percent had bachelor's degrees—compared to 15 percent and 32 percent in 2000, respectively. This trend is driven partially by demographic shifts: older residents came of age in an era when high school and college degrees were much less common.[185]

Each town within the region experienced shifts towards higher educational attainment. However, significant differences still exist within the region,

by race and ethnicity, neighborhood, and income. These disparities are largely due to barriers related to family income and wealth, such as difficulty paying tuition or the K-12 opportunity gap (see Barriers to Academic Achievement section, page 48).[186]

The Outer Ring has high educational attainment, well above average even in Connecticut, which ranks fourth in the nation in the share of adults with college degrees. Nearly half of Outer Ring adults hold a bachelor's degree, more than a fifth have at least a master's degree, and just 5 percent lack a high school diploma. In New Haven, by comparison, 18 percent of adults have not graduated from high school. Still, the shares of New Haven residents with four-year degrees (34 percent) and with master's degrees (18 percent) are similar to the state averages. The presence of two major universities and the influx of college graduates to the city—with New Haven experiencing the greatest growth in people with bachelor's degrees of any town in the region (up 40 percent)—are responsible for educational attainment levels in New Haven that are above the shares in most other major city centers.[187]

COMMUNITY LIFE, LOCAL GOVERNMENT, & CIVIC ENGAGEMENT

Understanding a community's health means looking at its residents' feelings of trust in one another, relationships with friends and family, and volunteer activities.[188] Civic engagement — the process by which people participate in community life and local affairs — improves the government's ability to solve public problems. Healthy communities, where residents feel safe and engaged, can impact the individual health of their residents and build social connections.[189]

Community resources can mitigate economic and social inequalities by providing essential services, from schools to transportation to computers in public libraries. On the other hand, access to resources can exacerbate disparities between towns, because wealthier towns generally can support more and higher-quality resources. In Greater New Haven, regional-level data on community well-being may hide disparities between towns, neighborhoods, and demographic groups.

Financial Capacity

In Connecticut, local government services — including education, public safety, parks, libraries, cultural events, and infrastructure maintenance — are supported by revenue from taxes and fees as well as state and federal government grants. The revenues of local governments in Greater New Haven vary significantly because they rely heavily on property tax and have very different tax bases.[190] One way to conceptualize these differences is to imagine every town had the same tax rate and calculate how much tax they would collect at that rate — this number can be viewed as "the municipal capacity."[191]

All Outer Ring towns have more than $1,000 per person in municipal capacity, while the capacities of New Haven and the Inner Ring towns are all below $1,000 per person. New Haven, like most other urban areas, has among the state's lowest municipal capacities per person; in contrast, the municipal capacities per capita of the Outer Ring towns of Madison, Guilford, and Woodbridge are each more than three times that of New Haven.[192]

Because of these differences, towns with higher property values have more available tax revenue to support high-performing schools and quality government services, even while maintaining relatively low tax rates. On the other hand, towns with less valuable property per capita must tax each property at higher rates to support local budgets.

New England Public Policy Center research shows that the per-person cost for basic quality public services is highest in urban areas. This suggests that structural costs come with providing services in cities — which already have limited taxing capacities that disadvantage local administrations regardless of their policies.[193] (FIG 4.19)

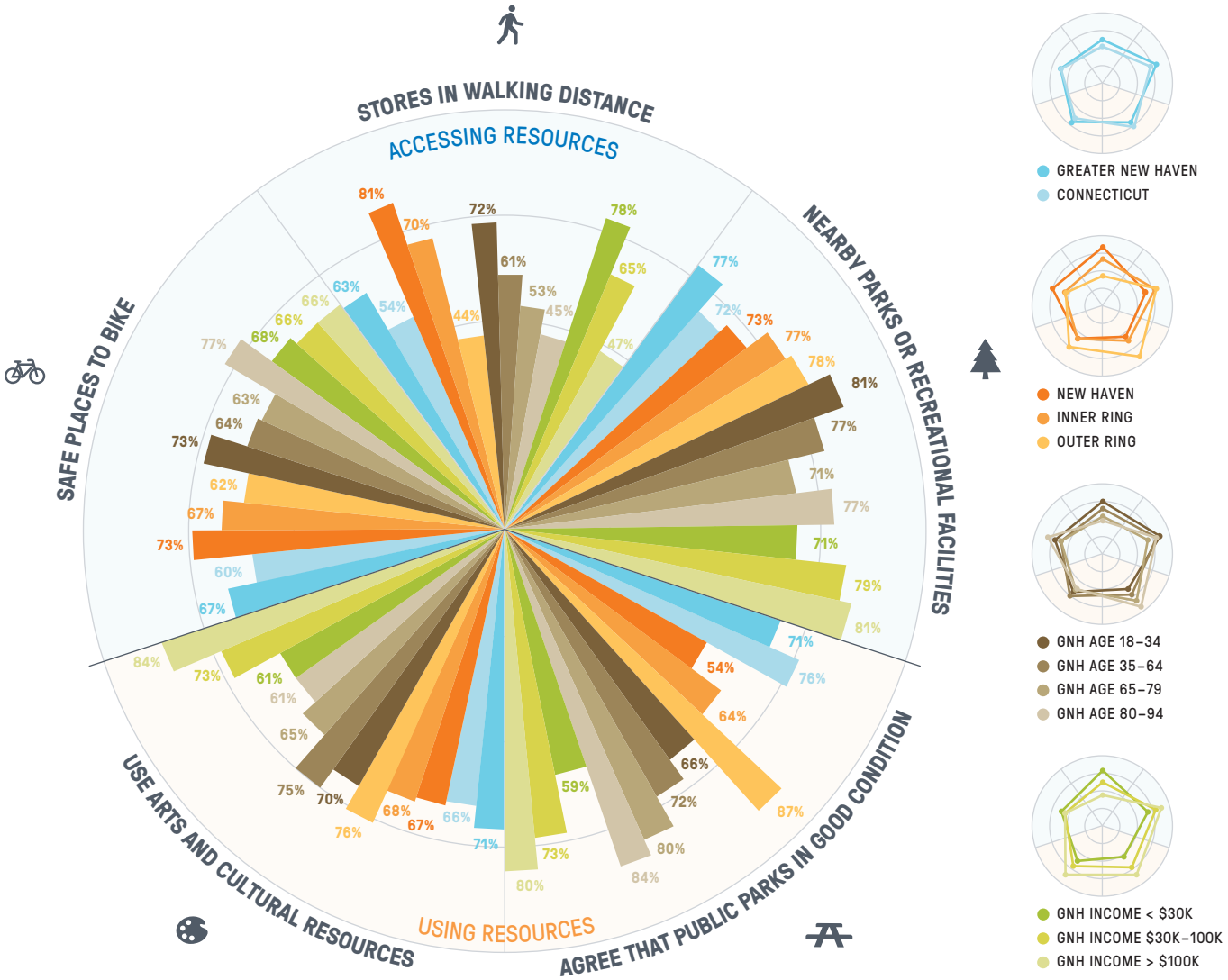
A Look at Public Institutions: Libraries

Though traditional library use has declined statewide over the past decade, Greater New Haven has instead seen greater use of its libraries, especially in New Haven. Annual library visits in the thirteen-town area increased 22 percent from 2002 to 2015; New Haven saw an increase of 29 percent over this period. However, both New Haven and the region still lag behind statewide library use: city residents had 5 library visits per person in 2015 and region residents had 4, compared to 6 visits per person statewide. Circulation rates increased 76 percent in New Haven from 2002 to 2015, with no change across the region; circulation rates in New Haven (3 items checked out per person) and the

4.20

Perceived Access and Use of Community Resources

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF ADULTS AGE 18+



region (6 per person) were still lower than that of the state (8 per person) in 2015.

