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Urban Redevelopment: New Bedford Massachusetts

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Urban Redevelopment: New Bedford, Massachusetts

By

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Submitted in partial fulfillment
of the requirements for
Honors in the Department of Economics

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ABSTRACT

FROMAN, MICHAEL Urban Redevelopment: New Bedford,
Massachusetts

ADVISOR: Bradley Lewis

In 2010, 80% of Americans lived in urban areas with the number on the rise. Trends in the economy and people's desires affect the demographics of the United States and over recent years there has been a movement from rural to urban areas called urbanization. Throughout the history of the United States, cities have seen economic successes where the city thrived along with turmoil where the city was plagued with unemployment and a stagnant economy. This study assesses the developments of New Bedford, Massachusetts, a city with a population of approximately 100,000 located in South East Massachusetts. New Bedford's economic success has been primarily based on the success of a single industry, beginning with whaling and moving to textile manufacturing and commercial fishing. Because of a variety of factors, New Bedford saw a decrease in population, employment and income beginning during the Great Depression era and never regained its success. New Bedford has certain assets that if capitalized on can be central to the urban redevelopment of the city. The geography of the city is crucial because of the proximity to the larger cities of Boston, Providence and New York, to high population density areas and to the access to the ocean with the Port of New Bedford. The rich history of the city has the potential to be an asset for tourism as well. Ultimately, New Bedford has the potential capitalize on assets that already exist in the city which many others do not. Through diversification and creative strategies, New Bedford has the potential not just for a quick boost to the economy but for long term success in redeveloping the city.

Table of Contents

List of Tables	v
Chapter One: Introduction.....	1
Chapter Two: History of New Bedford	3
Founding of New Bedford	3
Great Depression and Impact	4
Urban Renewal and Model Cities	6
WHALE and Historical Preservation	9
Economic Development Task Force.....	13
Chapter Three: Problems and Theory	17
Current Problems	17
Redevelopment Theory: The “Creative Economy”	21
Chapter Four: Redevelopment Initiatives	27
Geography.....	27
Tourism	31
Commercial Fishing	39
Renewable Energy.....	42
Healthcare	46
Chapter Five: Conclusion.....	52
Impact of history	52
Creative Class and Clusters	52
Further Study and Research	54
References.....	56
Interviews	60

List of Tables

Figure 1: Unemployment Rate History of New Bedford, MA compared to Massachusetts (1990-2016).....	19
Figure 2: Persons in Poverty New Bedford vs. Massachusetts (Percent).....	19
Figure 3: Median Household Income New Bedford vs. Massachusetts 2011-2015 (in 2015 dollars)	20
Figure 4: High School Graduate or higher New Bedford vs. Massachusetts 2011-2015 (percent of person 25 years+).....	20
Figure 5: Bachelor's degree or higher New Bedford vs. Massachusetts 2011-2015 (percent of persons 25 years+)	20
Figure 6: New Bedford Existing Land Use Percentages (2005)	29
Figure 7: Zoning Map New Bedford.....	30
Figure 8: Map of Downtown New Bedford	38
Figure 9: Commercial Fishing Landings Top Three Ports (millions of dollars)	41
Figure 10: New Bedford Landing and Dollar Value Comparison	41
Figure 11: Percent of New Bedford Employment by Industry	47
Figure 12: New Bedford, MA and Area age by Generation	48
Figure 13: Education and Health Services Industry Employment (2006-2015).....	48
Figure 14: Acushnet Avenue District	54

Chapter One: Introduction

Urban redevelopment projects throughout the United States have dated back to the beginning of the 20th century when cities' populations began to decrease significantly with the rise of the suburban lifestyle. Early forms were an approach termed "Urban Renewal" where cities took cookie cutter approaches that were successful for one city and used them for numerous cities without significant planning beforehand. New Bedford, Massachusetts, a city of about 100,000 people located in southeastern Massachusetts 60 miles from Boston, 30 miles from the beginning of Cape Cod and 30 miles from Providence, RI. New Bedford experienced a variety of successful and unsuccessful Urban Renewal projects in the 1930s and 1940s that impact the city still today. As modern urban planners, economists and other professionals have studied Urban Renewal new theories and strategies have developed as cities look to redevelop cities to be successful as they once were. Cities can study other cities to learn from successes and mistakes; however, each city is different so there is no single strategy that works everywhere. Each city must capitalize on the assets available to them and develop a plan that is right for them.

New Bedford has been plagued with high unemployment and a stagnant economy since the early 1990s and there was little leadership within the city dedicated to making drastic changes. Beginning in the early 2000s organizations have taken an interest in New Bedford because of the potential that lies in the city. These include private, state and federally funded organizations invested in collaborating with the people of New Bedford and the city officials to take a place based approach at developing the city. Mayor

Jonathan F. Mitchell has diligently worked with his leadership team and the various organizations in the city to set goals for long term success of the city. The New Bedford Regeneration Committee published its final report in 2014, which provided possible strategies for success, to the mayor taking input from 22 people who are vested in New Bedford in a variety of ways. The strategies set forth in recent years are highly integrated with the history of New Bedford and distinct geography of the city. Urban redevelopment must set forth goals for long term success and continue to update those goals in order to put the city in a position for long term planning and success.

The organization of this paper is as follows. Chapter two provides a history of New Bedford from an economic perspective. Chapter three gives the current economic statistics of the city as well as a review of existing literature on urban redevelopment. Chapter four offers an analysis of possible industries New Bedford can continue to pursue in their redevelopment efforts. Chapter 5 presents the conclusions of the analysis.

