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Social Capital, Creativity and Cultural Vitality: Prioritization Factors for Sustainable Public Space Systems Design

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Social Capital, Creativity and Cultural Vitality:
Prioritization Factors for Sustainable Public Space Systems Design

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Masters of Science Thesis

Social Capital, Creativity and Cultural Vitality:
Prioritization Factors for Sustainable Public Space Systems Design

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TABLE OF CONTENTS

PREFACE ............................................................................................................................................... IX

GLOSSARY/KEY TERMS .......................................................................................................................... X

CHAPTER I: THE PROBLEM .................................................................................................................. 1

THE PROBLEM SUSTAINABILITY FRAMEWORKS .............................................................................. 1

ROOTS & DIMENSIONS OF SUSTAINABLE DEVELOPMENT .............................................................. 1

LACK OF FOCUS ON SOCIAL DIMENSIONS ....................................................................................... 2

   Social Capital .................................................................................................................................... 4

   Cultural Vitality ................................................................................................................................. 4

   Creativity .......................................................................................................................................... 5

GENERIC FRAMEWORKS: ONCE SIZE DOES-NOT FIT ALL .............................................................. 6

SOCIAL EQUITY AND THE CHANGING FACE OF URBAN POPULATIONS ......................................... 7

MULTI-SCALAR ANALYSIS AND PLANNING ..................................................................................... 8

FOCUS ON SUSTAINABLE URBAN LANDSCAPES/PUBLIC SPACE ................................................. 11

NEW HAVEN AS THE TEST CASE ....................................................................................................... 11

FACTORS REQUIRED TO APPLY SUSTAINABLE PRACTICES ....................................................... 13

   Systems Thinking: Central place theory vs network based model ................................................. 13

   Data: Qualitative and Quantitative Cohesion .................................................................................... 17

      Quantitative Approach: Mapping & Measuring Social Sustainability ........................................ 18
<p>| Qualitative Approach: Community Participation | 19 |
| Championing Adaptive Leadership | 21 |
| THE THESIS STATEMENT | 24 |
| GOAL AND OBJECTIVES | 24 |
| CHAPTER II: LITERATURE REVIEW AND SYNTHESIS | 26 |
| TRANSDISCIPLINARY APPROACH | 26 |
| LANDSCAPE ARCHITECTURE PERSPECTIVES ON THE PROBLEM | 28 |
| SUSTAINABILITY FRAMEWORKS | 29 |
| SYSTEMS THINKING MODELS | 32 |
| Image of the city by Kevin Lynch | 33 |
| Fish-scale model by Donald T Campbell | 33 |
| Geographic information system (GIS) | 37 |
| COMMUNITY PARTICIPATORY DESIGN – SOCIAL DESIGNERS | 38 |
| Lawrence Halprin’s RSVP Cycles | 39 |
| Randolph T. Hester: exploring class distinctions in community relationships | 41 |
| Walter Hood: Social bridging and programming within urban populations | 42 |
| CREATIVITY PERSPECTIVES ON THE PROBLEM | 44 |
| Defining Creativity | 44 |
| Systems Theories of Creativity | 45 |
| Place-based Cultural Vitality and Creativity | 50 |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sociological Perspectives on the Problem</strong></td>
<td>51</td>
</tr>
<tr>
<td>Sustainability Indicators and Neighborhood Studies</td>
<td>52</td>
</tr>
<tr>
<td>Social bonding and bridging Capital</td>
<td>53</td>
</tr>
<tr>
<td>Social Equity: Planning and Design Policy</td>
<td>56</td>
</tr>
<tr>
<td><strong>Leadership Perspectives on the Problem</strong></td>
<td>57</td>
</tr>
<tr>
<td>Adaptive and Education Leadership</td>
<td>57</td>
</tr>
<tr>
<td>Environmental and Sustainability Education</td>
<td>59</td>
</tr>
<tr>
<td>Sustainability and Environmental Policy Leadership</td>
<td>61</td>
</tr>
<tr>
<td><strong>Chapter III: Methodology</strong></td>
<td>64</td>
</tr>
<tr>
<td><strong>Mixed Methods Research</strong></td>
<td>64</td>
</tr>
<tr>
<td><strong>Quantitative Data: Prioritizing Sustainable Public Space Systems</strong></td>
<td>64</td>
</tr>
<tr>
<td>Social Capital</td>
<td>68</td>
</tr>
<tr>
<td>Cultural Vitality</td>
<td>74</td>
</tr>
<tr>
<td>Environment</td>
<td>82</td>
</tr>
<tr>
<td>Economics</td>
<td>87</td>
</tr>
<tr>
<td><strong>Qualitative Data: New Haven Ethnography Study</strong></td>
<td>92</td>
</tr>
<tr>
<td>Ethnography and multi-scalar approach</td>
<td>95</td>
</tr>
<tr>
<td>CARE Community Survey: (See Appendix D)</td>
<td>96</td>
</tr>
<tr>
<td>Common Ground High School: What Matters is the Dream</td>
<td>96</td>
</tr>
<tr>
<td><strong>Next Steps to Follow</strong></td>
<td>13</td>
</tr>
</tbody>
</table>
PREFACE

"The overall name of these interrelated structures is system. The motorcycle is a system. A real system....There's so much talk about the system. And so little understanding. That's all a motorcycle is, a system of concepts worked out in steel. There's no part in it, no shape in it that is not in someone's mind. I've noticed that people who have never worked with steel have trouble seeing this—that the motorcycle is primarily a mental phenomenon."

~Robert Pirsig, Zen and the Art of Motorcycle Maintenance

The work of this thesis is to reveal strategies for systemic community transformation that incorporates utilizing social capital, creativity, cultural vitality and sustainable design principles to enhance social equity in community development. The framework will express a rationale and methodology for designing and programming public space systems to encourage cultural vitality and social capital (bonding and bridging) opportunities to allow creativity and flourish for a diversity of people. Much like the inspired structure of the motorcycle, public spaces in our communities are developed through interrelated structures such as sidewalks, roads, town squares and parks. The planning of our shared public spaces can be thought of as an expression of a “system of concepts” worked out upon the land.

In addition to the key concept of systems thinking, this thesis will revolve around the concept embodied by a painting term called pentimento. Pentimento (plural Pentimenti) is used to describe evidence that an artist has changed their mind or perception throughout the process of creating the artwork. It is not about erasing the canvas and starting a new painting, but instead shows the subtle shifts in thought and form that are essential to its full development. It is a refining process the artist takes on while leaving a trail of clues. These clues are important to the artist because they are a reflection of the visual, spatial and intellectual path that has been taken in coming to terms with the problem that the artist has set for him or herself to solve. (McRorie, S. 1996)

For this applied research project the artist involved is the landscape architect. The land on which we plan and build, much like a canvas, is a supportive base medium. In painting, the additive medium is generally applied with a brush but other items can be used, such as knives, sponges, fingers. Painting is a mode of creative expression, and its forms and systems are numerous. In land planning, the additive medium is generally applied through policy-making, but other forces can dominate these conventional tools. For example, sometimes the forces of nature are stronger than the human systems in place, i.e.; floods, hurricanes and earthquakes. Other times social forces on the land carve out spaces that can inspire (such as places created by the Bohemian class) or destroy (places transformed by war).

As with the pentimento the process on the canvas, well-designed land and systems of public space exhibit a steady shifting and refining of the environment towards innovative design of relevant to new social spaces, enriched but not limited by the layers of the past, must be done through a process of designing and programming the public space by recognizing the social capital, cultural vitality and creativity of all its constituents.
GLOSSARY OF KEY TERMS

The definitions in this glossary of key terms have been developed, refined, appropriated and sourced accordingly. They are not definitive statements, but are meant to aid in the understanding of this transdisciplinary thesis perspective. The terms below can be found in bold font in this thesis the first time it is introduced within the text.

Adaptive Leadership: A leadership framework that helps individuals and organizations adapt and thrive in challenging environments. It is being able, both individually and collectively, to take on the gradual but meaningful process of change. (Heifetz, et al., 2009)

Central Place Theory: A geographical theory created by the German geographer Walter Christaller, who asserted that settlements simply functioned as 'central places' providing services to surrounding areas. (Richard, 2007)

Co-Creation Process: typically used as an economic management strategy that brings different parties together to reach or produce a mutual outcome. An example is LEGO: Inspiring the next generation of creators where LEGO designs can be submitted and voted on by both LEGO and community members. This model is similar to the co-creation of design in creative placemaking through community participatory design.

Community Participatory Design: In landscape architecture this term describes a way of creating environments that are more responsive and appropriate to their inhabitants' and users' cultural, emotional, spiritual and practical needs. It is one approach to creative placemaking.

Creativity: In this thesis this definition is developing from reviewing literature from scholars and leaders that study the field of creativity. A key resources used is The Cambridge handbook of creativity (Kaufman, J. C., & Sternberg, R. J. (Eds.)., 2010). One way systems thinking was defined is by Csikszentmihalyi's (1988, 1999, 2014) as an individual acceptance of an idea because there is a continual triangulation between their culture, society, environment and the people who live, work and play with them. Vlad Petre Glâveanu identified three paradigms in the article Principles for a Cultural Psychology of Creativity: the He-paradigm and I-paradigm, which both are predominately individualist views of the creative process, and the We-paradigm, which discusses the social psychology of creativity which is used in this thesis and relates to Csikszentmihalyi's work.

Cultural Vitality: ACIP define cultural vitality as evidence of creating, disseminating, validating, and supporting arts and culture as a dimension of everyday life in communities.

Ecological Urbanism: is noted by its ecological approach to urbanism and its proponents advocate that it is more socially inclusive and sensitive to the environment, as well as less
ideologically driven, than landscape urbanism and new urbanism. Ecological urbanism argues for a more holistic approach to the design and management of cities.

**Emergence Curriculum:** is a philosophy of teaching and way of planning curriculum that focuses on being responsive to children's interests to create meaningful learning experiences. Rather than starting with a lesson plan which requires a “hook” to get the children interested, emergent curriculum starts with the observation of the children for insight into their interests and tapping into the values held for the children's learning by the school, community, family and culture (MachLachlan et al., 2013). This way of planning is incorporated into the community design process.

**Place-based education** is an educational philosophy sometimes called experiential education or community-based education is when the student learns from their environment. (MachLachlan et al., 2013). This way of planning is incorporated into the community design process.

**Environmental Determinism:** is a controversial term that relies on an approach which implies that individuals are bound to their environmental settings, especially climate. It is very much related to behaviorism in the discipline of psychology, which in the 20th century became the basis of thought for the geographical approach called Behavioral Geography. This approach argues that the causes for behavior are found in the environment therefore, all our behavior is a result of some environmental determination or stimulus. (Mitchell, 2000, p. 17).

**Ethnography:** In this thesis study ethnography is used to understand placemaking, specifically, the act of being a reflexive ethnographer which includes seeking to understand both her or his own emplacement and how she or he is involved in the constitution of ethnographic places. (Pink, S. (2008).

**High Performance Landscapes:** reflects a paradigm shift in thinking about the New York City park system as vital green infrastructure. This document outlines future activity for all New York City open space, and adopted these best practices in their construction, maintenance, material selection and resource management as their new agency standards. This manual is a comprehensive manual for the design and construction of sustainable parks and open space. (www.nycgovparks.org)

**Multi-scalar (Level of Analysis):** is used to refer to the interrelated scales of site (micro), neighborhood, (meso), local and regional (macro) and how design must consider context both larger and smaller. (Dinep, C., & Schwab, K., 2010) This concept is repeated across disciplines and three levels are a lot like the photographers’ lenses, allowing the researcher to hold multiple-scale perspectives simultaneously.

**Metadesign:** Is a concept the aims to nurture emergence of creative possibilities or projection through the collaboration of designers within interdisciplinary metadesign teams. Fischer et al. (2005) advocate that metadesign creates the foundations for an unselfconscious culture of design. This type of design process seeks to harness creative teamwork within a suitable co-design framework with the hope that tacit knowledge will emerge and transfer into a collective and
innovative final product i.e.; creative communities thru the expression of social capital and placed-based cultural vitality. (Fischer et al., 2005)

**Multifunctional Landscapes:** In *Multifunctional landscapes as a basis for sustainable landscape development*, Kato, S., & Ahern, J. (2009) advocate that sustainable landscape planning “needs to strive to achieve creating multifunctional landscapes that can

1. allow the co-existence of not only compatible uses but also competing uses,
2. make an efficient use of limited space and time (this feature is particularly useful in urban areas),
3. produce advantages of synergy and contribute to both the economic vitality and environmental quality of modern cities” Priemus, H. et al., (2004), and

**Pentimento:** is an art term used to describe evidence that an artist has changed their mind or perception throughout the process of creating the artwork. It is not about erasing the canvas and starting a new painting, but instead shows the subtle shifts in thought and form that are essential to its full development. It is a refining process the artist takes on while leaving a trail of clues. (McRorie, S. (1996)

**Social Capital (Bonding & Bridging):** Fukuyama, F. (2001). *Social capital, civil society and development discusses* social capital as “the networks of relationships among people who live and work in a particular society, enabling that society to function effectively.” (Fukuyama, F. 2001) The key concepts of social capital that will be developed throughout this thesis social bonding capital, social bridging capital and the linkage between the two.

Bonding social capital is a set of networks with people of similar backgrounds and bridging social capital is an association between members with dissimilar backgrounds (Putnam, 2000).

Foster, K., & Maas, C. (2016) define social capital as access to knowledge and opportunities through networks to enhance social and/or economic mobility.

**Sustainability / Sustainable Development:** Sustainable development has been defined in many ways, but the most frequently quoted definition is from *Our Common Future*, also known as the *Brundtland Report*:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs." (from the World Commission on
Environment and Development’s (the Brundtland Commission report Our Common Future)

In broad terms, the concept of sustainable development is an attempt to combine growing concerns about a range of environmental issues with socio-economic issues.

**Tacit Knowledge:** Typically, research in the cultivation of this tacit knowledge is associated with building social capital in the business field, in addition, this thesis advocates that tacit knowledge is, also, a key indicator in the pursuit of social equity in education.

Tacit knowledge (opposed to explicit knowledge) that you do not get from being taught, or from books, etc. but get from personal experience.” (Foster, K., & Maas, C. 2016) Tacit knowledge is difficult to transfer to another person by means of writing it down or verbalizing it. For example, that New Haven is a city in the State of Connecticut is a piece of explicit knowledge that can be written down, transmitted, and understood by a recipient. However, the ability to speak a language, play a musical instrument, or design and use complex equipment requires all sorts of knowledge that is not always known explicitly.

Again, Foster, K., & Maas, C. (2016) define social capital as access to knowledge (including tacit) and opportunities through networks to enhance social and/or economic mobility

**Tactical Urbanism:** is an umbrella term used to describe a collection of low-cost, temporary changes to the built environment, usually in cities, intended to improve local neighborhoods and city gathering places. (Source: Pfeifer, Laura. “The Planner's Guide to Tactical Urbanism” (PDF). Regina Urban Ecology. Regina Urban Ecology. Retrieved 23 October 2014. Tactical Urbanism is often citizen-led but can also be initiated by government entities)

**Transdisciplinarity:** The definition of transdisciplinarity utilized in this research was taken from Basarab Nicolescu’s Manifesto of Transdisciplinarity which seeks to find the intersection of disciplines’ expertise by an integration process with the intention to create new instruments, models, approaches that couldn't occur if they were separately handled.
CHAPTER I: THE PROBLEM

“If we take a survey of the greatest actions...in the world...we shall find the authors of them all to have been persons whose Brains had been shaken out of their natural position.”

~ John Adams (2nd U.S. President)

The Problem with Sustainability Frameworks

The problem initiates with unpacking the term sustainability and the belief that existing sustainability frameworks are in danger of losing connection to the root of their essential questions. Essential questions are an important component of quality teaching and learning, and this research takes the stance that learning our way to sustainability requires taking an educational posture in defining the word sustainability. The Sustainable Schools Project, a Vermont sustainability education organization, was the catalyst for this research stance, and lead to the development of this researcher’s initial essential questions: What are the needs of current and future generations? And how are these needs intertwined with the form and function of the physical human environment? (See Appendix A)

Roots & Dimensions of Sustainable Development

Sustainable Development: From Brundtland to Rio 2012 outlines the evolution of the term sustainable development which was coined in Our Common Future, a report published by the World Commission on Environment and Development in 1987. Also known as The Brundtland Report, it originated the classic definition of sustainable development as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs.” In 1992 the report was accepted by the United Nations General Assembly and in the ensuing years the term evolved into a set of principles of sustainable development that were articulated at the United Nations Conference on Environment and Development in
Rio de Janeiro, Brazil (Rio+20). It is generally accepted that sustainable development calls for a convergence between the three spheres of Economics, Society and Environment. (Figure 1 Three Spheres of Sustainability)

Lack of Focus on Social Dimensions

While the initial sustainable development model, which some refer to as “the triple bottom line” (Figure 2 Triple Bottom Line), is intended to encompass three pillars/spheres, over the past 20 years it has often been compartmentalized as an environmental and economic issue, overlooking critical social dimensions. Conversely, the concept of “circles of sustainability” (Figure 3 Circles of Sustainability), proposed by James Paul, et al., advocates for social sustainability. Counter to the public dialogue that tends to focus on economic and environmental sustainability, social sustainability advocates for culture, equity and diversity to contribute to quality of life. The United Nations Educational, Scientific and Cultural Organization (UNESCO) developed *The Universal Declaration of Cultural Diversity* (Unesco, 2002) to provide social models that include these concepts in their definition of sustainability. The Declaration aims both to preserve cultural diversity as a living parts of humankind, builds
a case for human diversity as a resource (creativity, social equity, human rights) and prevents development that encourages segregation of the other. (Unesco, 2002) “The Universal Declaration makes it clear that each individual must acknowledge not only otherness in all its forms but also the plurality of his or her own identity within societies that are themselves plural.” (Unesco, 2002)

![Circle of Sustainability](http://www.circlesofsustainability.org)

The initial exploration for the focus of this thesis started when I wrote a lesson plan for the Anthology of Best Practices in Urban Environmental Education called Perception of Place. This lesson focuses on asking the essential questions: What is sustainability? How can cities be sustainable? As the students explored their neighborhoods in relation to the desire to learn what sustained them they, also, develop creative paths to defining their definition of urban sustainability. What was learned in creating this lesson plan was that the task requires systems thinking and an awareness of the interconnectedness of environment, social capital, economy and cultural vitality. The urban environmental design process starts with trying to understand
our sense of place, by considering the systems-thinking approach of urban communities, i.e., equity in relation to society, economics and the environment. (See Appendix B) This thesis will develop a focus on the concepts of social capital, cultural vitality, and creativity to form a framework for planning and design of the public physical landscape in urban communities.

Social Capital

Much of the academic research about social sustainability focuses on integrating concepts like diversity, wellbeing, equality and social justice, and related ideas of community social capital and empowerment into sustainable development models. Fukuyama, F. (2001). *Social capital, civil society and development.* discusses social capital as “the networks of relationships among people who live and work in a particular society, enabling that society to function effectively.” (Fukuyama, F. 2001) The key concepts of social capital that will be developed throughout this thesis social bonding capital, social bridging capital and the linkage between the two.

Cultural Vitality

Cultural vitality definition initiated from *The Urban Institute’s Art and Culture Indicator project* (Jackson, M. R., 2003 & 2006) ACIP’s 2003 definitions of art, culture, and creativity depend on the cultural values, preferences, and realities of residents and other stakeholders in a given community. This includes the cultural expressions of ethnic, racial, age, and special interest groups that may not be validated or adequately represented in mainstream cultural institutions. (Jackson, M. R., 2003) As the ACIP project evolved so did their definition of “cultural vitality as evidence of creating, disseminating, validating, and supporting arts and culture as a dimension of everyday life in communities.” (Jackson, M. R., 2006)
Creativity

This research’s framing of the concept of creativity initiated with Csikszentmihalyi (1988) reframing the basic question of “What is creativity” to “Where is creativity?” Csikszentmihalyi (1988). This thesis advocates that social capital plus cultural vitality multiplied by tacit knowledge exchange opportunities equals creativity ergo innovative individuals and communities. The public space realm was chosen because there is research that notes the role of implicit learning and tacit knowledge (group dynamics) is critical in building social capital, allowing cultural vitality and creativity to flourish and allowing innovative ideas to come to fruition. Without going too deeply into the psychology debate in regard to implicit learning and tacit knowledge (Reber, 1967, Berry, DC. 1997, and Atherton 2013); Patterson et al. (2010) noted that “implicit learning involves the largely unconscious learning of dynamic statistical patterns and features, which leads to the development of tacit knowledge”, in other words; we all have the ability to unconsciously learn and not even know that we have learned knowledge. This type of knowledge exchange is tied to the design of the physical environment and correlates directly to environmental and social justice issues. (Leonard, D. & Sensiper, S. 1998, Howells, J. 2002) Recognizing that creative integration of these factors can produce social equity in urban communities is more relevant way to consider sustainable development, than through traditional environmental and economic models.

Generic Frameworks: One Size DOES-NOT Fit All

While current sustainable design standards provide sound guiding principles for physical environmental and economic systems such as water, energy and waste, they are missing inclusion of community wellbeing, equity, diversity, and quality of life indicators that would
give voice to the social and cultural aspects of sustainable development. This is expressed in written policy and development plans that incorporate values for frameworks such as **Smart Growth**, and the *U.S. Green Building Council’s Leadership in Energy and Environmental Design Program*. Smart Growth, for instance, is a community planning theory that concentrates growth in compact urban areas. It values and advocates for transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets and mixed-use development set within areas of existing infrastructure. These values are assumed to be of the same critical importance and priority for all communities, regardless of social/cultural make-up, yet cultivating sustainability is not a one-size-fits all-approach. Social sustainability suggests the need to involve a diverse community of children, families, and adults in collectively defining their unique needs and develop public landscapes that allow tacit knowledge exchange. It is clear that developing places that respect unique social, environmental and economic communities holds challenges in designing for **multi-functional** and **high performance landscapes**, which are at the heart of sustainable public space design. Sustainable design needs to address social stratification and bring the sociological perspective of class, race, gender and age to the design table if there is to be **social equity**.

**Social Equity and the Changing Face of Urban Populations**

Despite these challenges, place-based cultural vitality and social capital are slowly becoming notable and recognized aspects of sustainable development research and discourse. In 2002 the National Center for Public Policy Research published an economic study entitled *Smart Growth and Its Effects on Housing Markets: The New Segregation* which termed Smart
Social Capital, Creativity and Cultural Vitality

Growth "restricted growth" (Pozdena, R. J., 2002) and suggested that Smart Growth policies disfavor minorities and the poor by driving up housing prices. This result conflicts with the Environmental Protection Agency’s stated Smart Growth goals to achieve a unique sense of community and place and equitably distribute the costs and benefits of development. (Pozdena, R. J., 2002) If proponents of Smart growth truly wish to achieve these goals, they need to incorporate methods for and measures of building cohesion between diverse socioeconomic, class, race, ethnic and government groups. Government needs to explore community planning policy that gives more than lip service to the issues of social equity in relation to sustainable development. 2010 census data suggests a trend that Millennials (persons age 20-34) and Baby-Boom Empty-Nesters (age 55-64) will be moving back into cities within the next 10 to 15 years. By the end of the current decade, the population aged 65 and over will grow by 36 percent to almost 55 million, according to Census Bureau projections. Economist Steve Yoder (2013) predicts that by 2017, the U.S. adult population age 50 and older will control 70 percent of the country’s disposable income. In a 2010 AARP survey, about half of adults age 45 or older reported that living in a place where it’s easy to walk or living near church or social organizations was important to them. (Yoder, 2013)

**Multi-Scalar Analysis and Planning**

Simultaneously, current headlines are ironically responding to the trend of the suburbanization of poverty, declaring that “poverty is moving from the city to the suburbs”. This is concerning because while the city has experienced rapid urban displacement in the past, the current crisis is different in one very important way: the housing that the poor are losing to
the rich is not being replaced. There is a growing need and demand for designers and planners to justify their intentions in relation to their actions in sustainable development to include addressing social equity. In response to this need multi-scalar analysis (macro, meso, micro) will be used continually throughout this thesis. Multi-scalar analysis is used to refer to the interrelated scales of site (micro), neighborhood, (meso), local and regional (macro) and how design must consider context both larger and smaller. (Dinep, C., & Schwab, K., 2010) This concept is repeated across disciplines and three levels are a lot like the photographers’ lenses, allowing the researcher to hold multiple-scale perspectives simultaneously. (Figure 4 Kandinsky, 1923 – Circles in a Circle) In regard to the social aspect of multi-scalar analysis, the individual (micro) is impacted by the community (meso) that fits within society (macro). (Figure 5: Social Level of Analysis: Macro, Meso, Micro) To address social equity society, planners and designers need to review current policies and the impact these policies have on the communities they work in.

*Figure 4  Kandinsky, 1923 – Circle In a Circle (Kandinsky, W., Rebay ,H. 1947)*
One way to address social equity is to relook at the **central place theory** in relation to at-risk neighborhoods. The central place theory created by the German geographer Walter Christaller, believed that the role of the city 'central places' is to provide services to surrounding areas. (Richard, 2007) This will become visually understood upon reviewing the existing cluster analysis of New Haven, CT. What is relevant to this project is that during the New Haven Vision 2015 workshop sessions it is stated in the executive summary that the focus of the city should be on promoting strategic neighborhood-based planning efforts to reinforce or strengthen the sense of place and distinct identity for each neighborhood. (New Haven Vision 2025, 2014)
Another way is to incorporate social capital interventions into the design framework. Social capital is a multidimensional concept that refers to the assets of a community that are tied to social strengths. (Messner et al., 2004), and bonding and bridging social capital are perhaps the most important dimensions -- bonding social capital is a set of networks with people of similar backgrounds and bridging social capital is an association between members with dissimilar backgrounds (Putnam, 2000). Foster, K., & Maas, C. (2016) define social capital as access to knowledge and opportunities through networks to enhance social and/or economic mobility.

The Impact of Community Bonding and Bridging Social Capital on Educational Performance in Israel (Menahem, G. 2011) examines the different effects of bonding and bridging social capital on urban educational performance. Menahem (2011) states that groups tied with bonding social capital construct closed, cohesive networks and limit flows of information and diversity of resources; as a result, bonding social capital eventually weakens community-level collective actions and hinders educational achievement. Meanwhile, bridging social capital mobilizes collective resources and promotes educational achievements by allowing a community’s residents to access information and to obtain resources essential for educational performance (Menahem, 2011). This work seemed relevant in the development of the public space systems design process for the city of New Haven, CT ergo social bonding and bridging capital are seen as elevated in importance in this thesis work.

Focus on Sustainable Urban Landscapes/Public Space

As a study based in the discipline of Landscape Architecture, these issues will be examined through the lens of a multi-scalar analysis, planning and design application for sustainable
landscapes and public spaces in an urban complex. Systems of streets, paths, school yards, trails and other outdoor public space typologies will be analyzed for opportunities to enhance social capital, cultural vitality and creativity.

**New Haven as the Test Case**

The City of New Haven located in the State of Connecticut (Figure 6 Region location of the State of Connecticut) was chosen as the subject for this research because it offers a unique set of resources for exploring the relationship between qualitative and quantitative design decisions due to the abundance of data. An important resource is *DataHaven*. DataHaven is a partner of the *National Neighborhood Indicators Partnership*, a collaborative national effort by the *Urban Institute* in Washington, DC and approximately 40 local partners to further the development and use of neighborhood information systems in local policymaking and community building. Their work is to collect, interpret and share public data for effective decision-making. This thesis collected datasets, documents, and mapping from both DataHaven and *The Community Alliance for Research and Engagement* (CARE). DataHaven is a non-profit 501(c)3 organization. It maintains a collection of both qualitative and quantitative data. CARE, led by Dr. Jeannette R. Ickovics, is part of the Yale School of Public Health. CARE approaches the issue of chronic diseases in New Haven communities by focusing on social, environmental, and behavioral risk factors. The dismantling of the central place planning model begins with CARE’s six New Haven neighborhoods. (Figure 7 CARE’s Neighborhoods) In the summer of 2009, CARE
documented neighborhood features related to diet, exercise, and tobacco use. In the fall, 1,205 New Haven residents in the same six neighborhoods participated in a survey about health and their own habits around these three risk factors. This research aided in the development of the proposed Public Space Systems Plan that will be described throughout this thesis.

**Factors Required to Apply Sustainable Practices**

In addition to the focus on social equity and urban cultural vitality, this thesis identifies three value factors that are proposed as key to developing sustainable planning and design strategies:

- **Systems Thinking:** Central place theory vs Network Based Model
- **Data:** Qualitative and Quantitative Cohesion
- **Championing Adaptive Leadership**

**Systems Thinking: Central Place Theory Vs Network Based Model**
It is time to reconcile that our zoning and planning policy is outdated. Among many shortcomings of traditional planning practices, reliance on the central place planning model (only) is limiting, one-dimensional, and actually in direct conflict with sustainable growth. A geographical theory created by the German geographer Walter Christaller, who asserted that settlements simply functioned as 'central places' providing services to surrounding areas. (Briney, A. 2014). This is represented thematically below in Figure 8 Central Model Theory.

The central place model is important because it is part of the existing urban fabric, but in relation to sustainable design patterns in the landscape, a model that expresses the city as a system is required. In Fractal Systems of Central Places Based on Intermittency of Space-filling by Yanguang Chen and Network Cities Versus Central Place Cities: Building a Cosmo-Creative Constellation by David F. Batten propose that the central place model evolve to a central place network. While Chen and Batten's research work is conceptual and their models are in the crude beginning stage of design development, the imagery of fractals and constellations as a thematic pattern is relevant to the development of the proposed New Haven Public Space Systems Plan. This is represented below in Figure 9 Central Place Network.
There are two design theories that correlate to the proposed transition from central to network. These are Kevin Lynch’s classic 1960 text *The Image of the City* and Donald Campbell’s *Fish-Scale Model of Omniscience*. Kevin Lynch’s *The Image of the City*, introduced urban designers and planners to a new way of thinking about the urban form of a city in which the richness, variety and hierarchy of a city’s system of districts, nodes and corridors becomes the source of its identity and design context. (Figure 10 Image of the City: Path, Edge, District, Landmark, Node) This paper will utilize a Geographic Information Systems–based (GIS) study that evolves the central place theory to one which shifts toward a network of culturally diverse districts, nodes and corridors embodied in the urban landscape.

Donald Cambell calls for interdisciplinary bridges to more meaningfully respond to needs of people and place is sociologist Donald Campbell’s *Fish-Scale Model of Omniscience*:

"Rather than praying, “May I be a competent and well-read X-ologist, may I keep up with the literature in my field,” a scholar will pray, “Make me a novel fish-scale. Let my pattern of inevitably incomplete competence cover areas neglected by others.”” (Campbell, D. T. 1969). (Figure 11 Fish-Scale Model)
An exemplary study *Beyond binary choices: Integrating individual and social creativity* by Fischer, G et al. (2005) that is used as an example of how to design beyond central place model to networks of possibilities. Campbell ‘s Fish-Scale Model of Omniscience was used in the study but instead of working in the intersections of disciplines Fischer, G et al. (2005) it looked at the intersection of individual and social creativity in the physical work place spaces.

In the development of the proposed public space districts the boundaries of the New Haven neighborhoods will be redesigned to emulate Campbell’s Fish-Scale model along with the Kevin Lynch’s model. There will be a focus of developing the intersections between New Haven neighborhoods to enhance and support social capital, cultural vitality and creativity within the system of multifunctional and high performance public spaces.

Landscape Architects are posed to think and design in relation to complex environmental and infrastructure systems. In the designing of the Public Space Systems Plan the design concepts created by both Kevin Lynch and Donald Campbell will be utilized and explained further throughout this research paper. One way to visualize this union is to review a Wassily Kandinsky painting called *On White II*. (Figure 12 Kandinsky, 1923 – On White II)
The Qualitative - Quantitative debate is noted as one of those hot-button issues amongst researchers. According to *Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research* common beliefs about the differences between qualitative and quantitative research include:

- Quantitative paradigm is based on positivism.
- Qualitative paradigm is based on interpretivism

In short, because the two paradigms do not study the same phenomena, quantitative and qualitative methods cannot be combined for cross-validation or triangulation purposes. However, they can be combined for complementary purposes. (Sale, J. E., Lohfeld, L. H., & Brazil, K., 2002.) In looking at precedent research studies for sustainable neighborhood design, both qualitative and quantitative research methods were reviewed. This research takes the stance that little is known about whether prevailing standardized quantitative indicators of sustainability reflect the local perspectives, values and understandings of sustainability of diverse populations. Two study’s lessons were assimilated into the problem solving of this
research – One was called *Developing Indicators Of Sustainable Community: Lessons From Sustainable Seattle* by Alan AtKisson (1996) and the other Catalina Turcu (2013) *Re-thinking sustainability indicators: local perspectives of urban sustainability*. These two studies are reviewed further in the literature review in regard to lessons learned, but this thesis will use Geographic Information Systems (GIS) for its spatial and cluster analysis of quantitative data.

**Quantitative Approach: Mapping & Measuring Social Sustainability**

The quantitative component for this thesis will be the development of prioritizing factors for developing Geographic Information Systems (GIS) map(s) that will give spatial information for creating the quantitative framework for the public space district map(s). GIS is a computer system mapping tool for lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends on the earth’s surface. (ESRI, 2016) This might sound complex, but in reality this technology in its most rudimentary form is used every day by billions of people. Whenever you use your smartphone for directions or ask *Siri* where the nearest restaurants are located you are creating spatial informational maps.

This thesis will be exploring existing social capital and cultural vitality located in the physical landscape. Typically, spatial cluster analysis is used to identify health and safety issues. In 1854 there was a massive cholera outbreak in Soho, London – in three days over 120 people died from the disease. John Snow plotted the locations of the deaths on a map and found they clustered around a pump in Broad Street. Snow's cholera cluster map (Figure 13 [John Snow’s cholera cluster analysis map]) demonstrates the spatial clustering of cholera deaths around the Broad Street well, and provided strong evidence in support of his theory that cholera was a water-borne disease. (ESRI, 2016)
In this research GIS was used to see spatial and clustering of physical addresses (data) to determine areas of opportunity to increase cultural vitality and social bonding/bridging opportunities that will give fuel to creativity and innovation.