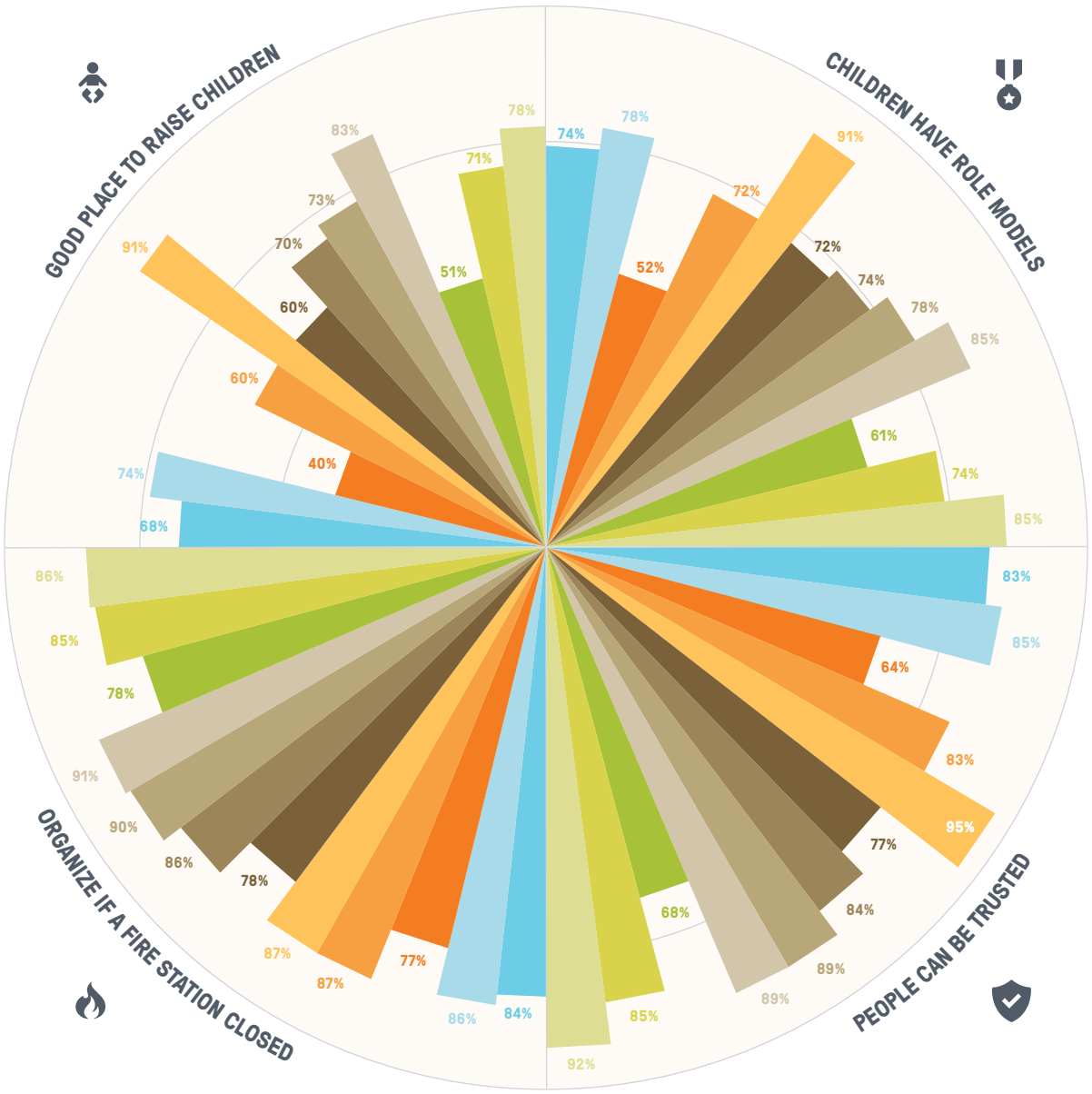
Even greater than the increases in traditional library use are those of other services. From 2002 to 2015, Greater New Haven libraries increased the number of free programs offered — classes, concerts, clubs, movie screenings, and other activities — by nearly threefold, with attendance at such programs nearly doubling.

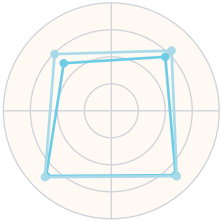
Libraries receive funding from local taxes as well as private contributions and government grants. Generally, libraries in wealthy towns have higher budgets and might be expected to have greater use. However, even though New Haven had a smaller operating income per capita in 2015 than the Outer Ring suburbs ($32 to spend per person per year versus $51), the city still had higher rates of some library use; in particular, city residents have greater access to and use of computers with internet, with 17 computers per 10,000 residents, and an average of 1 computer use per resident in 2015 (compared to 10 computers per 10,000 residents and less than 1 use per resident in the Outer Ring).[194]

4.21

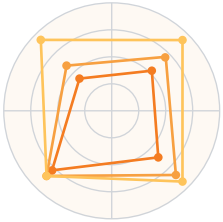
Perceived Community Cohesion

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF ADULTS AGE 18+

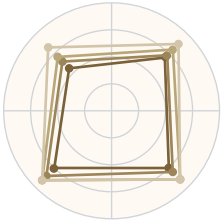




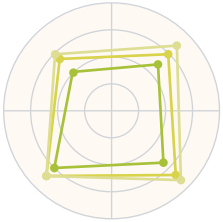
- GREATER NEW HAVEN
- CONNECTICUT



- NEW HAVEN
- INNER RING
- OUTER RING



- GNH AGE 18–34
- GNH AGE 35–64
- GNH AGE 65–79
- GNH AGE 80–94



- GNH INCOME < $30K
- GNH INCOME $30K–100K
- GNH INCOME > $100K

Quality of Society: Perceived Access to Community Resources

The 2015 DataHaven Community Wellbeing Survey (CWS) found that overall, Greater New Haven's residents (age 18 and over) are satisfied with their access to community resources. Seventy-four percent of residents reported that the availability of goods and services that meet their needs was excellent or good. Seventy-seven percent of residents reported that there are public parks and recreational facilities in their neighborhoods, and 71 percent rate these facilities as being in excellent or good condition. Seventy-one percent of residents reported sometimes or often going to concerts, museums, or other cultural event, compared to 66 percent statewide.

Sixty-eight percent of Greater New Haven residents believe their town is an excellent or good place to raise children, lower than the 74 percent of Connecticut residents reporting the same. More troubling are the differences by town and income: while 91 percent of Outer Ring adults feel their town is an excellent or good place to raise children, only 40 percent of New Haven residents feel this way. Likewise, a gap appears between area residents with household incomes below $30,000 (51 percent) and those with incomes above $100,000 (78 percent) feeling that their town is an excellent or good place to raise children.

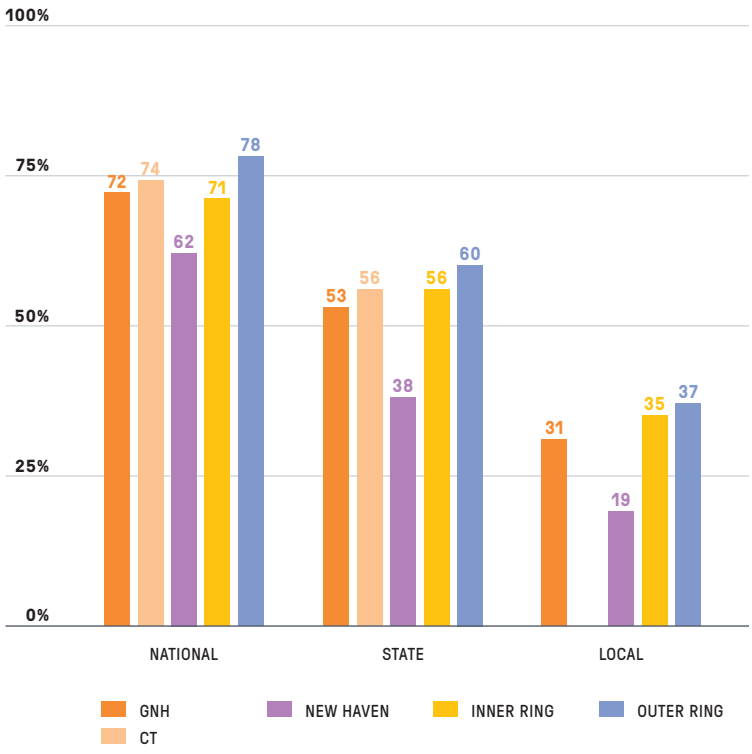
Just as these measures of community satisfaction vary with income and location, access to community resources is linked to income as well. Wealthier residents report access to and satisfaction with recreational facilities at rates about 10 to 20 percentage points higher than those earning less than $30,000.

Overall, Greater New Haven residents scored a 61 the Quality of Society Index, which summarizes several of the above factors — although results are mixed between towns. Residents of the Outer Ring scored a higher 71, while Inner Ring and New Haven residents scored 57 and 51, respectively.[195]

4.22

Voter Turnout in Greater New Haven

PERCENT OF REGISTERED VOTERS WHO VOTED IN VARIOUS ELECTIONS, 2012–2015, BY TOWN



Walkability Index and Commuting

In most measures of walkability, New Haven fares better than its surrounding towns and the state overall. Walkability—having businesses and services within walking distance, infrastructure for walking and biking, and perceived public safety—significantly influences how much people walk and exercise.[196] Eighty-one percent of New Haven residents reported having destinations such as stores and banks within walking distance, compared to 70 percent in Inner Ring towns and only 44 percent in the Outer Ring. Likewise, 73 percent of city residents reported having safe places to bike, higher than 67 percent in the Inner Ring and 62 percent in the Outer Ring. The Walkability Index (see Chapter 1) is calculated based on several of these factors.[197] Overall, New Haven and Inner Ring residents have Walkability Index scores of 66, compared to 60 among Outer Ring residents.