Chapter Two: History of New Bedford

Founding of New Bedford

New Bedford officially became a city in 1847 in a time when it was a preeminent whaling and trade port. The total U.S. whaling fleet totaled approximately 700 vessels and over half of these were based out of New Bedford.¹ Technological improvements attracted people such as Lewis Temple, a freed black from Virginia to New Bedford, who developed the toggling harpoon which improved the efficiency for whalers.² Why was whaling an economic success? Whale oil was used widely throughout the world as fuel for lamps, something necessary before electricity. Petroleum as an alternative to whale oil was discovered and, “The 1880s marked the end of whaling as the dominant industry in New Bedford.”³ Investors scrambled to find a way to continue the economic prosperity by moving to textile manufacturing.

Continuing the pattern of an economy prospering off of a single industry, New Bedford manufacturing took off. Focusing on finer and higher value-added cotton goods, “Manufacturing was profitable in New Bedford because of its proximity to end-use and supply markets in the Northeast, low transportation costs, and low cost and reliable supply of immigrant labor.”⁴ Although relatively late to the industry, New Bedford benefitted as it was able use new, lower cost technology in both production and

¹ National Oceanic and Atmospheric Administration, “Community Profile of Town, New Bedford.” ST. Prepared under the auspices of the *National Marine Fisheries Service, Northeast Fisheries Science Center*, <http://www.nefsc.noaa.gov/read/socialsci/pdf/MA/newbedford-ma.pdf>.

² New Bedford Whaling Museum, “Lewis Temple’s Real Innovation,” *WhalingMuseum.org*, <https://www.whalingmuseum.org/learn/lewis-temple>.

³ Gittell, Ross Jacobs, “A critical analysis of local initiatives in economic revitalization” (PhD diss. Harvard University, 1989), 166.

⁴ Gittell, 49, 50.

transportation which can be seen in as, “New Bedford’s cost per ton of coal at the turn of century was \$4.07, significantly below that of Lowell, \$5.37, and Manchester, New Hampshire, \$5.52.”⁵ Transportation of primary products was cheap and due to wealth in the Northeast, transporting finished products to market was cost efficient. Employment in manufacturing fluctuated around 40,000 employees during the 1920s attracting immigrants.⁶ Population peaked in the 1920s with a population just over 120,000 with 40% being foreign-born and 39% being native born with at least one parent of foreign descent.⁷ Foreigners were willing to work for relatively inexpensive wages and due to New Bedford’s low cost of living. The city thrived with high employment and large production of goods.

Great Depression and Impact

The Great Depression slowed cities drastically with the number of employed in manufacturing falling to only six million in 1931 after peaking at 8.3 million throughout the U.S. in 1929.⁸ Wage earners in textile manufacturing in New Bedford followed with a decline of 60% from 1927 to 1932, as employees desired higher wages.⁹ President Herbert Hoover urged industrial leaders to keep high wages following the 1929 market crash to support consumer spending and aid recovery.¹⁰ Research shows this prolonged

⁵ Gittell, 166.

⁶ U.S. Census Bureau, “Manufactures in cities having in 1920, 100,000 or More Inhabitants,” Departments of Commerce. Statistical Abstract of the United States 1928. Pg. 778.

⁷ U.S. Census Bureau, “Population Statistics of Cities Having in 1920 over 50,000 Inhabitants,” Department of Commerce. Statistical Abstract of the United States 1928, Pg. 46.

⁸ Department of Commerce “Manufactures Summary: 1849 to 1937” Statistical Abstract of the U.S. 1940. Pg. 802.

⁹ Gittell, 167.

¹⁰ D.W. MacKenzie, “Industrial Employment and the Policies of Herbert C. Hoover,” *Quarterly Journal of Austrian Economics*, Volume 13, number 3, Fall 2010. <https://mises.org/library/industrial-employment-and-policies-herbert-c-hoover>.

unemployment and manufacturers such as those in New Bedford suffered the consequences. Investors moved operations South where they could pay workers lower wages for the same work, leaving New Bedford and other New England manufacturing cities with high unemployment. Unlike similar manufacturing cities; however, “New Bedford’s economy never completely collapsed or reached a crisis condition.”¹¹ More diversified than many cities, New Bedford also had manufacturing operations in other industries along with thriving commercial fishing operations.

The New Bedford Industrial Development Commission (IDC) was formed in 1950 to attract manufacturing development back to the city using the draw of its location and transportation links to New York City, Boston and other Northeast markets, as well as providing financing and tax abatements.¹² This was a popular strategy of cities across the United States at this time, thus it was not an advantage for New Bedford or any of the other cities. Never reaching pre Depression levels, New Bedford manufacturing employment rose to approximately 30 thousand workers in 1950, but then it experience a gradual decrease until 1980, when there were only 20,000.¹³ Between 1950 and 1986 the population fell 11%, from 109,000 to 96,450 with a decline of total employment of 12%, from 46,000 in 1950 to 40,440 in 1980.¹⁴ Unlike previously, there was not a major industry to drive the economy and no prospects of one to come.

¹¹ Gittell, 168.

¹² Gittell, 169.

¹³ U.S. Bureau of the Census, Census of Manufacturing, Census of Wholesale Trade. Census of Retail Trade. Census of Services, (U.S. Government Printing Office, 1948, 1954, 1958, 1964, 1968, 1972, 1977, 1982).

¹⁴ Gittell, 170.