**Qualitative Approach: Community Participation**

Most “expert-led” (Catalina Turcu, 2013) forms of sustainable design tend towards quantitative criteria for sustainability – such as LEED. Participatory processes for defining sustainability are conversely, by their very nature, qualitative. This study proposes that the neighborhood definition comes from a community participatory process that is facilitated by an unbiased third party, in this case the landscape architect. The neighborhood’s qualitative definition of sustainability and related values for public/open space would be collected, correlated and integrated with “expert-led” initiatives. (Catalina Turcu, 2013) The hope is that

![Figure 13 John Snow's Cholera Cluster Analysis Map (ESRI, 2016)](image)
integrating the two approaches would tap into various levels of knowledge of sustainability and thus, be a better way of creating and assessing neighborhood sustainability.

Lawerence Halprin, Randolph Hester and Walter Hood have categorized themselves as social landscape architects. They identify as social-designers that have worked to develop community participatory processes that increase shared expectations for future development that are inclusive and sensitive to socioeconomics, class, race, and ethnicity. Hester and Halprin both believe that people express their values and tell us what they want when they are engaged in participatory design process. Halprin workshops encourage people to discover through their own experiences their place-making through creating a sensory-emotional experience. Walter Hood’s work was inspired by Lawrence Halprin and his twist of RSVP Cycle is the concept of jazz music. (Figure 14 RSVP Cycle) These three social designer’s work will be reviewed in more detail in the literature review, but they all agreed on the same major issue – once the design left the community process and design phase and entered the construction/policy phase the design no longer adhered to the design/community vision, but was bound to the vision of the policy and regulations of the site.

A major problem with community participation, beyond the listening and the collecting of community information, is the lack of supporting policy that in the end drives form-giving and place-making in the urban landscape. The quantitative piece of the study will assist in linking qualitative community attitudes and identity to an inventory and analysis of related physical assets and liabilities for social sustainability.
Championing Adaptive Leadership

The transformation of the design process from a prescriptive one to a participatory one requires the designer to add extra energy to the education component of the process and to practice a particular type of design leadership rooted in the concept of *adaptive and educational leadership*.

In developing a shared decision-making model in regard to adapting to change *The Practices of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World* (Heifetz, et al, 2009) and educational leadership lesson plan strategies were incorporated into the community participatory design process.

These types of leadership styles are based on a shared decision-making model, and have been described as “leadership of the many by the many” as opposed to “leadership of the many by the few”. “Beyond simply checking off the box for stakeholder input, the designer needs to structure the framework not only for public involvement, but for decisions about civic space.” (Hester, 1975) Society is situated for such adaptive change and the landscape architect is equipped to assist the “expert-lead (government & professionals) and citizen-led (grass-roots)” Catalina Turcu (2013) groups in building the capacity between the two for shared decision-making. The designer must take on the role of community organizing, problem framing, and listening across audiences that include students & seniors, community and business leaders, and the general citizenry; while simultaneously providing professional expertise and guidance on practical feasibility and technical considerations. In essence the landscape designer gives expression to the intersections that is explained in Campbell’s Fish-Scale theory.
The benefits to be gained from participatory processes are optimized when they go beyond the immediate experience of participating and affect the physical place-making of the community, as related in *Placed-Based Education: Learning to be Where We Are*, “The problem lies in that their minds are drawn to actual phenomena rather than ideas about phenomena they experience. Smith, Gregory A. (2002) states that it is a crime of deception convincing people that their own visceral experience of the world hardly matters.” (Smith, Gregory A., 2002) Accordingly, it is a great waste on the part of teacher/designer and citizen that once the citizen leaves the community participatory process and returns to his or her neighborhood “place” and cannot utilize the experiences that were developed in the “place” of workshop. The challenge is the community participant’s ways of expressing their needs tends toward deconstructing problems through infinite pieces of information and these overwhelming spectrum of choices requires the designer to articulate the in-between potentials of collaboration. As Walter Hood designed in Layfayette Plaza, it is the duty of the designer is to overcome the habit of deconstruction and piecemeal solutions and envision solutions as a whole and design authentic places that listen and integrate the whole of the community experiences.

In *Co-evolution of ESD (Education for Sustainable Development) and EE (Environmental Education)*, Martha Monroe discusses the concerns of education for sustainable development and lays out in detail what constituents need to build capacity within in the context of sustainability education, e.g., “quality education that prepares people to understand multiple views; to listen and communicate with others; to envision and evaluate options; to collect, synthesize and understand data; to learn how others have balanced contentious elements of an issue; and to be able to adopt actions. (Monroe, M., 2012)
There is a potential for truly creating and constructing authentic impact on society by revising our perceptions about sustainability away from prescriptive solutions toward developing unique solutions.

As mentioned in the preface, *Pentimento* is used to describe evidence that an artist has changed their mind or perception throughout the process of creating the artwork. It is not about erasing the canvas and starting a new painting, but instead shows the subtle shifts in thought and form that are essential to its full development. (McRorie, S. 1996) It is a refining process the artist takes on while leaving a trail of clues. These clues are important to the artist because they are a reflection of the visual, spatial and intellectual path that has been taken in coming to terms with the problem that the artist has set for him or herself to solve. *Pentimento* is the thematic action that will unfold in the thesis project. *Pentimenti* can be translated into a research methodology that guides the landscape architect along with the community members in an unfolding process of seeing, listening and building relationships through exploration and reconciliation of definitions of sustainability, correlated to the potentials for the designed landscape. (Figure 15 Gilroy’s Pentimenti Example (Gilroy, 2009)
Thesis Statement

The real problems, needs and opportunities of urban neighborhoods are not being served by conventional models of urban planning and sustainable development. The city of New Haven, Connecticut will be studied to develop a framework for planning and design of the public realm (public space/place/landscape) which addresses urban neighborhood sustainability through a social lens, using a mixed-methods, transdisciplinary research model. Geospatial data on social capital and cultural vitality indicators will be integrated with other sustainability indicators to create a quantitative analysis component. Development of a participatory design process to foster social bonding, creativity and sustainability inquiry will comprise a qualitative component for the framework.

Goals and Objectives

Goal 1: Encourage growth in social capital and place-based cultural vitality in urban neighborhood public spaces using multi-scaler analysis and design.

Objective 1: Develop a sustainable design framework and methodology that incorporates mapping of existing cultural vitality and social capital (bonding and bridging) to identify opportunities in the public landscape.

Goal 2: Build a case for a systems thinking perspective that challenges the central place model and shifts towards network city planning multifunctional and high performance opportunities in the system of the New Haven’s public spaces.
Objective 2a: Create a New Haven Public Space Systems Plan that evolves the central place model through GIS spatial and cluster analysis mapping that to reveal the network of possibilities and intersecting districts, nodes and corridors in the New Haven public landscape.

Objective 2b: Create Public Space Systems Programming that incorporates the macro, meso and micro perspective used in the public space to encourage and increase place-based cultural vitality and social bonding and bridging opportunities.

Goal 3: Encourage the exchange and utilization of tacit knowledge, specifically in regard to class, ethnicity, and age by designing opportunities for individual and social creativity in the design of public space and place making.

Objective 3a: Explore past collaborative models for design and programming of the public realm that allow for the exchange of ideas, knowledge and resources not only between individuals, but also within the larger social and physical public environment.

Objective 3b: Develop community programming that builds a case for public space systems that encourages individual creativity within the social public space that allow for tacit knowledge to be collected not only within the individual, but also in the individual's social and physical community public space.

Objective 3c: Develop a community participatory process that allows community to define sustainability within their own unique social, regional, and site context as it applies to the design and programming of public space and private space interface.
CHAPTER II: LITERATURE REVIEW AND SYNTHESIS

"The creative person wants to be a know-it-all. He wants to know about all kinds of things: ancient history, nineteenth-century mathematics, current manufacturing techniques, flower arranging, and hog futures. Because he never knows when these ideas might come together to form a new idea. It may happen six minutes later or six months, or six years down the road. But he has faith that it will happen."

~ Carl Ally (American Advertising Federation Hall of Fame)

In approaching the literature review the belief was held that a community’s public space is an expression of its support systems. The research problem and physical domain is centered on the field of landscape architecture, and this discipline fosters a way of understanding the physical human/spatial environment with an emphasis on the relationships among a system's parts, rather than focus on the parts themselves. In reviewing the literature in relation to developing a sustainability framework with a social equity emphasis, a transdisciplinary lens was utilized to aid in holistic ways of thinking about these support systems. Although the design and planning of public space is typically the disciplinary domain of professional architects and planners, the nature of the challenge requires breaking out of the siloes of the current professional approach.

Transdisciplinary Approach

The definition of transdisciplinarity utilized in this research was taken from Basarab Nicolescu’s Manifesto of Transdisciplinarity. Nicolescu explained his approach when he said: "Disciplinarity, multidisciplinarity, interdisciplinarity and transdisciplinarity are like four arrows shot from but a single bow: knowledge." These terms are often misused or misunderstood, so for the purpose of common language for this work the Holistic Education Network framework is used and is broken down in the following way:
Disciplinarity research studies the knowledge, assumptions, skills and methods within the boundary of a discipline. When a researcher brings disciplines together to talk about issues with the intention of seeing each other's perspectives this is called multidisciplinary research. In this type of research disciplines may collaborate, but the key difference between this type of research and interdisciplinary research is that they maintain their separation of disciplines in their process.

Transdisciplinary research seeks the intersection of disciplines’ expertise by an integration process with the intention to create new instruments, models, approaches that couldn't occur if they were separately handled. The hope is that new perspectives beyond the disciplines can be discovered much like Campbell’s Fish-Scale theory (Campbell, 1969). A key distinction is found in the question on how the research decides to approach the inquiry. Where multidisciplinary or interdisciplinary inquiry may focus on the contribution of disciplines to an inquiry, transdisciplinary inquiry tends to focus on the inquiry or issue itself, and takes from the intersections of disciplines inspiration for evolution of ideas (Campbell, 1969).

A transdisciplinary perspective in the literature review was used to explore the issue of sustainable community development and determine how best to turn research into action. The key disciplinary areas explored are landscape architecture, creativity, sociology, and leadership. This combination will provide a broad and inclusive approach that addresses social equity and environmental justice in the design of public spaces. The literature review developed from asking the essential questions: What is sustainability? How do we define it? What elements are needed to create a sustainable design process that is relevant to communities? What are the unique needs of urban communities? How are these needs intertwined with the form and function of the physical human environment? These questions set the ground work for community development
possibilities that are innovative, go beyond the standard one-size-fits-all approach, and produce multifunctional public spaces that integrate transdisciplinary conceptions of sustainability.

**Landscape Architecture Perspectives on the Problem**

The literature review within landscape architecture addresses three main areas:

1. **Sustainability Frameworks:** New Urbanism, Ecological/Landscape Urbanism
2. **Systems Thinking Models:** Image of the City, Fish-Scale Model & GIS
3. **Community Participatory Design – Social Designers**

As a landscape designer my approach to designing public places is rooted in values that are tethered to building community relationships, i.e.; respect, inclusion, equity, healthy and safe public spaces. The literature review starts with the question: What is the role of the designer in defining sustainability within unique local communities? Landscape architect Randy Hester explained how powerful the role of a designer can be when he wrote:

“The designer can give form to unspoken social values, or values to which people are unaware . . . . to the social values of those who cannot speak or, in our society, are not empowered or listened to when they do speak: the poor, the old, the young, minorities . . . . The designer can give form to the values of ecology and nature.” (Hester Jr, R. T., 1989)

Existing urban design frameworks such as new urbanism and landscape urbanism, each present possibility for this role, but in practice have produced limited success in giving form to underrepresented social and environmental values.
Sustainability Frameworks: New Urbanism, Ecological/Landscape Urbanism

In the critic of models of urban planning with a systems perspective New Urbanism (Figure 16: Seaside, Florida) and Landscape Urbanism (Figure 17: Lafayette Square, Detroit) were reviewed. The urban planning theory and practice that has dominated urban planning is the principles of New Urbanism. The basic goal of New Urbanism is that they to want to see human-scale neighborhoods return. Thus far, Landscape Urbanism basic goals are rooted in ecological and environmental functions. In the design decision of which of these two would be the best fit to promote public opportunities for social capital (bonding and bridging), the expression of placed-based cultural vitality and the probability for a larger range of sharing tacit knowledge within the system of public space Landscape Urbanism was chosen.

New urbanism is a highly influential framework for urban development which arose as
Social Capital, Creativity and Cultural Vitality

a response to the sprawl, suburbanization, and loss of urban form which dominated development of the mid- to late-20th century. The Congress for the New Urbanism, (CNU) founded in 1993 by architects Andres Duany and Elizabeth Plater-Zybek, describes New Urbanism by stating:

“We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrates local history, climate, ecology, and building practice.”

(CNU, 2016)

The CNU’s core principles of new urbanism are walkability, connectivity, mixed-use & diversity, mixed housing, and smart transportation. Examples of new urbanist development include Seaside, Florida Showcased in the movie The Truman Show starring Jim Carrey. Jane Jacobs advocated in her 1961 classic, The Death and Life of Great American Cities, for the urban street that was diverse and mixed-use — a form of development that had been under assault since the 1920s from automobile-oriented planning and street design. These ideas introduced the concepts of social capital and Jacob’s “eyes on the street theory” (Jacobs, 1961) which advocates for the use of high-density mixed-use communities (areas with residential and commercial uses) to stimulate street traffic. Jacobs argues that increased street traffic, day and night, not only helps communities flourish socially and economically, but also promotes self-policing which deters criminal and anti-social behavior. (Jacobs, 1961) Jacobs is credited, along with Lewis Mumford, with inspiring the new urbanist movement. (Bernstein 2012) The argument for landscape urbanism, an urban design framework outlined by landscape architect
Charles Waldheim, was made when he presented a critique of a development called Lafayette Park — a 78-acre modernist endeavor built in Detroit from the late 1950s through the mid-1960s — and explained that the difference between new urbanists and landscape urbanists is it turns buildings away from the street in favor of frontages that consist mostly of greenery. (Waldheim, 2004) Unfortunately, the discussion has become an either/or debate with the focus of whether Landscape Urbanism or New Urbanism is the most correct, and this debate is playing out in the built environment. (Waldheim, 2004, Steuteville, R., & Network, N. U., 2011)

One current proponent of integrating the two frameworks is landscape architect Michael Van Valkenburgh, who promotes the concept of Ecological Urbanism as a form of Landscape Urbanism. In Ecological Urbanism: Interview with Michael Van Valkenburgh, FASLA. Valkenburgh states, “Landscape Urbanism is an attempt to shift paradigms from object-based [i.e. architecture buildings] urban design to city-making. It seeks innovation within the interactions of urban systems, identifies opportunities in infrastructure, and sees landscape as much an organizing force as it sees it a distinct facet of the city.” (Green, J., 2016.). In Van Valkenburgh’s perspective ecological urbanism is an approach that favors dynamic, functional integration between natural and urban systems, rejecting the conventional focus on the purely aesthetic contributions of landscape to urban environments. (Steuteville, R., & Network, N. U., 2011, Green, J., 2016 )

The thesis advocates for elements of both frameworks, but the real issue is that the design of what lies just beyond everybody’s front door is NOT a one-size-fits-all approach. This thesis advocates for developing multi-functional and high performance landscapes into the proposed Public Space Systems Plan. In Multifunctional landscapes as a basis for sustainable landscape development, Kato, S., & Ahern, J. (2009) advocate that sustainable landscape planning “needs
to strive to achieve creating multifunctional landscapes that can (1) allow the co-existence of not only compatible uses but also competing uses, (2) make an efficient use of limited space and time (this feature is particularly useful in urban areas), (3) ’produce advantages of synergy and contribute to both the economic vitality and environmental quality of modern cities’ Priemus, H. et al., 2004), and (4) develop a wide and lasting support from the diverse users of this functions’ (Ahern, J., 1995, Ahern, J. F., 2002, Imam, K. Z. E. A., 2006, Rodenburg, 2004 & Tan, K. W., 2006).

Transforming an independent perspective into an interdependent view requires integrating ecological systems thinking with the co-creation process between community and designer. Both of these urban design frameworks can benefit from considering the aspects of social capital and place-based cultural vitality as a means of addressing environmental justice and social equity issues.

**Systems Thinking Models: Image of the City, Fish-Scale Model & GIS**

The potential for sustainable urban design to incorporate the concepts of social capital and cultural vitality connections is largely untapped. Individualistic power and reductionist, specialized thinking are not only overrated, but not sufficient for the needs of our time. We need to think create system thinking perspective. Van Valkenburgh’s focus on the integration of natural and cultural urban systems suggests a perspective of interdependent (systems perspective) instead of independent (piecemeal perspective). (Green, J., Retrieved 2016)

Outlined below are three models for understanding and applying systems thinking: Image of the City, Fish-Scale Model & GIS.
Image of the City

Kevin Lynch provided contributions to the field of city planning and landscape architecture through empirical research on how individuals perceive and navigate the urban landscape. Relevant to this paper are his guidelines on how to harness human perception of the physical form of cities and regions as the conceptual basis for good urban design. Lynch's The Image of the City, published in 1960, is the result of a five-year study on how observers take in information of the city. Using three different cities as examples (Boston, Jersey City, and Los Angeles), Lynch reported that users understood their surroundings in consistent and predictable ways, forming mental maps with five elements:

- Paths: the streets, sidewalks, trail, and other channels in which people travel;
- Edges: perceived boundaries such as walls, buildings, and shorelines;
- Districts: relatively large sections of the city distinguished by some identity or character;
- Nodes: focal points, intersections or loci;
- Landmarks: readily identifiable objects which serve as external reference points.

Fish-Scale Model

Lynch’s mental map elements are the basis of design for new urbanist design principles. As the research looked to discover how to make the mental figure-ground flip from new urbanism to ecological/landscape urbanism, social scientist Donald T. Campbell’s “fish-scale model of omniscience” (Campbell, 1969) was incorporated into design tools. The basic premise of Campbell’s model is that the collective group mind is more creative than the individual mind. With its overlapping and bridging physical references, the fish-scale model is a design tool for the collective mind (social capital)
being allowed to express itself in the public landscape and as a metaphor for collaboration and depicts a competence that can never be embodied in a single mind. Campbell states:

“Make me a novel fish-scale. Let my pattern of inevitably incomplete competence cover areas neglected by others” (Campbell, 1969). (Figure 11: Fish-Scale Model)

*Beyond binary choices: Integrating individual and social creativity* (Fischer et al. 2005) takes the fish-scale model and provides answers for physical integration strategies of how individual and social creativity can be integrated by means of interventions “boundary objects” in the physical space that allow for knowledge to be collected not only within the individual but also in the individual’s social and physical environment. (Fischer et al. 2005) This type of intervention are, also, discussed in the creation of *metadesign* environments. Metadesign was coined in the 1980’s in response to the information technologies and the opportunity for new forms of creativity and sociability. Fischer et al. (2005) introduces it as *boundary objects*. These “boundary objects” (Fischer et al. 2005) are intended to enhance creativity and support spontaneous design activities that are shareable physical interventions that encourage social bridging. It is noted that this would require that the individual would have to release the individual creative action to also include synergetic activities to reflect community creativity.

Fischer et al. (2005) research takes the point of view that “human creativity is social, arising from activities that take place in a context in which interaction with other people and the research experiment included providing opportunities for collective knowledge to transpire. All
the experiments were relevant and shared an understanding of synergy through emergence, i.e.; creativity.” (Fischer et al. 2005) Their claim was that “individual and social creativity can be integrated by means of proper collaboration models, appropriate community structures, boundary objects, process models in support of natural evolution of artifacts, and meta-design.” (Fischer et al. 2005)

The metadesign concept aims to nurture emergence of creative possibilities or projection through the collaboration of designers within interdisciplinary metadesign teams. Fischer et al. (2005) advocate that metadesign creates the foundations for an unselfconscious culture of design. This type of design process seeks to harness creative teamwork within a suitable co-design framework with the hope that tacit knowledge will emerge and transfer into a collective and innovative final product i.e.; creative communities thru the expression of social capital and placed-based cultural vitality.

An example of metadesign and the fish-scale model is the collaborative work of RENGA that was initiated by artists Anzai Toshihiro and Nakamura Rieko. RENGA (a Japanese term for linked images), is an experiment in accelerating these possibilities within digital technology -- and the joy of appropriating, and being appropriated from. Toshihiro and Rieko discuss that in their very first session (April 1992) they were bound by the idea that "the art work is the property of the artist." (Anzai, T. & Nakamura, R., 2004) so it was difficult for them when they were unable to erase information from the others' work, and the information accumulated and oversaturated the image. The progression of their collaboration occurred initially every year only between these two artists, until they decided to create Face Poiesis (2003 &2004). (Figure 18: Anzai, T., Nakamura, R., 2003 & 2004 Face Poiesis) These creations are an exchange of images moving through the computers of networked artists, creating a series of growing
Imagery that is created through collaborative exchange of ideas, collected and finalized. The *RENGA* creations form a metadesign perspective that offers insight into co-creation strategies. In short, metadesign is an emergent design culture that seeks to transform the complexity of the human interactions into tangible opportunities to create new forms of creativity and sociability. The model of collaborative process in these creative activities offers dynamic creative relationships that do not alienate individual personality. (Fischer et al. 501-503) This is explicitly noted in their website where Anzai states,

“It is commonly believed that painting or composing poetry is an extremely solitary creative process. This is often true. And yet, creation is sometimes a collective process, occurring within a ‘network of influences.’ Such influence can be anything from inspiring hints, to subconscious stylistic appropriation, or responding to an existent theme.” (http://renga.com/) (Anzai, T., Nakamura, R., 2004)
**Geographic information system (GIS)**

This “network of influences” concept dovetails nicely with the Cambell’s fish-scale model and Lynch’s urban systems morphology as urban design tools that will be applied to the New Haven urban landscape planning case study in the following chapters. It is hypothesized that shifting the current model of urban design from a single city center to a network of possibilities with districts together sharing intersecting nodes and complex sets of connections much like a gigabyte network map as noted in the initial chapters. Visualizing this in the spatial world is another reason for using the geographic information system (GIS) mapping system. This program is used for capturing, storing, checking, and displaying data related to positions on Earth's surface. GIS can show many different kinds of data on one map.

One GIS study by Misra, K., Grimes, P., & Rogers, K. (2013). *The effects of community social capital on school performance: A spatial approach* finds that Mississippi public schools located in communities with a higher stock of social capital significantly outperform those with relatively low levels of social capital. Social capital in this study was defined by number of social organizations in proximity to public schools. The results also suggest that students’ race and socio-economic status significantly reduce primary school performance, holding all else equal. This research intent was to advocate for the importance of social capital from spatial perspectives and guide policy makers in future resource allocations. The difference between Misra, K., Grimes, P., & Rogers, K. (2013) and this *thesis* study is that the public systems GIS maps will be cluster analysis maps for social capital (bonding and bridging) and place-based cultural vitality. However, it should be noted that GIS cluster analysis has been used in New Haven, CT for crime mapping or *Risk Terrain Modeling*. (Figure 19: New Haven Crime Mapping) Risk Terrain Modeling is quantitative technique based on the idea that crime
Social Capital, Creativity and Cultural Vitality

offenders, crime victims, and crime targets can be documented in spatial mapping because the incidents are tied to a specific location. Add to this the combination of social, cultural, economic, and physical environmental risk factors and it is used for *crime forecasting*. (Caplan & Kennedy 2010; Caplan & Kennedy, 2011; Caplan, Kennedy & Piza 2012). While crime analysts use the tool of GIS to provide the “opportunity to describe, demonstrate, analyze and explain the socio-cultural, economic, and physical/geographical environmental context within which certain types of crime are concentrated in urban areas” (Anyinam, C., 2015) this *thesis* will NOT operate out of fear of “others” (Unesco, 2002) the poor and people of color, but out of the understanding for the need of social equity and a hope for a humanity. This study will use GIS cluster analysis to map the “hot spots” (ESRI, 2016) of social capital (bridging and bonding) and place-based cultural vitality.

**Community Participatory Design – Social Designers**

What does it feel like to exist at the intersection of differences, wherein people come together to create healing and sustainable communities? The complex question of how a diverse community collectively defines sustainability requires a design process that utilizes a common language that can be thoughtfully transformed into two-dimensional designs and later come to fruition in three-dimensional spaces that respect unique social, environmental and economic
communities’ holds challenges.

A participatory process must utilize pedagogical tools to help communities define sustainability within their own unique contexts, documenting the collective intelligence of people at all levels into the existing site story with imagination and wonder brought into a co-creation participatory process. However, this does not negate the community participatory process. As discussed in Chapter I, the work and theories of three prominent Landscape Architects: Lawrence Halprin, Randolph Hester and Walter Hood methodologies were reviewed to explore ways in which they:

- Developed a participatory process that increases "shared" expectations for future development that was inclusive and sensitive to socioeconomics, class, race, and ethnicity.
- Designed and/or facilitated a co-creation process and visioning plans, which demonstrate neighborhoods own definition of sustainability and hopes for the future.
- Discussed urban planning and renewal with the awareness of gentrification, poverty, youth and elders were given a voice to speak.

**Lawrence Halprin’s RSVP Cycles.**

Lawrence Halprin’s work encouraged people to discover through their own experiences their place-making abilities by creating a sensory-emotional experience with a process known as the RSVP Cycle (standing for Resources, Score, Value-action and Performance). (Figure 14: Resources, Score, Value-action and Performance) required the designer to have the ability to draw upon psychology, active listening, and empathy. (Halprin, L., 1970)

**Resources** are the human and material elements that are brought to the creative process, including the physical site inventory, design program, objectives and expectations. Resources
are broken down into objective (new school, fix sidewalks, etc.) and subjective (sensory feelings: feeling safe, or the feeling of the sound of the wind blowing in the leaves of an old oak tree, etc.) types. Halprin believed that objective resources are what people tend to express openly in workshops. The subjective, which he considered to be the hidden resources, represent unspoken values and expectations that need to be addressed in design issues. Halprin believed that conventional creative processes caused this issue and he developed a technique to start awareness that he called scores. Scores, as in a musical composition, orchestrates design and participatory activities that he used to build common language among the community members and delineate, generate and sustain a project. Once this language was developed, through value action the authentic expression of a community and its feelings, needs and belief systems would work itself into the design and development plans. (Halprin, 1970)

In theory the value-action component was to be the catalyst for establishing the performance is how the design that is implemented is received by the community—the design (in theory) is owned by the people and this ownership is reflected in its “performance”. Alas, design is only as good as the policy and construction guidelines of the communities in which it is conceptualized. So while the process allows for authentic community interaction that engages the citizen to hope for democracy, it unfortunately did not lead to sustainable public spaces due to changing policy, times and context. (Halprin, L. 1970, Hirsch, A. B. (2005)

This is explored in Hirsch, A. B. (2005). The fate of Lawrence Halprin’s public spaces: Three case studies were Heritage Park, Fort Worth, TX, Skyline Park, Denver, CO and Seattle Freeway Park, Seattle, WA. This critic of these three public parks delves into to the concept of maintenance and preservation give way to safe spaces for lunch instead of the once imagined meditative places that are secluded.
Randolph T. Hester: exploring class distinctions in community relationships to landscape.

Randolph T. Hester explored the relationship between social and design innovation. His relationship to community participation was concerned with empowerment and activism. Hester saw Landscape Architecture divided by serving the haves and the have-nots and he was looking for a balance between design and social change. He developed a socially competent distinction between the design needs of the upper and lower socioeconomic class’s relationship to the landscape. While the upper class yearns for reconnection to the natural landscape the lower social classes sees the land as a provider for financial resources and a place for economic development. The trend he noticed in the society was particularly conflicted or as he called it “a tug-of-war of values” in relation to the landscape. These social values needed to be addressed and explored and he wove this into the description of the role and untapped potential of a designer when he stated,

“The designer can give form; for example, to unspoken social values, or values to which people are unaware […] give form to the social values of those who cannot speak or, in our society, are not empowered or listened to when they do speak: the poor, the old, the young, minorities. […] The designer can give form to the values of ecology and nature. ”

(Halprin, L., 1970)

In What Makes Participation Exemplary? Hester addresses a vexing problem for participatory planners is that the process often over represents some people and excludes others, most notably the less affluent and less powerful. (Hester 69) He makes a call for designers to deal with social class differences directly. He offers the work of Walter Hood’s Layfayette Square as an exemplary of not pretending to be a space for one big happy family, but instead turns the park
inside out creating a setting that accommodates designing for social differences. Hester challenges the designer to structure the framework to include decisions about the civic space and ask the hard questions; “How do citizens need to look at the problem? How can citizens be aided in understanding spatial consequences? What alternatives do citizens need to consider? What is the public cost?” He called this process transactive and places the responsibility on the designer to provide the place language, the mechanisms to focus the dialogue and make difficult choices, and often the inspirational gestalt that breathes life into a place. (Halprin, L., 1970) Two key books offer strategies and advice for the designer to proceed in this direction Design for Ecological Democracy and The Community Primer.

**Walter Hood: Social bridging and programming within urban populations.**

Walter Hood’s built work and theory provide examples of urban multi-functional landscape systems coming together in public space. His parks’ designs invite diverse groups of users, but instead of addressing different needs by creating a homogenous setting, they embrace diversity by addressing the differing needs of the users by programming and designing for what could initially be seen as competing elements.

Hood discusses the concept of “the surrogate advocate” that he conceived as a method for integrating social justice into the design process. He saw design intentions as a controlling bias in the design process that elevates the “user needs” beyond the typically homogenous group that considers streets, parks etc. as autonomous landscape units. Hood coins surrogate advocacy to describe times with the designer needs to recognize and lead the intentions of the different groups may need a bridge to a place where the differences can be reconciled and a
socially equal design can come to fruition. (Blum, A, 2005) He describes the situation when a “surrogate advocacy” is needed below:

“When I’m thinking about making public work, I’m thinking about those voices that I know aren’t here because they don’t have the time. I’m connected somehow to that life and that spirit.” (Blum, A, 2005)

An examples of how a surrogate advocate can create social bridges that assist in elevating the fear of “others” syndrome-xenophobia Hester describes in Design for Ecological Democracy Walter Hood’s methods for design in the creation of Lafayette Square Park and Cortland Creek Park in California. Hester described Hood’s approach to Lafayette Square Park, Oakland, CA as “compellingly inclusive” and that he showed no intention of excluding anyone –“ Young children, old men, middle-income Koreans, lower-income African Americans, concert-goers, and the haircut man and others who engaged in an informal economy all report that the park is theirs.” (Hester, R. T., 2006)

Cultivating awareness and having the hard conversations around similarities and differences in race, ethnicity, culture, socioeconomic class in relation to the treatment and the value of our human ecosystem is what Halprin, Hester and Hood have all done well, but it isn’t just about listening. It is about acting, co-creation, inclusion, and democracy in our public spaces. American policy making shouldn’t be about environmental determinism, especially if the policy and regulations are written intentionally to be exclusive and socially inequitable. According to Gilmartin, (2009) Environmental determinism has been widely criticized as a tool to legitimize colonialism, racism, and imperialism in Africa, North America, South America, and Asia and according to the Black Live Matter Movement this needs to stop.
Creativity Perspectives on the Problem

In approaching the literature review in creativity research, three areas of focus emerged in relation to sustainable urban design strategies:

1. Defining creativity.
2. Systems theories of creativity: We-Paradigm, Shinmyeong, Liberation Psychology
3. Place-Based Cultural Vitality and Creativity

The literature related to creativity was chosen based on this logic: we design and develop workspaces, technology and science parks, and arts & cultural places with the goal of harnessing creativity for innovative products and ideas, so why not in the realm of designing and developing broader sustainable communities? There was a particular interest in finding research that explored sustainability frameworks through the lens of social bonding/bridging and cultural vitality that promote community development focused on nurturing creativity in its constituents.

Defining creativity

Creativity, much like sustainability, involves a multitude of definitions and disciplines, numerous levels of analysis and empirical methods, and research orientations. In *Theories of Creativity*, Aaron Kozbelt, Ronald A. Beghetto, and Mark A. Runco organize ten major categories of creative theory. The ten major categories of theories of creativity are Developmental, Psychometric, Economic, Stage and Componential Process, Cognitive, Problem Solving and Expertise-Based, Problem Finding, Evolutionary, Typological, and Systems. (Kozbelt et al., 2010)
The creative theory perspective that will tie in social and cultural aspects of this thesis is *Systems Theory*. The systems category primary assertion is that creativity results from a complex system of interactions and interrelated factors. (Kozbelt et al., 2010) Intriguingly, to this land designer, the creativity research begins with Csikszentmihalyi (1988) reframing the basic question of “What is creativity” to “Where is creativity?” Csikszentmihalyi (1988) notes that psychologists tend to see creativity exclusively as a mental process however his research notes that creativity is as much a cultural and social as it is a psychological event. (Nakamura, et al., 2001)

**Systems theories of creativity: We-paradigm, Shinmyeong, Liberation psychology.**

According to Csikszentmihalyi's (1988, 1999, 2014) creative systems perspective, an individual is created by their surrounding environment consisting of a field (society) and a domain (individual’s society and culture). Acceptance of an idea is a triangulation of the “field” and “domain” and these elements impact on the individual.

Csikszentmihalyi's (1988, 1999, 2014) In researching the systems

![Diagram](image)
theory of creativity, Vlad Petre Glăveanu identified three paradigms in the article *Principles for a Cultural Psychology of Creativity*: the *He-paradigm* and *I-paradigm*, which both are predominately individualist views of the creative process, and the *We-paradigm*, which discusses the social psychology of creativity. Through the We-paradigm Glăveanu investigates the socio-cultural roots and dynamics of our creative acts in relation to self and community. (Glăveanu, 2010a) This thesis’ creativity concept grows from this research and seeks to examine work that has explored the We-paradigm in the physical environment.

Three bodies of work were discovered that fit the We-paradigm in the urban design context: *How can Creativity in a Social Context be Possible?*, *Beyond binary choices: Integrating individual and social creativity*, and *Liberation Psychology: Martin Luther King, Jr’s Beloved Community as a Model for Social Creativity* were examined to provide a deeper understanding of the of the We-paradigm in physical space and place-making.

In *How can Creativity in a Social Context be Possible*, Min Han connects the principles of Glaveanu’s We-paradigm to the Korean cultural phenomenon called *Shinmyeong*. Han describes Shinmyeong as an emotional experience of feelings of great pride, competence, and vitality when people are immersed in an activity; this phenomenon is also generally known in psychology as *flow*. In Korean history, Shinmyeong has been experienced and described for a long time, mainly in collective contexts. Glaveanu suggests five principles that are central to the *We-paradigm* of creativity: contextual understanding, generative understanding, meaning-oriented understanding, developmental understanding, and the ecological nature of creativity. Han focuses on the principles of *contextual understanding* and *meaning-oriented understanding* in investigating the relationship between creativity and Shinmyeong. While more exploration is needed to better understand creativity and Shinmyeong, Han’s approach provides a relevant way
of applying the We-paradigm to a specific cultural context. Relating context to creativity provides important information about the situation in which creativity appears and about the people who participate in the situation. The Korean ‘we’ in the context of Shinmyeong shows an example of understanding community as an essential host for creativity. (Han, M. (2010)

While Royal Earl Alsup’s *Martin Luther King, Jr’s Beloved Community as a Model for Social Creativity* doesn’t source Glaveanu, this article has relevance in that for social systems to be more civil and sustainable, transformation through the We-paradigm will be required. Alsup provides commentary on the relationship of the vision and transformational leadership of Martin Luther King, Jr. to the concept, meaning, and physical qualities of community as reflected in this statement by King:

> This is the great new problem of mankind. We have inherited a large house, a great “world house” in which we have to live together—Black and White, Easterner and Westerner, Gentile and Jew, Catholic and Protestant, Moslem and Hindu—a family unduly separated in ideas, culture and interest, who, because we can never again live apart, must learn somehow to live with each other in peace (King, 1967).