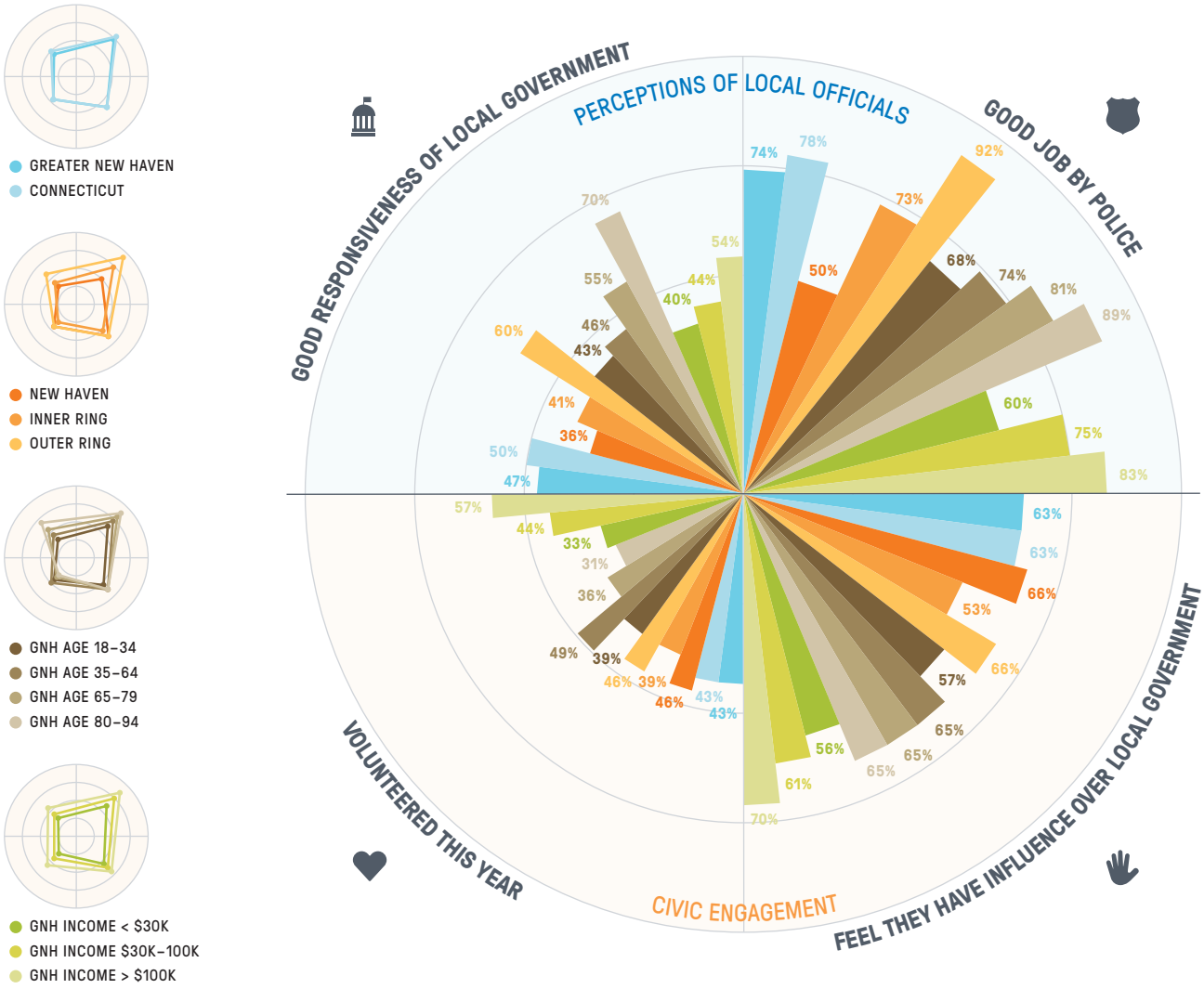
In calculating its Walkability Index, New Haven gains points for ease of walking and biking, but loses significantly for feelings of safety, placing its index even with the Inner Ring. Of New Haven residents, 55 percent reported feeling unsafe walking in their neighborhood at night, far exceeding the 37 percent of Inner Ring residents and 15 percent of Outer Ring residents reporting the same.

Among residents region-wide, access to biking remains similar across income levels but having destinations within walking distance varies greatly, with 78 percent of residents with household incomes less than $30,000 reporting walkable

4.23

Civic Engagement and Government

2015 COMMUNITY WELLBEING SURVEY, PERCENT OF ADULTS AGE 18+



places in their neighborhoods, but only 47 percent with incomes above $100,000 reporting the same. Much of this is explained by geography, as low-income residents are more likely to live in the city. New Haven's denser urban environment lends itself to residents' proximity to locations, such as businesses and bike lanes.

City residents also find themselves more likely to commute by modes other than driving. Only 57 percent of New Haven residents reported driving as their primary means of transportation, compared to 90 percent of Outer Ring residents; New Haven residents instead use a variety of transportation types, such as getting rides (10 percent), public buses (18 percent), walking (7 percent), and biking (2 percent). City residents also enjoy shorter commutes, with 77 percent reporting commute times under half an hour (compared to 66 percent in the Outer Ring); after adjusting for household income level, workers with short commutes are generally somewhat happier and less anxious. As previously described, options for transportation to

work may still be less than ideal for city residents, with only 71 percent either very often or fairly often having access to a car when they need it, compared to 95 percent in the Outer Ring.

Perceptions of Community Cohesion

Community cohesion — the degree to which residents feel connected, included, and invested in where they live — is linked to higher individual well-being as well as less crime and improved public health. Further, a cohesive community may fare better when facing recessions or other economic hardships.[198]

In the 2015 CWS, 94 percent of Greater New Haven adults reported having relatives or friends they can count on. This figure is statistically equal across all towns, ages, races, and ethnicities, suggesting that the vast majority of area residents are close to at least one or two others in their community.

The majority of residents responded positively to questions of community cohesion — trust in neighbors, ability of neighbors to work together, and confidence in police — at rates similar to those statewide. However, disparities appear in these measures by location, with only 64 percent of New Haven residents trusting their neighbors, 77 percent feeling their neighbors could work together to solve a problem, and 50 percent rating the job done by police to keep residents safe as excellent or good, compared to 95 percent, 87 percent, and 92 percent in the Outer Ring towns, respectively.

Similar gaps occur between income groups, with higher-income residents having more positive feelings of cohesion. For example, low-income and high-income residents differ by 8 percentage points on ability of neighbors to work together. Much larger differences exist based on issues of safety and trust: there is a 23 percentage point gap in confidence in police and a 24 percentage point gap in trusting neighbors between residents with household incomes above $100,000 and those with incomes below $30,000.

Greater New Haven adults expressed different perceptions of cohesion with their neighbors and local government based on location, even after controlling for household income. For example, of people who earned less than $30,000 and who lived in New Haven, 53 percent thought their neighbors could be trusted, compared to 73 percent and 92 percent of people in the same income category but living in the Inner Ring and Outer Ring, respectively. This finding suggests that characteristics of a neighborhood or town are stronger determinants of how connected people feel to that community than personal income.

Voting and Volunteering

Greater New Haven residents have similar rates of civic engagement to the state overall, and are slightly more likely to be engaged than national averages.[199, 200] Forty-three percent of adults report volunteering to address needs in their community in the past year in both the region and the state.[201] Registered voters in Greater New Haven are as likely as voters statewide to vote in elections.[202]

Following national trends, voter turnout in Greater New Haven varies greatly with the type of office to be elected, with greater numbers of residents voting in higher-office elections. According to state voting data, 72 percent of Greater New Haven's registered voters voted in the 2012 presidential election, 53 percent voted in the 2014 midterm gubernatorial election, and only 31 percent voted in 2015's local elections.[203]

Statewide data indicate that civic engagement is correlated with socioeconomic status: as personal income and educational attainment increase, so do rates of volunteering, voter registration, and election turnout.[204] Voter turnout by location within the region reflects this pattern. New Haven had turnout rates of 62 percent in the 2012 election and 38 percent in 2014. In the Inner Ring towns, 71 percent voted in 2012 and 56 percent in 2014; these rates were 78 percent and 60 percent, respectively, in the Outer Ring towns.[205] Younger adults, in addition to adults with low household incomes, were less likely to report registering to vote or volunteering,[206] which is consistent with a national pattern that younger adults are less likely to be civically engaged.[207]

Government Effectiveness and Inclusion

Much like civic engagement and voter turnout differ by age and socioeconomic status, Greater New Haven residents report different perceptions of local governments' effectiveness.[208] According to the CWS, 47 percent of Greater New Haven adults considered their local government's responsiveness to residents' needs to be excellent or good. However, only 36 percent of New Haven adults felt their government was responsive; 40 percent of adults with incomes below $30,000 felt their

government responsiveness was excellent or good, 14 percentage points below those with incomes above $100,000.[209] Additionally, while 49 percent of both white and Hispanic residents in Greater New Haven felt their government was responsive, only 38 percent of black residents felt similarly.

Sixty-three percent of Greater New Haven adults felt they have at least a little influence over local government decision-making, regardless of race and equal to responses statewide. Adults with incomes below $30,000 and young adults ages 18–34 were less likely to report having influence over government, with only 56 percent and 57 percent, respectively, feeling this way.