Similar events took place nationwide through the early and mid 20th century as in New Bedford. Cities' economies throughout the United States developed around a major industry or in some cases, one to two companies. New Bedford competed with similar cities such as Lowell, Fall River and Gloucester, which also developed because of manufacturing and their natural location on the ocean. Other examples of growing prospering cities included Schenectady, NY, which had the prominent companies of General Electric and American Locomotive Company which flourished during the expansion of railroad use. Flint, Michigan grew with the automobile industry and General Motors saw its prosperity grow and fall in a similar pattern, but not until later in the 20th century due to the oil crisis and exportation of jobs.

Urban Renewal and Model Cities

The exodus of manufacturing brought high unemployment with it, as seen throughout the 1930s and 40s. Immigrants, especially Portuguese, lost their factory jobs and with little to no education were not in the position to easily find a new high-wage profession. Twenty-two percent of New Bedford's population in 1950 was foreign born, which was three times the U.S. average.¹⁵ Low income areas developed as the immigrants living in neighborhoods together struggled with unemployment.

Due to location, New Bedford used access to the ocean to move from whaling to commercial fishing. A misconception about the economic impact of the commercial fishin industry is seen in the statement that "local employment in fishing and fish processing has never exceeded 2,000 employees. The industry has never... accounted for

¹⁵ Gittell, 172.

more than 15% of total employment in the city.”¹⁶ While a small portion of employment, the city still ranked as a top U.S. port. Ties to the water are important for New Bedford; however, commercial fishing cannot be the major industry the city relies on even though it is nationally recognized for it.

The concept of large “Urban Renewal” projects had taken off in various cities after World-War II on the onset of the Great Depression. The Housing Act of 1949, “set lofty goals- to eliminate slums and blighted areas and provide a decent home for every American family....”¹⁷ Not understanding the complexities of the problems that existed within cities officials believed that clearing slums and rehousing the poor in public housing would boost economic health and real estate values. The ultimate goal was to, “bring capital and white, middle-class shoppers and residents back downtown.”¹⁸

New Bedford’s Urban Renewal programs were no different than those of other cities throughout the United States. “Over \$80 million was spent on Urban Renewal in New Bedford and \$12 million on supplemental Model Cities grants over a 12-year period from 1962 to 1974.”¹⁹ In New Bedford, the project brought a highway to the city which separated downtown and the waterfront. Highways to downtown aimed to bring middle-class white shoppers back to the area due to easy access, however due to poor planning their location hindered tourism. The downtown shops were harmed as the Dartmouth Mall was built between 1969 and 1971. Approximately 3 miles from downtown New

¹⁶ Gittell, 170.

¹⁷ Alexander von Hoffman, “A Study in Contradictions: The Origins and Legacy of the Housing Act of 1949,” *Housing Policy Debate* 11, no. 2 (2000): 299.

¹⁸ Samuel Zipp, “The Roots and Routes of Urban Renewal,” *Journal of Urban History* 39, no. 3 (2012): 367

¹⁹ Gittell, 174.

Bedford, the mall provided easy access, parking and the ability to go to multiple stores that were all together. Retail and wholesale trader establishments saw a decline as the number of establishments fell from about 1,500 in 1958 to just below 1,000 in 1982.²⁰ Neighborhoods were cleared for public housing, mainly for senior citizens, and for the highway.

Expectations were high as residents knew of the efforts being made but the optimism was short lived. New industries were not being attracted to the city and the Model Cities initiative directly affected residents. The Model Cities program was a federal initiative in which 150 cities received funding for selected neighborhood areas in which they had to spend all of the aid.²¹ New Bedford's original neighborhood was the South End, an area predominantly Portuguese; however, in 1970 the area was shifted to include the West End which was primarily black residents.²² In August 1970 militant revolts took place for a week ending with 75 local and state police officers raiding the National Committee to Combat Fascism headquarters.²³ The Model Cities headquarters was one of the multiple locations targeted in the uprisings of minorities primarily from the West End.²⁴ Similar to cities competing to receive funding, neighborhoods had to compete causing tension among cultural groups of the city.

²⁰ U.S. Bureau of the Census, Census of Manufacturing, Census of Wholesale Trade. Census of Retail Trade. Census of Services, (U.S. Government Printing Office, 1958, 1982)

²¹ Jody H. Schechter, "AN EMPIRICAL EVALUATION OF THE MODEL CITIES PROGRAM," (master's thesis, University of Michigan, 2011), 2, <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/85326/schec.pdf?sequence=1>.

²² Gittell, 178.

²³ David R Ignatius, M David Landau, "New Bedford, Quiet but Tense, Still Faces All its Problems," *Harvard Crimson* (August 4, 1970), <http://www.thecrimson.com/article/1970/8/4/new-bedford-quiet-but-tense-still/>.

²⁴ Ignatius, 1970.

Ultimately the plan did little to improve the community as “there was a feeling of unfilled expectations, apathy, and frustration in the homes of the people in New Bedford’s Model Cities target area.”²⁵ The officials directing the plan did not incorporate the community into the planning and saw a dissatisfaction among residents. Government construction including the highway demolished 1200 units of low-income housing which combined with 20% unemployment for non-white citizens led to tension and a lack of support for future initiatives.²⁶ Research on the Model Cities program found that, “model cities did not fare better by virtue of being selected into the program than other cities with similar baseline characteristics.”²⁷

WHALE and Historical Preservation

The fishing industry, which at the time was prospering, received federal funding to rebuild facilities along the waterfront. This appeared to be a decision aimed at using the commercial fishing as the primary driving force behind the economy, as whaling and manufacturing had been in earlier times. Issues would arise later as the Georges Bank area saw a depleted fish population and, “legislation reduced the amount fishermen could bring in per year and further restricted fishing areas to prevent overfishing.”²⁸ The fishing industry was limited, due to resources; thus while it was an important part of the economy, the city had to expand and diversify to add jobs and income.