Alsup teases apart Dr. King’s approach to community commitment by identifying themes related to *liberation psychology* and Dr. King’s belief that basic needs fulfillment is essential for all human beings. Alsup identified physical needs; safety, security, and competence needs, power and justice needs; belonging, respect, and love/nonviolence needs; uniqueness, gender, and culture needs; freedom and self-determination needs; trust and hope needs; and *creativity* and spirituality needs. Alsup states “the fulfillment of trust and hope needs promotes the safety, security, motivation, and confidence for a person to be *creative.*”
(Alsup, R. E., 2009)

*Influences of Social and Educational Environments on Creativity During Adolescence: Does SES Matter?* (Dai et al, 2012) identifies and studies the creativity gap between high and low socioeconomic statuses (SES). This is just as critical an issue as the academic achievement gap because it directly confronts issues of equity, not only in the educational environment, but in the area of social capital. The study hones in on six factors for creativity in adolescents: (a) perceived teacher and parent support (b) self-confidence (c) intrinsic cognitive motivation or need for cognition (d) openness to experience (e) adventurousness and (f) artistic imagination. (Dai, et al 2012) he research findings suggest a creativity gap analogous to the achievement gap. In *Narrowing the Creativity Gap: The Moderating Effects of Perceived Support for Creativity* Diliello, et al (2011) investigate the moderating role of three levels of support for creativity in the workplace: organizational support, supervisor support, and work-group support. These factors are analyzed for how they impact creative self-efficacy and self-perceived creativity. The findings showed that if these three support levels restrict or discourage creative expression, a gap may develop between the individual’s potential for creative behaviors and the actual amount of creativity and efficacy displayed by the individual. The results of this research advocated for developing work climates that allow the workforce to reach their full creative potential by creating work environments in which supervisors and peers support creativity through the encouragement of risk-taking and divergent thinking. Diliello et al. (2012); encourage utilizing empowering and transformational approaches to leadership where followers are less likely to experience the fear of negative criticism and the pressure of contingent rewards that can undermine intrinsic motivation, and more likely to engage in creative processes that embrace diversity and alternative ideas.
The topic of divergent thinking is further discussed by Arjen Wals in *Learning Our Way to Sustainability* (2011). He calls for an emancipatory perspective to be used and discusses two types of learning: social learning and transformative social learning. These forms of learning are entering the discussion on education for sustainable development (ESD) and are distinguished from each other as follows: “social learning” means learning by mirroring one’s own ideas, views, values and perspectives with those of others; “transformative social learning” requires the integrative switching back and forth among a set of mindsets in other words diversity of experiences. (Arjen Wals., 2011) Transformative social learning in *Liberation Psychology* (Alsup, 2009) is what Martin Luther King, Jr. is describing in his description of “community” as an organizing metaphor cultural vitality and social creativity. (King Jr, M. L., 2010). Earlier in the problem chapter in *Influences of Social and Educational Environments on Creativity During Adolescence: Does Socioeconomic status (SES) Matter?* it was discussed that yes, socioeconomic status does matter in the relationship to creativity opportunities and in closing the creativity and achievement gap. The findings stated that to address these gaps the community environmental along with the school environment needed to include the increase of social capital (bonding and bridging). (Dai, D. 2012)

Alsup (2009) and King Jr, M. L. (2010). are directly confronts issues of equity, not only equity in the educational environment, but in the area of public space social capital. They discuss taking the perspective of creativity from the purely intellectual intelligence to the emotional intelligence realm. (Alsup, R., 2009) and state that the basic needs that need to be filled for liberation and social equity is opening our minds to possibilities. That for mind of those who are oppressed to heal the environment needs to include the “fulfillment of trust and hope and promote safety, security, motivation, and confidence for a person to be creative.” (Alsup, R., 2009). One
socioeconomic class that is particularly good at seeking out and embracing diversity and alternative ideas is the *creative class*.

**Place-Based Cultural Vitality and Creativity**

While the phenomena of the *creative class* have been identified by American economist and social scientist Richard Florida his definition has been critiqued as vague definition. Florida states that the creative class is composed of scientists and engineers, university professors, poets and architects, and also includes "people in design, education, arts, music and entertainment, whose economic function is to create new ideas, new technology and/or creative content" (Florida, 2002) He has advocated that the creative class is a driving force for economic development of post-industrial cities in the United States. (Florida, R. 2002) While his work has been widely acclaimed, a critical related cultural group - the *bohemian* - is mentioned throughout his work, though rarely addressed in relation to how to support this key element. The bohemian is described as “authors, designers, musicians and composers, actors and directors, craft-artists, painters, sculptors, artist printmakers, photographers, dancers, artists, performers and related workers” (Florida 2002) It is quite different from all the other sub-components both in terms of the role that it plays in economic growth and in terms of individual economic rewards in the labor market. In the chapter *Bohemia and Economic Geography* he examines the relationships between bohemians, human capital, and high-technology industries. His underlying hypothesis is that the presence and concentration of bohemians in an area creates an environment or milieu that attracts other types of talented or high human capital individuals. In other words, the bohemian is the catalyst for the elitist creative class or “other types” (Florida 2002) which he notes will be predominantly creative and entrepreneurial professional group in society as the driver of economic growth in American cities. (Florida, 2002)
Florida’s work seeks out the presence and concentration of bohemians because his belief is that the existence of bohemians attracts other types of talented or high human capital individuals which in turn attracts and generates innovative, technology-based industries. His findings support this hypothesis and the relationship between the bohemian index and high-technology concentrations is particularly strong. (Florida, R. 2002). However, because there is not zoning policy or regulations to protect this resource it has become a catalyst for gentrification and along with pushing out the bohemian they push out the poor and homogenize the community. Bohemians’ are generally faced with uncertain career prospects, very diverse job outcomes and lower average salaries, and this holds true even for high human capital individuals, i.e., individuals who completed a university degree (Comunian et al. 2010) There has been a widespread interest in the economic development role played by the bohemian and it is believed that these creative people will foster economic growth. What tends to be skipped over in regard to the decision making of the bohemian is why bohemians are attracted to the places they attract to, which is based on their socio-economic, social bonding capital, cultural diversity & vitality needs. “While Florida exemplifies this socioeconomic class in the economic viable vein in contrast his work, also, resonates alongside racism, classism and sexism.” (Gilroy, 2016)

**Sociological Perspectives on the Problem**

In approaching the literature review in sociology, three main areas of interest emerged in relation to sustainable urban design strategies:

1. Sustainability indicators and neighborhood studies

2. Social bonding and bridging capital: tacit knowledge and environmental justice
3. Social Equity: Planning and Design Policy

**Sustainability indicators and neighborhood studies.**

A number of social sustainability indicators have been explored, including those outlined in the United Nations Commission on Sustainable Development (CSD) *Indicators of Sustainable Development: Guidelines and Methodologies*, as discussed in the initial chapter on the mixed-methods approach the most relevant to this work are Catalina Turcu’s *Re-thinking sustainability indicators: local perspectives of urban sustainability* (2013) and *Developing Indicators Of Sustainable Community: Lessons From Sustainable Seattle* by Alan AtKisson (1996).

AtKission (1996) presents his work in a chronological story format that corresponds with phases of the project and lessons learned. One lesson that is expressed throughout AtKission’s (1996) project and in Catalina Turcu (2013) *Re-thinking sustainability indicators: local perspectives of urban sustainability* is that if expert-lead (government & professionals) and citizen-led (grass-roots) groups are to collaborate, then the balance of power needs to be established through the mutual defining of sustainability within the qualitative and quantitative data. (AtKission, 1996, Catalina Turcu, 2013)

The thesis research data focus is on collecting information on the urban public/green spaces to see the existing physical expression of sustainable community development strategies and proposes an alternate expression – a merging of qualitative and quantitative data. This information analysis and the recommendations that will be reflected are collaboration between “experts and citizens”. (Catalina Turcu, 2013)
In Addressing Deep and Persistent Poverty, Laudan Aron, Wendy Jacobson, and Margery Austin Turner discuss and provide a framework to address the antipoverty efforts in the United States. Aron et al describe the challenge as being vast, complex, and fragmented and identify four overarching and intersecting approaches (Aron, L. et al):

1. Strengthening or expanding programs and services through practice demonstrations, policy development, and advocacy.
2. Seeding and supporting on-the-ground efforts that integrate needed services to address the needs of a particular community or group.
3. Engaging and empowering poor people to effectively advocate for themselves.
4. Educating the broader public and building a public movement for changes in policy or the social contract.

Aron et al. approach systems reform as strengthening public programs is to strategically reform the way they interact with, and potentially complement, one another. (Aron, L. et al. 2013)

Social bonding and bridging capital: tacit knowledge and environmental justice

This thesis took the lens of a community designer and focused on these key words from their approach: strengthening programs, social contract, seeding and supporting on-the-ground efforts, and engaging and empowering poor people. Along with the framework these concepts are given power through social bonding and bridging capital, place-based cultural vitality and creativity being expressed and physically designed in the landscape.
It has become painfully clear that America has a gap epidemic. While it may be interesting to try to name all the gaps that come to mind, one is of particular relevance here. This gap has been named by various researchers as the achievement gap and by others as the resource gap (Lee, J. (2012) and still others as the creativity gap (Diliello, T, et all 2011). To further complicate, there are gaps within this gap, for example, the science and gender gap. In relation to urban design, how many gaps would decrease if a unifying gap culprit were identified within the physical landscape? It might be identified as the social capital gap.

Whitlock’s *The role of adults, public space, and power in adolescent community connectedness* (2007) discusses the social capital gap between the social networks of three schools and community neighborhood public spaces. Whitlock boldly states that “communities are critical arenas for adolescent development.” This message has been repeated in other fields--*The Gender Gap in High School Physics: Considering the Context of Local Communities* identifies community as holding the power to influence what youth become when they grow up (Riegle-Crumb and Moore, 2014). Whitlock sets the background for community connectedness by breaking down social capital theories and incorporates assumptions about healthy development and wellbeing within the following tenets:

a) civic trust, caring, and respect play an important role in promoting participation and mutual positive regard;

b) individuals receive information about themselves and their value not solely from other people, but also from subtle exchanges with institutions, policies, and practices;

c) opportunities to build social capital and civic identity and negotiate a space for oneself in the broader community will confer the greatest advantage to individuals
and communities when the “fit” between environmental affordances and developmental need is strong;

d) individuals are involved in constant exchange with their environment, even when seemingly invisible; and

e) collective identity plays an important role in individual developmental processes and outcomes.

The areas above are the basis for conceptualizing "connectedness" in this study. In short, it is claimed that the reciprocal act of care, trust and respect between adults and youth at an individual and collective level has impact on wellbeing of whole community. (Whitlock, J., 2007)

What has particular interest and relevance to this thesis is Whitlock’s mixed methods approach. While many scholars operationalize community-level influence, this study approaches it through the lens of youth and their experiences in their own. This shares a perspective from the point of view of the individual rather than the “objective” researcher using measurements of environmental influence on the individual. This relational aspect identifies key themes of community life that emerged in the focus groups and coincided with the survey results. There were 40 discrete themes that were identified as indicators of connectedness-trust, care and respect. One interesting correlation was the numbers of youth that didn’t feel cared for by community to the numbers of adults that felt “that kind of responsibility is akin to babysitting”. The youth-adult relationships and youth voice and power, accounting for 65% of all conditions identified, was powerful. (Whitlock, J., 2007)

The summary of Whitlock’s mixed method research study suggest that youth connectedness to community was influenced by these factors: (a) quality of youth-adult exchange, (b)
availability of outlets for creative engagement, (c) well-advertised opportunities for meaningful input, (d) safety, (e) perceived welcome in public spaces, (f) knowledge of community events, and (g) awareness of youth impact on community policies. (Whitlock, J., 2007)

While Whitlock’s work supports the idea that individual development and community development are inextricably linked, the study’s measurement of creative engagement was disappointing. Her measurement of creative engagement limited creativity to a destination. The creative engagement measurement was a three-item scale that determined to what extent the youth felt their community offered opportunities to “creatively” engage in activities that were of interest to them. These interests could be anything—sports, leadership, music, dance, etc. (Whitlock, J., 2007) It leaves open the important question and opportunity of how these spaces can be creatively and collectively formed and designed as an essential connective activity itself.

Social Equity: Planning and Design

In 1997 Architecture of Fear was published as a collection of essays that reviewed and analyzed the United States’ fixation on fear and its control thru planning and design. It examined how the landscape was being shaped through a preoccupation with fear of crime and counter-cultural elements. Such fear has become the catalyst for the design of homes, communities, and public spaces -- enforced by zoning policy and regulations.

One particular essay became a catalyst for this thesis – Divided We Fall: Gated and Walled Communities in the United States by Edward Blakey and Mary Snyder. It describes gated communities as residential areas with restricted access such that normally public spaces have been privatized (1997). The authors discuss the “forting-up” phenomenon of middle class Americans that moved to escape school integration, secure appreciation housing values and
maintain their economic advantage. The developers of gated communities see themselves as providing security. At its core this essay is discussing the policy consequences that come from allowing some citizens to internalize and to exclude others and deteriorate the conceptual base of community and citizenship in America. “In short, can this nation fulfill its social contract in the absence of social contact?” asks Blakey and Snyder. In essence the gated and walled community citizen is buying a lifestyle and this is attractive to those who want to be separate, have private services and amenities, and who are also seeking a homogenous, predictable environment.

**Leadership Perspectives on the Problem**

In approaching the literature review in leadership three areas were examined for their applications for sustainable urban design strategies:

1. Adaptive and educational leadership.
2. Environmental and sustainability education.
3. Sustainability and environmental policy leadership.

**Adaptive and educational leadership.**

It was decided early in the development of this thesis that it was important to identify leadership strategies for the planning and design framework. Engaging a diverse community to collectively define sustainability requires a particular type of leadership. This initiated from the environmental lens of the sustainability Venn diagram of social, environmental and economic concerns. Initially, environment was explored in the context of the natural environment through the works of Rachel Carson’s *Silent Spring* and David Sobel’s *Beyond Ecophobia*; however, as the research evolved a book that had a management and business focus was reviewed -- *The
Practices of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World (Heifetz, et al, 2009). In addition, concepts of educational leadership were reviewed and aided in developing the framework.

Heifetz et al. explain that adaptive leadership is not about meeting or exceeding your authorizers’ (or clients’, stakeholders’, etc.) expectations; it is about challenging some of those expectations, finding a way to disappoint people without pushing them completely over the edge (Heifetz, et al, 2009). The first tenet of adaptive leadership is getting over the belief that the system is broken. In diagnosing the system, a leader should consider three major components: structure, culture, defaults, and seek out supportive and impeding structures for adaptive leadership. (Heifetz, et al, 2009) Much of the language of the book focuses on raising performance and enhancing efficiency in the corporate business and it felt necessary to research studies that included pedagogy, epistemology and human development to aid in building self-efficacy within community design. In this thesis the adaptation is recognizing that we as a society are in a structure, culture and have created defaults that are designed to segregate and NOT create social equity.

*Educational leadership* typically distinguishes itself through its focus on pedagogy, epistemology and human development. The University of Connecticut’s Department of Educational Leadership (EDLR) discusses their mission to develop leaders, who connect theory, practice, policy, and assessment that involves working with and guiding teachers towards improving educational processes in elementary, secondary and postsecondary institutions. Education leadership roles tend to go above and beyond just management and administrative tasks, and incorporate the learning environment in their leadership development therefore it bends the research lens towards this perspective. An example of this is New Haven’s *Common
Ground High School. Common Ground states that as whole, it is a center for environmental
learning and leadership and that their place-based learning site allows learning and leadership to
take many different forms—the site along with its buildings are woven into all the participants’
belief of being life time learners. (Common Ground ,Website, 2016)

As mentioned in the beginning, pentimenti is not about erasing the canvas and starting a new
painting, but instead shows the subtle shifts in thought and form. It is a refining process and
the past clues are important because they are a reflection of where the thought had been to the
future decision assisting in the coming to terms with the problem that has been set to solve. It is
important to remember our past and recognize that during the last societal shift that came about
during The Industrial Revolution the impact of urban design was a wedge for our vulnerable
citizens. The revolutionary shift of our time needs to include cultural vitality in the urban
landscape palette to develop sustainable communities.

The planning and design framework will require incorporating sustainable design education
that is transferable across audiences that educates students, as well as educational leaders,
community members and business leaders on the significance of integrating sustainable designs
in all future planning especially in the area of multifunctional and high-performance ecological
landscapes. While the process aims to have communities define their own needs for
sustainability, education about the environmental, social and economic dimensions of
sustainability is important to provide.

Environmental and Sustainability Education.

In the exploration of transforming an independent perspective into an interdependent view,
environmental and sustainability education must approach teaching, learning and designing
with a holistic method. In researching the environmental component of the sustainability Venn diagram I honed in on the social capital and cultural vitality aspects. This started with defining environmental education. In defining “environmental education” the word environment is often very narrowly considered. Dillion and Teamey, stated that "focusing solely on environmental education’s role in the school curriculum ignores a range of factors that affect its efficacy in the majority of the world." (Justin Dillon & Kelly Teamey, 2002) In short, the forming of environmental education that takes into account a “range of critical factor at the macro, meso, and micro levels is required. In landscape architecture this is called context analysis. In Sustainable Site Design it is noted that “Sites that are conceived of an overview of the larger, hierarchical systems of the environment, both ecological and cultural, stand a much better chance at protecting and enriching—sustaining—the site environment and its inhabitants (Dinep, C., & Schwab, K., 2010). This environmental education construct coincides with the sustainability construct that requires the lenses of economic, social, cultural vitality component to create sustainable design --- emphasizing the one size does not fit all approach.

In the readings I honed in on the theme of values, attitudes and behavior changes that we would need to cultivate throughout society regarding our relationship with the planet. It will require us to take an honest look within ourselves and our history in relation to our values for nature. Albert Einstein once said “No problem can be solved from the same level of consciousness that created it”, and also: “The true sign of intelligence is not knowledge but imagination.” Following these two tenants involves not only the mind but the body, the spirit, and the emotions. Perhaps creating sustainable design requires a deeper dive into our imagination. Urban environmental design education is best described with William Stapp’s, The Concept of Environmental Education, in which he conveys that “society should have an
awareness and understanding of their community and its associated problems” because “citizens are being asked to make decisions that effect (directly and indirectly) their environment.” It is an important role of designer to assist in the “development of this awareness” of the interrelationship of community, surrounding land and unique values. (Stapp, William B. 1969)

**Sustainability and environmental policy leadership.**

The term sustainability development policy is related to and as controversial as the term climate change – according to an interactive map that Yale University created to poll public opinion 60% of Americans believe global warming is taking place and the rest half blame humans. The question asked, “Does YOUR state believe in global warming?” (Schilling, & Chiang., 2011)

One way that this is being addressed is that on July 1, 2011, the Department of Environmental Protection (DEP) became the Department of Energy and Environmental Protection (DEEP) becoming the new DEEP that represents a fundamentally new approach to energy and environmental policy in Connecticut. Dan Esty, the DEP commissioner, who transitioned to DEEP commissioner stated, "Both the energy and environment people are going to need in my department to be thinking about the economic and the jobs implications and the economic growth impacts of the choices we make." According to Esty, "Energy is a $6 trillion a year part of the global economy. You don't have to have a very big slice of that to have a lot of very successful, very profitable businesses," he said. "Whether the transition to clean energy occurs in the next 10 or 20 years or over the next 40 or 50 years, it's going to occur. And those that lead the way are going to be very successful from an economic point of view. We can't afford to let slip by." Connecticut Department of Energy & Environmental Protection. 2016)
The State of Connecticut DEEP has chosen to lead through energy policy and conservation. It is stated on the DEEP website “dedicated to conserving, improving and protecting our natural resources and the environment – and increasing the availability of cheaper, cleaner, and more reliable energy.” (Connecticut Department of Energy & Environmental Protection. 2016)

The goal is to incorporate social bonding and bridging capital and placed-based cultural vitality into spatial knowledge that can be used in the development of sustainable communities. This premise has not been properly reflected in policy discussions about ways to improve the quality of life in communities. The initial concept was that the landscape architecture profession alone was equipped to assist urban sociological growth in building the capacity to face the adaptive challenge of designing sustainable sites within complex urban ecological and cultural landscape systems.

The area of study that is proposed for further research is in the systems theory of creativity (Glăveanu, 2010a) and how it can be created in the physical landscape. The we-paradigm (Glăveanu, 2010a) is embedded in this proposal because it has the values and tones to fit into the existing landscape canvas. The potential for sustainable urban design to improve creativity through the human and cultural connection is largely untapped. What is advocated by the research thus far is that individualistic power is not only overrated, but not sufficient for the needs of our time. This growing field component of creativity is acknowledging the relationship between an individual and the context that the work is developed within, as well as from the ties between an individual and another human being. The social context is being advocated for as having a wealth of group knowledge; especially tacit. If the overarching claim is that creating spaces connected to the group’s culture stimulates group dynamics that influence the group’s creativity than it seems that to understand creativity, understanding the community in
which creativity can be observed should be an area to develop further research.

One way to explore sustainable design strategies that employ cultivating creativity through cultural vitality in the urban landscape is through this proposed thesis project. This Geographic Information Systems based thesis project employs two key sets of cultural vitality indicators: The Urban Institute’s Arts & Culture Indicators Project and The National Center for Charitable Statistics Bonding Social Capital Indicators. Using Connecticut Nonprofit Strategy Platform data, among other data sets, were geocoded into geographic spatial information to explore the existing cluster spread and to identify cultural vitality density areas to use in neighborhood comparison study of the City of New Haven, CT. This cluster analysis approach will inform community and landscape levels of design and programming by identifying opportunities for enhancing and developing place-based resources around existing and potential areas of cultural vitality. This leaves a basic question: How can cultural vitality be integrated into a framework for sustainability? Synthesizing the creativity concepts discussed above into the physical landscape requires more exploration and identifying frameworks for developing these active negative spaces as multifunctional spaces that ask these essential questions: What ARE the needs of current and future generations? And how are these needs intertwined with the form and function of the physical human environment?
CHAPTER III: METHODOLOGY

“Things get done only if the data we gather can inform and inspire those in a position to make [a] difference.”

~ Mike Schmoker, former school administrator, football coach and author.

Mixed Methods Research

The city of New Haven, Connecticut was noted in a demographic study titled ‘Normal America’ Is Not A Small Town Of White People by Jed Kolko to be the #1 city most like the United States (Kolko, J., 2016, Summer). New Haven offers a unique setting for a mixed-methods research. This research uses both qualitative and quantitative data from the wealth of data provided by DataHaven, C.A.R.E and the City of New Haven. In addition, this thesis incorporates its own qualitative data in the form of an ethnographic study that has been collected in the last seven years of living and working in New Haven, CT.

Quantitative Data: Prioritizing Sustainable Public Space Systems

The framework that was developed in Reversing Urban Sprawl: A Reclaimability Index Approach for Reviving Downtown Brownfield’s (Chrysochoou et al. 2011) was used as a starting point for creating a design framework to prioritize for this project. Chrysochoou et al. 2011 used a GIS-framework to prioritize 61 brownfield sites in the state inventory in terms of socioeconomic, smart growth, and environmental criteria. A series of GIS data layers were amassed and combined to identify sites of opportunity and investment for brownfield development based on a values system of good to bad conditions in relation to Smart Growth. For instance, areas of a good balance of jobs and residential land use had a higher priority for brownfield remediation. Their study included the City of New Haven. Below
is their New Haven Smart Growth and Environmental Impact Statement (EIS) Map showing the prioritization of brownfields in relation to smart growth potential.

Figure 21: New Haven Smart Growth and Smart Growth Variables / Scores (Chrysochoou et al. 2011)

Their methodology is an adapted tool to determine areas of opportunity for investment in regard to the following proposed public space system plan. The public space systems design framework (shown on the next page) incorporates the already recognized environmental, economic and social criteria, however, the prioritization for the social capital and cultural vitality is given a higher value in this framework. This framework brings the value of social capital and cultural vitality to the table as key factors (currently not recognized in smart growth) and is the core to the public space systems analysis that will be discussed in the following chapters.

Approaching the decision on how to place value on the framework maps was like approaching the New Haven public space complex like an artist advances towards the canvas – The artist/land designer observes the existing systems/canvas and starts to imagine the subtle shifts (pentimento) of the
Social Capital, Creativity and Cultural Vitality

canvas/landscape towards innovative interdependent development. This methodology is a tool for determining areas of opportunity for community investment and development in regard to the proposed public space system plan. This framework incorporates the already recognized factors of environmental, economic and emphasizes the additional cultural vitality and social capital as a key component for designing a revised sustainability framework designed to aid in the decision making for the proposed public space systems elements.

The framework was divided into four categories social capital and cultural vitality, environment, economics. Within these four categories the quantitative spatial analysis, planning and design framework was formed. Within these categories these sources were analyzed:

- Urban Institute – Cultural Vitality Indicators
- National Center for Charitable Statistics (NCCS) Bonding Social Capital
- New Haven Vision Plan (NHVP) 2025
- Existing New Haven Planning and Development Maps
- Other’s Mapping – I.E; CARE, Empowerment Zones, etc.
- Gilroy’s Original Mapping – I.E; Health Facilities, Coffee Shops, etc.
### Social Capital, Creativity and Cultural Vitality: Prioritization Factors for Sustainable Public Space Systems Design

<table>
<thead>
<tr>
<th>Social Capital</th>
<th>Cultural Vitality</th>
</tr>
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<tbody>
<tr>
<td>S1: NCCS Social Bonding Capital</td>
<td>C1: Cultural Vitality: Urban Institute Indicators</td>
</tr>
<tr>
<td>S2: Non Profits/Religious Organizations</td>
<td>C2: Historic Zones</td>
</tr>
<tr>
<td>S3: Coffee Shop</td>
<td>C3: Landmarks</td>
</tr>
<tr>
<td>S4: Community Facilities</td>
<td>C4: Public and Private Greenspaces</td>
</tr>
<tr>
<td>S5: Youth and Elder Services</td>
<td>C5: NHVP 2025 Current &amp; Proposed Environmental Systems</td>
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<tr>
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<th>Economics</th>
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<tbody>
<tr>
<td>EN1: NHVP 2025 Future Land Use Plan</td>
<td>EC1: NHVP 2025 Neighborhood Planning Opportunities</td>
</tr>
<tr>
<td>EN2: Existing Zoning Map</td>
<td>EC2: NHVP 2025 Commercial &amp; Industrial Concentrations</td>
</tr>
<tr>
<td>EN3: Transportation Analysis</td>
<td>EC3: Enterprise &amp; Emporment Zones</td>
</tr>
<tr>
<td>EN4: NHVP 2025 Greenway Trails</td>
<td>EC4: Education System</td>
</tr>
<tr>
<td>EN5: NHVP 2025 Bike/Ped Pathways</td>
<td>EC5: C.A.R.E. Neighborhoods/Health Facilities</td>
</tr>
</tbody>
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Figure 21: Quantitative Analysis, Planning and Design Framework (Gilroy, 2016)
Social Capital

Map Sc1: National Center for Charitable Statistics (NCCS) Bonding Social Capital

LEGEND

- NCCS IDENTIFIED SOCIAL CAPITAL
- NEIGHBORHOOD BOUNDARIES

EXAMPLES OF NCCS IDENTIFIED SOCIAL BONDING ORGANIZATIONS:
* Boxing in Faith Gym Inc
* Youth Rights Media Inc
* Hole in the Wall Gang Fund Inc
* Kappa Kappa Gamma Fraternity Inc Zeta Xi Chapter
* Children in Placement Connecticut Inc

Sc1: NCCS BONDING SOCIAL CAPITAL
New Haven, CT - By Rachel Gilroy
Source: National Center for Charitable Statistics
In the NCCS the Connecticut Nonprofit Strategy Platform (CNSP) identifies bonding social capital as clubs, sports, and other mutual benefit or social bonding organizations. (NCCS Data. Retrieved 2016). This category represents an initial effort to categorize organizations that offer opportunities for personal interaction around activities of mutual interest.

The categories that CNSP choose is not intended to be definitive, therefore this project took creative license to elaborate on this index to meet its goal. These chosen CNSP indicators were incorporated in this project:

- “N: Recreation and sports - this category includes many youth sports leagues.
- O: Youth Development
- A62-A6B: Performing Arts with revenues less than $75,000
- B94: Parent and teaching groups with revenues less than $75,000
- C42: Garden Clubs
- S22: Neighborhood and block associations with revenues less than $75,000
- S81 &S82: Community service clubs with revenues less than $75,000
- 501(c) (7): Social and Recreational Clubs” (NCCS Data. Retrieved 2016)

The NCCS Bonding Social Capital map did not seem to represent the social capital that was truly available to the New Haven communities. Additional identified areas for social bonding and bridging opportunities are explained in qualitative section under Gilroy’s Original Mapping.
Map Sc2: Non-profit / Religious Organizations


New Haven, CT - By Rachel Gilroy

Source: National Center for Charitable Statistics
Map Sc3: Coffee Shops

Source: Google Map Search, 2016.

Sc3: COFFEE SHOPS
New Haven, CT - By Rachel Gilroy
Source: Gilroy, 2014
Map Sc4: Community Facilities

Legend
Community Services
- Library
- Private School
- Public School
- Police Substation
- Police Department Headquarters
- Yale Police Department Headquarters
- Fire Station
- Hospital

Legend:
- Health Centers
- Park
- Triangle
- Golf Course
- Other
  - Lake/River
  - Ocean
  - Swamp
- Neighborhood Boundary

COMPREHENSIVE PLAN UPDATE
City of New Haven, Connecticut
John DeStefano Jr., Mayor

ATTENTION: DISCLAIMER
This map is intended for illustrative and Community-Based Planning purposes. Every reasonable effort has been made to ensure the accuracy of the map and data provided; however, some information may not be accurate. The City of New Haven assumes no responsibility arising from the use of this information. No warranty is made by the City of New Haven as to the accuracy, reliability or completeness of these data for individual or aggregate use with other data. Original data compiled from various sources. Spatial information may not meet national map accuracy standards. This information may be updated without notification.
Map Sc5: Youth and Elder Services

Source: Google maps, 2016

Sc5: YOUTH AND ELDERLY SERVICES

New Haven, CT - By Rachel Gilroy

Source: National Center for Charitable Statistics
Cultural Vitality

*Map Cv1: Urban Institute: Cultural Vitality Indicators*

**LEGEND**
- A: ARTS, CULTURE & HUMANITIES
- A20: ARTS & CULTURE
- A30: MEDIA & COMMUNICATIONS
- A40: VISUAL ARTS
- A50: MUSEUMS
- A60: PERFORMING ARTS
- A70: HUMANITIES
- A80: HISTORICAL ORGANIZATIONS

**Cv1: CULTURAL VITALITY MAP**
New Haven, CT - By Rachel Gilroy
Source: Urban Institute Cultural Vitality Indicators and National Center for Charitable Statistics
The Urban Institute’s Art and Culture Indicator project (Jackson, M. R., 2003 & 2006) will be modeled (were relevant) in this project. The lure of utilizing the Urban Institute’s Arts and Culture Indicators Project (Jackson, M. R., 2006) was their fundamental goal was to help policymakers make more informed decisions for developing neighborhoods and cities in relationship to cultural vitality. ACIP’s 2003 definitions of art, culture, and creativity depend on the cultural values, preferences, and realities of residents and other stakeholders in a given community. Art, culture, and creativity at the neighborhood level include the cultural expressions of ethnic, racial, age, and special interest groups that may not be validated or adequately represented in mainstream cultural institutions. (Jackson, M. R., 2003)

In 2006 ACIP defines “cultural vitality as evidence of creating, disseminating, validating, and supporting arts and culture as a dimension of everyday life in communities.” (Jackson, M. R., 2006) They use this definition to guide their initial recommendation of arts and culture indicators. ACIP identify their framework in three parts: Presence, Participation and Support. These three will be explored by utilizing ACIP’s schema for sorting data for indicators of cultural vitality by usability- they specify four tiers:

- “Tier one refers to quantitative data that is publicly available, free or of minimal cost, collected at least annually, able to be disaggregated geographically to the Metropolitan Statistical Area (MSA) level or smaller, and nationally comparable. Examples include data from U.S. Census Bureau's County Business Patterns, the National Center for Charitable Statistics, and the Bureau of Labor Statistics. (Jackson, M. R., 2006)

These variables were pulled from the National Center for Charitable Statistics (NCCS) for tier one data:

- A: Arts, Culture & Humanities
Social Capital, Creativity and Cultural Vitality

- A20: Arts & Culture
- A30: Media & Communications
- A40: Visual Arts
- A50: Museums
- A60: Performing Arts
- A70: Humanities
- A80: Historical Organizations

These variables were pulled from the National Center for Charitable Statistics (NCCS) for tier one data.