Having elected officials whose demographics mirror the population as a whole is necessary for truly representative policies and government decision-making.[210] If people or groups have below-average perceptions of government inclusiveness and efficacy, it may reflect that they are underrepresented in government and public office. For example, 95 percent of elected officials nationally are over the age of 35.[211] In Connecticut, Hispanics are underrepresented on state boards and commissions, holding less than 4 percent of positions despite making up 13 percent of the population overall.[212] New Haven's city government is unique in that blacks and Latinos are actually overrepresented on the elected Board of Alders, with nearly three-quarters of the Board's membership; women hold a slight majority of seats on the Board as well.

CHAPTER 5

Conclusion & Endnotes

Conclusion

Greater New Haven rates highly on many national and state measures of quality of life and economic opportunity. The high skill levels of many adults, including recent immigrants to the region, is the basis for thriving educational, health care, and other advanced industries. As the previous chapters show, Greater New Haven residents are generally healthy compared to the nation as a whole, with lower rates of death from conditions such as heart disease. Workers employed in the region have higher average wages than workers elsewhere in the country. Across all towns, residents feel connected to others in their community, and express a willingness to fix problems.

Within Greater New Haven, significant differences in opportunity and well-being emerge when data are stratified by income, age, race, gender, and zip code. In recent years, the percentage of young children who live in low-income families and in distressed, low-income neighborhoods has risen. Wage inequality has continued to rise, and access to the growing number of jobs spread out throughout the region is a challenge for residents who lack reliable transportation. Residents of some neighborhoods experience risk factors such as lower graduation rates and chronic diseases—as well as levels of illness and premature mortality—that far exceed those seen in the surrounding region. These differences should be viewed as opportunities to dramatically improve the well-being and future economic competitiveness of the region.

Certain issues demand our immediate and collective attention. Neighborhood distress, poor health, and financial insecurity in parts of Greater New Haven are disconcerting in their own right. Yet they also impact the ability of young children to grow up as healthy, happy, and productive adults, which impacts the region's long-term outlook. During the first three years of life, the human brain reaches 80 percent of its full size and forms connections whose strength and number, which depend heavily on the child's environment, ultimately impact the child's learning and other cognitive abilities.[213] For example, speech sounds activate language-related parts of the brain; the more caretakers talk to or read with a child, the stronger and more numerous will be the connections formed in that child's brain. Infants and toddlers need nurturing, language-rich, and social settings, whether inside or outside their homes. For working parents, meeting these needs often requires high-quality child care and preschool programs. Such programs continue to foster children's brain development that starts at birth by developing the social-emotional skills and executive functioning necessary for success in school and in life. They also expand children's language and literacy, math, and fine-motor skills. Access to high-quality early care and education is particularly important for children exposed to adverse experiences. Young children who experience neglect or abuse, the absence of a loved one, unsafe or polluted surroundings, or exposure to "toxic neighborhoods" may not only suffer emotional instability or physical distress, but also disrupted brain development.[214] Access to high-quality early care and education settings can help children avoid these negative long-term outcomes by promoting healthy brain development.

At the other end of the age distribution, Greater New Haven's large and growing population of senior citizens will present new opportunities and challenges for area families and communities in the coming years. With many adults living substantially longer than they are able to drive on their own, this population will need social support, civic engagement, medical care, transportation, and housing options that are tailored to their needs.

Improving the quality of transportation networks, employment prospects, civic and educational infrastructure, and fair and affordable housing choices can enhance well-being among children and adults of all ages and abilities.

A COMMUNITY INDICATORS APPROACH

One of the most effective approaches to improving communities is to build collaborative groups of citizens who seek to build consensus using a "community indicators" program. These programs can monitor progress and provide objective information about collective challenges on a continuous basis. Community indicator projects have been on the rise in the past three decades; more than ever, neighborhoods are using data to inform local policies and bring about community change.

The work of DataHaven and its multi-sector partners in this second edition of the Greater New Haven Community Index is one effort to continue to build collaborations with local partners to develop more meaningful and useful measurements of our progress. DataHaven also provides an online and in-person technical assistance resource to help neighborhood residents use indicators that they feel best represent the opportunities and challenges they face. We hope that you will visit our website or contact us, layer the information in this report with your own stories, and use it to take action in your community.

NOTES ON FIGURES

CHAPTER 1. INTRODUCTION

1.1. **Personal Wellbeing Index and Community Index.** DataHaven analysis (2016). The Personal Wellbeing Index and Community Index were both developed by DataHaven based on the 2015 DataHaven Community Wellbeing Survey (CWS) and U.S. Census Bureau American Community Survey 2014 5-Year estimate data for the individual towns of New Haven, West Haven, Milford, Hamden, plus aggregate groupings of towns that are used elsewhere in the report: "Inner Ring" includes East Haven, Hamden, and West Haven; "Outer Ring" includes Bethany, Branford, Guilford, Madison, Milford, North Branford, North Haven, Orange, Woodbridge, and "Greater New Haven" includes all 13 of these towns. Additionally, New Haven neighborhood statistical areas are defined in this report to help illustrate that differences within New Haven are often greater than the differences between New Haven as a whole and other towns. New Haven "Low-Income Neighborhoods" are defined as Census Tracts that roughly match a "Promise Zone" identified by the City of New Haven in 2015 based on a contiguous area of neighborhoods that had the city's highest poverty rates, generally overlapping with the Dixwell, Dwight, Hill, Fair Haven, Newhallville, Quinnipiac Meadows, and West Rock neighborhoods plus parts of Beaver Hills (Tracts 1402-1407, 1413-1416; 1423-1425, and 1426.01). New Haven "Other City Neighborhoods" are the other Census Tracts throughout the City and include areas with a significantly wider range of income levels such as Amity, Downtown, East Rock, East Shore, Edgewood, West River, Westville, and Wooster Square (Tracts 1401, 1408-1412, 1418-1422, 1426.03, 1426.04, 1427-1428, 3614.01, and 3614.02). This definition is different from that used in the 2013 Greater New Haven Community Index; readers may wish to consult that document or the updated New Haven Neighborhood Profiles on the DataHaven website (see ctdatahaven.org/data-resources/new-haven-neighborhood-profiles) to learn more about specific neighborhoods within the City of New Haven. To develop Community Wellbeing Survey data estimates for the two groupings of Census Tracts used in this report, the 800 responses from randomly-selected adults within New Haven were coded into one of these areas based on respondents' self-reported neighborhood, zip code, and major street intersections, and responses with an unknown neighborhood were not considered for the neighborhood statistical area estimates. The Personal Wellbeing Index is calculated based on several survey questions regarding self-rated health, life satisfaction, mood, free time, and connection to others (see previous page of report). Similarly, the Community Index is based on 12 key indicators from survey responses and Census data, as listed in the figure. Note that several indicators of the Community Index are indices themselves—the Financial Security Index, Walkability Index, and Quality of Society Index are each calculated to summarize multiple indicators for ease of comparison. Each of the indicators shown are normalized from 0 to 1, where 1 represents an ideal outcome. Additional detail on data and methods for the 2015 DataHaven Community Wellbeing Survey are posted at DataHaven (http://www.ctdatahaven.org/reports/datahaven-community-wellbeing-survey) and data and methods for the U.S. Census American Community Survey are posted at census.gov.

1.2. **Community Index Components Data Value.** DataHaven analysis (2016). See note for Figure 1.1 for definitions of each geographic area in the table. As described in the above note and in the report text, the raw percentages presented for college degree attainment, commute times, Pre-K enrollment, opportunity youth, severe housing cost burden, and low-income children are calculated by DataHaven directly from the U.S. Census Bureau American Community Survey 2014 5-Year estimates, whereas raw percentages presented for smoking, obesity, under-employment are directly from the 2015 DataHaven Community Wellbeing Survey's population-weighted estimates. For example, the table shows that the smoking rate among all adults in Connecticut was 15 percent in 2015. The personal well-being, financial security, walkability, and quality of society indices are derived from a larger set of responses to the Community Wellbeing Survey within each area and in this table are normalized from 0 to 1, with scores of 1 representing an ideal outcome. Further details on each of these indicators is given over the course of this report (refer to pages shown for each indicator in Figure 1.1) or are available from DataHaven upon request.

1.3. **State Rankings.** Table is compiled from the most recently-published rankings of the fifty U.S. states as of May 2016. These sources were chosen by DataHaven based on a comprehensive review of available national rankings and the author's assessment of the validity of each published source. Documents cited in the table are available online from the websites of the organizations cited, or from DataHaven.

CHAPTER 2. A CHANGING REGION

2.1. **Population and Growth in Greater New Haven.** DataHaven analysis (2016). 1990 figures are from the U.S. Census Bureau Decennial Census, Table P1, Total Population. 2014 population figures are from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B01001, Sex by Age. Tables available at http://factfinder2.census.gov/. 2000 median age from Decennial Census. 2014 median age from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B01002, Median Age by Sex.

2.2. **The Changing Age Structure of Greater New Haven.** DataHaven analysis (2016). 1990 and 2000 figures are from the U.S. Census Bureau Decennial Census SF3, Table P08, Sex by Age. 2014 figures are from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B01001, Sex by Age. Tables available at http://factfinder2.census.gov/. 2025 projections are from the Connecticut State Data Center at the University of Connecticut Libraries Map and Geographic Information Center (2012). 2015-2025 Population Projections for Connecticut at State, County, Regional Planning Organization, and Town levels – November 1, 2012 edition. Retrieved from http://ctsdc.uconn.edu/2015_2025_projections/.