²⁵ Gittell, 178.

²⁶ Ignatius, 1970.

²⁷ Schechter, 3.

²⁸ Katie T. Moniz, “The Redevelopment of Working Waterfronts: How Lessons Learned in Oregon’s Working Waterfronts Can Be Applied to Designated Port Areas (DPAs) and the Surrounding Areas in Massachusetts,” (master’s thesis, Tufts University, 2008), 68.

In the midst of national pressures for Urban Renewal that took the cookie cutter approach, there were individuals in New Bedford committed to preserving its identity. The Waterfront Historic Area League (WHALE) was founded in 1962 in an attempt to preserve the city's history and architecture. Committed to preservation, Sarah Delano, WHALE's president from 1966-1982 states, "if you bulldoze your heritage you become just anywhere..."²⁹ Other cities developed what were referred to as "festive marketplaces" as part of their Urban Renewal projects to compete with suburban malls. This approach was to clear slums and older buildings and establish a shopping plaza in the downtown. Becoming "just anywhere" was proven unsuccessful by Flint, Michigan in their attempt to copy cities such as Boston and Baltimore which had been successful.³⁰ WHALE wanted to do more than just save the city from "death by neglect and the tyranny of the bulldozer"³¹ Large sums of the funding at this time were being devoted to the commercial fishing industry which was still thriving making it a crucial part of the downtown district. George Perkins, a New Bedford planner in the 1960s clarified the goals of WHALE stating, "We didn't want to turn New Bedford's Waterfront District into a big outdoor museum. We had no intention of displacing the fishing industry. They are the District. Our idea was to showcase a working waterfront. The businesses would stay. We just wanted to keep their buildings from falling down around them."³² Lowell, Massachusetts, with a background similar to New Bedford in textiles and manufacturing,

²⁹ "WHALE History," *Waterfront Historic Area League*, accessed November 21, 2016, <http://www.waterfrontleague.org/about/history/>.

³⁰ Theodore J. Gilman, *No Miracles Here: Fighting Urban Decline in Japan and the United States* (New York: State University of New York Press, Albany, 2001), 127.

³¹ "WHALE History".

³² Moniz, 58.

converted their mill district into the Lowell National Historical Park in 1978 using a culture-based approach revitalization.³³ Implementing a “cookie cutter” approach that was developed in the 1970s, Lowell was able to use their heritage and culture to attract tourism and “cultural industries”.³⁴ Perkins resisted this type of movement wanting the city to be more than just a museum.

As one of the leading commercial fishing ports in the U.S., New Bedford’s plan was to develop a working waterfront: an area of both commercial and recreation activity. In a time of “cookie cutter” approaches New Bedford did not invest in a major project such as the examples seen above. Could one of these have been successful? It is not out of the realm of possibilities, however geography is critical.

A mall 3 miles from New Bedford and attractive marketplaces in nearby Boston and Providence made the prospects of a successful shopping center at the heart of downtown bleak. The downtown pedestrian mall, another strategy of attracting merchants by shutting off the street to vehicles, did not provide merchants the ability to compete with the mall. This smaller scale version of the marketplaces established in Boston, Baltimore and Flint to name a few does not appear to have been a successful strategy in New Bedford. Since it was never attempted, one can speculate but looking at the examples of successes it appears New Bedford would not have benefited from this type of project.

³³ Cathy Stanton, *The Lowell Experiment: Public History in a Postindustrial City* (Massachusetts: University of Massachusetts Press, 2006), 4

³⁴ Stanton, 5.

Utilizing history and culture was successful in Lowell with Lowell National Historical Park. New Bedford, unlike Lowell, had a multitude of small museums and historical sites spread throughout the city. The major one was the New Bedford Whaling Museum founded in 1903. Giving the history of early New Bedford and the prosperity of the region due to whaling, the museum grew during the 1920s adding sites and attractions including the skeleton of a humpback whale. Not until 1996 was there finally a New Bedford Whaling National Historic Park similar to that of Lowell's Historical Park. WHALE played a critical role in preserving historical buildings in the downtown by starting with its first restoration project of the Benjamin Rodman House, the only waterfront mansion still on its original foundation, in 1965.³⁵ New Bedford's historic district development took time due to the public's outlook on initiatives because of Urban Renewal and Model Cities' efforts. Thus the early days of WHALE were devoted to, "(1) generating public interest and knowledge; (2) coordinating activities with, the city's Harbor Development Commission, local owners, and the various historical societies; (3) creating an inventory of the city's historical assets; and (4) securing financial commitment and interest in the proposed historical district."³⁶ Lowell was on the leading edge with what is now called the "Lowell experiment", "...adopted and adapted not only in deindustrialized places throughout the world, but in many kinds of communities seeking to strengthen their economies..."³⁷ New Bedford city officials were not fully sold on a project of sorts only allocating \$1.3 million to historical preservation projects

³⁵ "WHALE History".

³⁶ Gittell, 184.