- Tier two data are also quantitative, publicly available, free or virtually free, annually recurrent, and able to be disaggregated to at least the MSA level. However, they are not nationally comparable. Examples include administrative data about parades and festivals collected by police and other city departments, selected annual household surveys, and funding data collected in some places by the local arts agency or a foundation. (Jackson, M. R., 2006)

- Tier three data are also quantitative but come from sources that are either restricted to a single point in time or sporadic (i.e., not necessarily regular or covering the same material on each repetition).” (Jackson, M. R., 2006)

- Tier four data refer to qualitative or pre-quantitative documentation of phenomena of interest—often from anthropological and ethnographic studies of arts and culture in communities. (Jackson, M. R., 2006)

In this project the focus is on New Haven, Connecticut’s ACIP’s tier two data and tier three data was collected and incorporated into spatial and cluster data in GIS to recreate visual representation of their presence in the physical landscape. In Jackson, M. R. (2003) analysis of the impacts of arts, culture, and creative expression on communities they note that while it is not
been well documented there is strong suggestive evidence of the relationship of arts, culture, and creativity to neighborhood quality of life characteristics.” (Jackson, M. R., 2003 & 2006)

In reviewing the collection of tier three data ACIP recommends, but not limited to these items:

- Public expenditures in support of arts and cultural activities in both nonprofit and commercial sectors and what they support (e.g., presenting venues, public art, artists, amateur practice, cultural districts)

- Indirect support of arts—from sources not primarily concerned with the arts, such as education, parks and recreation, and economic development agencies

The tier three data bullets are discussed in more detail in the qualitative narrative, however, this framework the focus was on collecting data that could be spatially represented in GIS as noted in the above bullet items cultural vitality to incorporate social bonding and bridging capital, but were difficult to represent in GIS, however in the proposed design/programming this would be allowed to flourish to and become guiding design principles for development of neighborhoods that cultivates creativity to be added to the sustainability indicators. These variables identified by ACIP were discussed in the NHVP 2025 and it part of the guiding principles in the development of the proposed New Haven Public Space Systems Plan:

- “Strong advocates and networks of advocates for arts and culture within the cultural sector (e.g., presence of a strong, vocal, and persuasive arts council or activist artists)

- Strong advocates and networks of advocates for arts and culture outside the cultural sector (e.g., in education, economic development)

- Explicit public policies about arts and culture

- Integration of arts and culture into other policy areas (e.g., quality of life measurement systems or the general plan for the community or city)” (Jackson, M. R., 2006)
The maps added to aid in the development of place-based cultural vitality are New haven’s historic zones, landmarks, public and private greenspaces and NHVP 2025 current and proposed environmental systems map.

**Map Cv2: Historic Districts**

*About Local Historic Districts*

The legislation that enables municipal governments within the State of Connecticut to establish local historic districts specifies that the purpose in doing so is to “promote the educational, cultural, economic and general welfare of the public through the preservation and protection of the distinctive characteristics of buildings and places associated with the history of or indicative of a period or style of architecture of the municipality, of the state or of the nation.” Two-thirds of the voting property owners must indicate their support before an area may be designated a local historic district.

Local Historic Districts differ from National Register Historic Districts in that local districts provide greater protection for the designated properties. Once a local historic district is established, an historic district commission is appointed to review and act upon applications from property owners who wish to make exterior architectural changes.

*Property addresses for buildings within these districts may be found in the New Haven Land Records, Volume 2417, pages 769-766; Volume 2751, pages 29-32 and Volume 5842, pages 44-50, respectively.*

Source: [www.cityofnewhaven.com/CityPlan/pdfs/HistoricPreservation/LocalHistoricDistricts](http://www.cityofnewhaven.com/CityPlan/pdfs/HistoricPreservation/LocalHistoricDistricts)
Map Cv3: Landmarks

Source: Google Map Search, 2016.
Social Capital, Creativity and Cultural Vitality

Map Cv4: Public and Private Greenspaces

LEGEND

EXISTING NEIGHBORHOODS
PUBLIC GREENSPACE AND SLIVER LOTS
PRIVATE GREENSPACE
LAND TRUST
TRANSPORTATION

Cv4: GREENSPACE PUBLIC AND PRIVATE MAP
New Haven, CT - By Rachel Gilroy
Sources:
Transportation Map
Commercial District
Greenpace and Silver Lot Map
Map Cv5: NHVP 2025 Current & Proposed Environmental Systems

NEW HAVEN VISION 2025
CURRENT & PROPOSED ENVIRONMENTAL SYSTEMS

Legend:
- Existing Wetlands
- Existing Parks and Open Space
- Existing Coastal Area Management Boundary
- Existing 100 Year Flood Area
- Existing 500 Year Flood Area
- Proposed Areas for Coastal Resiliency Infrastructure

Scale: 0 - 5,000 Feet
Environment

*Map En1: NHVP 2025 Future Land Use Plan*
Map En2: Existing Zoning Map
Map En3: Transportation Analysis

En3: TRANSPORTATION ANALYSIS
New Haven, CT - By Rachel Gilroy

Legend:
- MAIN PATHWAYS
- MINOR PATHWAYS
Map En4: NHVP 2025 Greenway Trails
Map En5: NHVP 2025 Bike/Pedestrian Pathways

Note: Existing and proposed greenways and trails are mapped separately on the following page.
Economics

Map Ec1: NHVP 2025 Neighborhood Planning Opportunities
Map Ec2: NHVP 2025 Commercial & Industrial Concentrations
Map Ec3: Enterprise and Empowerment Zones

Legend:
- Original State Enterprise Zone
- 2000 Expansion of State Enterprise Zone
- Original State Enterprise Zone
- 2000 Expansion of State Enterprise Zone
- Empowerment Zones: Census Tracts 1402, 1403, 1405, 1406, 1407, 1413, 1415, 1416, 1421, 1423
- Developable Sites

Ec3: STATE ENTERPRISE & FEDERAL EMPOWERMENT COMPILED
New Haven, CT - By Rachel Gilroy
Source: State and Federal designated areas
Map Ec4: Education System

Legend

- New Haven Public Schools
Map Ec5: CARE Neighborhoods / Health Facilities

New Haven Health Survey

- 6 neighborhoods
  - Dixwell, East Haven, Hill North, Newhallville, West River/Dwight and West Rock/Vest-Hills
- 20 interviewers from New Haven community
- 2,000+ doors randomly selected & knocked upon
- 73% of those approached agreed to participate
- 1,298 surveys completed
Qualitative Data: New Haven Ethnography Study

The city of New Haven offers a unique set of parameters for exploring the relationship between neighborhood participatory design process and neighborhood design. The city of New Haven has a Board of thirty Aldermen and twelve management teams that represent the New Haven neighborhoods. These key neighborhood representatives, the NHVP 2025, and various neighborhoods is where the ethnography development imitated its process of collecting information. Ethnography is the study of people and cultures. It is designed to represent graphically and in writing the culture of a group. In this study photographs, interviews, new haven planning documents along with New Haven data is utilized to understand the story of this city.

Under the influence of Community Design Primer, Hester recommends a twelve step process that actively engages the residents. The community process includes three essential ways for designer and community to engage through knowing, understanding and caring. The first six were applied in this study:

1. Listening: Place Knowing
2. Setting Goals: Place Knowing
3. Mapping and Inventory: Place Knowing and Place Understanding
4. Introducing The Community to Itself: Place Knowing and Place Understanding
5. Getting A Gestalt: Place Understanding and Place Caring
The beginning ethnography documentation intention was to promote neighborhood(s) specific planning aimed at revitalizing neighborhoods based on history, character, and demographic make-up as opposed to a one-size fits all approach. The NHVP 2025 encourages neighborhoods to form central cores of their own (non-profit development corporations) and the proposed public space system plan promotes social integration among neighborhoods through physical connectivity and public space-making, and by offering opportunities for neighborhood community interactions and creativity. The proposed Prioritization Factors for Public Space Systems Design maps are geared towards aiding in the revitalization of New Haven neighborhood areas because it recognizes the gradual and subtle shifting in neighborhoods to include neighborhood collaboration called tactical urbanism. Tactical urbanism is a concept that allows neighborhoods to change over time suggesting a dynamic, mutable, open-ended public spaces rather than a static, standardized approach. This framework is a tool to increase planning coordination among various city departments such as Housing Authority of New Haven, City Plan, Engineering, Economic Development, and neighborhood resident leaders. Furthermore, it negates the designing out of fear like the Crime Prevention through Environmental Design (CPTED), but out of the tried and true design values that come to fruition when design and policy making are intentional about their goals.
NHVP 2025 Community Survey

The purpose of the survey was to help the City of New Haven’s staff prioritize their planning efforts. The NHVP 2025 survey methodology is listed below:

- Postcards
- Partnership with local libraries, City of New Haven Office of Communications, Board of Aldermen, Commission on Equal Opportunities, CMT chairs, neighborhood specialists, local non-profits and other advocacy groups
- Media outreach through Mayor’s Newsletter, local media, Facebook, Twitter, emails, etc
- Volunteer-distributed paper surveys
- Materials in both English & Spanish

The survey was broken down into (6) categories:

A. General Planning and Design
B. Housing and Economic Development
C. Transportation
D. Environment
E. Community Facilities & Services
F. Zoning and Neighborhood Character

The highest level of support was for neighborhood based planning. Total responses were 917 of which 854 were resident responses. 840 were categorized into neighborhoods. The neighborhoods below were
broken down into low-income, moderate-income and middle to high income using DataHaven numbers. They are bulleted below:

- Low-income neighborhoods: 291 (35%) Neighborhoods included (Total 10): Cedar Hill, Dixwell, Dwight, Fair Haven, Hill North, Hill South, Newhallville, West River, West Rock, Long Wharf (only 1 person)

- Moderate-income neighborhoods: 242 (29%) Neighborhoods included (Total 9): Amity, Annex, Beaver Hills, City Point, Downtown, Edgewood, Fair Haven Heights, Quinnipiac Meadows, Wooster Square/Mill River

- Middle-to high-income neighborhoods: 306 (36%) Neighborhoods included (Total 4): East Rock, East Shore, Westville, Prospect Hill

Note the results of the NHVP 2025 survey response is a 40 page PowerPoint with results and graphs, but this one stood out in relation to this thesis: 70% percent of respondents noted “arts and entertainment facilities, presence of major institutions, restaurants and cafes” as the strengths of New Haven. (See Appendix C )

**Ethnography and multi-scalar approach**

The *New Haven Vision 2025 plan* was reviewed and analyzed for elements to incorporate into the goals of building social capital and place-based cultural vitality in public spaces. In the executive summary the focus of the city noted that it is promoting strategic neighborhood-based planning efforts to reinforce or strengthen the sense of place and distinct identity for each neighborhood. (NHVP - 2025, 2014)
The New Haven Vision Plan 2025 (NHVP 2025) Economic Development plan states that the New Haven region’s main areas of economic focus are in health care, education, biotechnology and biomedical research. The NHVP 2025 overarching vision is for New Haven to be a major hub of knowledge and innovation. Is the NHVP 2025 also notes that New Haven has the largest concentration of arts and entertainment. This is also noted in the *Urban Institute: Cultural vitality in communities: Interpretation and indicators* that New Haven is 2nd to Hartford, Connecticut in regard to the concentration of cultural vitality. (Jackson, M. R., 2006)

*This thesis advocates strongly that New Haven encourage the arts not only as entertainment, but as a key component that is needed for creative energy for innovation.*

This type of capital would build and encourage an all-inclusive economy by encouraging neighborhood-based economic development initiatives. These would take into consideration neighborhoods’ individual assets and opportunities for district collaboration suggested in the NHVP 2025 and proposed in more detail with this New Haven Public Space Systems Plan. The thesis claims that a creativity and innovation is related to social capital and that this plan should be incorporated into the NHVP 2025. As noted earlier the theory is that this will increase the probability of tacit knowledge exchange amongst a broader diverse group of people to include the young and old alike.

**CARE Community Survey 2012**

(See Appendix D)
Common Ground High School: What Matters is the Dream...

To meet the goal of encouraging individual creativity within the social public space that allows for tacit knowledge to be collected and exchanged not only within the individual, but also in the individual's social and physical public space will require developing community programming interventions within the public landscape. This can be accomplished by envisioning these interventions in relation to social capital and cultural vitality.

One way of getting a community to define

See Appendix E: Lesson Plan: Perception of Place. (Gilroy, 2013)
sustainability within their own unique social, regional, and site context as it applies to the design and programming of public space and private space interface is a type of emergence community participatory process. This collaborative art was done at Common Ground High School, New Haven, CT and it was called *common ground: what matters is the dream*. This project was a collaborative effort within the Common Ground community and the school’s annual Mix It Up Day to explore how students think and see ecologically the word sustainability. A national campaign launched by Teaching Tolerance in 2002, Mix It Up at Lunch Day encourages students to identify, question and cross social boundaries. The goal of Common Ground’s Mix It Up Day was to cross social boundaries (social bridging) and literally SEE common ground in each of our differences. The resulting visual expressions reveal connections within Common Ground and between the school and its surrounding communities to include a visual expression of how social bonding/bridging and cultural vitality is visualized. (See video: https://youtu.be/p2k_rWQniVI )

As a result of this work a lesson plan called in collaboration with the *Nature Conservancy* this concept was solidified in *the Nature conservancy: Anthology of Best Practices in Urban Environmental Education* compilation of lessons plans for urban environments.

(See Appendix E)

The lesson I learned from this co-creative process with Common Ground Highs School students and staff is that sustainability is described best with this quote:

>“Sustainability is about more than just planting trees, curbside recycling and rescuing wildlife. It is about transforming politics and community development. Sustainability challenges assumptions surrounding prevailing orthodoxies or worldviews of economic
growth and materialist values and implies nothing less than a restructuring of our relationship to the planet and to all living things” ~Harmonious Living

Next Steps to Follow

The compilation of Urban Institute – Cultural Vitality Indicators, National Center for Charitable Statistics (NCCS) Bonding Social Capital, New Haven Vision Plan (NHVP) 2025, Existing New Haven Planning and Development Maps and Gilroy Original maps are analyzed in the following chapters to identify and prioritize areas for Sustainable Public Space Systems Design. The Sustainable Public Space Systems Plan determines areas of opportunity to increase cultural vitality and social bonding opportunities that will give fuel to creativity and innovation.
CHAPTER IV:

FINDINGS: CITY-WIDE PUBLIC SPACE SYSTEMS PLAN

“I do not want to avoid immersing myself in trouble — to be a mess — to struggle out of it. I want to invent, to discover, to imagine, to speculate, to improvise — to seize the hazardous in order to be inspired. I want to experience the manifestation of the absolute — the manifestation of the unexpected in an extreme and unique relation. I know that only by following my creative instincts in an act of creative destruction will I be able to find it.”

~ Hans Hofmann (Abstract Expressionist Painter)

In Community Design By Intricate Oppositions (Hester, 2007) the messy, creative integration of the seemingly opposing language of social and ecological geometry is employed to encourage community designers to think simultaneously across disciplines, at different scales, and at different modes. This thesis takes the perspective that community planning today shapes cities on the basis of 2D spatial languages translated into 3D forms, like Kevin Lynch’s nodes, paths, landmarks, edges and districts (Lynch, K., 1960), Ian McHarg’s overlay maps of natural systems (McHarg, I. L., & Mumford, L., 1969), Chris Alexander’s Pattern Language (Alexander, C., 1977).

With a focus on integrating the social and ecological geometries of the city through stronger prioritizing of social bonding and bridging capital, cultural vitality and creativity, the thesis findings are developed through a New Haven Public Space Systems Plan. The proposed plan is offered as an alternative or parallel vision to the previously described and illustrated New Haven Vision Plan 2025, enhancing the potential for interaction between members of the community, and defining new, integrative public space districts. Spatial clustering analysis methodology was applied to determine areas of opportunity to increase cultural vitality and social bonding/bridging that will give fuel to creativity and innovation. The overarching vision for the plan is based on
the theme of fostering synergies of art, science and innovation. The idea is that the city as a whole would adhere to this general theme, but it would become nuanced as the plan drills down to the district scale. The proposed city-wide plan builds a case for a systems thinking perspective that challenges the central place model and shifts towards a multi-scalar planning lens that sees the public space system as an interconnected high performance and multi-functional landscape versus single-use landscapes that perpetuate neighborhood divisions.

The prioritization factors is further developed with the analysis for network of possibilities found in intersecting districts, nodes and corridors upon analyzing and comparing the compiled social capital and cultural vitality information to these spatial data maps:

- CARE (6) Neighborhoods
- Smart Growth Map (Chrysochoou et al. 2011)
- Historic Map
- Greenspace, pedestrian walkways and trails and business districts map.
About Local Historic Districts

The legislation that enables municipal governments within the State of Connecticut to establish local historic districts specifies that the purpose in doing so is to "promote the educational, cultural, economic and general welfare of the public through the preservation and protection of the distinctive characteristics of buildings and places associated with the history or indicative of a period or style of architecture of the municipality, of the state or of the nation." Two-thirds of the voting property owners must indicate their support before an area may be designated a local historic district.

Local Historic Districts differ from National Register Historic Districts in that local districts provide greater protection for the designated properties. Once a local historic district is established, an historic district commission is appointed to review and act upon applications from property owners who wish to make exterior architectural changes.

* Property addresses for buildings within these districts may be found in the New Haven Land Records, Volume 2447, pages 753-756; Volume 2731, pages 29-32 and Volume 584, pages 44-59, respectively.

Source: www.cityofnewhaven.com/CityPlan/pdfs/HistoricPreservation/LocalHi

Cv2: HISTORIC DISTRICT PLAN

New Haven, CT - By Rachel Gilroy
GREENSPACE AND BUSINESS DISTRICT MAP

New Haven, CT - By Rachel Gilroy

Sources:
- Transportation Map
- Commercial District
- Greenspace and Sliver Lot Map
The spatial and cluster analysis mapping for selecting areas to cultivate cultural vitality and social capital were decided after overlaying these maps to the combined social capital and cultural vitality data collected in this research project. In addition, the Sustainable Public Space Systems Plan that follows combines green spaces, sliver lots, main transportation corridors, and key business corridors identified in the NHVP 2025 and the cluster analysis maps the identify social capital and cultural vitality.
The following neighborhoods are considered established by the NHVP 2025 and/or considered products of the central city model i.e; zoned residential only. The belief of this thesis is that ALL neighborhoods are seen and planned as if they have a symbiotic relationship with each. The seven proposed district areas above are considered key to developing the whole New Haven Public Space Systems Plan. In other words, to strengthen the nine neighborhoods below the seven districts above need to be considered critical to develop.

1. Westville
2. Beaver Hill
3. Yale
4. Prospect Hill (East Half)
5. East Rock
6. Wooster Square
7. Quinnipiac
8. Fair Haven Heights
9. Annex
10. East Shore/Morris Cove

The proposed New Haven Public Space Systems Plan is in line with New Haven’s Vision Plan 2025 in that it is encouraging neighborhoods to form central cores of their own (non-profit development corporations), promote social integration among neighborhoods through physical connectivity and by offering opportunities for neighborhood community interactions. These proposed public space districts were chosen based on the potential of neighborhood collaboration
aimed at mixing neighborhoods based on history, character, and demographic make-up as opposed to a one-size fits all approach.

The theory is that this systems thinking approach to public space planning will increase the probability of tacit knowledge exchange; i.e., creativity, and therefore increase New Haven’s social capital and placed-based cultural vitality. This type of capital would build and encourage environmental justice by encouraging neighborhood-based economic development initiatives that takes into consideration neighborhoods individual assets and opportunities for neighborhood collaboration that is expressed in their shared public space.

The NHVP 2025 had these guiding goals that were incorporated into the proposed districts below:

- Promote social integration among neighborhoods through physical connectivity and by offering adequate opportunities and neighborhood rec center facilities for community interaction. The Commission recommends more effective programming of current community-based facilities for community cohesion and recreation.
- Promote the revitalization of residential areas and neighborhood commercial districts in and around facilities included in the School Construction Program, including Lincoln Bassett School (West Newhallville), Wexler Grant School (Dixwell), Fair Haven K-8 School (lower Fair Haven), Truman School (Hill), and Barnard School (West River).
- Promote the revitalization of residential areas clustered around significant public spaces, including Trowbridge Square (potential local historic district), Jocelyn Square, Criscuolo Park, and job centers, including Science Park, SCSU, River Street, and Mill River.
• Encourage the development of dramatically new neighborhood forms as part of
  revitalization programs at select locations, including Farnam Courts, Belle Dock, Science
  Park, Long Wharf, Mill River, and Church Street South.
• Promote social integration among neighborhoods through physical connectivity by offering
  adequate opportunities for community activities.

Seven areas were identified through this analysis process that I propose as districts in the Public
Space System Design. These I call:

1. Newhallville, Dixwell, Prospect Hill – Art, Science and Technology
2. Wooster Square/Mill River Connection/Fair Haven – Art & Industrial Science
3. Edgewood, Dwight, Part of West River – Art & Wetland Science
4. Downtown to Hill to Water – Art & Medical Science
5. Waterfront: City point, Long Warf, Annex – Art & Nautical/Ocean Science
6. Amity – Art & Food Science
7. West Rock – Art & Environmental Science
Social Capital, Creativity and Cultural Vitality

ASSESTS
Science and Technology Park
CONNCAT
Community Gardens / Land Trust Lots
Elementary Schools
Historic African American Neighborhood
Farmington Cannel Trail to Yale and Hamden
Dixwell Ave / Winchester Ave
Faith Based / Gospel Music
Connection to Business Districts

1. Newhallville, Dixwell, Prospect Hill - Art, Science and Technology (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NCUS, DataHaven and Google Map Information.
2. Wooster Square / Mill River Connection / fair haven - Art & Industrial Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NCCS, DataHaven and Google Map Information.
ASSESTS
Close to Downtown and Yale
Parks and Bikeways
Whalley Ave and Dixwell Ave
Community Gardens
Businesses and Restaurants

3. Edgewood, Dwight, Part of West River - Art & Wetland Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NCCS, Datahaven and Google Map Information.
4. Downtown to Hill to Water - Art & Medical Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy

Source: City of New Haven Maps, NCC, DataHaven and Google Map Information.
5. Waterfront: City Point, Long Warf, Annex - Art & Nautical/Ocean Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NCCS, Datataven and Google Map Information.
6. Amity - Art and Food Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NCCN, DataHaven and Google Map Information.
ASSESSIS

Southern University

West Rock Park/Environmental Center

7. West Rock - Art & Environmental Science (Meso/Macro Level)

New Haven, CT - By Rachel Gilroy
Source: City of New Haven Maps, NUCS, DataHaven and Google Map Information.
Next Steps

The NHVP 2025 goals to be incorporated to ALL districts are:

- Connect Proposed District’s to NHVP 2025 Districts. (Mill River District Plan, Hill-to-Downtown Community Plan, Downtown Crossing (Phase IV) and Redeveloping route 34)
- Encourage collaboration with Housing, New Haven Preservation Trust, State Historic Preservation Office, and other stakeholders to incorporate (not limited to only) historic themes
- Enhance physical and social connectivity among neighborhoods. Promote revitalization of all of the existing business corridors in the city.
- Reinforce the city’s position as a world-class destination for arts, cultural, and entertainment events.

To realize the numerous nuances of the goals in the survey response to the NHVP 2025 (See Appendix C) at the district scale means a collaboration of perspective. This leans towards a public space system plan with districts that utilize the fish-scale model. This will be explored in depth following the simple break down of one proposed district. District #1 Newhallville, Dixwell, Prospect Hill – Art, Science and Technology district will follow in the next chapter.
CHAPTER V

DISCUSSION: DISTRICT-SCALE IMPLICATIONS

“In great cities, spaces as well as places are designed and built: walking, witnessing, being in public, are as much part of the design and purpose as is being inside to eat, sleep, make shoes or love or music. The word citizen has to do with cities, and the ideal city is organized around citizenship -- around participation in public life.”

~ Rebecca Solnit, (American Author)

Charles and Ray Eames, a husband and wife filmmaking team, explored *The long zoom* (Figure 22 The long zoom) in which the viewer’s perspective is challenged and examined from viewing far away to very close. (Johnson, S. 2006). It is an incredibly difficult way of thinking, primarily because our brains are not evolved to hold multiple-scale perspectives simultaneously.

*Sustainable Site Design* (Dinep, C., & Schwab, K., 2010), discusses this scale shift perspective in the physical landscape and describes the site as a piece of a larger context and advocates for designing the site with the context of the surrounding bigger context in mind.

In creating the New Haven public space system plan and its components it is important to remember that it is designed to evolve the central place theory by using the perspective of the multil-scalar perception. In the case of sustainable site design and planning, it is important recall that this systems plan is about creatively looking, finding and articulating the creative methods for redesigning for expression of the central place network model. It is not about destroying the existing pattern, but shifting the landscape – Pentimento.
These programming elements are geared to meet the NHVP 2025 goals to reinforce the city’s position as a world-class destination for arts, cultural, science and innovation and the goals of this thesis to develop a focus on the concepts of social capital, cultural vitality, and creativity to form a framework for planning and design of the public physical landscape in urban communities. The public space realm was chosen because there is research that notes the role of implicit learning and tacit knowledge is critical in innovation, creativity and building social capital. The program elements below are chosen to exemplify the multi-scalar perspective in the New Haven proposed district design and programming. These program elements at macro level are:

- Brand STEAM identity
- Create a strong visual theme using STEAM (Science, Technology, Engineering, Arts and Math)
- Establish visual ties—Interactive STEAM throughout a complex New Haven, CT
- Create Way-finding Systems
- Delineate Interactive STEAM Exhibits/Spaces
- Create outdoor classrooms for public use from pre-k to university level

The district to follow as an example of “zooming in” (Johnson, S. 2006) is district #1: Newhallville, Dixwell, Prospect Hill – Art, Science and Technology
QUANTITATIVE DATA: DISTRICT #1

The quantitative data used for the development of district #1: Newhallville, Dixwell, Prospect Hill – Art, Science and Technology, as discussed, initially started in the macro level. Once the districts where chosen this information was used in the decision making. They are DataHaven: 2014 New Haven Neighborhood Estimates (See Appendix F), CARE’s Dixwell, and Newhallville data, (See Appendix G) and the prioritization factors collected and analyzed in the prior chapter will now be utilized at the neighborhood level.

DataHaven: 2014 New Haven Neighborhoods in numbers

This neighborhood contains residences, buildings owned by neighboring universities to include the Science Hill area and the Yale Peabody Museum. Prospect Street is the main corridor in this neighborhood. In addition, this neighborhood is part of the New Haven Historic Districts. This includes Prospect Hill Historic District, Hillhouse Avenue Historic District, and Downtown New Haven (south of Science Hill), and part of Edgerton Park. Included in this historic district is a row of houses on the west side of the Whitney Avenue which is considered part of the historic district of East Rock neighborhood.

The Prospect Hill Historic District is significant for its historic value and affiliations that is a large part of this neighborhood. The affiliations that hold interested for this thesis is the potential for social equity to intersect. These affiliations are:

- The John M. Davies House and home to Yale University's international initiatives.
- The Othniel C. Marsh House, (designated a National Historic Landmark) one of the first building for the Yale School of Forestry & Environmental Studies
- Connecticut Agricultural Experiment Station, the first agricultural experiment station in Connecticut (also designated as a National Historic Landmark)

DataHaven: 2014 New Haven Neighborhood Estimates (Appendix F) was reviewed to aid in having a better understanding of the demographics. The snippets below are maps created by DataHaven’s data resources and represent Prospect Hill Neighborhood which is considered to be established according to NHVP 2025.
### Social Capital, Creativity and Cultural Vitality

#### Poverty

<table>
<thead>
<tr>
<th>Description</th>
<th>Population</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Population for whom poverty status is determined</td>
<td>3473</td>
<td></td>
</tr>
<tr>
<td>Income below 100% of poverty level</td>
<td>603</td>
<td>17%</td>
</tr>
<tr>
<td>Income below 200% of poverty level</td>
<td>1133</td>
<td>33%</td>
</tr>
<tr>
<td>Income above 100% of poverty level</td>
<td>2320</td>
<td>67%</td>
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<tr>
<td><strong>Not Low Income Population</strong></td>
<td></td>
<td></td>
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<tr>
<td>Population for whom poverty status is determined: Under 5 years</td>
<td>319</td>
<td></td>
</tr>
<tr>
<td>Income below poverty level: Under 5 years</td>
<td>23</td>
<td>7%</td>
</tr>
<tr>
<td>Population for whom poverty status is determined: Under 18 years</td>
<td>735</td>
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<tr>
<td>Income below poverty level: Under 18 years</td>
<td>54</td>
<td>7%</td>
</tr>
<tr>
<td>Population for whom poverty status is determined: 65 years and over</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Income below poverty level: 65 years and over</td>
<td>33</td>
<td>8%</td>
</tr>
<tr>
<td>Families</td>
<td>822</td>
<td></td>
</tr>
<tr>
<td>Families: Income in the past year below poverty level</td>
<td>74</td>
<td>9%</td>
</tr>
</tbody>
</table>

#### Housing Cost Burden, for owner occupied housing units

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost-Burdened Homeowners</th>
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<tr>
<td>Owner occupied housing units</td>
<td>415</td>
</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 30% or more</td>
<td>112, 27%</td>
</tr>
<tr>
<td>Severe Homeowner Cost Burden</td>
<td>84, 20%</td>
</tr>
</tbody>
</table>

#### Housing Cost Burden, for renter occupied housing units

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<tr>
<th>Description</th>
<th>Cost-Burdened Renters</th>
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</thead>
<tbody>
<tr>
<td>Renter occupied housing units</td>
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<tr>
<td>Renter occupied housing units, Gross rent as a percentage of household income, 30% or more</td>
<td>637, 38%</td>
</tr>
<tr>
<td>Severe Renter Cost Burden</td>
<td>318, 28%</td>
</tr>
</tbody>
</table>

#### Housing Cost Burden, for all households

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost-Burdened Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households</td>
<td>1219</td>
</tr>
<tr>
<td>All households paying 30% of income for housing</td>
<td>748, 49%</td>
</tr>
<tr>
<td>Severe Household Cost Burden</td>
<td>402, 26%</td>
</tr>
</tbody>
</table>
Prioritization Factors for Sustainable Public Space Systems
QUALITATIVE DATA: NEIGHBORHOOD PLACEMAKING

Once home to several industries, the Newhallville/Dixwell neighborhood is now almost entirely residential with a significant commercial corridor along Dixwell Avenue. The route of the Farmington Canal runs through the middle of the neighborhood. The former Winchester Repeating Arms factory complex in Newhallville occupies 75 acres in the neighborhood. It is now the site of Science Park at Yale, an initiative started in 1981 by Yale University, the City of New Haven, and the Olin Corporation to utilize and redevelop the sites and buildings where the former Winchester Repeating Arms factory was once located. The southern part of the neighborhood (south of Hazel and Highland streets) and the northern part of the adjacent Dixwell neighborhood are listed on the National Register of Historic Places as the Winchester Repeating Arms Company Historic District, bounded on the south by Charles, Admiral, and Sachem streets.

The following qualitative data was collected through interviews, documentary photography and CARE survey.

Story-Telling Via Interviews

The strategy employed in the process of gather information through open ended questioning was to use these underlining guiding affirmations:

- Recognize stakeholder needs that differ between public and private projects.
- Communicate clearly and listen to participants
- Determine each stakeholder's sustainability needs for the project.
- Determine how stakeholders feel about the existing conditions of the project site (scary, like, larger context of site, identify general issues (safety, health, ethnic culture.)
Social Capital, Creativity and Cultural Vitality

- Strategies for identifying different variables to people connected to the chosen site and creating space to have conversation.

To make sure that a diversity of voices was taken into account a flow chart was created of key players who are invested these neighborhoods. (See Appendix D New Haven Flow Chart)

The Farmington Canal Heritage Trail, also known as the New Haven and Northampton Canal, was a major private canal built in the early 19th century to provide water transportation from New Haven into the interior of Connecticut, Massachusetts and beyond. The trail runs along abandoned rail corridors and canal towpaths through urban, suburban and rural areas of Southern Connecticut and the Farmington Valley. Though described as a “multi-use trail” – the landscape corridor itself is not multi-functional, but limited to the pathway function which accommodates walkers, hikers, bikers, and other non-motorized modes of travel. Along the way are historic buildings, canal locks, the remains of canal aqueducts and other landmarks that provide a rich cultural background for the trail experience. The New Haven to Simsbury, CT section of the Farmington Canal Heritage Trail (FCHT), comprises the route of the East Coast Green Way (ECG) for about 45 miles. This dovetails into the overall 80 mile FCHT trail connecting Long Island Sound to Northampton, MA. In 2008, the gap sections between Hamden and Yale University through New Haven’s Newhallville neighborhood (approx. 3.6 mi), was completed.

Despite mixed reviews; the trail is utilized on various occasions, for instance, “Harriet Tubman Inspires A Women’s Trek On The Canal Trail”, written by Ariela Martin in the New Haven Independent, March 11, 2013. This was the 100th anniversary of Harriet Tubman’s mark on the world. African-American woman took the walk through an event called GirlTrek. GirlTrek is a “national nonprofit organization whose goal is to encourage women of color to
improve their health by moving, “said New Haven’s walk organizer Mubarakah Ibrahim, founder of Balance Fitness.

Furthermore, throughout this inquiry process these elements were common throughout ALL that were interviewed. These are:

- The physical environment is important to community self-image.
- Health is positively impacted with opportunities for active living.
- Public safety is positively impacted by creating and maintaining connective, permeable and visible public spaces
- Public landscape and Open space can fulfill human ecosystem services and raise economic value
- Successful public space are the product of community vision and social investment

**CARE Neighborhood Survey**

In 2009, The Community Alliance for Research and Engagement (C.A.R.E), a partnership between the New Haven community and the Yale School of Public Health conducted an initial health survey in six of the lowest resource neighborhoods in New Haven, CT.

Newhallville/Dixwell Neighborhood was included in their initial research and their second survey conducted in 2012. The residents answered questions about their health, diet, exercise, smoking habits, social support, and neighborhood safety. The full New Haven health survey overall findings for 2012, Newhallville/Dixwell community report and asset mapping can be found attached to this feasibility study.
In brief, the 2012 survey, residents gave suggestions for making neighborhoods healthier, including:

- More options for recreation, including low-cost indoor space like gyms or community centers for sports and exercising
- Safer and cleaner streets
- More access to affordable healthy food options— at grocery stores and corner stores and by having more community gardens and farmers’ markets. (C.A.R.E. 2013)

In conclusion, the juxtaposition of Newhallville/Dixwell Neighborhood history, present condition and access to resources, Newhallville’s Farmington Canal Trail segment to include “trail bike culture”, C.A.R.E ’s survey findings ( Appendix F ) and residents feedback sets the stage for the exploration of multi-functional landscape framework through community involvement in the design of place making; as the second tier to considered for future opportunities and relationships that can develop when seeing this trail segment as a resource.

Cultivating awareness together and having the hard conversations around similarities and differences, i.e. race, ethnicity, culture, socioeconomic class in relation to the treatment and the value of our natural ecosystem is what Halprin and Hester did well. Furthermore, to incorporate our community members into the adaptive design process by storytelling, i.e.; history shared by their elders, space for community members to speak about their local environmental history, seminars and lecturers sharing their “environmental” experience that makes the content relevant to their locality should be reflected upon in the development process of this community design programming.
Documentary Photography

The proposed nodes and pathways were reviewed and documented, by photographs and key areas were noted into the Sustainable Public Space Systems Plan.