2.3. **Race and Ethnicity in Greater New Haven.** DataHaven analysis (2016). 2010 U.S. Census Bureau Decennial Census, Table P2, Hispanic or Latino, and Not Hispanic or Latino by Race, available at

http://factfinder2.census.gov/. Geographies are defined in the note for Figure 1.1. Please note that while the majority of the population-related data and text presented in this report is derived from 2014 U.S Census Bureau American Community Survey data, this chart uses 2010 Decennial Census data because of the need to present more detailed data by age and race/ethnicity.

2.4. **Characteristics of Immigrants in Greater New Haven.** DataHaven analysis (2016). 1990 population figures from U.S. Census Bureau Decennial Census, Table P021, Place of Birth by Citizenship Status. U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B05007, Place of Birth by Year of Entry by Citizenship Status for the Foreign-Born Population; Table B06009, Place of Birth by Educational Attainment in the United States; Table B05013, Sex by Age for the Foreign-Born Population; Table B05006, Place of Birth for the Foreign-Born Population in the United States. Tables available at http://factfinder2.census.gov/.

2.5. **The Changing Household Structure of Greater New Haven.** DataHaven analysis (2016). 1990 and 2000 figures from U.S. Census Bureau Decennial Census, Table P015, Family Type by Presence of Own Children Under 18 Years of Age by Age of Own Children or equivalent SF1 dataset. 2014 figures from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B11003, Family Type by Presence and Age of Own Children Under 18 Years. Tables available at http://factfinder2.census.gov/.

2.6. **Income and Income Inequality in Greater New Haven.** DataHaven analysis (2016). U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B19080, Household Income Quintile Upper Limits and Table B19013, Median Household Income in the Past 12 Months (in 2014 Inflation-Adjusted Dollars), available at http://factfinder2.census.gov/. Differences shown are the 20th and 80th percentiles of household income for each town. For privacy, the Census suppresses data for very high incomes at the town level; as such, some towns' top incomes are only available as "$250,000+."

2.7. **Growing Neighborhood Income Inequality in Greater New Haven.** DataHaven analysis (2016) of household income and population data by Census Tract. Due to changes in Census Tract boundaries over time, in order to allow comparability to current Census Tract data, the 1980, 1990, and 2000 figures from U.S. Census Bureau Decennial Census are provided by Neighborhood Change Database (NCDB) created by GeoLytics and the Urban Institute with support from the Rockefeller Foundation (2012), a dataset that is designed to hold neighborhood-level geographic boundaries constant over time. 2014 figures from U.S. Census Bureau American Community Survey 2014 5-year estimate, Tables B01003 Total Population, B17001 Poverty Status in Past 12 Months by Age, B11012 Household Type by Tenure, B19127 Aggregate Income in Past 12 Months for Families (in 2014 Inflation-Adjusted Dollars), available at http://factfinder2.census.gov/. Neighborhood income categories determined by comparing average family income by census tract to the state average family income, using ratios described in table. The percent of total population living in each neighborhood income category is compared across decades to illustrate change in neighborhood inequality.

2.8. **The Low-Income Population in Greater New Haven.** DataHaven analysis (2016). 2000 figures are from U.S. Census Bureau, Ratio of Income in 1999 to Poverty Level. 2014 figures are from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B17024, Age by Ratio of Income to Poverty Level in the Past 12 Months. Tables available at http://factfinder2.census.gov/. As described in the report text, "low-income" is defined here as individuals having an annual household income less than two times (200 percent of) the federal poverty level.

2.9. **Housing Cost Burden in Greater New Haven.** DataHaven analysis (2016) of data from U.S. Census Bureau American Community Survey 1-year estimates. Table B25070, Gross Rent as a Percentage of Household Income in the Past 12 Months; Table B25091, Mortgage Status by Selected Monthly Owner Costs as a Percentage of Household Income in the Past 12 Months, available at http://factfinder2.census.gov/. Households are considered cost-burdened when their monthly housing costs exceed 30 percent of their total income, and severely cost-burdened when this cost exceeds 50 percent of their total income.

2.10. **Characteristics of Greater New Haven Households.** DataHaven analysis (2016). 2014 figures from U.S. Census Bureau American Community Survey 2014 5-year estimates. Table B25070, Gross Rent as a Percentage of Household Income in the Past 12 Months; Table B25091, Mortgage Status by Selected Monthly Owner Costs as a Percentage of Household Income in the Past 12 Months, available at http://factfinder2.census.gov/. Households are considered severely cost-burdened when their monthly housing costs exceed 50 percent of their total income.

CHAPTER 3. A HEALTHY REGION

3.1. **Greater New Haven Health Trends.** DataHaven analysis (2016) of a variety of sources. For life expectancy data, online data from Institute for Health Metrics and Evaluation at the University of Washington (2015), Released April 2015 and accessed June 1, 2016 at http://vizhub.healthdata.org/us-health-map/ for New Haven County, Connecticut, and United States. For low birth weight, Connecticut Department of Public Health Vital Statistics records from 2003 to 2013, with a 3 year centered moving average developed for each point in time shown (see note for Figure 3.3); data are presented for the city of New Haven, Connecticut, and the 13-town Greater New Haven region used throughout this report. For obesity and smoking, DataHaven analysis (2016) of data compiled from 2015 DataHaven Community Wellbeing Survey (available at http://www.ctdatahaven.org/reports/datahaven-community-wellbeing-survey), 2007 Connecticut Health Foundation Health Data Scan (available at https://www.cthealth.org/wp-content/uploads/2011/04/health-data-scan-report.pdf), and 2011 American Lung Association Trends in Tobacco Use report (available at http://www.lung.org/assets/documents/research/tobacco-trend-report.pdf). Data are presented for the city of New Haven, Connecticut, and for a grouping of the state's wealthiest towns. For insurance coverage rates, 2012 and 2015 DataHaven Community Wellbeing Survey data for adults age 18 and older are used for all geographies, except the 2012 Connecticut statewide rate, which is estimated by DataHaven based on American Community Survey 1-year estimates and other data in order to match likely rates during the short timeframe during which the 2012 regional survey was conducted (Fall 2012). Data presented for the five major geographies used throughout this report including the 13-town Greater New Haven region. For age-adjusted mortality rates from heart disease, Connecticut Department of Public Health Mortality Tables, available at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=521462.

3.2. **Well-Being and Chronic Disease Risk Factors.** DataHaven analysis (2016) of questions from 2015 DataHaven Community Wellbeing Survey. Using a standard list of questions designed by a panel of local, statewide, and national experts based on major national surveys, randomly-selected adult participants were asked to rate their overall health; report recent levels of depression and anxiety; and report whether they had even been told by a doctor or medical professional that they had diabetes or asthma. Participants reported their height and weight, from which their body mass index (BMI) was calculated; obesity in adults is defined as a BMI of 30 or higher. For food insecurity, participants were asked whether there had been times in the past 12 months that they did not have enough money to provide food for their families. Smoking rates were calculated based on the number of participants who estimated having smoked at least 100 cigarettes in their entire lives; those who said they had were then asked whether they smoked every day, some days, or not at all. Smoking prevalence for the entire population was then extrapolated from these two figures. Participants were asked to self-report whether they currently have health insurance, and whether they had seen a dentist in the past 12 months. All reported estimates from the survey are weighted in order to accurately represent the underlying adult population within each state, region, town, or neighborhood. More information on this landmark, statewide, regional, and neighborhood-level survey is available elsewhere in the report or at http://www.ctdatahaven.org/reports/datahaven-community-wellbeing-survey.

3.3. **Infant Health Indicators.** DataHaven analysis (2016) of data from Connecticut Department of Public Health Vital Statistics, available at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=394598. Low and very low birth weights are defined as 2,500 grams (5.5 pounds) and 1,500 grams (3.3 pounds), respectively. Fetal mortality is defined as babies that were stillborn or otherwise not viable after 20 weeks gestation. Infant mortality is defined as children who died at less than 1 year of age. All figures are averaged over the period from 2008 to 2013 and reported as an annualized 6-year average.