³⁷ Stanton, 5.

out of \$10.1 million in Community Development Block Grant money they received in 1975.³⁸ Preserving historic sites was a major accomplishment but development lacked the scale of Lowell. Often proximity of similar projects can inhibit one's success; however, in this case the anti-development environment that was created due to failed projects appeared to be the major cause for unsuccessful historical development in New Bedford. As we will see, WHALE and other groups still to this day have worked to preserve the history of New Bedford and use it as a tool for economic development.

Economic Development Task Force

Slow economic decline continued through the 1980s as the population fell from about 102,000 to 98,000 from 1960 to 1980. Suburban areas outside of New Bedford grew during the same period increasing by over 20,000 people which was not uncommon in cities around Massachusetts and the country at this time.³⁹ Of similar size, Fall River, Brockton and Lowell all had declining city populations with the movement of people to the nearby suburbs. The local government did little to successfully boost the economy following the broad Urban Renewal tactics and therefore, missed out on opportunities. After the World-War II, New Bedford's machinery industry showed potential, "with concentrated employment in machinery and equipment manufacturing -- an industry with significant growth potential"⁴⁰ as their growth was based on the Morse Tool Company and, unlike textile mills, were unable to attract more companies and innovative technology.

³⁸ Gittell, 185.

³⁹ Population of Standard Metropolitan Statistical Areas: 1960 to 1980

⁴⁰ Gittell, 54.

January 1986, John Bullard took office after being the director of WHALE from 1974 to 1985. Graduating from MIT with a graduate degree in city planning and architecture, Bullard had grown up in New Bedford and after graduation from college immediately went back to work in efforts of redevelopment in the city. Bullard examined the waterfront historic district in his master's thesis looking at "the problems and some of the potential of an effort by an organized group of citizens to renew their community- an alternative to renewal by the government or by large developers."⁴¹ Evaluating the economy, he argues that the unemployment rate was the best evidence of the struggles as it reached 9% in 1971.⁴² Prior to becoming mayor, Bullard believed feasibility was contingent on two factors. The people and the market because 'in this period of "new federalism," no one is going to do anything with the district but the residents themselves."⁴³ Receiving \$1.3 million in 1974 Bullard had a plan for WHALE as they hired their first full time staff completing restorations of 33 buildings by the mid 1980s and were able to entice private investors to buy in on their mission.⁴⁴ Due to his background, the hope was that things would change under Bullard as he created a task force focused on economic development immediately after taking office.

The task force was the first plan put in place by John Bullard as he believed the city "... had all the tools necessary for development already in place. The problem lies, he said, "in how the city organizes and uses the tools."⁴⁵ After their first meeting the task

⁴¹ John K. Bullard, "Collective Private urban Renewal in New Bedford's Historic District," (master's thesis, Massachusetts Institute of Technology, 1976), 2

⁴² Bullard, 1976, 17.

⁴³ Bullard, 1976, 63.

⁴⁴ Gittell, 185.

⁴⁵ Gittell, 201-202.

force had a list of 31 agencies or groups that in some way were involved in New Bedford economic development plans. The ultimate plan after the committees' research concluded involved a partnership with the Chamber of Commerce in which there were concerns over keeping a balance between private and public interests.⁴⁶ Bullard left out two groups of peoples' input in his task force forcing tensions to rise. The efforts previously talked about in the 1960s and 70s resonated as neighborhood groups and the City Council were upset as "they did not participate in the task force, were not informed of the discussions that transpired and were given no clear role in the economic development partnership proposed."⁴⁷

From 1985 to 2001 the economy showed few signs of hope. The labor force fell consistently from about 50,000 in 1985 to just under 40,000 in 2000. While the number of establishments grew from 89 to 90, they came back down by 1992 showing almost no long term increase.⁴⁸ Agriculture and fishing, manufacturing and finance, insurance and real estate saw decreases in employment of 47%, 49% and 30% respectively.⁴⁹ The United States as a whole suffered a recession in the early 1990s as a result of the 1990 oil price shock. Statewide unemployment spiked about 5% with New Bedford being effected even more, spiking over 8% however by the late 1990s both had fallen to pre-Recession levels.⁵⁰ Bullard's economic task force was called exclusive and did not represent all of

⁴⁶ Gittell, 203.

⁴⁷ Gittell, 203.

⁴⁸ New Bedford Office of Housing and Community Development, "New Bedford, Massachusetts Economic Profile," *City of New Bedford*, <http://www.newbedford-ma.gov/community-development/wp-content/uploads/sites/34/communitydemo.pdf>.

⁴⁹ New Bedford Office of Housing and Community Development, "New Bedford, Massachusetts Economic Profile".

⁵⁰ New Bedford Office of Housing and Community Development, "New Bedford, Massachusetts Economic Profile".

New Bedford; however, in the early years unemployment did indeed fall and the number of establishments increased.