Site Setting Photographic Log

21. Ivy Intersection / North Towards Hamden

22. Ivy Intersection / South Towards Yale

UCONN Landscape Architecture Program / Community Research and Design Collaborative Program Feasibility Study
District Placemaking

The end goal is to transform a neighborhood/district landscape by linking its interior and exterior corridor connections. In *Language of Vision* it discusses ways of seeing spatial unity and that it as a whole the behavior of which is not determined by that of its individual components, but where the parts themselves are determined by the intrinsic nature of the whole (Kepes, G., 1995). For this to work in our communities we need to learn the art of interdependence. The concept for Newhallville, Dixwell, Prospect Hill – Art, Science and Technology District includes the adult’s model collaboration and the students learn from joining into meaningful experiences. The more the entire neighborhood community gets involved the more likely that all the constituents are able to have success in their goals. Extending communities beyond schools, beyond the baby-boomers and millennials benefits everyone. Students can relate to community better by seeing it through the eyes of the people who live and work there sharing their intrinsic knowledge. As studies show (Affolter, F.W., 2004, Alsup, R. E., 2009, Campbell, D. T., 1969, Diliello, T., Houghton, J., & Dawley, D., 2011.) students and adults have a greater incentive to learn when their actions matter to others. The central network model becomes an expression of relationships. The neighborhood goes beyond learning for youths only, but becomes an environment for creative class expression that is inclusive and defined and support by the design of the zoning district. The community adults and elders become the curriculum creators not only for the youth, but for the design of the goals of the district/neighborhood.

The questions of how to design for this expression is a difficult one, but in the concept that follows is an expression of what I imagine Newhallville, Dixwell, Prospect Hill – Art, Science and Technology District might have looked like if this thesis had unlimited funds.
DISTRICT #1 PROPOSED CONCEPT

PROPOSE DESIGN INTERVENTION AT NODES. POSSIBLE IDEAS:

Outdoor Classrooms/Social Circle - STORYTELLING
Newhallville Neighborhood Farmington Canal Heritage Trail/ Greenway

Zone C: Bassett to Hamden, CT

Potential Visual and Physical Linkage: Example--Sunken Cafe
Conclusion

What would it look like if we evolved past a central planning concept and imagined land planning that enabled community members to envision their community and become their own planners and designers of their neighborhoods? In the macro and micro scales of physical landscape the physical representation of sustainable design needs to address social stratification and bring the sociological perspective of class, race, gender and age to the design table if there is to be social equity. This study explores alternative methods of developing multi-functional and sustainable landscapes within an existing urban corridor. The Prioritization Factors for Public Space Systems Design maps used to determine The New Haven Public Space Systems Plan. The Public Space Systems Plan determines areas of opportunity to increase cultural vitality and social capital opportunities that will give fuel to creativity and innovation New Haven, CT.

One visual aid is to review the constructivist genre and the work of Kandinsky. (Figure 9: Kandinsky, 1923 – On White II (Kandinsky, W., & Rebay, H., 1947) He describes his work as, “It is not the individual point lines and planes that make his work come alive on the canvas, but the tension-strengths that live between and in relation to the forms. If tensions were to disappear, the living piece of art would disappear too.” (Kandinsky, 1947) In other words and reiterated from the beginning of this paper -- the negative space, the public space, the intersections between districts, nodes and corridors. Now imagine the network of possibilities and recall Pentimento is not about erasing the canvas and starting a new painting, but instead shows the subtle shifts in thought and form. It is a refining process the artist takes while leaving a trail of clues. In land design the clues involve history, specifically, history of zoning policy. These clues are important to the artist because they are a reflection of where the thought had been to the future decision assisting in the “coming to terms” with “the problem” that the artist has set for him or herself to solve.
As noted the canvas, much like communities, is a support base surface and like paintings communities are a mode of creative expression, and the forms and systems are numerous too neighborhood communities are an expression of their support systems. policy and regulations past is sorted in its impact on community. In some cases it has been used to protect the health and welfare of the great painting of our time is to capture the complexity of the dawning of the sustainability era. The rapid technological advances, the economic instability, the uniting of global affairs reflect the ever shrinking planet earth. There is an ever steady shifting of the canvas towards innovative connected development. This endeavor will require developing an awareness of the difference between interdependence verses independence in the palette that is chosen to form the relevant expression of space to the problem that has been set. John Dewey noted this disconnection when he takes the perspective of a child and notes:

“the knowledge wasted in the school environment comes from the students inability to utilize the experience they gets outside the school in any complete and free way within the school itself; while, on the other hand, they are unable to apply in daily life what they are learning at school.” (Dewey, J., 1990)

This shouldn’t be a surprising concept to understand in our capitalist society because business models geared towards harnessing creativity and developing innovation discuss the same issues as being the ingredients to be successful -- social capital, creativity and place-based cultural vitality.
REFERENCES


REFERENCES


REFERENCES


REFERENCES


Han, M. (2010). How can creativity in a social context be possible? *Culture & Psychology*, 16(2), 165173. doi:10.1177/1354067X10361401


REFERENCES


REFERENCES


REFERENCES


APPENDIX

APPENDIX A: THE SUSTAINABLE SCHOOLS PROJECT ..................................................... 144
APPENDIX B: PERCEPTION OF PLACE ........................................................................... 146
APPENDIX C: NHVP 2025 COMMUNITY SURVEY ....................................................... 152
APPENDIX D: CARE COMMUNITY SURVEY ................................................................ 192
APPENDIX E: WHAT MATTERS IS THE DREAM .............................................................. 196
APPENDIX G: CARE’S DIXWELL, AND NEWHALLVILLE DATA .................................... 215
### The Big Ideas of Sustainability & Essential Questions

<table>
<thead>
<tr>
<th>BIG IDEA</th>
<th>ESSENTIAL QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community:</strong> a group of living and non-</td>
<td>• What is a community?</td>
</tr>
<tr>
<td>living things sharing a common purpose or</td>
<td>• What is our community made of?</td>
</tr>
<tr>
<td>space.</td>
<td>• How can we help our community?</td>
</tr>
<tr>
<td></td>
<td>• What makes a sustainable community?</td>
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<td>• What is your responsibility to the community?</td>
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<td></td>
<td>• Who lives in our human and natural communities?</td>
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<td><strong>Systems:</strong> parts that are connected</td>
<td>• What is our community made of?</td>
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<tr>
<td>through larger patterns.</td>
<td>• What role do economics play in shaping our world?</td>
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<td></td>
<td>• What is a system?</td>
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<td>• What systems are you a part of?</td>
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<td></td>
<td>• How does change happen in a system?</td>
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<td>• How do systems and changes in systems affect you?</td>
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<td></td>
<td>• How do you affect and make changes in systems?</td>
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<td></td>
<td>• What patterns can we find in our community?</td>
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<td><strong>Diversity:</strong> all systems and places</td>
<td>• In what ways is human diversity related to bio-diversity?</td>
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<td>function because of variety.</td>
<td>• What makes a place diverse?</td>
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<td>• How does the diversity of a system affect its health?</td>
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<td></td>
<td>• What is our community made of?</td>
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<td>• Why is diversity important?</td>
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<td><strong>Interdependence:</strong> all living things</td>
<td>• How do our choices affect us, our community, and the world?</td>
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<tr>
<td>connected. Every organism, system, and place</td>
<td>• How are human and natural systems interrelated?</td>
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<td>depends on others.</td>
<td>• What can communities learn from natural systems to improve our common future?</td>
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<tr>
<td></td>
<td>• In what ways do you depend on others?</td>
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<td></td>
<td>• In what ways do you depend on natural systems?</td>
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<tr>
<td></td>
<td>• How are we all connected?</td>
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<td></td>
<td>• Who or what depends on you?</td>
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<td><strong>Equilibrium:</strong> a state of balance.</td>
<td>• Why do animals or humans move from place to place?</td>
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<td>• What makes a system balanced? What throws off its balance?</td>
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<td>• How do systems achieve equilibrium?</td>
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<td>• What happens in a system when it is out of balance?</td>
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<td></td>
<td>• What is the relationship between diversity and equilibrium?</td>
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<td>• What happens when you or your community is out of balance?</td>
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<tr>
<td>BIG IDEA</td>
<td>ESSENTIAL QUESTIONS</td>
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<td>--------------------------------------------------------------------------</td>
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| **Cycles:** every organism and every system goes through different stages. | - What cycles can we find in our community?  
- In what ways do we impact cycles?  
- What cycles are we a part of?  
- What and how are cycles related to one another? |
| **Change over time:** all organisms, places, and systems are constantly changing. | - What can we learn from the past?  
- Whose story is it?  
- How do living things adapt to changes in their environment?  
- How do we shape the land? How does the land shape us?  
- How has our community changed over time?  
- How have you changed over time? |
| **Limits:** every system has a carrying capacity                          | - Why do living things move from place to place?  
- Who decides what limits something?  
- What determines limits in the natural world? In economic systems? In social systems?  
- What happens when a system reaches its limits? |
| **Fairness / Equity:** resources need to be shared to meet the needs of living things—across places and generations. | - Who decides what is fair or equitable? Who should decide?  
- What is the difference between fairness and equity?  
- How should we balance the rights of individuals with the common good?  
- What determines value?  
- Is there a difference between wants and needs?  
- What happens in a system when resources are limited?  
- What happens when resources are inequitably allocated?  
- Why is it important to think about the future? |
| **Place:** natural and human communities together make up one’s place.    | - How are we shaped by the land? How do we shape the land?  
- How do humans and the natural world interact?  
- How does where we live impact how we live?  
- How are people connected to the past?  
- What stories are here?  
- What makes up your place? Who makes up your place? |
| **Ability to make a difference:** everyone has the ability to change or impact a system, community, and themselves. | - How do our choices affect ourselves, our communities, and the world?  
- What is your responsibility to yourself, your community, and the world?  
- How can one individual make a difference?  
- How can a group of individuals make a difference?  
- What does it mean to be a citizen in our neighborhood?  
- What can you do to make change in a system? |
| **Long-term effects:** actions will have effects beyond immediate reactions. | - How do living things adapt to changes in their environment?  
- In what ways does how we live today impact how people live in the future?  
- What choices did our elders make that affect the way we live today?  
- How can we make choices to ensure a healthy future?  
- How do your actions impact the future of others? |
Social Capital, Creativity and Cultural Vitality

A LEAF Partner School
Common Ground is the nation’s first charter school focused on the urban environment, preparing students to become the next generation of environmental leaders. It is also a small college preparatory high school, helping students develop the skills and knowledge to succeed after graduation. It emphasizes Environmental Understanding, College Preparation and Academic Challenge, Extended Learning and Leadership, and Active, Authentic Learning.

www.nhep.com

Perception of Place
Rachel Gilroy
Environmental Science, Social Studies, Writing, Art

OVERVIEW
This lesson focuses on asking the essential questions: What is sustainability? How can cities be sustainable? This lesson asks students to consider the question, Why do people perceive places in different ways? as the students explore urban ecology and develop creative paths to urban sustainability. The task requires systems thinking and an awareness of the interconnectedness of environment, society, economy and cultural vitality. Students will also discover that building the definition of sustainability requires a consensus among all community members as they create it.

OBJECTIVES
Students will:
1. Define sustainability and the context of the word.
2. Create a relationship with the local community around sustainability.
3. Investigate what it means for a city to be sustainable.
4. Explore and evaluate what elements determine sustainability in the urban environment.
5. Share findings with peers.

GLOSSARY
Sustainability – “Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.” Source: http://www.epa.gov/sustainability/basicinfo.htm
MATERIALS AND RESOURCES

- Digital camera (phone cameras will suffice)
- Writing tools
- Notebooks or journals
- Laptops and Internet access
- Maps of your city (photocopies are fine – consider laminating)
- Digital projector

Helpful resources for background information

These articles provide an interesting context for what sustainability means and looks like in an urban context:


SETTING

High school classroom and your city/neighborhood, connection to another city/neighborhood/country.

TIME NEEDED

This will vary depending on how much time you can dedicate. It could be a weeklong project or could be expanded into a small unit allowing for more depth. Students should have at least one to two nights plus class time to complete their end piece.

BACKGROUND INFORMATION

In the design of this project, the challenge was scaffolding the words sustain and sustainability. The words require an understanding of the differences between interdependence and independence; i.e., systems thinking. In transforming an independent perspective into an interdependent view, we found strength in the co-creation process between staff and students. I went with the assumption that if I want “something” to sustain, to live on, to flourish, perhaps the core value of this desire correlates to love. Upon further reflection I thought of the developmental stages of a teenager; i.e., instead of focusing on purely environmental or economics perspectives
of the sustainability Venn diagram, I wanted to explore entering this concept through social and cultural vitality. I asked the students, “What do you love and what sustains you?” This lesson allows students to grasp a basic understanding of sustainability and how it relates to the urban environment.

**URAL RELEVANCE**

Contrary to common belief, urban systems can be more environmentally sustainable than rural or suburban living. With people and resources located so close to one another, it is possible to save energy through such systems as food transportation and mass transit. The urban environmental design process starts with trying to understand our sense of place, by considering the systems-thinking approach of urban communities, i.e., equity in relation to society, economics and the environment. This lesson pays respect to the complexities associated with creating the definition of the word **sustainability**, which means paying due attention to social equity and economics, to the arts and culture and, perhaps most important of all, to helping students develop this understanding into their definition of sustainability and connection to their urban natural environment.

**PROCEDURE**

**Before beginning this project, you will need to make a connection with students in another urban area.** One possible way to do this is by using Pais Global Community [http://www.epals.com/](http://www.epals.com/). This site allows teachers to “safely connect with classrooms around the world for collaborative, project-based learning.”

If you are not able to find a school to partner with, you can present a randomly generated list of 20 or so cities in the U.S. (go beyond the U.S. if you would like) for students to choose from (for a geography extension, have students do a mapping activity first to make sure they can identify where all of these cities are).

- Once you have made contact with a school and a teacher, explain the objective of this project at your school and that you would like to create a partnership to share information about your two cities so you can evaluate what makes a city sustainable and how your two cities match up on this front.

- Arrange for weekly check-ins and a method of communication: email, Skype, instant messaging, or maybe even a Facebook or Google Groups page dedicated to this project (be sure to check with your school regarding security in using social media). If you will be sharing files, consider setting up a Google Drive or a Dropbox account that both cities will have access to.

- Once you have arranged a partnership, students must record the name of the school, the teacher contact, the partner class and the city that school is in. They should also prepare a section of their notebook/journal dedicated to the interactions and communications that will take place with the partner school. *Suggestion* : Model the recordkeeping for students to help them with the organization of this task.

I. **Creating a student-driven context for “Sustainability”**

1. Write the word “sustainability” on the board. Ask the class to think quietly about the meaning of this word for 1 minute and to write their thoughts in their notebook or journal. (Hint: What does it mean
"to sustain"? Be sure to tell students that there are no wrong answers at this point, that this is more of a brainstorm activity. Everyone MUST write!

2. Have students “Think, Pair and Share” with a partner for 5 minutes and discuss what they think sustainability means. Partners share with class.

3. Chart student responses.

4. Share the “sustainability” definition found at the beginning of this lesson. This definition will need to be unpacked. Provide questions to drive thinking, such as:
   a) If city residents did not recycle, is that way of life sustainable? Why or why not?
   b) If every person who lived in a city drove a car in the city every day, is that way of life sustainable? Why or why not?
   c) If we know that eventually the earth will run out of oil, and car companies do not develop cars that use less fuel or alternative fuels, is that way of life sustainable? Why or why not?
   *Add more examples as needed.

5. Explain to students that in this project, they are going to be exploring the idea of sustainable cities. What does this mean? How can a city be sustainable or not sustainable? *Refer to examples from the articles in the Background Information section.

6. Discuss sustainability in urban areas:
   - Are cities sustainable? Why or why not? If not, can they be?
   - What elements of our city/neighborhood are sustainable? Why? Provide a minimum of 3 examples.

   *This may be difficult for students to do without some background. You could provide examples (such as green roofs or carpool lanes) and/or you could assign the article, Top Five Most Sustainable Cities in the World by Michael d’Estries. Be sure to include guiding questions and factor in class time to discuss the article. http://www.ecomagination.com/top-five-most-sustainable-cities-in-the-world

   Jigsaw the reading, breaking the class into five groups and assigning one city to each group to read about and report back to the class.

II. On Assignment

Instructions to students: Take pictures of what sustains you. (Relate back to the description in the “Background Information” section of this lesson: What evidence of sustainability have we seen in our own lives and community?

1. Load pictures onto classroom computer.
2. Discuss images as a group: Students categorize pictures, eliminate unwanted ones, choose highlights and explain why they chose the ones they did.
3. Using highlights, discuss/write: Why is each photo an example of sustainability?
4. Share images with partnered school and compare notes, ideas and explanation.
III. Sustainability In Our Partner City

Before undertaking this portion of the lesson, students must research the partner city to find out what, if any, sustainability actions have been taken (this should be done without judgment of the partner city – it is simply a fact-finding mission). This will take some guidance on research and should be modeled before students begin. If for example, the partner city is Oakland, Calif., how would students find out if this city is sustainable? How would they start? In general, a good place to start is to simply to enter “Oakland-sustainability” as a Google search. This will direct students to the site Sustainable Oakland http://www2.oaklandnet.com/Government/o/PWA/o/FE/s/SO/index.htm. Here, they will find out what Oakland is doing to be more sustainable. Similar sites exist for many cities.

Once students have researched the partner city, they must answer the following question:

- What evidence is there that this particular city has sustainable practices?

IV. On Assignment 2

Explain to students that they will be sustainability investigators in their neighborhood/city. Now that they know what sustainability means in general and in cities and have discussed/seen some examples of it in action, they will go out to see if they can find examples of it locally.

1. Give students a map of the city.

2. Explain to students that they will be looking for examples of sustainability (this works best as a HW assignment, but you can also arrange to take a “walking around the city/neighborhood” field trip).

3. When students see an example of sustainability, they must take a picture of it, describe it in their notebook and indicate on the map where it is.

4. Students categorize pictures, eliminate unwanted ones, choose highlights and explain why they chose the ones they did.

5. Students download their photos onto a computer and create a PowerPoint slide show of their findings. *Remind students to keep their slide show SIMPLE. Large photos and just a few words describing how they show a sustainable practice are all that is needed.

6. Students share their slide show with their classmates (slide shows should be no more than 2 minutes long).

7. Discuss images as a group. Why is each photo an example of sustainability? What are some similarities and differences in the photographs?

8. Share images with partnered school and compare notes, ideas and explanations.
Extension
1. Students write poems to accompany the images.
2. Ask other students to write poems to the images and compare the poems.
3. Research culture and cultural diversity as the fourth pillar of sustainability, using the following resource: http://www.cultureandcommunities.ca/downloads/Salons/Salon2-handout.pdf
4. Present findings using a Venn diagram.
5. Discuss what students have learned from this activity, and relate this new knowledge to a broader discussion of how defining “sustainable” can affect political situations. Are there any political debates in the United States that relate to this word?
Example Reading: Sustainability Comes of Age by Henry Fountain, New York Times http://www.nytimes.com/2010/01/03/education/03urbansustain.html
(Be sure to generate guiding questions for this or other articles students will read).

Extension 2
Often, the idea of the cycle of nature leaves out the impact humans have on that cycle. This lesson is intended to encourage students to think of themselves in that cycle and impacting that cycle. This extension activity poses the question, “How do humans/I fold into nature’s already sustainable systems?” Use this montage image from the New York Restoration Project’s sustainability workbook, “What’s Good in My Hood,” to stimulate a conversation around natural systems and human impact. When students explore this montage image, they should discuss and write a response to that driving question. They can refer to and incorporate elements of their writing from the previous portion of the lesson to further their thinking here.
COMPREHENSIVE PLAN UPDATE

Community Survey Responses

Survey conducted & analyzed by
New Haven City Plan Department, November 2013

City of New Haven, Connecticut
John DeStefano Jr, Mayor
I. Timeline of Comprehensive Plan Update

- Compilation of First Draft of Databook: May 2012 to December 2012
- Attendance at all of the Community Management Team (CMT) meetings for resident input on planning issues (Phase I of Public Outreach): January 2013 to May 2013
- Attendance at meetings of City boards and commissions, and civic and neighborhood associations: January 2013 to November 2013
- Online Community Feedback Survey: July 2013 to September 2013
- Analysis of Survey Results & Final Draft of Databook: September 2013 to November 2013
II. Survey Methodology

- Postcards
- Partnership with local libraries, City of New Haven Office of Communications, Board of Aldermen, Commission on Equal Opportunities, CMT chairs, neighborhood specialists, local nonprofits and other advocacy groups
- Media outreach through Mayor’s Newsletter, local media, Facebook, Twitter, emails, etc.
- Volunteer-distributed paper surveys

Materials in both English & Spanish
III. Overview of Response Rate

- Survey dates: **July 1, 2013 to September 2, 2013**

- Total responses: **917**

- Completed Responses: **741 (80%)**

- Resident Responses: **854 (93%)**
IV. Respondent Characteristics

- Total responses 917 of which 854 are resident responses. 840 are categorized into neighborhoods (Twelve residents were not categorized since they did not provide a full address)

- Low-income neighborhoods: 291 (35%)
  Neighborhoods included (Total 10): Cedar Hill, Dixwell, Dwight, Fair Haven, Hill North, Hill South, Newhallville, West River, West Rock, Long Wharf (only 1 person)

- Moderate-income neighborhoods: 242 (29%)
  Neighborhoods included (Total 9): Amity, Annex, Beaver Hills, City Point, Downtown, Edgewood, Fair Haven Heights, Quinnipiac Meadows, Wooster Square/Mill River

- Middle-to-high-income neighborhoods: 306 (36%)
  Neighborhoods included (Total 4): East Rock, East Shore, Westville, Prospect Hill

Low-income neighborhoods are those with poverty rate of roughly 36%; moderate income neighborhoods are those with poverty rate of is roughly 22% and middle- to high-income neighborhoods are those with poverty rate of roughly 12%.(Source: DataHaven). This income analysis helps in understanding the diversity of the survey sample and avoid bias in responses.
IV. Respondent Characteristics

Gender

I am:
Answered: 696  Skipped: 291

- Male
- Female
- Other

Length of Residency in New Haven

Answered: 855  Skipped: 62

- Less than 5 years
- 5-10 years
- 10-20 years
- More than 20 years

Respondent Age

Answered: 728  Skipped: 189

- Younger than 18 years
- Between 18 and 25 years of age
- Between 26 and 35 years of age
- Between 36 and 45 years of age
- Between 46 and 55 years of age
- Between 56 and 65 years of age
- Over 65 years

Attendance at a College or University in New Haven

Q3 Do you attend a college or university in New Haven?

Answered: 479  Skipped: 47

- Yes
- No
V. New Haven’s Strengths & Opportunities

More than 70 percent of respondents who answered this question mentioned arts and entertainment facilities, presence of major institutions, and restaurants and cafes as the strengths of New Haven!
V. New Haven’s Strengths & Opportunities

Other Comments by Respondents (40 Comments):

“I like that there are 30 wards so people can know their alderperson.”


“New Haven has improved a lot. There needs to be more activity, a bowling ally.”

“Size -- big enough that things are happening, but small enough that you can get to know the city.”

“These are strengths, but we expect much more in terms of strides to be made for traffic calming and safety.”

“New Haven’s stock of older houses is a great strength and adds character - but many of the neighborhoods need help maintaining them before they are lost - they are much better constructed than modern housing!”

“New Haven is a very livable city, easy to get around, we are the cultural capital of Connecticut.”

“New Haven Free Public Library. They show great independent films and I really appreciate the discussions afterward.”

“Diversity is one of our greatest strengths. The Arts & Ideas Festival! & Farmers' Markets.”

“Population density makes walking and biking worthwhile.”

“Our strength is our potential. We need to create a livable city in which people can enjoy all the existing benefits we have.”
V. Survey Responses to General Questions

A. General Planning and Design

Average Weighted Rating Scale for All Questions:
1-2: Least Important  2-3: Less Important  3-4: Important  4-5: Very Important

Rating from Least Important to Very Important, how important are the following general planning and design objectives to you?

Answered: 805  Skipped: 112

A: Creating a Comprehensive Plan for the Waterfront
B: Maintaining and Enhancing Visual Appearance of All Buildings
C: Preserving the City’s Historic Character
D: Promoting Development of New Haven’s Harbor
E: Promoting Neighborhood Specific Planning
F: Reducing Housing Density
G: Increasing Housing Density
H: Reforming City’s Zoning Code
V. Survey Responses to General Questions

A. General Planning and Design

Analysis:
- Almost all of the objectives mentioned in the survey were rated as important or very important by residents.
- The highest level of support was for neighborhood based planning.
- Reducing or increasing housing density levels was rated as relatively less important suggesting that respondents cared more about neighborhood aesthetics and quality than density.

Other Comments by Respondents (74 Comments):

“Connecting neighborhoods physically, socially, and psychologically—no one should feel unwelcome anywhere.”

“A comprehensive and multilateral transportation plan. And a comprehensive green infrastructure plan. And a comprehensive parks and urban greenway plan.”

“Calming traffic, making it safer to walk and bike.”
V.B. Housing & Economic Development

Rating from Least Important to Very Important, how important are the following housing objectives to you?

Answered: 795  Skipped: 122

- Promoting affordable workforce/middle-income housing was rated as the most important housing objective for the city.

- Responses by neighborhoods show that creating more public assisted, low-income housing was rated as relatively less important citywide as well as in Dixwell, Newhallville, Hill North, Hill South, Fair Haven, West River, and West Rock neighborhoods.

**Other Comments by Respondents (53 comments):**

- "Improving low income neighborhoods is more important...."
- "Artist housing would be an asset to the city..."  "Get rid of slum lords and abuse of Section 8."
- "...the city should institute rent control."
- "Create efficiency units."  "Improve energy efficiency."
V.B. Housing & Economic Development

All respondents rated all three objectives as important for economic development of the city with retaining businesses as relatively most important objective.

But responses by neighborhoods show that providing job training for residents was rated as relatively most important in Dixwell, Newhallville, Hill North, Hill South, Fair Haven, West River, and West Rock.

Other Comments by Respondents (58 comments):

“...train our youth to obtain vital skills.”

“Supporting independent businesses.”

“Addressing quality of life issues—walkable, uncracked sidewalks, pothole free streets.”

“Becoming more business friendly.”

“Connecting high school kids to...internships.”
**V.C. Transportation**

Rating from Least Important to Very Important, how important are the following transportation objectives to you?

![Graph showing transportation objectives ratings](image)

- **Improving traffic safety** was rated as the most important transportation objective by all respondents. Relatively, conversion of one-way to two-way streets was rated as least important.

- Responses by neighborhoods show that residents in East Rock, Westville, Prospect Hill, and East Shore rated expanding public transportation opportunities as well as improving traffic safety as the most important transportation objectives.
V.C. Transportation

Other Comments by Respondents (67 comments):

“The bus "spoke" system is antiquated. We need a bus that goes around the hub, not just to the hub, e.g., from one end of Ella Grasso Boulevard to the other, or a line on Sherman or Orchard Street that crosses neighborhoods. More people would ride the bus if it were efficient to travel on. Why not set up a commuter lot by Marginal Drive or Yale Bowl?...”

“Current public transport does not provide sufficient service to neighborhoods that could utilize them more effectively; bus route Z for example up from/to Goffe (serving Beaver hills community) does do not after 6:40pm and the current bus times are very disruptive; need more frequency”

“Partner with Yale so that Yale pays the CT Transit buses a pre-determined fee and then Yale students can get free bus passes to CT transit by presenting their ID card”

“Establish transit districts.”

“Bike education!”

“Increase Sunday and evening CT transit service.”

“Better planning of traffic calming measures...look at the big picture, like emergency vehicle accessibility.”

“Enforcing vehicles to stop at crosswalks.”

“Converting one-way to two-way streets.”

“Organize lights to promote flow.”

“Affordable parking downtown...”
V.D. Environment

- **Lessening air pollution** was rated as the most important environmental objective by all respondents.

- Waterfront communities such as East Shore, Fair Haven, Mill River, and City Point did not consider mitigating the impact of climate change and sea level rise as important as lessening air pollution and improving water quality as the most important environmental objectives.
V.D. Environment

Other Comments by Respondents (41 comments):

“Reducing flood risk is important, but the high cost usually benefits a very few who live in flood prone areas. The costs to benefit a few shouldn't burden the many.”

“If we are experiencing a constant rise in New Haven’s water levels, not only should we act now to deter it; but home owners should be made aware of potential dangers so they too can effect safety change.”

“Use of alternative fuels, pedestrian and bicycle use, creating walkable neighborhoods.”
V.E. Community Facilities & Services

- Partnering with existing community facilities and creating more youth programs and facilities were rated as the most important objectives by all respondents.
V.E. Community Facilities & Services

Other Comments by Respondents (45 comments):

“Create a conference center. New Haven lacks this essential part of any major city with culture and history. Also create a professional sport team stadium (such as MLB, NBA, NFL, NHL or MLS).”

“Transportation is vital wherever the centers are. Van service, shuttle service, that would be best. New Haven bus system is not that good for kids who would need it in the evenings and weekends. The bus system needs a drastic overhaul.”

“Building a YOUTH center = Very Important.”

“Parents responsible. Plenty of activities here already.”

“Need process for on-going neighborhood leadership of community centers needed in every neighborhood”;

“Reopening closed senior centers, year round senior swim times at pools on bus lines, year round evening and weekend public swim hours at all high school pools like they have in every other town around here”;

“Edgewood Park’s Coogan pavilion would be a great teen center”
VI.F. Zoning and Neighborhood Character

- Responses in Dwight, Dixwell, Newhallville, Hill North, Hill South, Fair Haven, West River, and West Rock neighborhoods (combined responses) show only 12 percent saying yes to this question and another 25 percent somewhat agreeing—relatively less than citywide percentages.

- This could be due to the problems with convenience stores’ hours of operation and activities, which was repeatedly mentioned at the CMT meetings.

- Majority of respondents indicated a lack of knowledge about zoning regulations and enforcement.
VI. Survey Responses by Topic
A. Housing

**Housing Choices**

From Least Important to Most Important, rate how important it is to you that the city provides or encourages the following housing types:

- A: Publicly subsidized, affordable rental or for-sale housing
- B: Market rate housing
- C: High density housing such as apartments and condominiums
- D: Mix of housing types (single-family, duplex, townhomes)
- E: Quality non-subsidized home ownership or rental
- F: Mixed use housing (housing with commercial or retail)
- G: Senior housing (65 years and over)

**Historic Districts**

Would you like to see more historic districts in the city to promote preservation of old, historic buildings?

- **YES**: 77.29%
- **NO**: 22.71%

- Responses by neighborhoods show that there is a relatively greater need for senior housing in Dixwell, Newhallville, Hill North, Hill South, Fair Haven, West River, and West Rock neighborhoods and respondents in all neighborhoods agree for the creation of more historic districts in the city.
VI. Survey Responses by Topic
A. Housing

- Housing affordability is an issue across all neighborhoods in the city, both for renters and homebuyers.
VI. Survey Responses by Topic
A. Housing

Housing Value

Over the past five years, would you say your rent has increased?
- Answered: 301  Skipped: 616
  - 71.76%
  - 28.24%

Over the past five years, would you say the value of your home has increased?
- Answered: 433  Skipped: 464
  - 76.21%
  - 23.79%

In your experience, relative to the quality of city services you receive, do you think your property taxes are:
- Answered: 437  Skipped: 480
  - 0.46%
  - 18.76%
  - 80.78%

Considering your property taxes and equity value, if you wanted to today, do you think you will be able to sell your home?
- Answered: 434  Skipped: 483
  - 47.24%
  - 52.76%
VI. Survey Responses by Topic  
A. Housing

Knowledge of Housing Programs - Renters

Are you aware of the current programs and services offered by the city for the purchase of new homes, rehabilitation, or to deal with foreclosed and vacant and abandoned homes?

Answered: 297  Skipped: 620

![Graph showing awareness of housing programs among renters]

Knowledge of Housing Programs - Homeowners

Are you aware of the current programs and services offered by the city for the purchase of new homes, rehabilitation of old homes, or assistance with foreclosed homes?

Answered: 429  Skipped: 488

![Graph showing awareness of housing programs among homeowners]

- The majority of the respondents — **both renters and owners were not aware of the current programs and services** offered by the City of New Haven Housing Department
VI. Survey Responses by Topic
A. Housing

**SUMMARY: Housing Objectives for the City for the Next Decade**
*(Agreed by majority of the respondents)*

1. All of the housing objectives mentioned in the Survey (creation of public subsidized housing; market rate housing; high density housing; senior housing; mixed use housing; mix of housing types; and promotion of quality housing stock) are important. Of these, the creation of quality, non-subsidized housing stock is a priority.

2. Encourage creation of more historic districts in the city. Preservation of historic character is most important.

3. Need for adequate housing choices for renters and owners of all incomes.

4. Need for affordable housing in all neighborhoods in the city.

5. Improve the quality of city services relative to the taxes collected.

6. Raise awareness and educate the public regarding housing programs offered by the City for both owners and renters.
VII. Survey Responses by Topic

B. Transportation

What is your primary mode of travel?

- Walk: 14.76% (113)
- Bicycle: 7.57% (58)
- Public Transportation (bus, train, shuttle): 12.53% (96)
- Automobile: 65.14% (499)

How frequently do you use public transportation?

- Daily: 7.80% (59)
- Occasionally (Several times a week): 8.86% (67)
- Rarely (few times a year): 34.26% (259)
- Never: 32.38% (244)

If your primary mode of travel is an automobile, which of the following apply to you?

- Travel alone: 63.80%
- Carpool: 7.63%
- Vanpool: 0.97%
- Not applicable: 27.60%

Do you spend more than 15 percent of your annual household income on transportation costs?

- Yes: 30.42% (230)
- No: 55.56% (420)
- I don't know: 14.02% (106)
VII. Survey Responses by Topic

B. Transportation

Public Transportation

Which of the following factors would encourage you to use public transportation more often? (Check all that apply)

Answered: 865   Skipped: 212

A: A bus shelter at a bus stop near my home
B: A bus stop closer to my destination
C: A bus stop closer to my home
D: A direct bus route between my home and destination
E: Bus connections between my work, home, and other destinations (daycare, shopping, etc.)
F: Improved public safety at my local bus stop
G: Better walking path from home/destination to bus stop
H: Higher frequency of bus service
I: Reduced bus fare

FAQ Other Comments by Respondents (135 comments):

“Better service past 5pm!! ... I have to wait almost an hour if I miss the 5:40 Q bus. Some of us need to work past 5!!”

“PLEASE put a bus stop in front of Trinity Rowe. Many of us are elderly.”

“Faster service--the buses get so clogged up by the green that everything is incredibly slow. Also, better information about the bus lines--it’s very confusing which stop is in which direction, and to find an overall system map that makes sense.”