3.4. **Leading Causes of Death.** Data from Connecticut Department of Public Health, available at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=521462. Crude mortality rates give the number of deaths divided by the number of residents, without accounting for effects of age. Number of deaths, crude mortality rate (CMR), age-adjusted mortality rate (AAMR) and statistical significance between time periods by cause of death were created using the 2008-2012 and 2003-2007 mortality data reported for each CT town, county and the state. The 2008-2012 AAMR for each cause by town was compared to the CT statewide AAMR to identify statistically significant differences using the Standard Error of the AAMR for each town provided in the tables along with the town, county or state population from the 2010 Decennial Census (http://www.ct.gov/dph/cwp/view.asp?a=3132&q=488832) to calculate the standard deviation. For each reference area, z scores were calculated using the standard deviation, 2010 total population, and the difference between the town AAMR and reference AAMR. p values were calculated from these z scores. Statistical differences shown as "likely higher/lower" are calculated at a 90% confidence level, and those shown as "higher/lower" are calculated at a 95% confidence level. When neither difference is indicated, figures are not significantly different from those of the state. According to Mortality Technical Notes at the Connecticut Department of Public Health (http://www.ct.gov/dph/cwp/view.asp?a=3132&q=397434), "age-adjusted mortality rates are rates where the effect of differing age distributions between the groups has been removed. They are used to compare the relative mortality risk across two or more population groups at the same point in time or to compare one population at two or more points in time. Since the effect of age has been removed, these rates are called "age-adjusted" rates. This is a key difference between crude and age-adjusted rates. More specifically, the adjusted rate estimates "what the crude rate would have been in the study population if that population had the same distribution as the standard population with respect to the variable(s) for which the adjustment or standardization was carried out" (Last, 1988). Age-adjusted rates are computed by the direct method by applying age-specific rates in a population of interest to a standardized age distribution, in order to eliminate differences in observed rates that result from age differences in population composition. Age-adjusted rates presented in the CT DPH Mortality tables are consistent with the methods used by the National Center for Health Statistics/Centers for Disease Control in their tabulation of U.S. rates." AAMRs are calculated for towns and counties, but were not available for groupings of towns or neighborhoods.

3.5. **Causes of Premature Death.** Data from Connecticut Department of Public Health, available at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=521462. For Years of Potential Life Lost (YPLL), we created annualized YPLL rates (or "Premature Death Rates") by cause using the 2008-2012 dataset at the individual town level; geographies presented here include the state, 13-town Greater New Haven region, and selected individual towns. Data represent annualized averages over that five year period of time. We calculated the YPLL rate as the sum of the YPLL divided by (the total population under 75 years old*5)*100,000. The average YPLL under 75 years of age, or "Years Lost Per Death," was calculated by taking the sum of the YPLL divided by the number of deaths under 75 years of age. For YPLL due to fetal/infant deaths (summed fetal deaths plus infant deaths), we used annualized CTDPH data for 2008-2013 (see note for Figure 3.3) and used an average age at death of 0.5 years, hence the average YPLL of 74.5 years per death computed for these deaths as the basis of the comparison to standard causes of death.

3.6. **Heart Disease, Hospital Inpatient Encounters, and General Notes on Analysis of Hospital Data (CHIME data).** DataHaven analysis (2016) of 2012–2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven. The CHIME hospital encounter data extraction included de-identified information for each of 3,069,680 Connecticut hospital encounters incurred by any residents of 47 towns in CT and 15 towns in NY encompassing the service areas of several Connecticut hospitals (Bridgeport Hospital, Danbury Hospital, Greenwich Hospital, Milford Hospital, Norwalk Hospital, St. Vincent's Medical Center, Stamford Hospital, and Yale New Haven Hospital) as well as the towns of Waterbury and Hartford for use as comparisons. Any encounter incurred by any resident of these towns at any Connecticut hospital would be included in this dataset, regardless of where they received treatment. In order to develop statewide geographic benchmark comparisons within the CHIME data that could be used to provide context to any of the figures in the report that relied on CHIME data, the nine wealthiest towns in Connecticut based on household income (Darien, Easton, Greenwich, New Canaan, Ridgefield, Weston, Westport, Wilton, Woodbridge) were grouped together into a "9 Wealthiest CT Towns" figure and compared to the four largest urban centers (Bridgeport, New Haven, Hartford, and Waterbury) grouped together into a "4 Largest City Centers" or "4 Largest CT Urban Core Towns" figure. In all CHIME data-based maps, Amity-Westville is represented by zip code 06515 and Hill is represented by zip code 06519. Each encounter observation had a unique encounter ID number and was populated with one or more "indicator flags" representing a variety of conditions. Each encounter could include multiple indicator flags. Because CHIME is Connecticut-based, only hospital encounters occurring in CT were captured; therefore, encounters for individuals residing in CT towns bordering other states are more likely undercounted in some cases. Annualized encounter rates were calculated as described below for the indicator flags assigned within the dataset including Asthma, Diabetes Uncontrolled, Heart Disease, Hypertension, Lung cancer, Stroke, Depressive Disorder, Accidental Poisoning, COPD, Preventable dental conditions, Falls, Homicide and Purposely Inflicted Injury (including assault), Substance Abuse, and other conditions. Most analyses in this document describe data on all hospital encounters including inpatient, emergency department, and observation encounters, but some of the analyses that we present in the document look only at inpatient encounters or only at emergency department encounters in order to describe the distribution of conditions that are considered to be of higher severity (in the case of inpatient hospitalization) or more general concern (in the case of emergency department use for preventable conditions). The annualized encounter rates per 10,000 persons were calculated for the 3-year period 2012-2014 by zip code, town, area, region, and in aggregate by merging the CHIME data with 2010 Decennial Census data by zip code, town, race, and age. For each town, our analysis included an annualized encounter rate for white non-Hispanic, total black, and total Hispanic populations in each of six age strata (0-19 years, 20-44 years, 45-64 years, 65-74 years 75-84 years and 85+ years), as well as a single age and race adjusted annualized encounter rate for each region. Additionally, an overall age-adjusted encounter rate by cause was calculated for each zip code, town, area/region and aggregate. Analyses were adjusted for age by using the 2010 Census population data for all towns that were represented in the CHIME data, in order to remove the effect of age from the reported rates (see note for Figure 3.4 for additional rationale for using age-adjusted rates). To explore neighborhood differences in hospital encounter rates, the CHIME data was merged with 2010 census data by zip code and annualized encounter rates per 10,000 persons were calculated for each indicator flag by sex within age strata for each zip code. In addition, a single age-adjusted annualized encounter rate per 10,000 was calculated for each zip code. To enable comparison, rolled up regional encounter rates were calculated by sex within each age stratum for regions and sub-regions. Several limitations regarding this analysis deserve mention. First, it is important to note that there is no way to discern the unique number of individuals in a zip, town, area or region who experienced hospital encounters during the period under examination or the number of encounters that represented repeat encounters by the same individual for the same or different conditions. Second, the CHIME encounter dataset provides 3 diagnosis codes for each encounter. However, the indicator flags clearly use more than 3 diagnosis fields. For example, of all asthma encounters (defined using the indicator flag for Asthma), only 25% have a primary diagnosis of asthma and only 60% have an asthma diagnosis in any of the 3 diagnostic fields provided for analysis. Consequently, there may be discrepancies when comparing the annualized CHIME encounter rates to rates calculated from DPH surveillance data, which use only the primary diagnosis field to identify an asthma hospitalization. Third, the CHIME hospital encounter data may misclassify those who are ethnically Hispanic, as race is captured based on patient observation and race and ethnicity were not separately reported. Each encounter was assigned a single Race/ethnicity category with White, Black, Hispanic captured as follows: White, Black or African American, Hispanic/Latino/Spanish Origin. Consequently, an ethically Hispanic individual may be categorized as white or black. Conversely, the 2010 census data captures race and ethnicity separately. In an attempt to create appropriate denominators for the race stratified analyses, we extracted the following census population statistics: white non-Hispanic, all black, and all Hispanic. Because of these differences in the ways race/ethnicity were captured in the CHIME data versus the 2010

census data, the race adjusted annualized encounter rates should be interpreted with significant caution, and for that reason we generally do not report them within this document even though they were important considerations in our broader view of regional health disparities. Last, the encounter rate by zip code analysis includes only those zip codes for which corresponding census data existed (based on zip code tabulation areas); zip codes representing P.O boxes were excluded and zip code-based data are typically subject to other limitations due to the manner in which zip codes and zip code tabulation areas are defined or reported. To better examine encounter rates for childhood asthma, the age-strata used to calculate asthma encounter rates differed from age groupings used for the other disease encounter types (0-4 years, 5-19 years, 20-44 years, 45-64 years, 65-74 years and 75+ years). Please contact DataHaven or CHIME data for additional detail on diagnosis codes used to develop the indicator flags, if not provided in the figure note. Data in this particular map and table (Figure 3.6) include age-adjusted and age-specific rates only for inpatient hospital encounters for heart disease (Circulatory Diseases); inpatient encounters for this diagnosis are generally considered to be for severe conditions, and do not include emergency department or other hospital encounters.

3.7. **Nutrition, Obesity, and Diabetes.** DataHaven analysis (2016) of questions from 2015 DataHaven Community Wellbeing Survey. Participants were asked to report whether they had even been told by a doctor or medical professional that they had diabetes. Participants reported their height and weight, from which their body mass index (BMI) was calculated; obesity in adults is defined as a BMI of 30 or higher. For food insecurity, participants were asked whether there had been times in the past 12 months that they did not have enough money to provide food for their families. Data are disaggregated by self-reported race and ethnicity (white non-Hispanic, black non-Hispanic, and Hispanic of any race), age group, and household income. See note for Figure 3.2 for additional detail.