Chapter Three: Problems and Theory

Current Problems

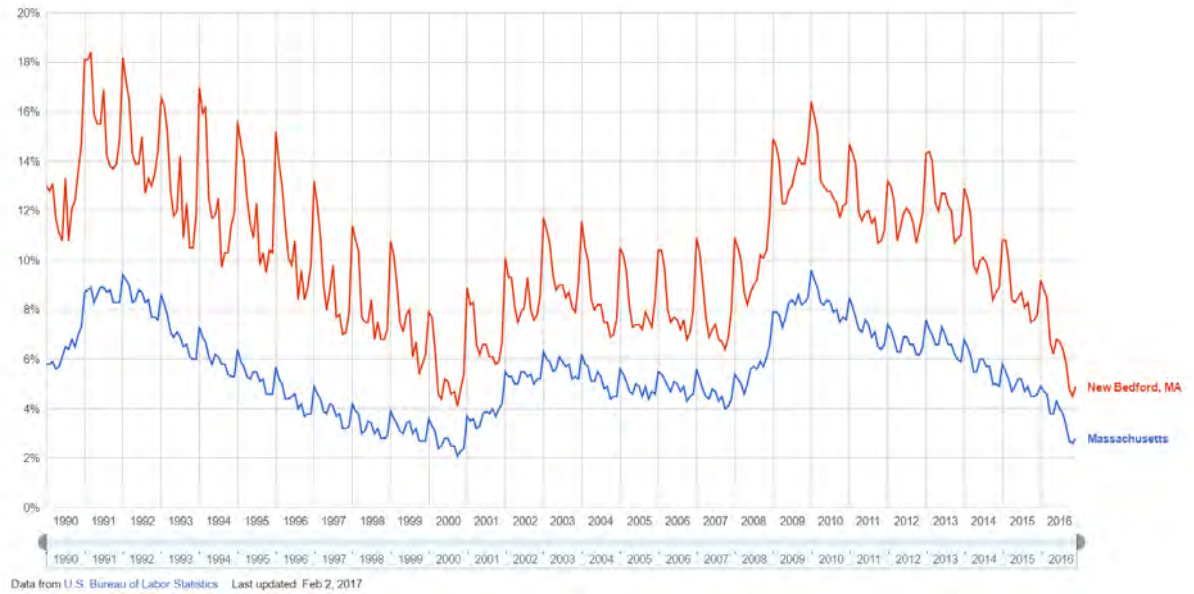
The problems that have plagued New Bedford have continued to today without much change. As seen in figure 1, unemployment since 2009 has fallen; however, the trends of New Bedford's unemployment rate have followed the trend of Massachusetts except there is much more volatility and the rates are higher. Looking at overall trends in unemployment, the patterns of New Bedford and Massachusetts are similar but New Bedford has always been above the state average. In 2010, Massachusetts had an unemployment rate of about 9.5% while New Bedford was at about 16%. Both have fallen since then as the economy has recovered from the recession as seen from Massachusetts rate dropping to approximately 3% and New Bedford's to 5%.

New Bedford also trails the state in median household income and poverty rate, signs of economic prosperity of the city as seen in figures 3 and 2 respectively. Median household income of New Bedford is about \$30,000 below that of the state average. Similarly, 24% of the population of the city is below the poverty line, more than double that of the state as a whole. In order to decrease employment, the population must have the set of skills required for the jobs that are being made available. Industries will not move into New Bedford if the workforce is not trained in the skills necessary for work. As seen in figure 4, just over 70% of New Bedford's residents over the age of 25 have a high school degree or higher and only about 16% have a bachelor's degree or higher. These are approximately 20% and 25% below the state average respectively showing the need to provide adequate education within the city. In 2015, of residents of the city

between the ages of 18 to 24, 20% of the population has not graduated high school and the amount of the population that has graduated high school and the population that has some college or an associate's degree are each 35%. The graduation rate of New Bedford High School rose to 66.1% in 2014 which was the highest it has been in eight years. With the rise, came a 1% decrease in dropout rate however the surrounding suburbs of Dartmouth, Fairhaven, Rochester and Westport all had about a 90% graduation rate. Greater New Bedford Regional Vocational Technical High School (GNBRVTHS), the technical school that has students from New Bedford and its' surrounding suburbs has a graduation rate of 91%.⁵¹ The city of New Bedford reached an eight-year high in graduation rate; however, with a graduation rate between 20 and 30% lower than the surrounding suburbs is a major problem. This creates a young part of the population that is highly uneducated and not prepared for the workforce. Along with issues with high school graduation and rates of students furthering their education in college is attracted these people back to the city. People who have grown up in the city and have ties to the region should want to be attracted back after college to join the workforce.

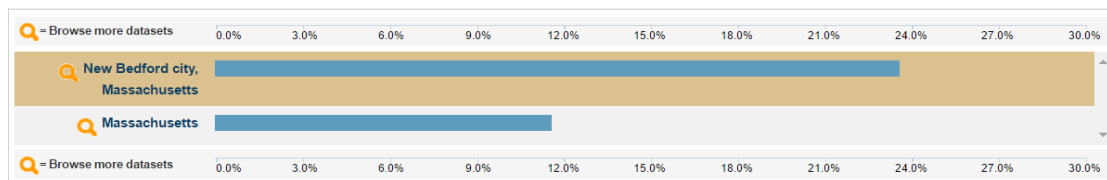
⁵¹ Kozma, Carol, "New Bedford reports a boost in graduation rate," *South Coast Today*, Jan. 27, 2015, <http://www.southcoasttoday.com/article/20150127/NEWS/150129506>.

Figure 1: Unemployment Rate History of New Bedford, MA compared to Massachusetts (1990-2016)



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Figure 2: Persons in Poverty New Bedford vs. Massachusetts (Percent)

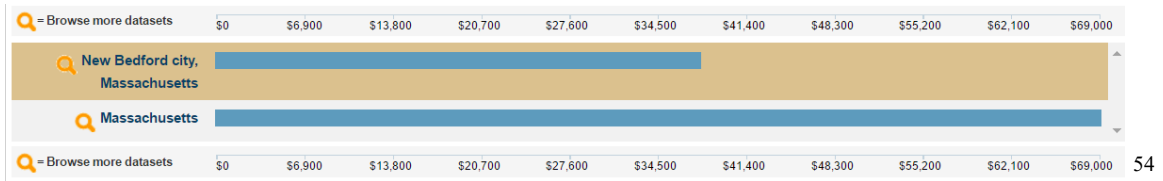


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⁵² U.S. Bureau of Labor Statistics "Unemployment Rate New Bedford, Ma and Massachusetts 1990-2016," Last updated Feb 2, 2017 <https://www.bls.gov/regions/new-england/data/xg-tables/ro1xg02.htm>.