“Later service. I work until 11:30 pm and there are no buses that late to my destination, or on Sunday Evenings.”

“Better bus stops overall - not just a shelter, but a bench, trash can, signage (what bus, when & to where - Public Transit 101 stuff), and maybe a permanent or rotating public art element.”

“Improved safety ON THE BUS.”

“Better transit management company ...... “
VII. Survey Responses by Topic
B. Transportation

Transportation Improvements

Which transportation improvements are needed to further facilitate access to and within the city and region? (Check all that apply)

Answered: 677 Skipped: 240

A: Increased shuttle service between Union Station/State Street Station and Downtown
B: Reduced travel time on Metro North to New York City
C: Increased Amtrak service to New York and Boston
D: Increased frequency of service on Shore Line East
E: Increased frequency of Metro North rail service
F: More inner city passenger services such as light rail, shuttle service, bus, etc
G: More intercity bus service
H: Buses for special needs population such as elderly and disabled
I: Proposed high speed rail service stop location in New Haven
J: Better connectivity from train station to destination

Other Comments by Respondents (80 comments):

“New haven Stamford express would be huge help.”

“Less expensive parking at the train station.”

“Trains are overcrowded and slow to arrive. The city bus system does a better job.”

“High speed ferry from New Haven Harbor to Manhattan.”

“Better connectivity between Union Station & Downtown; Rt. 34 teardown does not go far enough, should go all the way to State Street. Also, build upon CT Transit hub-and-spoke model, e.g. revive Crosstown West proposal.”

“Establish a transit district for Downtown / Medical Area, establish a parking moratorium until the City creates a Parking and Traffic Demand Management program.”

“Expand Tweed airport.”
VII. Survey Responses by Topic
B. Transportation

Roadway Safety

Which of the following roadways do you consider to be most unsafe for driving or crossing? (Check all that apply)

- Ella Grasso: 65.13%
- MLK/N. Frontage: 49.14%
- Legion Ave: 22.19%
- Whalley Ave: 16.43%
- Forbes Ave: 40.35%
- Foxon Blvd: 40.35%

Parking

Do you think there is adequate parking in Downtown New Haven?
- Yes: 34.68%
- No: 27.42%
- I DON'T KNOW: 38%

Do you think there is adequate parking in your neighborhood?
- Yes: 64.99%
- No: 27.42%
- I DON'T KNOW: 10.11%

Average Daily Commute Costs

What is your average daily commute cost for travelling to and from work? If driving an automobile, this includes your gas as well as toll charges. If using public transit, it includes your bus/train fare and parking cost.

- Less than $5: 52.27%
- Between $5 and $10: 25.92%
- Between $11 and $20: 10.76%
- More than $20: 7.37%
- More than $50: 3.68%

Other Comments by Respondents (86 comments):

“The light at Derby Ave and Grasso Blvd needs to be lengthened. You cannot safely cross Grasso Boulevard to get to the park. The bridge was SUPPOSED to be for the neighborhood, too, not just the school. Also, there needs to be a light at Judson and the Boulevard. And put a No Turn on Red at the light by MLK and Grasso Blvd.”

Other unsafe roads: “Grand Avenue, Ferry Avenue.”
“Union Ave.” “Howard & Columbus Avenue.”
“Dixwell Ave.”

“WHITNEY AVE, and sections of state street are fast and dangerous.”

“These are high volume traffic roads with rush hour traffic problems.”
VII. Survey Responses by Topic

B. Transportation

Roadway Improvements

In your opinion, what roadway improvements are needed to increase traffic safety for pedestrians? (Check all that apply)

Answered: 744  Skipped: 173

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A: Adding street lights on local roads
B: Constructing more connections between existing sidewalks, trails, and bikeways
C: Converting one-way streets to two-way streets
D: Creating more accessibility design for the physically disabled
E: Creating more sidewalks and bike lanes along roadways
F: Enhancing coordination among traffic signals
G: Implementing more traffic calming measures
H: Improving the quality of the pavement/sidewalk
I: Making more off-street bike lanes
J: Narrowing lane widths in some locations of the city
K: Reducing traffic speed in dangerous locations of the city
L: Removing existing street lights on local roads
M: Repairing existing sidewalks and roadways
VII. Survey Responses by Topic
B. Transportation

Other Comments by Respondents on Roadway Improvements (113 comments):

“More speed enforcement devices.”

“Harsher penalties for people using phones while driving.”

“Advanced Stop Lines for Bikes Downtown.”

“Enforcing parking rules. nearly every intersection has a car illegally parked, blocking views of crossing traffic and reducing visibility of pedestrians putting us in danger.”

“Utilizing striping and other low-cost traffic-calming measures to enable greater coverage and impact throughout the City. Also, 20mph speed limits in residential areas.

“Enforcement of traffic violations (running red lights) and bike violations (riding on sidewalks - happens ALL the time)”

“Brighter street lights.”

Awareness of City’s Transportation Policy

In terms of enhancing transportation options for residents, do you think the City is headed in the right direction?

- YES 22.11% (168)
- DON’T KNOW ENOUGH TO SAY 53.95% (410)
- NO 23.95% (182)
VII. Survey Responses by Topic

B. Transportation

SUMMARY: Transportation Objectives for the City for the Next Decade

1. Promote safe, efficient, reliable and accessible public transportation system throughout the city.

2. Continue to implement Complete Streets citywide by encourage opportunities for alternative transportation to automobile such as transportation by bus, bicycle, ferry, train, etc.

3. Advocate for higher frequency of bus service as well as late evening and weekend service in some areas of the city.

4. Explore opportunities for further de-centralizing transit authority and infrastructure.

5. Provide real time information on bus arrivals and easy to read and current bus maps at bus stop locations.

6. Provide more commuter connections to train stations as well as other key employment destinations in the city.

7. Provide adequate parking opportunities near the train stations.

8. Enhance transit access within the currently underserved areas of the city.

9. Advocate for faster and more efficient regional transit connections.

10. Implement adequate traffic calming measures based on roadway traffic volumes for promoting safety for all users.

11. Strictly enforce traffic and parking laws to enhance mobility and promote pedestrian safety.

12. Raise awareness on parking opportunities in Downtown, including available n-street parking opportunities for the disabled.

13. Improve the quality of existing sidewalks, wherever needed.

14. Continue to provide more pedestrian and bicycle connections, wherever appropriate.

15. Continue to educate the public on Street Smarts & Bike to Work options, as well as, start a new awareness campaign on available transit opportunities within the city with information on where to find real time information on train arrivals, bus arrivals, etc.
VII. Survey Responses by Topic
C. Economic Development & Education

Economic Development Strategies

The following is a sample of strategies that the city uses to promote economic development. From Least Important to Most Important, how important are each of these economic development strategies to you and your community?

Answered: 730  Skipped: 187

A: Retaining existing businesses
B: Attracting new businesses
C: Developing existing business corridors
D: Reducing commercial/office vacancies in Downtown
E: Encouraging residential development in Downtown
F: Offering small business assistance and counseling services
G: Coordinating with workforce boards on job training
H: Facilitating aggressive school reform efforts
I: Promoting redevelopment of industrial areas of the city
J: Redeveloping underutilized or vacant buildings in Long Wharf
VII. Survey Responses by Topic
C. Economic Development & Education

Skills of Non-College Graduates

Our research indicates that there is an existing gap between the job openings and the skill set of the people applying to these jobs in New Haven. If you have not answered Bachelors, Masters or Doctorate in the previous question, please let us know which of the following skills you think you use on a daily basis (Check all that apply).

A: Communication
B: Computer Software (knowledge of Microsoft Office and Windows Applications)
C: Design Software
D: Leadership
E: Math
F: Management
G: Problem-solving/Mediation
H: Reading
I: Soft Skills (i.e. punctuality, customer service, work ethic)
J: Writing
K: Not Sure

Other Comments by Respondents (15 comments):

"Basic computer skills would like to learn more!!!!"

"Would love to see a meeting between local program organizers and businesses selective on any locations in the city. In West River neighborhood, all businesses who would like to come into our neighborhood should come and speak at the management team meeting or other meetings and the plans should be shared. Let us be aware of how they would try to help the area, schools, etc. Set up businesses where we can afford to buy." "Healthcare."
VII. Survey Responses by Topic
C. Economic Development & Education

School Reform

Are you aware of the New Haven Public School’s reform efforts?
Answered: 712  Skipped: 185

- YES 67.08% (491)
- NO 32.92% (241)

If so, do you think the NHPS reform efforts are headed in the right direction?
Answered: 587  Skipped: 320

- YES 28.31% (169)
- NO 24.29% (145)
- SOMEWHAT 47.40% (283)

Awareness of Planning Initiatives & Workforce Development Services

Are you aware of the on-going efforts by the City’s Office of Economic Development to promote economic development opportunities in the city such as the Hill to Downtown Planning Initiative, Downtown Crossing (Route 34 East planning), the Mill River Municipal Development Plan, etc.?
Answered: 713  Skipped: 194

- YES 62.26% (447)
- NO 37.74% (271)

Are you aware of other economic development services offered by the City such as New Haven Works (Jobs Pipeline program), Small Business Initiative, Construction Workforce Initiative, etc.?
Answered: 712  Skipped: 184

- YES 53.07% (399)
- NO 46.93% (344)
SUMMARY: Economic Development Objectives for the City for the Next Decade

- Continue to promote business retention and attraction in the city.
- Develop all of the existing business corridors in the city.
- Encourage reduction of commercial/office vacancies in Downtown.
- Promote the redevelopment of industrial areas of the city.
- Redevelop vacant and underutilized buildings in Long Wharf.
- Offer small business assistance and counseling services aggressively.
- Continue to facilitate aggressive school reform efforts.
- Coordinate with Workforce Boards on providing job training for residents.
- Encourage residential development in Downtown, wherever appropriate.
- Encourage apprenticeships for local high school kids with local employers.
- Enhance the skills of non-college graduates in the city by either partnering with local educational institutions or through community volunteers to offer (free) continuous education programs on basic computer software, technical reading and writing skills, leadership, problem-solving/mediation and communication, especially in low-income neighborhoods.
- Continue to raise awareness on economic development planning initiatives in the city.
- Continue to raise awareness on current workforce development services offered by the city—Encourage more people to participate in these.
VII. Survey Responses by Topic
D. Environment

Agreement on Impacts of Sea Level Rise
A report published by US DOT in 2002 indicates that the sea level is likely to rise two-feet along the Atlantic Coast over the next 100 years. In Connecticut, it is gradually rising at the rate of 0.10 inches per year. Considering this factual information, do you think that sea level rise will be a threat to New Haven’s coastal community in the near future?

Answered 732, Skipped 195

- 60.25% (441)
- 30.33% (222)
- 9.43% (69)
- DON'T KNOW ENOUGH (22)

Coastal Protection Measures
Which of the following do you think the City should be doing to protect its coastal communities? (Check all that apply)

Answered 703, Skipped 214

- Educate the public about specific issues related to sea level rise: 67.99%
- Increase plant and natural shoreline buffers along the coast: 69.42%
- Restrict future development near the coast: 56.61%
- Elevate both future and existing structures along the coast: 50.78%

Other Comments by Respondents (6 comments):

- “Consult with the Army Corps of Engineers to develop a strategy for mitigating the effects of sea level rise along the shoreline such as the construction of new sea walls.”
- “Take measures to correct already existing water issues. Fort Hale/Coast Guard area is flooding private property on Woodward Ave.”
- “Increase rip rap and hard buffers - natural & plant buffers don't prevent erosion”
### VII. Survey Responses by Topic
#### D. Environment

**Usage of City’s Green Spaces**

Which of the following facilities do you think will enhance the usage of City’s green spaces? (Check all that apply)

Answered: 705  Skipped: 212

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<td>34.47%</td>
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<td>16.31%</td>
<td>7.38%</td>
<td>66.95%</td>
<td>66.24%</td>
<td>73.33%</td>
<td>26.81%</td>
<td>24.11%</td>
<td>35.46%</td>
<td>26.67%</td>
<td>45.25%</td>
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- **A:** Basketball Courts
- **B:** Baseball Fields
- **C:** Bocce Ball Courts
- **D:** Cricket Fields
- **E:** Enhanced public safety
- **F:** Enhanced pedestrian, bicycle, and trail connections among existing parks
- **G:** Improved facilities such as lighting, benches, playground equipment, etc.
- **H:** Jungle Gyms
- **I:** Soccer fields
- **J:** Splash Pads
- **K:** Tennis courts
- **L:** Trails
- **M:** Volleyball Courts

**Other Comments by Respondents**

(7 comments):

- “Community gardens.”
- “Better maintenance, such as trash management, equipment repair, & graffiti cleaning.... build some gardens!”
- “Improved public access to parks; safe streets and crossings for children and families.”
VII. Survey Responses by Topic
D. Environment

Environmental Issues

From Least Important to Very Important, rate the following environmental issues in order of their importance to you.

A: Air quality
B: Brownfield remediation
C: Creation of community gardens
D: Creation of open space opportunities
E: Drinking water quality
F: Encouraging use of renewable energy in existing buildings
G: Energy efficiency in new developments
H: Lead paint remediation
I: Recycling programs
J: Separating storm water from sanitary waste water

Other Comments by Respondents (40 comments):

“Update sewer system so raw sewage does not flow into the West River!!!! It is a beautiful park, but who wants to put a canoe in a river that has raw sewage spill into it?”

“Cleaning and maintaining the Sound.” “Sustainable food options for poor neighborhoods.”

“Recycling Programs Super Important!!”

“Development of green infrastructure to help manage storm water run-off.”

“SAFE open spaces and gardens. Otherwise no point in having open space.”
VII. Survey Responses by Topic

D. Environment

**SUMMARY: Environmental Objectives for the City for the Next Decade**

1. Improve air quality
2. Encourage the creation of safe open space opportunities and community gardens
3. Improve the quality of drinking water.
4. Encourage the use of renewable energy in existing buildings.
5. Remediate lead paint in existing buildings.
6. Promote sewer separation.
7. Implement recycling programs in all building types.
8. Remediate brown fields.
10. Promote green infrastructure to help manage storm water runoff.
11. Provide sustainable food options for poor neighborhoods.
12. Consult with the Army Corps of Engineers to develop a strategy for mitigating the effects of sea level rise along the shoreline such as the construction of new sea walls.
13. Implement measures to correct existing flooding issues in the city.
14. Increase plant and natural buffers along the coast, wherever appropriate.
15. Educate the public about specific issues relating to sea level rise.
16. Promote enhanced public safety; enhanced pedestrian, bicycle, and trail connections; and improved park facilities among existing parks.
17. Advocate for cleaner and well-maintained Long Island Sound.
Thank You!

For further information, please contact Susmitha Attota, Assistant Director of Comprehensive Planning at sattota@newhavenct.net or 203-946-7814.
New Haven Health Survey
Overall Findings 2012

The Community Alliance for Research and Engagement, a partnership between the New Haven community and the Yale School of Public Health, is taking action against chronic diseases such as diabetes, asthma, and heart and lung disease that threaten the health of our community. CARE conducted an initial health survey in 2009. Since then, we have worked with neighborhoods to support health among residents.

A second health survey was conducted in the fall of 2012 with 1,298 residents from six of our lowest resource neighborhoods: Dixwell, Fair Haven, Hill North, Newhallville, West River/Dwight, and West Rock/West Hills. Households were randomly selected (like flipping a coin) from a list of addresses with 73% of those approached agreeing to participate. Twenty interviewers from the New Haven community conducted the surveys. Residents answered questions about their health, diet, exercise, smoking habits, social support, and neighborhood safety. Presented below are results from these survey participants.

Health in Context
In New Haven, where financial hardships often affect health, residents are at higher risk of chronic disease and poor health outcomes when compared to Connecticut and the country as a whole.

- Residents in our 6 CARE neighborhoods reported poorer health compared to Connecticut and the United States.

- While residents’ health is generally poorer compared to CT and the nation as a whole, 39% feel their overall health is better compared to one year ago.

- The percentage of residents with health insurance (88%) is higher than the national rate (82%). However many struggle to pay for health care expenses; 15% had problems paying for medications and 15% put off medical treatment due to cost.

Chronic Disease in 6 CARE Neighborhoods, Connecticut, and United States

In 6 CARE Neighborhoods, 7 in 10 people are overweight (27%) or obese (43%).

In Connecticut, 6 in 10 people are overweight (37%) or obese (23%).

In the United States, 6.5 in 10 people are overweight (36%) or obese (29%).
Neighborhood

The neighborhoods in which we live, work and play impact our health. Neighborhood features like safety, social support and access to green space and healthy foods influence how likely we are to exercise and eat well and how healthy we feel.

- 50% of residents feel that they live in a close-knit neighborhood. Even more (58%) think that people in their neighborhood are willing to help.
- 40% of residents report that there are people encouraging a healthy lifestyle in their neighborhoods. 42% report that it has become easier to lead a healthy lifestyle over the past three years.
- 25% of residents own their own homes, compared to 65% nationally.
- Residents reported their neighborhoods have slightly higher than average “walkability.” Yet responses show a lot of areas for improvement, such as safe places to bike and access to low cost recreational facilities like parks, playgrounds, and public swimming pools.

Walkability is a measure of how friendly an area is to walking and has many health, environmental, and economic benefits. Factors influencing walkability include the presence or absence and quality of footpaths, sidewalks, or other pedestrian rights-of-way; traffic and road conditions; land use patterns; building accessibility; and safety.

Health Behaviors

We cannot control many of the known risk factors for chronic disease such as genetics, age, race, and gender. However, habits related to diet, exercise, and smoking are important risk factors that can be changed. Like much of the nation, many residents in the 6 CARE neighborhoods are not meeting national recommendations for diet and exercise. Additionally, smoking rates are high in the six neighborhoods surveyed.

- Four in ten residents report “food insecurity” – meaning that they or their family did not have enough food or money to buy food in the past 30 days. People who struggle to pay for groceries often can’t afford healthier foods like fresh produce.
- 64% of residents reported cooking dinner at home at least five times per week. Meals prepared at home tend to be healthier and have fewer calories compared to foods sold in restaurants.

Nutrition

- 19% meet the recommended consumption of fruits and vegetables (5 servings per day)

Exercise

- 55% meet the recommended amount of exercise (150 minutes per week)

Smoking

- 3 out of 10 people in New Haven smoke cigarettes.
- 1.5 out of 10 people in Connecticut smoke cigarettes.
- 1.9 out of 10 people in the United States smoke cigarettes.
Household Finances

Poor health is often associated with lower incomes and stress, and survey results show that many residents are struggling financially.

- 36% are “just getting by,” and 15% are finding it difficult or very difficult
- 34% report total household income of less than $15,000
- 44% receive SNAP benefits (food stamps)
- 23% are unemployed

Unemployment

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<td>20% (2009)</td>
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<td>23% (2012)</td>
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Participant Demographics

- 64% female
- Average age: 41. Range: 18-65
- 63% black, 18% Hispanic/Latino, 10% white, 9% multi-racial or other
- 9% born outside the United States
- 85% completed high school; 48% completed at least some college

Improvements Since 2009

Despite health and financial concerns, there are signs that residents are making healthy changes since our 2009 survey:

- **39%** report improved health compared to one year ago
- **40%** report people are encouraging a healthy lifestyle in their neighborhood
- **42%** report changes in their neighborhood that make living a healthy lifestyle easier
- **65%** of smokers are thinking about quitting
- **63%** are exercising more
- **58%** made healthy changes in their diet
  - **47%** eating more fruits and vegetables
  - **45%** eating less high-fat food
  - **42%** eating fewer sweets
  - **39%** eating smaller portions
  - **38%** drinking fewer sugary drinks

Decrease in daily consumption between 2009 and 2012

- **19%** fewer residents eating sweets
- **11%** fewer residents drinking sugary drinks
- **37%** fewer residents eating foods high in fat and salt

Fewer couch potatoes from 2009 to 2012

- **17%** fewer residents getting no exercise at all

Yale School of Public Health
Evidence to Action

These findings, together with community conversations to be held in our neighborhoods in March and April, will provide what we need to develop a Citywide Action Plan for better health. Our immediate aim is to drive measurable health impact through a multi-sector approach, working with City government, hospitals, health centers, schools, neighborhoods and the faith and business communities. We need your input to identify priorities, strengthen partnerships, implement new initiatives and continue to evaluate impact. Future briefings will include more in-depth analyses of these neighborhood surveys, and in collaboration with DataHaven, we will examine health equity/disparities in the region.

Results from the 2012 New Haven Health Survey will help us bring evidence to action. What we do is guided by, and provides direct benefits to, our six study neighborhoods, schools and the wider New Haven community. In our first five years we:

- **Provided jobs** for >30 city residents to conduct this research
- **Partnered with neighborhood groups** to start community gardens and expand Farmers’ Markets; started Prescriptions for Produce; sponsored fitness classes, health fairs and activities that reached hundreds of children and adults
- **Launched the New Haven Healthy Corner Store Initiative** with four stores, bringing fresh produce and healthier snacks to neighborhoods
- **Offered Quit & Win** programs to encourage smokers to quit; >250 residents attempted to quit
- **Started Health Heroes** in New Haven Public Schools, inspiring more than 700 students, 280 families and 85 staff to take up health challenges
- **Increased SNAP** outreach to families struggling with food insecurity
- **Implemented Weight Watchers for teachers and staff in 11 schools**: 148 participants collectively shed 1,000 pounds
- **Played a leading role in New Haven Food Policy Council** to advocate for food policy changes
- **Curated Big Food: Health, Culture and the Evolution of Eating**, an exhibition at the Peabody Museum about food, health and obesity, which reached >130,000 people and impact food choice and health
- **Created infrastructure** to sustain healthy schools by implementing school health policies and a Physical Activity & Wellness program in 16 schools and enriching school environments by purchasing sports equipment, books and creating “learning labs” in school cafeterias
- **Hired 12 Parent Advocates** to strengthen parent engagement in schools

In our 2012 survey, residents gave suggestions for making neighborhoods healthier, including:

- More options for recreation, including low-cost indoor space like gyms or community centers for sports and exercising
- More parks and walking/biking trails
- Safer and cleaner streets
- More access to affordable healthy food options— at grocery stores and corner stores and by having more community gardens and farmers’ markets.

**Tell us what would make the difference in YOUR neighborhood...**

www.care.yale.edu  www.facebook.com/CARE4NewHaven  @CARE4NewHaven

Thanks to survey partners:
Yale-New Haven Hospital, DataHaven, Donaghue Foundation, Kresge Foundation,
New Haven Health Department, Fair Haven Community Health Center, Cornell-Scott Hill Health Center
Students interpret “sustainability” with collaborative exhibit
Common Ground: What Matters is the Dream
The Arts Council of Greater New Haven, in collaboration
with students of Common Ground High School, presents
Common Ground: What Matters is the Dream, an exhibition in
the Summer-McKnight Crosby Jr. Gallery, 70 Audubon St.,
2nd floor. The exhibition will be on display during business
hours from Friday, March 25 through Friday, May 13, 2011.
A public reception is scheduled with the student artists
for Thursday, March 31 from 5 to 7 pm.
Curated by Rachel Gilroy, Common Ground: What Matters is
the Dream is an exhibition of multimedia work by student
artists in response to the question: “What is sustainability?” This project is a collaborative effort within the Common
Ground community to explore how students think and see ecologically. The resulting visual expressions reveal
connections within Common Ground and between the school and its surrounding communities, farm and natural
ecosystems.

Art Council intern Molly McIlenna visited the school in February and recorded interviews with the students from
Common Ground High School in New Haven who are looking forward to displaying their sustainability-focused
artwork. Enjoy clips of these interviews, previewed below. Please don’t forget to visit us at the opening reception to
experience the full interviews.

Michael’s poem
In this clip, Michael reads a poem he wrote in response to an in-class prompt about Common Ground and
sustainability and then discusses the poem and what the Common Ground community means for him >>

Miles reaches out to the community
In this clip, Miles talks about the project he has been working on to help communities in New Haven >>

Sam gets ready
Sam, a junior at Common Ground High School, talks about the art project she is preparing >>

Common Ground is a high school, urban farm, and environmental education center located at the base of New
Haven’s West Rock Ridge State Park. The school’s mission is to cultivate habits of healthy living and sustainable
environmental practice among a diverse community of children, adults, and families.

Rachel Gilroy is the Environmental Leader and Sustainability Coordinator at Common Ground. She has taken an
active role in creating a powerful learning lab for her students in which these connections can emerge and thrive.
She explains that “Common Ground is taking a process-oriented approach to developing students’ connection
between the words ‘common ground’ and ‘sustainability.’ The aim is to give them the visual tools to create a method
of compositional thinking and perceiving, to imagine how two-dimensional designs can be shaped in thre-
dimensional places, and to develop an appreciation of our dreams— for they affect how we cultivate our world into a place that truly sustains us.”

For more information about the exhibit, call the Arts Council at (203) 772-2788.

“Sustainability is about more than just planting trees, curbside recycling and rescuing wildlife. It is about transforming politics and community development. Sustainability challenges assumptions surrounding prevailing orthodoxies or worldviews of economic growth and materialist values and implies nothing less than a restructuring of our relationship to the planet and to all living things” —Harmonious Living

Summer McKnight Crosby Jr. Gallery, a program of the Arts Council of Greater New Haven, is located at the Arts Council offices at 70 Audubon Street, 2nd floor. The gallery features regional artists in group and thematic shows. Hours are 9am to 5pm, Monday through Friday.

Artists’ Opportunity

If you would like to be considered for an exhibit at Summer McKnight Crosby Jr. Gallery, please send images, résumé and bio to: Arts Council of Greater New Haven, 70 Audubon Street, New Haven, CT 06510. For more information, call Debbie Hesse at 203-772-2788 or email dhesse [at] newhavenarts.org.

leave a reply

You must be logged in to post a comment.
DataHaven 2014 New Haven Neighborhood Estimates

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.
## DataHaven 2014 New Haven Neighborhood Estimates


Neighborhood-level data from the American Community Survey are subject to high margins of error. Compare and use with caution.

### Key community indicators highlighted in green

<table>
<thead>
<tr>
<th>&quot;Common&quot; Indicator Name</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
</table>

### All indicators derived from the 2014 SY American Community Survey

#### Population

<table>
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<tr>
<th>Neighborhood or Area</th>
<th>Total Population</th>
<th>Population</th>
<th>5025</th>
<th>6299</th>
<th>5544</th>
<th>4884</th>
<th>10982</th>
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<td>2364</td>
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<td>Under 5 years</td>
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<td>5-17 years</td>
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<td>945</td>
<td>19%</td>
<td>1864</td>
<td>19%</td>
<td>1371</td>
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<td>18-24 years</td>
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<td>478</td>
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<td>487</td>
<td>9%</td>
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<tr>
<td>25-34 years</td>
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<td>742</td>
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<tr>
<td>35-44 years</td>
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<td>812</td>
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<td>45-54 years</td>
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<td>882</td>
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<td>556</td>
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<td>Race and Ethnicity, for total population</td>
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<tr>
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<td>6299</td>
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<td>4884</td>
<td>10982</td>
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<td>31%</td>
<td>978</td>
<td>18%</td>
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<td>27</td>
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<td>Other, Not Hispanic or Latino</td>
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<td>Other Race Population</td>
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<td>88</td>
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<td>2421</td>
<td>2112</td>
<td>1968</td>
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<td>1833</td>
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<td>1968</td>
<td>4134</td>
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<td>Married couplefamily</td>
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<td>43%</td>
<td>806</td>
<td>55%</td>
<td>468</td>
<td>36%</td>
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<td>Male household; no wife present</td>
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<td>Male householder</td>
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<td>166</td>
<td>12%</td>
<td>126</td>
<td>10%</td>
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<td>Female householder; no husband present</td>
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<tr>
<td>Female householder</td>
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<td>520</td>
<td>43%</td>
<td>844</td>
<td>33%</td>
<td>722</td>
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<td>Married-couple family with one or more people under 18 years</td>
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<tr>
<td>Married families with Children</td>
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<tr>
<td>Male household; no wife present; with one or more people under 18 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Single Parent Fathers</td>
<td></td>
<td></td>
<td>67</td>
<td>5%</td>
<td>0</td>
<td>0%</td>
<td>62</td>
<td>5%</td>
</tr>
<tr>
<td>Female household; no husband present; with one or more people under 18 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Parent Mothers</td>
<td></td>
<td></td>
<td>805</td>
<td>25%</td>
<td>389</td>
<td>27%</td>
<td>599</td>
<td>43%</td>
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<td>Housing Occupancies</td>
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<td>2828</td>
<td>2307</td>
<td>2191</td>
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<td>2096</td>
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<td>Total housing units</td>
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<td>2081</td>
<td>2828</td>
<td>2307</td>
<td>2191</td>
<td>4877</td>
<td>2096</td>
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<td>Vacant housing units</td>
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<td>235</td>
<td>11%</td>
<td>407</td>
<td>14%</td>
<td>195</td>
<td>8%</td>
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<td>Occupied housing units</td>
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<td>89%</td>
<td>2421</td>
<td>86%</td>
<td>2112</td>
<td>92%</td>
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<tr>
<td>Occupied housing units, Owner occupied</td>
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<tr>
<td>Homeownership Rate</td>
<td></td>
<td></td>
<td>908</td>
<td>49%</td>
<td>1133</td>
<td>46%</td>
<td>926</td>
<td>44%</td>
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<tr>
<td>Occupied housing units, Renter occupied</td>
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<td></td>
<td></td>
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<tr>
<td>Occupied housing units, Renter occupied</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Disconnected Youth</td>
<td></td>
<td></td>
<td>231</td>
<td>3%</td>
<td>336</td>
<td>2%</td>
<td>251</td>
<td>1%</td>
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<tr>
<td>Population 16 to 19 years not enrolled in school &amp; not working</td>
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<td></td>
<td></td>
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</tbody>
</table>

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.
### DataHaven 2014 New Haven Neighborhood Estimates

**Please cite: DataHaven. (2016). DataHaven 2014 New Haven Neighborhood Estimates, based on 2014 5% American Community Survey and official City Files Department boundaries. New Haven, CT: DataHaven.**

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#### Neighborhood or Area

<table>
<thead>
<tr>
<th>Key community indicators highlighted in green</th>
<th>Common^ indicator Name</th>
<th>Amity</th>
<th>Annex</th>
<th>Beaver Hills*</th>
<th>Dixwell</th>
<th>Downtown*</th>
<th>Dwight</th>
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</table>

#### Educational Attainment, for population 25 years and over

<table>
<thead>
<tr>
<th>Population 25 years and over</th>
<th>3006</th>
<th>4215</th>
<th>3189</th>
<th>3073</th>
<th>5370</th>
<th>2552</th>
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<tr>
<td>Less than high school diploma</td>
<td>615</td>
<td>20%</td>
<td>653</td>
<td>15%</td>
<td>472</td>
<td>15%</td>
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<tr>
<td>High school degree or higher</td>
<td>2481</td>
<td>80%</td>
<td>3562</td>
<td>85%</td>
<td>2717</td>
<td>85%</td>
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<tr>
<td>Bachelor’s degree or higher</td>
<td>944</td>
<td>31%</td>
<td>1007</td>
<td>24%</td>
<td>1079</td>
<td>34%</td>
</tr>
<tr>
<td>Foreign born (immigrant) population</td>
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<td></td>
<td></td>
<td></td>
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<td>4968</td>
<td>4894</td>
<td>11056</td>
<td>4165</td>
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<td>Foreign-born</td>
<td>635</td>
<td>12%</td>
<td>1014</td>
<td>12%</td>
<td>698</td>
<td>14%</td>
</tr>
<tr>
<td>Entered 2010 or later</td>
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<td>1%</td>
<td>30</td>
<td>0%</td>
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<td>0%</td>
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<tr>
<td>Naturalized US citizen</td>
<td>244</td>
<td>5%</td>
<td>355</td>
<td>6%</td>
<td>275</td>
<td>6%</td>
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<td>Not a citizen</td>
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<td>7%</td>
<td>699</td>
<td>11%</td>
<td>423</td>
<td>9%</td>
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<td>Language spoken, by population 5 years and over</td>
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<td>Population 5 years and over</td>
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<td>5877</td>
<td>5059</td>
<td>4557</td>
<td>10767</td>
<td>3875</td>
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<td>Speak only English</td>
<td>3809</td>
<td>82%</td>
<td>3876</td>
<td>66%</td>
<td>4073</td>
<td>81%</td>
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<td>Non-English home language</td>
<td>814</td>
<td>18%</td>
<td>2035</td>
<td>34%</td>
<td>986</td>
<td>13%</td>
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<td>Non-English home language; Speak English less than very well</td>
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<td>7%</td>
<td>896</td>
<td>15%</td>
<td>133</td>
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<td>29%</td>
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<td>Home Language Spanish; Speak English less than very well</td>
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<td>814</td>
<td>14%</td>
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<td>Employment status, for population 16 years and over</td>
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<td>Total Population, 16 years and over</td>
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<td>4880</td>
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<td>3957</td>
<td>10564</td>
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<td>In Labor Force</td>
<td>2620</td>
<td>69%</td>
<td>3515</td>
<td>72%</td>
<td>2504</td>
<td>65%</td>
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<tr>
<td>In Labor Force, Civilian</td>
<td>2620</td>
<td>69%</td>
<td>3502</td>
<td>72%</td>
<td>2504</td>
<td>65%</td>
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<td>In Labor Force, Civilian, Employed</td>
<td>2215</td>
<td>59%</td>
<td>3023</td>
<td>62%</td>
<td>1982</td>
<td>51%</td>
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<td>In Labor Force, Civilian, Unemployed</td>
<td>406</td>
<td>10%</td>
<td>479</td>
<td>10%</td>
<td>527</td>
<td>13%</td>
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<tr>
<td>Not in Labor Force</td>
<td>1153</td>
<td>31%</td>
<td>1164</td>
<td>28%</td>
<td>1377</td>
<td>35%</td>
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<td>Unemployment Rate (% Unemployed of Civilian Labor Force)</td>
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<td>Unemployment Rate</td>
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<td>14%</td>
<td>21%</td>
<td>20%</td>
<td>6%</td>
<td>10%</td>
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<td>Commute Modes, for workers 16 years and over</td>
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<td>Workers 16 years and over</td>
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<td>3033</td>
<td>1961</td>
<td>1423</td>
<td>5444</td>
<td>1993</td>
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<td>Worked at home</td>
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<td>3%</td>
<td>44</td>
<td>1%</td>
<td>26</td>
<td>1%</td>
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<td>Workers 16 years and over who did not work at home</td>
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<td>97%</td>
<td>2939</td>
<td>99%</td>
<td>1935</td>
<td>99%</td>
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<td>Car, truck, or van drive alone</td>
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<td>Vehicle, Single Occu</td>
<td>1610</td>
<td>73%</td>
<td>2444</td>
<td>66%</td>
<td>1236</td>
<td>63%</td>
</tr>
<tr>
<td>Car, truck, or van car pooled</td>
<td>302</td>
<td>5%</td>
<td>382</td>
<td>6%</td>
<td>208</td>
<td>11%</td>
</tr>
<tr>
<td>Public transportation (excluding taxi)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit Users</td>
<td>390</td>
<td>18%</td>
<td>351</td>
<td>12%</td>
<td>368</td>
<td>13%</td>
</tr>
<tr>
<td>Walked/bicyclen</td>
<td>43</td>
<td>2%</td>
<td>0</td>
<td>0%</td>
<td>106</td>
<td>5%</td>
</tr>
<tr>
<td>Taxi/cab, motorcycle, or other means</td>
<td>4</td>
<td>0%</td>
<td>5</td>
<td>1%</td>
<td>18</td>
<td>1%</td>
</tr>
<tr>
<td>Children with all parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children living in families</td>
<td>1336</td>
<td>1514</td>
<td>1824</td>
<td>963</td>
<td>410</td>
<td>725</td>
</tr>
<tr>
<td>Children living in 2-parent families, both parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AND in 1-parent families, parent in labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with all parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children living in families</td>
<td>1065</td>
<td>1158</td>
<td>767</td>
<td>1237</td>
<td>68%</td>
<td>971</td>
</tr>
<tr>
<td>Occupations, for employed civilian population 16 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employed</td>
<td>2225</td>
<td>3032</td>
<td>1992</td>
<td>1493</td>
<td>5556</td>
<td>2382</td>
</tr>
<tr>
<td>Management, professional &amp; related occupations</td>
<td>726</td>
<td>33%</td>
<td>738</td>
<td>24%</td>
<td>1022</td>
<td>53%</td>
</tr>
<tr>
<td>Service occupations</td>
<td>562</td>
<td>25%</td>
<td>1051</td>
<td>35%</td>
<td>382</td>
<td>19%</td>
</tr>
<tr>
<td>Sales &amp; office occupations</td>
<td>600</td>
<td>27%</td>
<td>560</td>
<td>19%</td>
<td>389</td>
<td>20%</td>
</tr>
<tr>
<td>Natural resources, construction &amp; maintenance occupations</td>
<td>106</td>
<td>5%</td>
<td>289</td>
<td>10%</td>
<td>29</td>
<td>1%</td>
</tr>
<tr>
<td>Production, transportation &amp; material moving occupations</td>
<td>241</td>
<td>11%</td>
<td>386</td>
<td>13%</td>
<td>160</td>
<td>8%</td>
</tr>
</tbody>
</table>