3.8. **Diabetes, All Hospital Encounters.** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular table include age-adjusted and age-specific rates for any hospital encounters with Type 2 diabetes as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes 25000, 25002, 25010, 25012, 25020, 25022, 25030, 25032, 25040, 25042, 25050, 25052, 25060, 25062, 25070, 25072, 25080, 25082, 25090, 25092). Table also presents hospital encounters for conditions that are often considered to be of higher severity: diabetes-related amputation (lower-extremity amputation due to diabetes among patients with diabetes indicator, or PQI 16; please contact DataHaven or CHIME data for additional detail on this more complex diagnosis), and uncontrolled diabetes (Principal or Secondary ICD-9 Diagnosis Codes 25002, 25003).

3.9. **Injury Mortality by Type.** Data from Connecticut Department of Public Health, available at http://www.ct.gov/dph/cwp/view.asp?a=3132&q=521462. See note for Figure 3.4 for additional detail on age-adjusted mortality rates (AAMR).

3.10. **Homicide/Purposeful Injury, All Hospital Encounters.** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular table include age-adjusted and age-specific rates for any hospital encounters with "Accident/Injury-Homicide and Purposely Inflicted" as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes E9600, E9601, E961, E9620, E9621, E9622, E9629, E963, E964, E9650, E9651, E9652, E9653, E9654, E9655, E9656, E9657, E9658, E9659, E966, E9670, E9671, E9672, E9673, E9674, E9675, E9676, E9677, E9678, E9679, E9680, E9681, E9682, E9683, E9684, E9685, E9686, E9687, E9688, E9689, E969), which generally includes intentional assaults or other instances of community or domestic violence. "Suicide and Self-Inflicted" is a completely separate indicator flag in the database and does not overlap at all with this indicator. Table also presents inpatient encounters for "high severity conditions," which in this case are defined simply as inpatient encounters because of our view that assaults that require a hospitalization are more likely to involve issues such as firearm-inflicted or life-threatening injuries. In general, the majority of all encounters for this indicator are emergency department encounters; any hospital encounters due to intentional injury and assault, even those resulting in relatively minor injuries, could be considered a potential indicator of safety and is worth exploring in greater detail in future iterations of this report.

3.11. **Childhood Asthma, All Hospital Encounters.** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular map include age-specific rates among residents age 0-4 for any hospital encounters with "Asthma" as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes 49300, 49301, 49302, 49310, 49311, 49312, 49320, 49321, 49322, 49381, 49382, 49390, 49391, 49392).

3.12. **Selected Infectious Diseases.** DataHaven analysis (2016) of data obtained directly from Connecticut Department of Public Health in April 2016, including the HIV and Hepatitis Surveillance, Tuberculosis Control, Sexually Transmitted Diseases Control, and Epidemiology and Emerging Infections Lyme Disease Surveillance programs.

3.13. **Chronic Obstructive Pulmonary Disease (COPD).** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular table include age-adjusted and age-specific rates for inpatient hospital encounters with "Chronic Obstructive Pulmonary Disease" (COPD) as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes 4910, 4911, 4912, 49120, 49121, 4918, 4919, 4920, 4928, 494, 4940, 4941, 496). Although COPD is a health outcome rather than a mental health or substance abuse issue, it is included within this section of the report because of its relationship to smoking.

3.14. **Substance Abuse, All Hospital Encounters.** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular table include age-adjusted rates for all hospital encounters with "Substance-Related Disorders" as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes 2920, 29211, 29212, 2922, 29281, 29282, 29283, 29284, 29289, 2929, 30400, 30401, 30402, 30403, 30410, 30411, 30412, 30413, 30420, 30421, 30422, 30423, 30430, 30431, 30432, 30433, 30440, 30441, 30442, 30443, 30450, 30451, 30452, 30453, 30460, 30461, 30462, 30463, 30470, 30471, 30472, 30473, 30480, 30481, 30482, 30483, 30490, 30491, 30492, 30493, 30510, 30511, 30512, 30513, 30520, 30521, 30522, 30523, 30530, 30531, 30532, 30533, 30540, 30541, 30542, 30543, 30550, 30551, 30552, 30553, 30560, 30561, 30562, 30563, 30570, 30571, 30572, 30573, 30580, 30581, 30582, 30583, 30590, 30591, 30592, 30593, 64830, 64831, 64832, 64833, 64834, 65550, 65551, 65553, 76072, 76073, 76075, 7795, 96500, 96501, 96502, 96509, V6542). These codes generally relate only to drug use and abuse, not alcohol use. In many cases, encounters flagged for substance abuse are also flagged for various mental health-related disorders.

3.15. **Preventable Dental Conditions, Hospital ED Encounters.** DataHaven analysis (2016) of 2012-2014 CHIME data provided by Connecticut Hospital Association upon request from and special study agreement with partner hospitals and DataHaven; see note for Figure 3.6 for detailed description of the analyses shown here. Data in this particular map and table include age-adjusted and age-specific rates for emergency department hospital encounters with "Preventable Dental Conditions" as an indicator flag (Principal or Secondary ICD-9 Diagnosis Codes 521xx, 522xx, 523xx, 525xx, 528xx). Data are an indication that many residents, particularly younger or lower-income adults, may seek dental care at hospital emergency rooms for various reasons or may lack access to the preventive dental care that could allow them to avoid going to the hospital emergency room.

3.16. **Health Care Access.** DataHaven analysis (2016) of questions from 2015 DataHaven Community Wellbeing Survey. Participants were asked to report whether they had health insurance, had had a dental visit during the past 12 months, and could not afford prescription medicine during the past 12 months. Additionally, participants were asked two questions about whether they postponed or did not get the medical care that they thought they needed at any point during the past 12 months; the indicator shown here indicates the population-weighted percentage of adults in the region who answered yes to either of these two questions. Residents who answered yes to either question were also asked a series of follow-up questions that are discussed in the text.

Data are disaggregated by self-reported race and ethnicity (white non-Hispanic, black non-Hispanic, and Hispanic of any race), age group, and household income. See note for Figure 3.2 for additional detail.

CHAPTER 4. A REGION OF OPPORTUNITY

4.1. **Working Parents, 2000–2014.** DataHaven analysis (2016). 2000 figures from U.S. Census Bureau Decennial Census, Table P046, Age of Own Children Under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents. 2014 figures from U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B23008, Age of Own Children Under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents. Both available at http://factfinder2.census.gov/. See note for Figure 1.1 for additional detail on geographical areas included.

4.2. **Availability of Childcare and Education in Greater New Haven, 2014.** DataHaven analysis (2016) of data from 2-1-1 Annual Child Care Capacity, Availability, and Enrollment Survey 2014, report by Connecticut 2-1-1 Childcare, available at http://www.211childcare.org/reports/ and U.S. Census Bureau American Community Survey 2014 5-Year estimate, Table B01001, Sex by Age available at http://factfinder2.census.gov/. Note that childcare provider slot capacity is calculated as enrolled slots plus vacant slots.

4.3. **Affordability of Childcare for Families.** DataHaven analysis (2016) of 2012 data from 2-1-1 Childcare Availability Affordability 2013 report, by Connecticut 2-1-1 Childcare, available at http://www.211childcare.org/reports/. Note that average child care costs are calculated using average family income from the U.S. Census Bureau American Community Survey 2012 5-year estimate, Table B19113, Median Family Income in the past 12 months (in 2012 inflation-adjusted dollars), available at http://factfinder2.census.gov

4.4. **Availability of Childcare and Education Subsidies in Greater New Haven, 2014.** DataHaven analysis (2016) of data from 2-1-1 Annual Child Care Capacity, Availability, and Enrollment Survey 2014, report by Connecticut 2-1-1 Childcare, available at http://www.211childcare.org/reports/; Department of Education data on subsidized childcare and education programs, provided to DataHaven for the purposes of this report; and U.S. Census Bureau American Community Survey 2014 5-Year estimate, Table B01001, Sex by Age, and Table B17024, Age by Ratio of Income to Poverty Over Past 12 Months, available at http://factfinder2.census.gov/. Note that childcare provider slot capacity is calculated as enrolled slots plus vacant slots, and that the population of children ages 0-4 from low-income households is estimated at 83 percent of the population of children ages 0-5 from low-income households.

4.5. **Preschool Enrollment in Greater New Haven, 2014.** DataHaven analysis (2016). U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B14003, Sex by School Enrollment by Type of School by Age for the Population 3 Years and Over, available at http://factfinder2.census.gov/. See note for Figure 1.1 for additional detail on geographical areas included including neighborhood statistical areas listed in map within New Haven.

4.6. **Race and Ethnicity of Greater New Haven Students, 2014–2015.** DataHaven analysis (2016) of 2014-15 school year data from the Connecticut State Department of Education. See note for Figure 1.1 for additional detail on geographical areas included.

4.7. **High-Needs Students.** DataHaven analysis (2016) of 2014-15 school year data from the Connecticut State Department of Education. See note for Figure 1.1 for additional detail on geographical areas included.