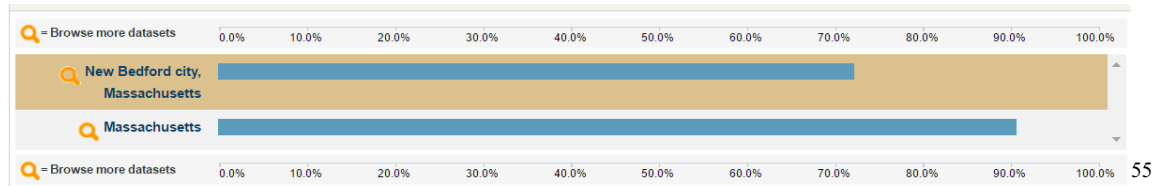
⁵³ U.S. Census Bureau, "Persons in Poverty, 2015," New Bedford city, Massachusetts Quick Facts, <https://www.census.gov/quickfacts/table/IPE120215/2545000> (accessed January 30, 2017).

Figure 3: Median Household Income New Bedford vs. Massachusetts 2011-2015 (in 2015 dollars)



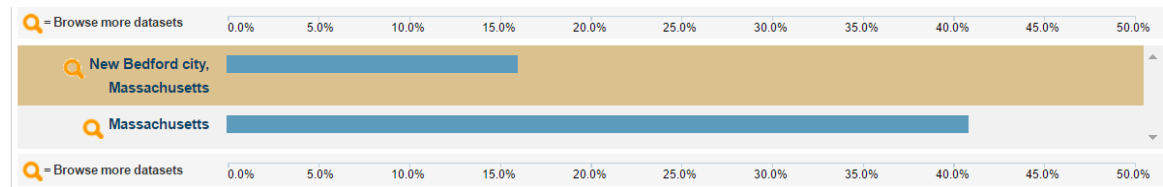
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Figure 4: High School Graduate or higher New Bedford vs. Massachusetts 2011-2015 (percent of person 25 years+)



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Figure 5: Bachelor's degree or higher New Bedford vs. Massachusetts 2011-2015 (percent of persons 25 years+)



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⁵⁴ U.S. Census Bureau "Median household income (in 2015 dollars), 2011-2015," New Bedford city, Massachusetts Quick Facts, <https://www.census.gov/quickfacts/table/IPE120215/2545000> (accessed January 30, 2017).

⁵⁵ U.S. Census Bureau, "High school graduation or higher, percent of persons age 25 years+, 2011-2015," New Bedford city, Massachusetts Quick Facts, <https://www.census.gov/quickfacts/table/IPE120215/2545000> (accessed January 30, 2017).

⁵⁶ U.S. Census Bureau, "Bachelor's degree or higher, percent of persons age 25 years+, 2011-2015," New Bedford city, Massachusetts Quick Facts, <https://www.census.gov/quickfacts/table/IPE120215/2545000> (accessed January 30, 2017).

Redevelopment Theory: The “Creative Economy”

New Bedford’s efforts in the twenty-first century have seen a makeover in methodology after unsuccessful projects previously put in place. The idea of the “creative class” and “creative economy” was put forward by Richard Florida in *The Rise of the Creative Class* in the early 2000s. Unlike previous economists, Florida takes a different perspective of class structure as he describes the Creative Class as “people who add economic value through their creativity.”⁵⁷ Wealth does not move one into the Creative Class but rather knowledge and creative capacity either exists in someone or does not. The work of the Creative Class “creates meaningful new forms” and he splits the group into two subclasses: the Super-Creative Core and the “creative professionals”⁵⁸. The Super-Creative Core includes, “scientists and engineers, university professors, poets and novelists, artists, entertainers, actors, designers and architects, as well as the thought leadership of modern society...” while the latter includes, “a wide range of knowledge-intensive industries such as high-tech sectors, financial services, the legal and health care professions, and business management.”⁵⁹ The Creative Core are people who on a day to day basis are producing new products or ideas that can be spread to other places and help in solving issues while the “creative professional” are people who think on their own and find ways to use their understanding in a variety of situations. The Creative Class can grow however not everyone joins after leaving the

⁵⁷ Richard Florida, *The Rise of the Creative Class* (New York:Basic Books, 2002), 68.

⁵⁸ Florida, 2002, 69.

⁵⁹ Florida, 2002, 69.

Service Class, “which contains low-end, typically low-wage and low-autonomy occupations in the so-called “service sector”.

Peter Drucker believes the U.S. has become a “knowledge economy” as production of physical goods has decreased and rather knowledge is the key force; however, Florida sees, “knowledge” and “information” as the tools and materials of creativity. “Innovation,” whether in the form of a new technological artifact or a new business model or method, is its product.”⁶⁰ The knowledge people have is the driving force but if members of society are in jobs where they are not using their knowledge to grow and improve society then the knowledge is not an asset to society and a growing economy. This has dated back even to the 1950s with research and development. From the start, New Bedford’s innovation aided in the early success as seen with the toggling harpoon developed by Lewis Temple which gave the whalers an advantage in the 1800s or the investors who were able to help develop more efficient ways to produce fine textiles through the early 1900s. The members of this class, no matter which profession they follow, hold individuality, meritocracy and diversity and openness as values. In growing the economy, “Creative Class people are ambitious and want to move up based on their abilities and effort.”⁶¹ Critics have said his concepts of class are just a new way of labelling upper, middle and lower classes in society; however, as Florida does not consider property and capital as ways of defining who belongs to a given class.