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Social Capital, Creativity and Cultural Vitality
### DataHaven 2014 New Haven Neighborhood Estimates

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#### Social Capital, Creativity and Cultural Vitality

#### Key community indicators highlighted in green

#### "Common" Indicator Name

<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>Amity</th>
<th>Annex</th>
<th>Beaver Hills*</th>
<th>Dixwell</th>
<th>Downtown*</th>
<th>Dwight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key community indicators highlighted in green</td>
<td># %</td>
<td># %</td>
<td># %</td>
<td># %</td>
<td># %</td>
<td># %</td>
</tr>
</tbody>
</table>

#### Vehicle Access and Crowding, for households

<table>
<thead>
<tr>
<th>Occupation housing units</th>
<th>1846</th>
<th>2421</th>
<th>2112</th>
<th>1868</th>
<th>4134</th>
<th>1833</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied housing units: No vehicle available</td>
<td>367</td>
<td>21%</td>
<td>311</td>
<td>13%</td>
<td>632</td>
<td>30%</td>
</tr>
<tr>
<td>Occupied housing units: 1 vehicle available</td>
<td>825</td>
<td>45%</td>
<td>1076</td>
<td>44%</td>
<td>882</td>
<td>42%</td>
</tr>
<tr>
<td>Occupied housing units: 2 or more vehicles available</td>
<td>634</td>
<td>34%</td>
<td>1034</td>
<td>43%</td>
<td>598</td>
<td>28%</td>
</tr>
<tr>
<td>Occupied housing units: 1.00 or less occupants per room</td>
<td>1817</td>
<td>98%</td>
<td>2297</td>
<td>95%</td>
<td>2055</td>
<td>97%</td>
</tr>
<tr>
<td>Occupied housing units: 1.01 or more occupants per room</td>
<td>79</td>
<td>2%</td>
<td>124</td>
<td>5%</td>
<td>57</td>
<td>3%</td>
</tr>
</tbody>
</table>

#### Home Value, for owner occupied housing units

<table>
<thead>
<tr>
<th>Home Value, for owner occupied housing units</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-occupied housing units</td>
<td>908</td>
<td>1113</td>
</tr>
<tr>
<td>Value less than $50,000</td>
<td>75</td>
<td>3%</td>
</tr>
<tr>
<td>Value is $50,000 to $99,999</td>
<td>109</td>
<td>12%</td>
</tr>
<tr>
<td>Value is $100,000 to $149,999</td>
<td>151</td>
<td>17%</td>
</tr>
<tr>
<td>Value is $150,000 to $199,999</td>
<td>205</td>
<td>22%</td>
</tr>
<tr>
<td>Value is $200,000 or more</td>
<td>328</td>
<td>36%</td>
</tr>
<tr>
<td>Value is $250,000 or more</td>
<td>151</td>
<td>20%</td>
</tr>
<tr>
<td>Value is $300,000 or more</td>
<td>87</td>
<td>4%</td>
</tr>
<tr>
<td>Value is $300,000 or more</td>
<td>110</td>
<td>12%</td>
</tr>
</tbody>
</table>

#### Housing Cost Burden, for owner occupied housing units

<table>
<thead>
<tr>
<th>Housing Cost Burden, for owner occupied housing units</th>
<th>Owner-occupied housing units</th>
<th>#</th>
<th>%</th>
<th>Cost-Burdened Homeowners</th>
<th>#</th>
<th>%</th>
<th>Severe Homeowner Cost Burden</th>
<th>#</th>
<th>%</th>
<th>Severe Homeowner Cost Burden</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-occupied housing units</td>
<td>908</td>
<td>1113</td>
<td>926</td>
<td>336</td>
<td>385</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 30% or more</td>
<td>401</td>
<td>44%</td>
<td>562</td>
<td>50%</td>
<td>455</td>
<td>49%</td>
<td>73</td>
<td>21%</td>
<td>140</td>
<td>36%</td>
<td>51</td>
<td>43%</td>
</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 50% or more</td>
<td>103</td>
<td>11%</td>
<td>236</td>
<td>20%</td>
<td>222</td>
<td>24%</td>
<td>7</td>
<td>2%</td>
<td>58</td>
<td>15%</td>
<td>42</td>
<td>34%</td>
</tr>
</tbody>
</table>

#### Renters

<table>
<thead>
<tr>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renters</td>
<td>938</td>
<td>1308</td>
<td>1186</td>
<td>1512</td>
<td>3750</td>
<td>1711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renters</td>
<td>493</td>
<td>53%</td>
<td>790</td>
<td>60%</td>
<td>754</td>
<td>64%</td>
<td>822</td>
<td>54%</td>
</tr>
<tr>
<td>Renters</td>
<td>264</td>
<td>29%</td>
<td>497</td>
<td>38%</td>
<td>488</td>
<td>43%</td>
<td>560</td>
<td>37%</td>
</tr>
</tbody>
</table>

#### Housing Cost Burden, for all households

<table>
<thead>
<tr>
<th>Housing Cost Burden, for all households</th>
<th>All households</th>
<th>Cost-Burdened Households</th>
<th>Severe Homeowner Cost Burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>All households</td>
<td>1846</td>
<td>2421</td>
<td>2112</td>
</tr>
<tr>
<td>All households paying 30% of income for housing</td>
<td>894</td>
<td>48%</td>
<td>1952</td>
</tr>
<tr>
<td>All households paying 50% of income for housing</td>
<td>372</td>
<td>20%</td>
<td>723</td>
</tr>
</tbody>
</table>

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.*
DataHaven 2014 New Haven Neighborhood Estimates

Please see DataHaven (2013), DataHaven 2014 New Haven Neighborhood Estimates, based on 2014 SY American Community Survey and official City Files Department boundaries. New Haven, CT: DataHaven.

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<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>East Rock*</th>
<th>East Shore</th>
<th>Edgewood</th>
<th>Fair Haven*</th>
<th>Fair Haven Heights</th>
<th>Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Key community indicators highlighted in green</td>
<td>&quot;Common&quot; indicator Name</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
</tbody>
</table>

All indicators derived from the 2014 SY American Community Survey

<table>
<thead>
<tr>
<th>Population</th>
<th>Total Population</th>
<th>Population</th>
<th>Male</th>
<th>Female</th>
<th>Under 5 years</th>
<th>5-17 years</th>
<th>18-24 years</th>
<th>25-34 years</th>
<th>35-44 years</th>
<th>45-54 years</th>
<th>55-64 years</th>
<th>65 years and over</th>
<th>Population 65 and Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>8751</td>
<td>4832</td>
<td>4557</td>
<td>15932</td>
<td>7285</td>
<td>16277</td>
<td>2015</td>
<td>2394</td>
<td>1612</td>
<td>1906</td>
<td>1298</td>
<td>1738</td>
<td>1393</td>
</tr>
<tr>
<td>Hispanic or Latino of any race</td>
<td>817</td>
<td>9%</td>
<td>240</td>
<td>5%</td>
<td>548</td>
<td>12%</td>
<td>10310</td>
<td>6%</td>
<td>2608</td>
<td>36%</td>
<td>7865</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>White, Not Hispanic or Latino</td>
<td>6007</td>
<td>70%</td>
<td>3550</td>
<td>74%</td>
<td>1066</td>
<td>23%</td>
<td>2017</td>
<td>13%</td>
<td>2673</td>
<td>37%</td>
<td>2050</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Black, Not Hispanic or Latino</td>
<td>641</td>
<td>7%</td>
<td>844</td>
<td>17%</td>
<td>2635</td>
<td>58%</td>
<td>3434</td>
<td>22%</td>
<td>1680</td>
<td>23%</td>
<td>5848</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Asian, Not Hispanic or Latino</td>
<td>1125</td>
<td>13%</td>
<td>100</td>
<td>2%</td>
<td>237</td>
<td>5%</td>
<td>206</td>
<td>1%</td>
<td>75</td>
<td>1%</td>
<td>182</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Other, Not Hispanic or Latino</td>
<td>72</td>
<td>1%</td>
<td>89</td>
<td>2%</td>
<td>71</td>
<td>2%</td>
<td>144</td>
<td>1%</td>
<td>249</td>
<td>3%</td>
<td>822</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

Race and Ethnicity, for total population

<table>
<thead>
<tr>
<th>Total population</th>
<th>8751</th>
<th>4832</th>
<th>4557</th>
<th>15932</th>
<th>7285</th>
<th>16277</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino of any race</td>
<td>817</td>
<td>9%</td>
<td>240</td>
<td>5%</td>
<td>548</td>
<td>12%</td>
</tr>
<tr>
<td>White, Not Hispanic or Latino</td>
<td>6007</td>
<td>70%</td>
<td>3550</td>
<td>74%</td>
<td>1066</td>
<td>23%</td>
</tr>
<tr>
<td>Black, Not Hispanic or Latino</td>
<td>641</td>
<td>7%</td>
<td>844</td>
<td>17%</td>
<td>2635</td>
<td>58%</td>
</tr>
<tr>
<td>Asian, Not Hispanic or Latino</td>
<td>1125</td>
<td>13%</td>
<td>100</td>
<td>2%</td>
<td>237</td>
<td>5%</td>
</tr>
<tr>
<td>Other, Not Hispanic or Latino</td>
<td>72</td>
<td>1%</td>
<td>89</td>
<td>2%</td>
<td>71</td>
<td>2%</td>
</tr>
</tbody>
</table>

Household Types

<table>
<thead>
<tr>
<th>Total households</th>
<th>3971</th>
<th>2064</th>
<th>1864</th>
<th>5518</th>
<th>3322</th>
<th>5193</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married families</td>
<td>1543</td>
<td>39%</td>
<td>1219</td>
<td>59%</td>
<td>999</td>
<td>54%</td>
</tr>
<tr>
<td>Married couple family</td>
<td>1265</td>
<td>82%</td>
<td>879</td>
<td>72%</td>
<td>512</td>
<td>51%</td>
</tr>
<tr>
<td>Male household; no wife present</td>
<td>38</td>
<td>2%</td>
<td>100</td>
<td>8%</td>
<td>46</td>
<td>5%</td>
</tr>
<tr>
<td>Female household; no husband present</td>
<td>239</td>
<td>15%</td>
<td>240</td>
<td>20%</td>
<td>441</td>
<td>44%</td>
</tr>
<tr>
<td>Married couple family, with one or more people under 18 years</td>
<td>519</td>
<td>34%</td>
<td>421</td>
<td>35%</td>
<td>171</td>
<td>37%</td>
</tr>
<tr>
<td>Male household; no wife present; with one or more people under 18 years</td>
<td>37</td>
<td>1%</td>
<td>52</td>
<td>4%</td>
<td>22</td>
<td>2%</td>
</tr>
<tr>
<td>Female household; no husband present; with one or more people under 18 years</td>
<td>147</td>
<td>10%</td>
<td>34</td>
<td>3%</td>
<td>316</td>
<td>31%</td>
</tr>
</tbody>
</table>

Housing Occupancies

<table>
<thead>
<tr>
<th>Total housing units</th>
<th>4349</th>
<th>2173</th>
<th>2179</th>
<th>6390</th>
<th>3596</th>
<th>6298</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant housing units</td>
<td>378</td>
<td>9%</td>
<td>109</td>
<td>5%</td>
<td>315</td>
<td>14%</td>
</tr>
<tr>
<td>Occupied housing units</td>
<td>3971</td>
<td>91%</td>
<td>2064</td>
<td>95%</td>
<td>1864</td>
<td>86%</td>
</tr>
<tr>
<td>Occupied housing units, Owner occupied</td>
<td>3076</td>
<td>77%</td>
<td>1437</td>
<td>70%</td>
<td>440</td>
<td>28%</td>
</tr>
<tr>
<td>Occupied housing units, Renter occupied</td>
<td>2805</td>
<td>73%</td>
<td>627</td>
<td>30%</td>
<td>1424</td>
<td>76%</td>
</tr>
</tbody>
</table>

Disconnected Youth

<table>
<thead>
<tr>
<th>Total population 16 to 19 years</th>
<th>131</th>
<th>12%</th>
<th>204</th>
<th>1183</th>
<th>259</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 16 to 19 years not enrolled in school &amp; not working</td>
<td>9</td>
<td>7%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>221</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>East Rock*</th>
<th>East Shore</th>
<th>Edgewood</th>
<th>Fair Haven*</th>
<th>Fair Haven Heights</th>
<th>Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key community indicators highlighted in green</td>
<td>“Common” Indicator Name</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Educational Attainment, for population 25 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population 25 years and over</td>
<td>6759</td>
<td>3714</td>
<td>2935</td>
<td>9362</td>
<td>5396</td>
<td>9223</td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>319</td>
<td>37</td>
<td>54</td>
<td>152</td>
<td>49</td>
<td>172</td>
</tr>
<tr>
<td>High school degree or higher</td>
<td>6420</td>
<td>3424</td>
<td>2377</td>
<td>8840</td>
<td>4988</td>
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<td>Speak only English</td>
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<td>Workers 16 years and over</td>
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<td>Car, truck, or van car pooled</td>
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<td>Public transportation (excluding taxi/cab)</td>
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<td>47</td>
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<td>Walked/biked</td>
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<td>36</td>
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<td>Taxicab, motorcycle, or other means</td>
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<td>Children with all parents in the labor force</td>
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<td>Children living in 2 parent families, both parents in the labor force</td>
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<td>867</td>
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<td>776</td>
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<td>Sales &amp; office occupations</td>
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<td>Natural resources, construction &amp; maintenance occupations</td>
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<td>Production, transportation &amp; material moving occupations</td>
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<td>4</td>
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</tbody>
</table>

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#### Social Capital, Creativity and Cultural Vitality

### Neighborhood or Area

<table>
<thead>
<tr>
<th>Key community indicators highlighted in green</th>
<th>&quot;Common&quot; indicator name</th>
<th>#</th>
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<td>Households: Income less than $10,000</td>
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<td>Income below poverty level: Under 5 years</td>
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<td>Income below poverty level: Under 18 years</td>
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<td>Population for whom poverty status is determined: 65 years and over</td>
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<td>Income below poverty level: 65 years and over</td>
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<tr>
<td>Families</td>
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<td>Families: Income in the past year below poverty level</td>
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</table>

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#### Key community indicators highlighted in green

| Neighborhood or Area | "Common" Indicator Name | # | % | # | % | # | % | # | % | # | % |
|----------------------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|
| **Vehicle Access and Crowding, for households** | | | | | | | | | | | | |
| Occupied housing units | | 3971 | 2064 | 1864 | 5518 | 3322 | 5199 | | | | | |
| Occupied housing units: No vehicle available | Zero Vehicle Households | 1075 | 27% | 137 | 7% | 460 | 25% | 1754 | 32% | 1043 | 31% | 1875 | 36% |
| Occupied housing units: 1 vehicle available | | 1919 | 48% | 616 | 30% | 741 | 40% | 2135 | 39% | 1479 | 45% | 1984 | 38% |
| Occupied housing units: 2 or more vehicles available | | 977 | 25% | 1311 | 64% | 663 | 36% | 1675 | 30% | 800 | 24% | 1340 | 26% |
| Occupied housing units: 1.00 or less occupants per room | | 3948 | 99% | 2064 | 100% | 1856 | 100% | 9158 | 93% | 3161 | 95% | 4946 | 95% |
| Occupied housing units: 1.01 or more occupants per room | Overcrowded Housing | 73 | 1% | 0 | 0% | 8 | 0% | 360 | 7% | 161 | 5% | 253 | 5% |
| **Home Value, for owner occupied housing units** | | | | | | | | | | | | | |
| Owner-occupied housing units, Total | | 1076 | 1437 | 440 | 1275 | 903 | 1135 | | | | | |
| Value is less than $50,000 | | 0 | 0% | 42 | 3% | 43 | 3% | 45 | 4% | 48 | 5% | 69 | 6% |
| Value is $50,000 to $99,999 | | 6 | 1% | 10 | 1% | 9 | 2% | 159 | 12% | 55 | 6% | 189 | 17% |
| Value is $100,000 to $149,999 | | 73 | 7% | 171 | 12% | 66 | 15% | 364 | 29% | 239 | 26% | 261 | 23% |
| Value is $150,000 to $199,999 | | 65 | 6% | 407 | 28% | 31 | 7% | 251 | 20% | 251 | 28% | 239 | 21% |
| Value is $200,000 or more | Housing Values $200K+ | 927 | 87% | 803 | 54% | 291 | 66% | 457 | 36% | 310 | 34% | 378 | 35% |
| Value is $200,000 to $249,999 | | 73 | 7% | 438 | 30% | 66 | 15% | 220 | 18% | 176 | 19% | 162 | 14% |
| Value is $250,000 to $299,999 | | 64 | 6% | 242 | 17% | 132 | 30% | 144 | 11% | 50 | 6% | 93 | 8% |
| Value is $300,000 or more | | 795 | 74% | 121 | 8% | 93 | 21% | 84 | 7% | 84 | 9% | 123 | 11% |
| **Housing Cost Burden, for owner occupied housing units** | | | | | | | | | | | | | |
| Owner occupied housing units | | 1076 | 1437 | 440 | 1275 | 903 | 1135 | | | | | |
| Owner occupied housing units, selected monthly owner costs as a percentage of household income, 30% or more | Cost-Burdened Homeowners | 189 | 18% | 595 | 41% | 216 | 40% | 728 | 57% | 364 | 40% | 541 | 48% |
| Owner occupied housing units, selected monthly owner costs as a percentage of household income, 50% or more | Severe Homeowner Cost Burden | 48 | 4% | 309 | 22% | 79 | 18% | 394 | 31% | 75 | 8% | 208 | 18% |
| **Housing Cost Burden, for rented occupied housing units** | | | | | | | | | | | | | |
| Renter occupied housing units | | 2895 | 627 | 1424 | 4243 | 2419 | 4064 | | | | | |
| Renter occupied housing units, Gross rent as a percentage of household income, 30% or more | Cost-Burdened Renters | 1482 | 51% | 221 | 35% | 908 | 64% | 2835 | 67% | 1302 | 54% | 2627 | 65% |
| Renter occupied housing units, Gross rent as a percentage of household income, 50% or more | Severe Renter Cost Burden | 680 | 23% | 122 | 19% | 644 | 45% | 1760 | 42% | 489 | 20% | 1894 | 47% |
| **Housing Cost Burden, for all households** | | | | | | | | | | | | | |
| All households | | 3971 | 2064 | 1864 | 5518 | 3322 | 5199 | | | | | |
| All households paying 30% of income for housing | Cost-Burdened Households | 1670 | 42% | 817 | 40% | 1064 | 58% | 3562 | 65% | 1666 | 50% | 3168 | 61% |
| All households paying 50% of income for housing | Severe Household Cost Burden | 728 | 18% | 431 | 21% | 723 | 39% | 2163 | 39% | 564 | 17% | 2103 | 40% |

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.
# DataHaven 2014 New Haven Neighborhood Estimates

*Please visit [DataHaven](http://example.com) for more information.*

Social Capital, Creativity and Cultural Vitality

DataHaven 2014 New Haven Neighborhood Estimates, based on 2014 SY American Community Survey and official City of New Haven boundaries. Note: DataHaven, C.T. DataHaven. Neighborhood level data from the American Community Survey are subject to high margins of error. Compare and use with caution.

### All indicators derived from the 2014 SY American Community Survey

#### Population

<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>NH</th>
<th>PH</th>
<th>QM</th>
<th>WH</th>
<th>WR</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>6166</td>
<td>3788</td>
<td>6396</td>
<td>3816</td>
<td>3541</td>
<td>9070</td>
</tr>
<tr>
<td>Male</td>
<td>2543</td>
<td>1891</td>
<td>2595</td>
<td>1641</td>
<td>1621</td>
<td>4803</td>
</tr>
<tr>
<td>Female</td>
<td>3623</td>
<td>2099</td>
<td>3956</td>
<td>2175</td>
<td>1910</td>
<td>4268</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>887</td>
<td>523</td>
<td>1107</td>
<td>595</td>
<td>415</td>
<td>1464</td>
</tr>
<tr>
<td>Population Under 5</td>
<td>1337</td>
<td>1317</td>
<td>1281</td>
<td>1123</td>
<td>1165</td>
<td>1204</td>
</tr>
<tr>
<td>5-17 years</td>
<td>403</td>
<td>13</td>
<td>14</td>
<td>11</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>18-24 years</td>
<td>790</td>
<td>13</td>
<td>55</td>
<td>12</td>
<td>57</td>
<td>165</td>
</tr>
<tr>
<td>25-34 years</td>
<td>824</td>
<td>13</td>
<td>37</td>
<td>8</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>35-44 years</td>
<td>790</td>
<td>13</td>
<td>45</td>
<td>12</td>
<td>57</td>
<td>165</td>
</tr>
<tr>
<td>45-54 years</td>
<td>824</td>
<td>13</td>
<td>37</td>
<td>8</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>55-64 years</td>
<td>790</td>
<td>13</td>
<td>45</td>
<td>12</td>
<td>57</td>
<td>165</td>
</tr>
<tr>
<td>65 years and over</td>
<td>772</td>
<td>13</td>
<td>39</td>
<td>1</td>
<td>49</td>
<td>6</td>
</tr>
<tr>
<td>Population 65 and Over</td>
<td>970</td>
<td>52</td>
<td>54</td>
<td>56</td>
<td>50</td>
<td>25</td>
</tr>
</tbody>
</table>

#### Race and Ethnicity, for total population

<table>
<thead>
<tr>
<th>Hispanic or Latino of any race</th>
<th>NH</th>
<th>PH</th>
<th>QM</th>
<th>WH</th>
<th>WR</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic Population</td>
<td>1051</td>
<td>17</td>
<td>40</td>
<td>11</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>White Population</td>
<td>139</td>
<td>2</td>
<td>15</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Black Population</td>
<td>4688</td>
<td>76</td>
<td>45</td>
<td>32</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>Asian or Pacific Island</td>
<td>26</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other, Not Hispanic or Latino</td>
<td>260</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Household Types

<table>
<thead>
<tr>
<th>Total households</th>
<th>NH</th>
<th>PH</th>
<th>QM</th>
<th>WH</th>
<th>WR</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married-couple family</td>
<td>822</td>
<td>32</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Male householder; no wife present</td>
<td>108</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Female householder; no husband present</td>
<td>894</td>
<td>62</td>
<td>15</td>
<td>8</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>Married-couple family, with one or more people under 18 years</td>
<td>372</td>
<td>14</td>
<td>32</td>
<td>4</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Male householder; no wife present; with one or more people under 18 years</td>
<td>47</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Female householder; no husband present; with one or more people under 18 years</td>
<td>545</td>
<td>38</td>
<td>21</td>
<td>3</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Housing Occupancy

<table>
<thead>
<tr>
<th>Total housing units</th>
<th>NH</th>
<th>PH</th>
<th>QM</th>
<th>WH</th>
<th>WR</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2561</td>
<td>1519</td>
<td>2302</td>
<td>1354</td>
<td>725</td>
<td>359</td>
<td></td>
</tr>
<tr>
<td>Married families with children</td>
<td>203</td>
<td>14</td>
<td>32</td>
<td>4</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Single parent fathers</td>
<td>47</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Single parent mothers</td>
<td>545</td>
<td>38</td>
<td>21</td>
<td>3</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Disconnected Youth

<table>
<thead>
<tr>
<th>Total population 16 to 19 years</th>
<th>NH</th>
<th>PH</th>
<th>QM</th>
<th>WH</th>
<th>WR</th>
<th>WV</th>
</tr>
</thead>
<tbody>
<tr>
<td>226</td>
<td>237</td>
<td>213</td>
<td>206</td>
<td>1222</td>
<td>527</td>
<td></td>
</tr>
</tbody>
</table>

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.*
### DataHaven 2014 New Haven Neighborhood Estimates

*Please cite: DataHaven. (2014). DataHaven 2014 New Haven Neighborhood Estimates, based on 2010 US American Community Survey and official City Files Department boundaries, New Haven, CT. Datahaven. Neighborhood level data from the American Community Survey are subject to high margins of error. Compare and use with caution.*

#### Neighborhood or Area

<table>
<thead>
<tr>
<th>Key community indicators highlighted in green</th>
<th>&quot;Common&quot; Indicator Name</th>
<th>New Havenville</th>
<th>Prospect Hill</th>
<th>Quinnipiak Meadows</th>
<th>West Hills</th>
<th>West Rock*</th>
<th>Westville*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Attainment, for population 25 years and over</td>
<td></td>
<td>3893</td>
<td>2520</td>
<td>4104</td>
<td>2404</td>
<td>1058</td>
<td>6048</td>
</tr>
<tr>
<td>Population 25 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td></td>
<td>760</td>
<td>20%</td>
<td>84</td>
<td>3%</td>
<td>849</td>
<td>21%</td>
</tr>
<tr>
<td>High school degree or higher</td>
<td></td>
<td>3183</td>
<td>80%</td>
<td>2363</td>
<td>97%</td>
<td>3255</td>
<td>79%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td></td>
<td>475</td>
<td>17%</td>
<td>1905</td>
<td>75%</td>
<td>590</td>
<td>14%</td>
</tr>
<tr>
<td>Foreign born (immigrant) population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population</td>
<td></td>
<td>6156</td>
<td>3788</td>
<td>6306</td>
<td>3816</td>
<td>5951</td>
<td>7236</td>
</tr>
<tr>
<td>Foreign born</td>
<td></td>
<td>420</td>
<td>7%</td>
<td>556</td>
<td>25%</td>
<td>1236</td>
<td>20%</td>
</tr>
<tr>
<td>Entered 2010 or later</td>
<td></td>
<td>54</td>
<td>1%</td>
<td>265</td>
<td>7%</td>
<td>89</td>
<td>1%</td>
</tr>
<tr>
<td>Naturalized US citizen</td>
<td></td>
<td>125</td>
<td>2%</td>
<td>128</td>
<td>3%</td>
<td>429</td>
<td>7%</td>
</tr>
<tr>
<td>Not a citizen</td>
<td></td>
<td>278</td>
<td>5%</td>
<td>804</td>
<td>21%</td>
<td>807</td>
<td>13%</td>
</tr>
<tr>
<td>Language spoken, by population 5 years and over</td>
<td></td>
<td>5833</td>
<td>3525</td>
<td>5820</td>
<td>3613</td>
<td>3474</td>
<td>8026</td>
</tr>
<tr>
<td>Population 5 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speak only English</td>
<td></td>
<td>4877</td>
<td>84%</td>
<td>2091</td>
<td>68%</td>
<td>3762</td>
<td>65%</td>
</tr>
<tr>
<td>Non-English home language</td>
<td></td>
<td>956</td>
<td>16%</td>
<td>1154</td>
<td>32%</td>
<td>2058</td>
<td>35%</td>
</tr>
<tr>
<td>Non-English home language: Speak English less than very well</td>
<td></td>
<td>176</td>
<td>3%</td>
<td>419</td>
<td>12%</td>
<td>680</td>
<td>12%</td>
</tr>
<tr>
<td>Home Language Spanish</td>
<td></td>
<td>900</td>
<td>15%</td>
<td>224</td>
<td>6%</td>
<td>1263</td>
<td>22%</td>
</tr>
<tr>
<td>Home Language Spanish: Speak English less than very well</td>
<td></td>
<td>165</td>
<td>3%</td>
<td>81</td>
<td>2%</td>
<td>395</td>
<td>7%</td>
</tr>
<tr>
<td>Employment status, for population 16 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Population, 16 years and over</td>
<td></td>
<td>4571</td>
<td>3087</td>
<td>4937</td>
<td>2956</td>
<td>3299</td>
<td>7414</td>
</tr>
<tr>
<td>In Labor Force</td>
<td></td>
<td>3040</td>
<td>67%</td>
<td>1910</td>
<td>62%</td>
<td>3051</td>
<td>73%</td>
</tr>
<tr>
<td>In Labor Force, Civilian</td>
<td></td>
<td>3040</td>
<td>67%</td>
<td>1910</td>
<td>62%</td>
<td>3051</td>
<td>73%</td>
</tr>
<tr>
<td>In Labor Force, Civilian, Employed</td>
<td></td>
<td>2306</td>
<td>50%</td>
<td>1827</td>
<td>59%</td>
<td>2974</td>
<td>60%</td>
</tr>
<tr>
<td>In Labor Force, Civilian, Unemployed</td>
<td></td>
<td>734</td>
<td>16%</td>
<td>83</td>
<td>3%</td>
<td>577</td>
<td>17%</td>
</tr>
<tr>
<td>Not in Labor Force</td>
<td></td>
<td>1531</td>
<td>33%</td>
<td>1177</td>
<td>38%</td>
<td>1355</td>
<td>27%</td>
</tr>
<tr>
<td>Unemployment Rate (% Unemployed of Civilian Labor Force)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td></td>
<td>24%</td>
<td>4%</td>
<td>16%</td>
<td>9%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Commute Mode, for workers 16 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workers 16 years and over</td>
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<td>2235</td>
<td>1799</td>
<td>2973</td>
<td>1397</td>
<td>1484</td>
<td>4927</td>
</tr>
<tr>
<td>Worked at home</td>
<td></td>
<td>0</td>
<td>0%</td>
<td>1690</td>
<td>94%</td>
<td>2973</td>
<td>100%</td>
</tr>
<tr>
<td>Car, truck, or van driven alone</td>
<td></td>
<td>2235</td>
<td>100%</td>
<td>1690</td>
<td>94%</td>
<td>2973</td>
<td>100%</td>
</tr>
<tr>
<td>Car, truck, or van driven with someone else</td>
<td></td>
<td>1272</td>
<td>71%</td>
<td>1016</td>
<td>62%</td>
<td>2017</td>
<td>61%</td>
</tr>
<tr>
<td>Public transportation (excluding taxicab)</td>
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<td>297</td>
<td>13%</td>
<td>375</td>
<td>21%</td>
<td>293</td>
<td>30%</td>
</tr>
<tr>
<td>Walked/bicycled</td>
<td></td>
<td>11</td>
<td>0%</td>
<td>448</td>
<td>25%</td>
<td>15</td>
<td>1%</td>
</tr>
<tr>
<td>Taxi, motorcycle, or other means</td>
<td></td>
<td>5</td>
<td>23%</td>
<td>3</td>
<td>1%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Children with all parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children living in families</td>
<td></td>
<td>1509</td>
<td>728</td>
<td>1426</td>
<td>961</td>
<td>221</td>
<td>1863</td>
</tr>
<tr>
<td>Children living in 2-parent families, both parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AND in 1-parent families, parent in labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children living in 2-parent families, both parents in the labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AND in 1-parent families, parent in labor force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupations, for employed civilian population 16 years and over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employed</td>
<td></td>
<td>2306</td>
<td>1827</td>
<td>2974</td>
<td>1443</td>
<td>1532</td>
<td>4972</td>
</tr>
<tr>
<td>Management, professional &amp; related occupations</td>
<td></td>
<td>488</td>
<td>21%</td>
<td>1158</td>
<td>63%</td>
<td>581</td>
<td>20%</td>
</tr>
<tr>
<td>Service occupations</td>
<td></td>
<td>772</td>
<td>33%</td>
<td>274</td>
<td>15%</td>
<td>1097</td>
<td>37%</td>
</tr>
<tr>
<td>Sales &amp; office occupations</td>
<td></td>
<td>534</td>
<td>23%</td>
<td>342</td>
<td>19%</td>
<td>532</td>
<td>18%</td>
</tr>
<tr>
<td>Natural resources, construction &amp; maintenance occupations</td>
<td></td>
<td>36</td>
<td>4%</td>
<td>133</td>
<td>7%</td>
<td>126</td>
<td>4%</td>
</tr>
<tr>
<td>Production, transportation &amp; material moving occupations</td>
<td></td>
<td>428</td>
<td>19%</td>
<td>41</td>
<td>2%</td>
<td>638</td>
<td>21%</td>
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</tbody>
</table>

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.
### DataHaven 2014 New Haven Neighborhood Estimates


**Neighborhood or Area**

<table>
<thead>
<tr>
<th></th>
<th>Newhallville</th>
<th>Prospect Hill</th>
<th>Quinnipiac Meadows</th>
<th>West Hills</th>
<th>West Rock*</th>
<th>Westville*</th>
</tr>
</thead>
</table>

**Key community indicators highlighted in green**

<table>
<thead>
<tr>
<th>&quot;Common&quot; Indicator Name</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
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<table>
<thead>
<tr>
<th>Income</th>
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<tbody>
<tr>
<td>Households</td>
<td>2561</td>
<td>1519</td>
<td>2302</td>
<td>1934</td>
<td>727</td>
<td>3689</td>
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<tr>
<td>Households: Income less than $10,000</td>
<td>446</td>
<td>17%</td>
<td>205</td>
<td>14%</td>
<td>263</td>
<td>11%</td>
<td>219</td>
<td>16%</td>
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<tr>
<td>Households: Income $10,000 to $44,999</td>
<td>388</td>
<td>15%</td>
<td>113</td>
<td>7%</td>
<td>113</td>
<td>5%</td>
<td>122</td>
<td>9%</td>
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<tr>
<td>Households: Income $55,000 or more</td>
<td>1994</td>
<td>77%</td>
<td>823</td>
<td>54%</td>
<td>1412</td>
<td>61%</td>
<td>950</td>
<td>72%</td>
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<tr>
<td>Households: Income $55,000 to $74,999</td>
<td>283</td>
<td>10%</td>
<td>57</td>
<td>3%</td>
<td>134</td>
<td>6%</td>
<td>68</td>
<td>5%</td>
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<tr>
<td>Households: Income $75,000 to $99,999</td>
<td>707</td>
<td>30%</td>
<td>450</td>
<td>30%</td>
<td>661</td>
<td>29%</td>
<td>355</td>
<td>27%</td>
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<tr>
<td>Households: Income $100,000 or more</td>
<td>183</td>
<td>7%</td>
<td>94</td>
<td>6%</td>
<td>239</td>
<td>11%</td>
<td>88</td>
<td>6%</td>
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<table>
<thead>
<tr>
<th>Families</th>
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</thead>
<tbody>
<tr>
<td>Families: Income less than $10,000</td>
<td>238</td>
<td>15%</td>
<td>40</td>
<td>5%</td>
<td>160</td>
<td>10%</td>
<td>53</td>
<td>6%</td>
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<tr>
<td>Families: Income $10,000 to $34,999</td>
<td>168</td>
<td>12%</td>
<td>22</td>
<td>3%</td>
<td>123</td>
<td>8%</td>
<td>68</td>
<td>8%</td>
</tr>
<tr>
<td>Families: Income $55,000 to $74,999</td>
<td>112</td>
<td>7%</td>
<td>32</td>
<td>4%</td>
<td>208</td>
<td>14%</td>
<td>207</td>
<td>25%</td>
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<tr>
<td>Families: Income $75,000 to $99,999</td>
<td>563</td>
<td>39%</td>
<td>94</td>
<td>11%</td>
<td>491</td>
<td>32%</td>
<td>398</td>
<td>29%</td>
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<tr>
<td>Families: Income $100,000 or more</td>
<td>445</td>
<td>31%</td>
<td>25</td>
<td>3%</td>
<td>438</td>
<td>29%</td>
<td>205</td>
<td>16%</td>
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<table>
<thead>
<tr>
<th>Poverty</th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Population for whom poverty status is determined</td>
<td>6166</td>
<td>3473</td>
<td>6278</td>
<td>3571</td>
<td>3947</td>
<td>7220</td>
<td></td>
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</tr>
<tr>
<td>Income below 100% of poverty level (official &quot;poverty rate&quot;)</td>
<td>1872</td>
<td>30%</td>
<td>603</td>
<td>17%</td>
<td>1624</td>
<td>26%</td>
<td>1053</td>
<td>25%</td>
</tr>
<tr>
<td>Low-income Population</td>
<td>3790</td>
<td>63%</td>
<td>1194</td>
<td>33%</td>
<td>2805</td>
<td>45%</td>
<td>1222</td>
<td>60%</td>
</tr>
<tr>
<td>Not Low Income Population</td>
<td>2379</td>
<td>39%</td>
<td>2320</td>
<td>67%</td>
<td>1465</td>
<td>64%</td>
<td>1837</td>
<td>48%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DataHaven 2014 New Haven Neighborhood Estimates</th>
<th>Newhallville</th>
<th>Prospect Hill</th>
<th>Quinnipiac Meadows</th>
<th>West Hills</th>
<th>West Rock*</th>
<th>Westville*</th>
</tr>
</thead>
</table>

### Social Capital, Creativity and Cultural Vitality

*If both indicator row AND geography column have a *, estimate based on data allocated by Censsus Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.*
### DataHaven 2014 New Haven Neighborhood Estimates

**Please cite: DataHaven. (2014). DataHaven 2014 New Haven Neighborhood Estimates, based on 2013-15 American Community Survey and official City Files Department boundaries. New Haven, CT: DataHaven.**

Neighborhood-level data from the American Community Survey are subject to high margins of error. Compare and use with caution.