4.8. **Academic Achievement in Greater New Haven Schools.** DataHaven analysis (2016) of data from Connecticut State Department of Education. The Smarter Balance Assessment Consortium (SBAC) standardized test is the Common Core-aligned test first taken by Connecticut students in 2015. Passing scores on English/language arts (ELA) and math are those rated proficient or advanced in that subject, and students scoring at these levels are considered on track for college and career readiness. Previous standardized testing used different rubrics to determine passing; therefore, SBAC scores should not be compared with previous testing years. Graduation rates presented are four-year cohort graduation rates, giving the percentage of students who earn a high school diploma alongside the cohort with which they started 9th grade. This rate is adjusted to account for transfers in and out of each district. Chronic absenteeism is defined as a student missing at least 10 percent of the days for which they are enrolled in a year for any reason. See note for Figure 1.1 for additional detail on geographical areas included.

4.9. **The Opportunity Gap Impacts Achievement at Greater New Haven Schools.** DataHaven analysis (2016) of data from Connecticut State Department of Education. The Smarter Balance Assessment Consortium (SBAC) standardized test is the Common Core-aligned test first taken by Connecticut students in 2015. Passing scores on English/language arts (ELA) and math are those rated proficient or advanced in that subject, and students scoring at these levels are considered on track for college and career readiness. Previous standardized testing used different rubrics to determine passing; therefore, SBAC scores should not be compared with previous testing years. Graduation rates presented are four-year cohort graduation rates, giving the percentage of students who earn a high school diploma alongside the cohort with which they started 9th grade. This rate is adjusted to account for transfers in and out of each district. Chronic absenteeism is defined as a student missing at least 10 percent of the days for which they are enrolled in a year for any reason. See note for Figure 1.1 for additional detail on geographical areas included.

4.10. **Higher Education of Greater New Haven Students.** DataHaven analysis (2016) of data from Connecticut State Department of Education. Enrollment rates are defined as the percentage of students from a given graduating class who enroll in college within 1 year of graduation. Persistence rates are defined as the percentage of students who, after enrolling in college within 1 year of high school, continue into a second, consecutive year of college. Attainment rates are the percentage of students who earn a two- or four-year degree within 6 years of graduating high school, out of the entire high school graduating class. See note for Figure 1.1 for additional detail on geographical areas included.

4.11. **Opportunity Youth in Greater New Haven, 2014.** DataHaven analysis (2016). U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B14005, Sex by School Enrollment by Educational Attainment by Employment Status for the Population 16 to 19 Years, available at http://factfinder2.census.gov/. Opportunity youth (sometimes referred to as "disconnected youth") are youth ages 16 to 19 who are neither working nor currently enrolled in school. See note for Figure 1.1 for additional detail on geographical areas included including neighborhood statistical areas listed in map within New Haven.

4.12. **Opportunities for Young People in Greater New Haven.** DataHaven analysis (2016). U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B14005, Sex by School Enrollment by Educational Attainment by Employment Status for the Population 16 to 19 Years, available at http://factfinder2.census.gov/. Opportunity youth (sometimes referred to as "disconnected youth") are youth ages 16 to 19 who are neither working nor currently enrolled in school. Unemployment ages 16-24 data from the Bureau of Labor Statistics, available at http://www.bls.gov/web/empsit/cpseea10.htm. Other data are population-weighted estimates that come from the 2015 DataHaven Community Wellbeing Survey's in-depth interviews of randomly-selected adults age 18-24 in the region. Underemployment is defined as people who are unemployed, plus those who are working part-time but want to be working full-time.

4.13. **Financial Security and Underemployment.** DataHaven analysis (2016) of 2015 DataHaven Community Wellbeing Survey. The Financial Security Index was developed by DataHaven to summarize responses to several survey questions for the sake of comparison. These questions included access to transportation, health insurance and access to health care, inability to obtain basic needs like food and shelter, and overall assessment of participants' financial situations. After calculating the index for a large sample of zip codes from around the state, scores were ranked. Several demographic groups, shown on the left, were ranked as though they were their own zip codes. As can be seen, if white working Greater New Haven residents were their own zip code, their Financial Security Index would rank fairly high compared to zip codes around the state, while scores of Black and Latino working residents lag behind. For all groups, underemployed Greater New Haven residents rank near the bottom of the entire state, with very low scores for underemployed Black and Latino residents. Responses by race/ethnicity and employment status for three specific questions related

to financial security are also shown; these represent the percent of all adults age 18+ within each category who answered affirmatively to the selected question.

4.14. **Movement of Low-Income Workers (Salary < $40,000).** DataHaven analysis (2016) to calculate the numbers of workers moving between pairs of towns in Greater New Haven. U.S. Census Bureau Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics, available at http://lehd.ces.census.gov/data/.

4.15. **Movement of High-Income Workers (Salary > $40,000).** DataHaven analysis (2016) to calculate the numbers of workers moving between pairs of towns in Greater New Haven. U.S. Census Bureau Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics, available at http://lehd.ces.census.gov/data/.

4.16. **Jobs and Wage Trends by Sector, 2000–2014.** DataHaven analysis (2016) of U.S. Census Bureau Quarterly Workforce Indicators, available at http://qwiexplorer.ces.census.gov/, and U.S. Census Bureau Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics, available at http://lehd.ces.census.gov/data/. Average wages are given, and are calculated here as means of total annual wages over annual average employment by sector. 2000 wages are adjusted for inflation in order to accurately calculate changes in average wages over time. The chart shows that average wages in Educational Services and Finance grew fairly substantially, while average wages in retail trade dropped. Industries are categorized based on the North American Industry Classification System; those shown are sectors in which there were at least 10,000 workers in the region in 2014. Curves for job trends are adjusted to smooth out fluctuations over time. Data shown is for all of New Haven County, as this is the geographical area for which figures are available.

4.17. **Changing Industry Footprints.** DataHaven analysis (2016) of U.S. Census Bureau Quarterly Workforce Indicators, available at http://qwiexplorer.ces.census.gov/. Each share is given as that sector's payroll within New Haven County divided by the county's total payroll across all sectors. This includes the sectors with fewer than 10,000 workers that were eliminated for Figure 4.15.

4.18. **Educational Attainment.** U.S. Census Bureau American Community Survey 2014 5-year estimate, Table B06009, Place of Birth by Educational Attainment in the United States, available at http://factfinder2.census.gov/. On the map, the percent of all adults age 25+ with a Bachelor's Degree or higher, as well as the number of such adults with degrees, are given for regions as well as neighborhood areas and towns. See note for Figure 1.1 for additional detail on geographical areas included including neighborhood statistical areas listed in map within New Haven.

4.19. **Municipal Financial Capacity in Greater New Haven.** DataHaven analysis (2016) of data available from the New England Public Policy Center, available at https://www.bostonfed.org/publications/new-england-public-policy-center-research-report/2015/measuring-municipal-fiscal-disparities-in-connecticut.aspx. Municipal capacity refers to the amount of money from tax revenue available to a municipality. The first column shows tax capacity per capita, or the amount of revenue available per resident for each town. The second column shows the amount of money per person needed to cover that town's estimated public expenses. The third column shows the amount of surplus available per person, or the money needed subtracted from the money available. Figures are shown in green for a surplus and red for a deficit.

4.20. **Perceived Access and Use of Community Resources.** DataHaven analysis (2016) of questions from the 2015 DataHaven Community Wellbeing Survey. The indicators shown here indicate the percentage of adults in each area who answered affirmatively to the questions shown; survey respondents are weighted to be representative of the population within each area. Data are disaggregated by geographic area, self-reported age group, and household income. See note for Figure 3.2 for additional detail.

4.21. **Perceived Community Cohesion.** DataHaven analysis (2016) of questions from the 2015 DataHaven Community Wellbeing Survey. The indicators shown here indicate the percentage of adults in each area who answered affirmatively to the questions shown; survey respondents are weighted to be representative of the population within each area. Data are disaggregated by geographic area, self-reported age group, and household income. See note for Figure 3.2 for additional detail.

4.22. **Voter Turnout in Greater New Haven.** DataHaven analysis (2016) of voter turnout data from the Connecticut Secretary of the State, available at http://www.ct.gov/sots/cwp/view.asp?q=401492. Voter turnout is defined as the percentage of officially registered voters who are checked as having voted. This includes overseas ballots but does not include absentee voters. Note that the years in which presidential, midterm, and local elections are held differ. Participants in the 2015 DataHaven Community Wellbeing Survey also answered a question regarding their registration to vote.

4.23. **Civic Engagement and Government.** DataHaven analysis (2016) of questions from the 2015 DataHaven Community Wellbeing Survey. The indicators shown here indicate the percentage of adults in each area who answered affirmatively to the questions shown; survey respondents are weighted to be representative of the population within each area. Data are disaggregated by geographic area, self-reported age group, and household income. See note for Figure 3.2 for additional detail.

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DataHaven is a non-profit organization with a 25-year history of public service to Greater New Haven and Connecticut. Its mission is to improve quality of life by collecting, sharing, and interpreting public data for effective decision making. DataHaven is a formal partner of the National Neighborhood Indicators Partnership of the Urban Institute in Washington, DC.

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