#### Social Capital, Creativity and Cultural Vitality

<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>Newhallville</th>
<th>Prospect Hill</th>
<th>Quinnipiac Meadows</th>
<th>West Hills</th>
<th>West Rock*</th>
<th>Westville*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key community indicators highlighted in green</strong></td>
<td>&quot;Common&quot; Indicator Name</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td><strong>Vehicle Access and Crowding, for households</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Occupied housing units</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Occupied housing units: No vehicle available</td>
<td>Zero Vehicle Households</td>
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<tr>
<td>Occupied housing units: 1 vehicle available</td>
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<td>Occupied housing units: 2 or more vehicles available</td>
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<tr>
<td>Occupied housing units: 1.00 or less occupants per room</td>
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<tr>
<td>Occupied housing units: 1.01 or more occupants per room</td>
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<tr>
<td><strong>Home Value, for owner occupied housing units</strong></td>
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</tr>
<tr>
<td>Owner occupied housing units, Total</td>
<td></td>
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</tr>
<tr>
<td>Value is less than $50,000</td>
<td></td>
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</tr>
<tr>
<td>Value is $50,000 to $99,999</td>
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<tr>
<td>Value is $100,000 to $149,999</td>
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<tr>
<td>Value is $150,000 to $199,999</td>
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<tr>
<td>Value is $200,000 or more</td>
<td>Housing Values $200K+</td>
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<tr>
<td>Value is $200,000 to $249,999</td>
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<tr>
<td>Value is $250,000 to $299,999</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Value is $300,000 or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Housing Cost Burden, for owner occupied housing units</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Owner occupied housing units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 30% or more</td>
<td>Cost-Burdened Homeowners</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 50% or more</td>
<td>Severe Homeowner Cost Burden</td>
<td></td>
<td></td>
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<tr>
<td><strong>Housing Cost Burden, for renter occupied housing units</strong></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Renter occupied housing units</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renter occupied housing units, Gross rent as a percentage of household income, 30% or more</td>
<td>Cost-Burdened Renters</td>
<td></td>
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<tr>
<td>Renter occupied housing units, Gross rent as a percentage of household income, 50% or more</td>
<td>Severe Renter Cost Burden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing Cost Burden, for all households</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>All households paying 30% of income for housing</td>
<td>Cost-Burdened Households</td>
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<td></td>
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<tr>
<td>All households paying 50% of income for housing</td>
<td>Severe Household Cost Burden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If both indicator row AND geography column have a *, estimate based on data allocated by Census Tract. All other estimates based on data allocated by Census Block Group. Greater New Haven consists of 13 towns as defined in 2013 Community Index.
### DataHaven 2014 New Haven Neighborhood Estimates


Neighborhood-level data from the American Community Survey are subject to high margins of error. Compare and use with caution.

<table>
<thead>
<tr>
<th>Neighborhood or Area</th>
<th>Wooster Square/Mill River</th>
<th>New Haven</th>
<th>Greater New Haven</th>
<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key community indicators highlighted in green</strong></td>
<td>&quot;Common&quot; Indicator Name</td>
<td>#</td>
<td>%</td>
<td>#</td>
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<table>
<thead>
<tr>
<th><strong>All indicators derived from the 2014 5Y American Community Survey</strong></th>
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<tbody>
<tr>
<td><strong>Population</strong></td>
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<tr>
<td>Total Population</td>
<td>Population</td>
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<td>130553</td>
<td>465227</td>
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<tr>
<td>Male</td>
<td>1509</td>
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<td>61534</td>
<td>47%</td>
<td>221382</td>
<td>48%</td>
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<tr>
<td>Female</td>
<td>1734</td>
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<td>69019</td>
<td>53%</td>
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<tr>
<td>Under 5 years</td>
<td>Population Under 5</td>
<td>184</td>
<td>6%</td>
<td>8163</td>
<td>6%</td>
<td>23987</td>
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<tr>
<td>5-17 years</td>
<td>Population 5-17</td>
<td>415</td>
<td>12%</td>
<td>20560</td>
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<td>73478</td>
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<tr>
<td>18-24 years</td>
<td>396</td>
<td>12%</td>
<td>20361</td>
<td>16%</td>
<td>52961</td>
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<tr>
<td>25-34 years</td>
<td>1510</td>
<td>30%</td>
<td>26046</td>
<td>30%</td>
<td>62538</td>
<td>13%</td>
<td>431145</td>
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<td>35-44 years</td>
<td>500</td>
<td>15%</td>
<td>16293</td>
<td>12%</td>
<td>56759</td>
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<td>45-54 years</td>
<td>253</td>
<td>8%</td>
<td>14305</td>
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<td>68461</td>
<td>15%</td>
<td>563772</td>
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<tr>
<td>55-64 years</td>
<td>291</td>
<td>9%</td>
<td>11380</td>
<td>9%</td>
<td>57797</td>
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<td>468401</td>
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<td>65 years and over</td>
<td>Population 65 and Over</td>
<td>284</td>
<td>9%</td>
<td>13867</td>
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<td>70131</td>
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<td><strong>Race and Ethnicity, for total population</strong></td>
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<td></td>
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<tr>
<td>Hispanic or Latino of any race</td>
<td>Hispanic Population</td>
<td>762</td>
<td>23%</td>
<td>33935</td>
<td>26%</td>
<td>61512</td>
<td>13%</td>
</tr>
<tr>
<td>White, Not Hispanic or Latino</td>
<td>White Population</td>
<td>1762</td>
<td>53%</td>
<td>42075</td>
<td>32%</td>
<td>300930</td>
<td>65%</td>
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<tr>
<td>Black, Not Hispanic or Latino</td>
<td>Black Population</td>
<td>639</td>
<td>19%</td>
<td>48866</td>
<td>34%</td>
<td>70509</td>
<td>15%</td>
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<tr>
<td>Asian, Not Hispanic or Latino</td>
<td>Asian Population</td>
<td>109</td>
<td>3%</td>
<td>6575</td>
<td>5%</td>
<td>3553</td>
<td>5%</td>
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<tr>
<td>Other, Not Hispanic or Latino</td>
<td>Other Race Population</td>
<td>71</td>
<td>2%</td>
<td>4102</td>
<td>3%</td>
<td>1068</td>
<td>2%</td>
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<td><strong>Household Types</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total households</td>
<td>1600</td>
<td>49945</td>
<td>178251</td>
<td>1385206</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family households</td>
<td>Families</td>
<td>654</td>
<td>41%</td>
<td>25775</td>
<td>52%</td>
<td>109987</td>
<td>63%</td>
</tr>
<tr>
<td>Family households</td>
<td>Family households</td>
<td>654</td>
<td>25775</td>
<td>109987</td>
<td>895557</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married-couple family</td>
<td>400</td>
<td>61%</td>
<td>12848</td>
<td>50%</td>
<td>78477</td>
<td>71%</td>
<td>64328</td>
</tr>
<tr>
<td>Married-couple family, with one or more people under 18 years</td>
<td>Married Families with Children</td>
<td>184</td>
<td>28%</td>
<td>5815</td>
<td>23%</td>
<td>31287</td>
<td>28%</td>
</tr>
<tr>
<td>Married-couple family, with one or more people under 18 years</td>
<td>Married Families with Children</td>
<td>184</td>
<td>28%</td>
<td>5815</td>
<td>23%</td>
<td>31287</td>
<td>28%</td>
</tr>
<tr>
<td>Male householder, no wife present</td>
<td>0%</td>
<td>0%</td>
<td>895</td>
<td>3%</td>
<td>2603</td>
<td>3%</td>
<td>25972</td>
</tr>
<tr>
<td>Female householder, no husband present</td>
<td>0%</td>
<td>0%</td>
<td>895</td>
<td>3%</td>
<td>2603</td>
<td>3%</td>
<td>25972</td>
</tr>
<tr>
<td>Female householder, no husband present; with one or more people under 18 years</td>
<td>Single Parent Mothers</td>
<td>170</td>
<td>26%</td>
<td>6565</td>
<td>25%</td>
<td>13832</td>
<td>13%</td>
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<tr>
<td>Housing Occupancy</td>
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<td>Total housing units</td>
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<td>57190</td>
<td>196739</td>
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<tr>
<td>Vacant housing units</td>
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<td>7245</td>
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<td>134175</td>
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<tr>
<td>Occupied housing units</td>
<td>1600</td>
<td>89%</td>
<td>49945</td>
<td>87%</td>
<td>178251</td>
<td>91%</td>
<td>1356206</td>
</tr>
<tr>
<td>Occupied housing units, Owner occupied</td>
<td>Homeshippship Rate</td>
<td>455</td>
<td>25%</td>
<td>14732</td>
<td>29%</td>
<td>106825</td>
<td>16%</td>
</tr>
<tr>
<td>Occupied housing units, Renter occupied</td>
<td></td>
<td>1195</td>
<td>75%</td>
<td>35223</td>
<td>71%</td>
<td>66966</td>
<td>59%</td>
</tr>
<tr>
<td>Disconnected Youth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population 16 to 19 years</td>
<td>Total population 16 to 19 years</td>
<td>102</td>
<td>9003</td>
<td>28851</td>
<td>205966</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population 16 to 19 years not enrolled in school &amp; not working</td>
<td>Disconnected Youth</td>
<td>0</td>
<td>0%</td>
<td>867</td>
<td>10%</td>
<td>1514</td>
<td>5%</td>
</tr>
</tbody>
</table>

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<th>New Haven</th>
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<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population 25 years and over</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Population 25 years and over</td>
<td>2338</td>
<td>81199</td>
<td>315701</td>
<td>2455577</td>
<td></td>
</tr>
<tr>
<td>Less than high school diploma</td>
<td>372</td>
<td>10%</td>
<td>4335</td>
<td>18%</td>
<td>31257</td>
</tr>
<tr>
<td>High school degree or higher</td>
<td>1966</td>
<td>84%</td>
<td>66269</td>
<td>82%</td>
<td>284444</td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>1193</td>
<td>51%</td>
<td>27315</td>
<td>34%</td>
<td>122000</td>
</tr>
<tr>
<td>Foreign-born (immigrant) population</td>
<td>477</td>
<td>18%</td>
<td>21255</td>
<td>16%</td>
<td>57164</td>
</tr>
<tr>
<td>Language spoken, by population 5 years and over</td>
<td>3149</td>
<td>122390</td>
<td>441240</td>
<td>3397715</td>
<td></td>
</tr>
<tr>
<td>Speak only English</td>
<td>2243</td>
<td>7%</td>
<td>8507</td>
<td>68%</td>
<td>35955</td>
</tr>
<tr>
<td>Non-English home language</td>
<td>906</td>
<td>23%</td>
<td>39833</td>
<td>32%</td>
<td>40372</td>
</tr>
<tr>
<td>Non-English home language: Speak English less than very well</td>
<td>314</td>
<td>10%</td>
<td>1444 12%</td>
<td>30729</td>
<td>7%</td>
</tr>
<tr>
<td>Home Language Spanish</td>
<td>619</td>
<td>20%</td>
<td>27399</td>
<td>22%</td>
<td>47381</td>
</tr>
<tr>
<td>Home Language Spanish: Speak English less than very well</td>
<td>238</td>
<td>8%</td>
<td>10983</td>
<td>9%</td>
<td>17846</td>
</tr>
<tr>
<td>Employment status, for population 16 years and over</td>
<td>2778</td>
<td>104766</td>
<td>379536</td>
<td>2899525</td>
<td></td>
</tr>
<tr>
<td>In Labor Force</td>
<td>1908</td>
<td>69%</td>
<td>67841</td>
<td>65%</td>
<td>254478</td>
</tr>
<tr>
<td>In Labor Force, Civilian</td>
<td>1908</td>
<td>69%</td>
<td>67752</td>
<td>65%</td>
<td>254121</td>
</tr>
<tr>
<td>In Labor Force, Civilian, Employed</td>
<td>1723</td>
<td>62%</td>
<td>58452</td>
<td>56%</td>
<td>228443</td>
</tr>
<tr>
<td>In Labor Force, Civilian, Unemployed</td>
<td>105</td>
<td>4%</td>
<td>3929</td>
<td>3%</td>
<td>25635</td>
</tr>
<tr>
<td>Not in Labor Force</td>
<td>870</td>
<td>31%</td>
<td>36615</td>
<td>35%</td>
<td>120554</td>
</tr>
<tr>
<td>Unemployment Rate (% Unemployed of Civilian Labor Force)</td>
<td>10%</td>
<td>14%</td>
<td>10%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Commute Mode, for workers 16 years and over</td>
<td>1687</td>
<td>57290</td>
<td>234241</td>
<td>1734788</td>
<td></td>
</tr>
<tr>
<td>Worked at home</td>
<td>104</td>
<td>6%</td>
<td>1911</td>
<td>3%</td>
<td>9024</td>
</tr>
<tr>
<td>Worked 16 years and over who did not work at home</td>
<td>1583</td>
<td>94%</td>
<td>55379</td>
<td>97%</td>
<td>215217</td>
</tr>
<tr>
<td>Car, truck, or van drove alone</td>
<td>834</td>
<td>49%</td>
<td>33483</td>
<td>56%</td>
<td>165932</td>
</tr>
<tr>
<td>Car, truck, or van car pooled</td>
<td>481</td>
<td>31%</td>
<td>16903</td>
<td>27%</td>
<td>13779</td>
</tr>
<tr>
<td>Public transportation (excluding taxicab)</td>
<td>201</td>
<td>12%</td>
<td>7110</td>
<td>12%</td>
<td>13329</td>
</tr>
<tr>
<td>Walked/bike</td>
<td>449</td>
<td>27%</td>
<td>9850</td>
<td>16%</td>
<td>26013</td>
</tr>
<tr>
<td>Taxicab, motorcycle, or other means</td>
<td>77</td>
<td>1%</td>
<td>504</td>
<td>1%</td>
<td>3356</td>
</tr>
<tr>
<td>Children with all parents in the labor force</td>
<td>106</td>
<td>54%</td>
<td>20994</td>
<td>75%</td>
<td>72118</td>
</tr>
<tr>
<td>Children living in 2 parent families, both parents in the labor force AND In 1-parent families, parent in labor force</td>
<td>565</td>
<td>27167</td>
<td>94285</td>
<td>766701</td>
<td></td>
</tr>
<tr>
<td>Occupations, for employed civilian population 16 years and over</td>
<td>1723</td>
<td>58462</td>
<td>228642</td>
<td>1766934</td>
<td></td>
</tr>
<tr>
<td>Total Employed</td>
<td>978</td>
<td>57%</td>
<td>23263</td>
<td>40%</td>
<td>97330</td>
</tr>
<tr>
<td>Management, professional &amp; related occupations</td>
<td>216</td>
<td>13%</td>
<td>14583</td>
<td>25%</td>
<td>42393</td>
</tr>
<tr>
<td>Sales &amp; office occupations</td>
<td>46</td>
<td>4%</td>
<td>2489</td>
<td>4%</td>
<td>15966</td>
</tr>
<tr>
<td>Production, transportation &amp; material moving occupations</td>
<td>93</td>
<td>5%</td>
<td>7095</td>
<td>12%</td>
<td>21497</td>
</tr>
</tbody>
</table>

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## DataHaven 2014 New Haven Neighborhood Estimates


### Table: Social Capital, Creativity and Cultural Vitality

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<tbody>
<tr>
<td>Key community indicators highlighted in green</td>
<td>&quot;Common&quot; Indicator Name</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
</tbody>
</table>

### Income

| Households | Income less than $10,000 | 212 | 13% | 6564 | 14% | 12651 | 7% | 77557 | 6% |
| Households | Income $10,000 to $29,999 | 118 | 7% | 4038 | 9% | 8826 | 5% | 37514 | 3% |
| Households | Income $30,000 to $49,999 | 188 | 12% | 3217 | 7% | 7133 | 4% | 45649 | 4% |
| Households | Income $50,000 to $74,999 | 344 | 21% | 7190 | 14% | 2837 | 16% | 22077 | 1% |
| Households | Income $75,000 to $99,999 | 82 | 5% | 4555 | 9% | 7216 | 4% | 17629 | 1% |
| Households | Income $100,000 or more | 204 | 13% | 4463 | 9% | 7354 | 4% | 22460 | 2% |
| Households | Income $150,000 to $199,999 | 44 | 3% | 1854 | 4% | 1329 | 1% | 107942 | 8% |
| Households | Income $200,000 or more | 48 | 3% | 1666 | 3% | 13636 | 8% | 127719 | 9% |

### Average Household Income

| Average Household Income | 59,125 | 57,862 | 59,910 |

### Poverty

| Population for whom poverty status is determined | 3300 | 121638 | 44670 | 3481115 |
| Income below 100% of poverty level (official "poverty rate") | 932 | 28% | 32122 | 26% | 58894 | 13% | 364740 | 10% |
| Low-income Population | 1366 | 47% | 52820 | 43% | 13636 | 3% | 82315 | 2% |
| Not Low Income Population | 1734 | 53% | 62435 | 51% | 32685 | 7% | 265870 | 7% |
| Population for whom poverty status is determined: Under 5 years | 209 | 9755 | 28739 | 23204 |
| Income below poverty level: Under 5 years | 97 | 46% | 3547 | 36% | 5395 | 19% | 38156 | 12% |
| Population for whom poverty status is determined: Under 18 years | 592 | 28184 | 96672 | 765691 |
| Income below poverty level: Under 18 years | 257 | 43% | 10579 | 37% | 6490 | 17% | 110056 | 14% |
| Population for whom poverty status is determined: 65 years and over | 284 | 12811 | 67742 | 508657 |
| Income below poverty level: 65 years and over | 78 | 27% | 1897 | 15% | 1178 | 3% | 85951 | 1% |
| Families | 654 | 25775 | 109987 | 899557 |
| Families: Income in the past year below poverty level | 170 | 26% | 5760 | 22% | 9635 | 6% | 67706 | 8% |

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### DataHaven 2014 New Haven Neighborhood Estimates


Neighborhood-level data from the American Community Survey are subject to high margins of error. Compare and use with caution.

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<th>Greater New Haven</th>
<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Access and Crawling, for households</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupied housing units</td>
<td></td>
<td>1600</td>
<td>49945</td>
<td>178251</td>
<td>1352606</td>
</tr>
<tr>
<td>Occupied housing units: No vehicle available</td>
<td>Zero Vehicle Households</td>
<td>523</td>
<td>33%</td>
<td>14222</td>
<td>28%</td>
</tr>
<tr>
<td>Occupied housing units: 1 vehicle available</td>
<td></td>
<td>646</td>
<td>40%</td>
<td>21505</td>
<td>43%</td>
</tr>
<tr>
<td>Occupied housing units: 2 or more vehicles available</td>
<td></td>
<td>431</td>
<td>27%</td>
<td>14218</td>
<td>38%</td>
</tr>
<tr>
<td>Occupied housing units: 1.00 or less occupants per room</td>
<td></td>
<td>1566</td>
<td>98%</td>
<td>48373</td>
<td>97%</td>
</tr>
<tr>
<td>Occupied housing units: 1.01 or more occupants per room</td>
<td>Overcrowded Housing</td>
<td>34</td>
<td>2%</td>
<td>1577</td>
<td>3%</td>
</tr>
<tr>
<td>Home Value, for owner occupied housing units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-occupied housing units, Total</td>
<td></td>
<td>405</td>
<td>14722</td>
<td>108625</td>
<td>913043</td>
</tr>
<tr>
<td>Value is less than $50,000</td>
<td></td>
<td>6</td>
<td>1%</td>
<td>521</td>
<td>4%</td>
</tr>
<tr>
<td>Value is $50,000 to $99,999</td>
<td></td>
<td>48</td>
<td>10%</td>
<td>1094</td>
<td>7%</td>
</tr>
<tr>
<td>Value is $100,000 to $149,999</td>
<td></td>
<td>52</td>
<td>13%</td>
<td>2695</td>
<td>18%</td>
</tr>
<tr>
<td>Value is $150,000 to $199,999</td>
<td></td>
<td>37</td>
<td>9%</td>
<td>3080</td>
<td>21%</td>
</tr>
<tr>
<td>Value is $200,000 to $299,999</td>
<td>Housing Values $200K+</td>
<td>270</td>
<td>67%</td>
<td>7932</td>
<td>50%</td>
</tr>
<tr>
<td>Value is $300,000 to $499,999</td>
<td></td>
<td>277</td>
<td>17%</td>
<td>2634</td>
<td>18%</td>
</tr>
<tr>
<td>Value is $500,000 to $799,999</td>
<td></td>
<td>61</td>
<td>19%</td>
<td>1640</td>
<td>11%</td>
</tr>
<tr>
<td>Value is $800,000 or more</td>
<td></td>
<td>142</td>
<td>35%</td>
<td>3048</td>
<td>21%</td>
</tr>
<tr>
<td>Housing Cost Burden, for owner occupied housing units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner occupied housing units</td>
<td></td>
<td>405</td>
<td>14722</td>
<td>108625</td>
<td>913043</td>
</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 30% or more</td>
<td>Cost-Burdened Homeowners</td>
<td>199</td>
<td>49%</td>
<td>5964</td>
<td>41%</td>
</tr>
<tr>
<td>Owner occupied housing units, selected monthly owner costs as a percentage of household income, 50% or more</td>
<td>Severe Homeowner Cost Burden</td>
<td>122</td>
<td>30%</td>
<td>2724</td>
<td>19%</td>
</tr>
<tr>
<td>Housing Cost Burden, for renter occupied housing units</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renter occupied housing units</td>
<td></td>
<td>1195</td>
<td>35223</td>
<td>69626</td>
<td>443163</td>
</tr>
<tr>
<td>Renter occupied housing units, Gross rent as a percentage of household income, 30% or more</td>
<td>Cost-Burdened Renters</td>
<td>572</td>
<td>48%</td>
<td>20386</td>
<td>38%</td>
</tr>
<tr>
<td>Renter occupied housing units, Gross rent as a percentage of household income, 50% or more</td>
<td>Severe Renter Cost Burden</td>
<td>309</td>
<td>26%</td>
<td>12033</td>
<td>34%</td>
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<tr>
<td>Housing Cost Burden, for all households</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All households</td>
<td></td>
<td>1600</td>
<td>49945</td>
<td>178251</td>
<td>1352606</td>
</tr>
<tr>
<td>All households paying 30% of income for housing</td>
<td>Cost-Burdened Households</td>
<td>771</td>
<td>48%</td>
<td>26360</td>
<td>53%</td>
</tr>
<tr>
<td>All households paying 50% of income for housing</td>
<td>Severe Household Cost Burden</td>
<td>431</td>
<td>27%</td>
<td>14735</td>
<td>30%</td>
</tr>
</tbody>
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CARE: Community Alliance for Research and Engagement

DOCUMENTING THE HEALTH OF OUR NEIGHBORHOODS
  • NEWHALLVILLE •

CARE, a partnership between the New Haven community and Yale University, is taking action against chronic disease. To improve the health of our residents, CARE promotes a healthy lifestyle by focusing on three risk factors: diet, exercise, and tobacco use. New Haven is the first US city to join one of the world’s largest community-based research studies on chronic disease - with other sites in England, Mexico, India and China.

In the summer of 2009, Youth@Work interns created an “asset map” of six New Haven neighborhoods, including the Newhallville neighborhood. The asset map documents neighborhood features related to diet, exercise, and tobacco use. In the fall, 1,205 New Haven residents in the same six neighborhoods – including 197 in Newhallville – participated in a survey about health and their own habits around these same three risk factors.

NEWHALLVILLE’S ASSET MAP

- In Newhallville, CARE documented 12 stores, six restaurants, two recreational facilities, five parks, and three community gardens.
- Two of the six restaurants served fast food. None of the restaurants promoted healthy options or posted nutritional information.
- Eight of the twelve stores mapped in Newhallville were convenience stores that sold mostly junk food. There were also three package stores and one pharmacy.

SURVEY RESULTS – GENERAL HEALTH AND STRESS

- Eleven percent (11%) of Newhallville residents report “excellent” health – lower than all six neighborhoods (16%) and the national average (20%).
- Most Newhallville residents have a regular place to go for health care (87%). However, only 72% have health insurance - well below the national average of 86%.
- Like those in all six neighborhoods, Newhallville residents report high levels of stress – over one-half have some level of tension, stress or pressure and more than one in four feel down, depressed or hopeless.
- Overall, reported chronic disease in Newhallville is similar to all six neighborhoods. Rates of heart disease, diabetes, asthma, obesity, and high blood pressure are higher than the national average.

Newhallville Health Conditions

*Behavioral Risk Factor Surveillance System, 2009 (Centers for Disease Control)
NUTRITION

- Fifteen percent (15%) of Newhallville residents report “food insecurity” – meaning that they or their family did not have enough food (or money to buy food) in the past 30 days. This was similar to all six neighborhoods (18%) but higher than the national average (11%).

- Fifty-five percent (55%) of Newhallville residents eat vegetables every day – more than in all six neighborhoods (48%). Thirty-seven percent (37%) eat fruit everyday. On average, Newhallville residents report having four servings of fruits and/or vegetables per day – similar to those in all six neighborhoods, but less than the recommended five per day.

- As in all six neighborhoods, Newhallville residents report drinking many sugar-sweetened beverages – 54% drink sugar-sweetened beverages every day (with 72% of those drinking two or more per day).

EXERCISE

- Fifty-three percent (53%) of Newhallville residents do not exercise regularly – similar to other neighborhoods and worse than the national average (51%).

- As in all six neighborhoods, Newhallville residents describe several challenges to regular exercise, including lack of time, willpower, energy, and equipment or space. Over one-third do not exercise because of poor health.

- Feelings of safety can limit exercise options. Compared with all six neighborhoods, more Newhallville residents agreed that it was unsafe to go for walks in their neighborhood at night (74% vs. 65%) or during the day (45% vs. 31%).

SMOKING

- Thirty-four percent (34%) of Newhallville residents are current daily smokers – similar to the average in all six neighborhoods (31%) but much higher the national average (13%).

- Thirty-six percent (36%) of Newhallville smokers said they were ready to quit and another 32% were thinking of quitting in the next six months. As in other neighborhoods, most smokers (83%) said they would be motivated to quit by saving the money they spend on cigarettes.

For more information about CARE and this project:
203.785.7651 • care@yale.edu • www.ycci.yale.edu/care.
CARE: Community Alliance for Research and Engagement

DOCUMENTING THE HEALTH OF OUR NEIGHBORHOODS

- DIXWELL -

CARE, a partnership between the New Haven community and Yale University, is taking action against chronic disease. To improve the health of our residents, CARE promotes a healthy lifestyle by focusing on three risk factors: diet, exercise, and tobacco use. New Haven is the first US city to join one of the world’s largest community-based research studies on chronic disease - with other sites in England, Mexico, India and China.

In the summer of 2009, Youth@Work interns created an “asset map” of six New Haven neighborhoods, including the Dixwell neighborhood. The asset maps document neighborhood features related to diet, exercise, and tobacco use. In the fall, 209 Dixwell residents participated in a survey about health and their own habits around these same three risk factors. A total of 1,205 New Haven residents took the same survey in all six neighborhoods.

DIXWELL’S ASSET MAP

- In Dixwell, ten stores, three restaurants, five parks, and two community gardens were mapped.
- Dixwell lacks grocery stores and access to fresh produce: four of the mapped stores were package stores, and six were convenience stores.
- No restaurants in Dixwell promote themselves as having healthy options or post nutrition information, unlike some other neighborhoods in New Haven.

SURVEY RESULTS – GENERAL

- Compared to the other neighborhoods, more Dixwell residents rated their health as “excellent” (19% vs. 16%). This is closer to the national rate of 20%.
- Most people in Dixwell report having a regular place to go for health care (88%), but only 71% have health insurance. This is below the national average of 86%.
- Dixwell residents report a high level of stress: 25% are bothered by feeling down, depressed or hopeless, 22% feel more stress than is usual, and 6% feel that “life is almost unbearable.”

![Dixwell Health Conditions](image)

- Reported chronic disease in Dixwell looks similar to the rest of the neighborhoods, except that there was less reported obesity in Dixwell.
Twelve percent (12%) of Dixwell residents report “food insecurity” – meaning that they or their family did not have enough food (or money to buy food) in the past 30 days. This was lower than other surveyed neighborhoods (18%), and similar to the national average (11%).

About half of Dixwell residents eat vegetables seven days a week and 41% eat fruit every day. However, nearly 80% of those who eat fruits and vegetables report having just one or two servings of each per day, less than the recommendation of five a day.

As in other surveyed neighborhoods, Dixwell participants report eating and drinking many sweets and sugar-sweetened beverages like soda. More than one-third eat sweets daily and 46% drink sugar-sweetened beverages everyday - with 7 of 10 adults drinking two or more per day.

**EXERCISE**

Fifty eight percent (58%) of Dixwell residents report doing no vigorous exercise (which makes you breathe much harder than normal) and 39% report doing no moderate exercise (which makes you breathe somewhat harder than normal) in the past seven days.

Although exercise habits in Dixwell were similar to those in other surveyed neighborhoods, people in Dixwell were more likely to walk or ride a bike to work or school. One-quarter report walking or biking five to seven days a week (compared with 17% in other neighborhoods).

Similar to residents surveyed in other neighborhoods, Dixwell residents describe challenges to regular exercise, including no time, energy and willpower.

Feelings of safety can limit exercise options. Nearly 70% of Dixwell residents “strongly agree” or “somewhat agree” that it is unsafe to go for walks in their neighborhood at night.

**SMOKING**

One-quarter (25%) of Dixwell residents are current daily smokers – lower than other neighborhoods (31%), but higher than the national average (20%). More than one-third are ready to quit now and almost another half are thinking of quitting in the next six months.

As in other neighborhoods, a large majority of smokers (79%) said they would be motivated to quit by saving the money they spend on cigarettes.

For more information about CARE and this project: 203.785.7651 • care@yale.edu • www.ycci.yale.edu/care.