The success of cities such as Seattle and Boston brought around the belief that without the economic-development efforts that attracted Florida’s ‘creative class’, the

⁶⁰ Florida, 2002, 44.

⁶¹ Florida, 2002, 78.

city had no chance of development; however, the lack of success of other cities brought criticism to Florida that this was not a flawless plan.

Similar to Urban Renewal, development officials believed that if they did not follow Florida's strategy than they were doomed to fail. In Providence, Rhode Island, officials urged the city to become the nation's capital of independent rock music. In Pittsburgh, there was a push to build bike paths and outdoor hiking trails, while Memphis helped "celebrations of diversity" all of which worked to attract those Florida defined as part of the 'creative class'.⁶² None of these cities' economies will turn around just by these efforts to attract this class of people because the growth of companies will not exist solely because of creative workers coming to live in the cities. Jim McKeag, a Transformative Development Initiative [TDI] Fellow from MassDevelopment, explains, "I don't think it is the creative class as he puts it. I think it is more of an educated and cosmopolitan class as opposed to a rural and uneducated... And that he puts so much emphasis on choice and he actually, to give him credit has shifted away from that perspective in the last few years but the choices that are available to someone who is part of the global cosmopolitan class of people are not available to the vast majority of people that are stuck in the second and third tier cities."⁶³ McKeag believes not all cities have the opportunity to attract a new class and while there is the opportunity for the population to grow, those already in the city cannot be forgotten about. New Bedford has a heavy immigrant population that is immobile, thus in redevelopment plans this sector of the population must not be forgotten. Opportunities should be available to the lower-class

⁶² Malanga, Steven, "The Curse of the Creative Class" <https://www.city-journal.org/html/curse-creative-class-12491.html>

⁶³ Jim McKeag. Personal Interview, Jan. 27, 2017.

population which includes the immigrants to incorporate them into the workforce and contribute positively to the economy. Florida refers to the “organizational age” as the period with large institutions and specialization. The economy and means of production have changed over time and with the changes innovation and creative ways of improving processes have always been at the forefront. The 1980s and 1990s saw, “the emergence of new economic systems explicitly designed to foster and harness human creativity, and the emergence of a new social milieu that supports it. And it has given rise to a new dominant class...”⁶⁴ Once the Creative Class begins to centralize in a city they attract more people not only in similar professions but also with similar attitudes and values. Companies are attracted to areas where there are qualified people to higher. The companies need employees and the employees need work thus there is a snowball effect as the two develop together.

New Bedford has the potential to increase its current population and in doing so attract members of the Creative Class which alongside the population already there leaves the city with endless opportunities for improvement. As officials of the city and others working in the city have made clear, the process of redevelopment is not quick and easy but requires communication and collaboration among every organization working within the city. Through history the economy of the city cannot thrive long term because of one industry and no one plan can fix the numerous problems that plague the city. In the following chapters, we will look at the goals of New Bedford, how they have been

⁶⁴ Florida, 2002, 66.

successful, and where there is room for improvement in developing growth and prosperity of the city and region.

In the regeneration of New Bedford, current Mayor Jonathan Mitchell has stressed the following three core principles in keeping Greater New Bedford on a path toward long-term growth and renewal:

- “First, that we think about the City of New Bedford as the hub of a culturally, economically, and physically distinct metropolitan area and push the community to be bold as the leader in the region’s redevelopment efforts.
- Second, that we recognize that an effective redevelopment strategy must be grounded in Greater new Bedford’s competitive advantages; chief among them are a deepwater port, a culturally rich and walkable downtown, higher education institutions, a regional airport, and proximity to major population center in the Northeast.
- And third, that we recognize that the work of regeneration will required the courage to resist short-term fixes.”⁶⁵

Mayor Mitchell has taken an aggressive approach to set New Bedford up for long term success that will build the city for the long run. A critical aspect of the approach laid out in the first two principles is the emphasis on utilizing the assets already available in New Bedford rather than starting from scratch. This includes both physical attributes of the deepwater port, a downtown, and higher education institutions but also what the community has to offer. The city has rich cultural heritage because of the large percentage of Portuguese and because of the support of aspiring artists that has grown

⁶⁵ New Bedford Regeneration Committee, “Uniting in Pursuit of Growth and Opportunity,” September 2014.

through the city. The geography of the city is central to the efforts being made because, “It’s the size and shape of Manhattan and so it’s very long and thin and has these distinct business regions that are really the focal points of specific parts of the city.”⁶⁶ The three regions include:

- Acushnet Avenue
- Downtown
- Southern Gateway

Further we will look at the economic initiatives in the regions and they play a role in the development of the core industries New Bedford wishes to develop. New Bedford has leadership within the city determined to be proactive in redevelopment efforts and with this leadership there are already organizations established to strategically plan efforts moving forward. Outside organizations have seen the potential of New Bedford and have taken special interest in the city as a place to invest.

⁶⁶ McKeag, Personal Interview.

Chapter Four: Redevelopment Initiatives

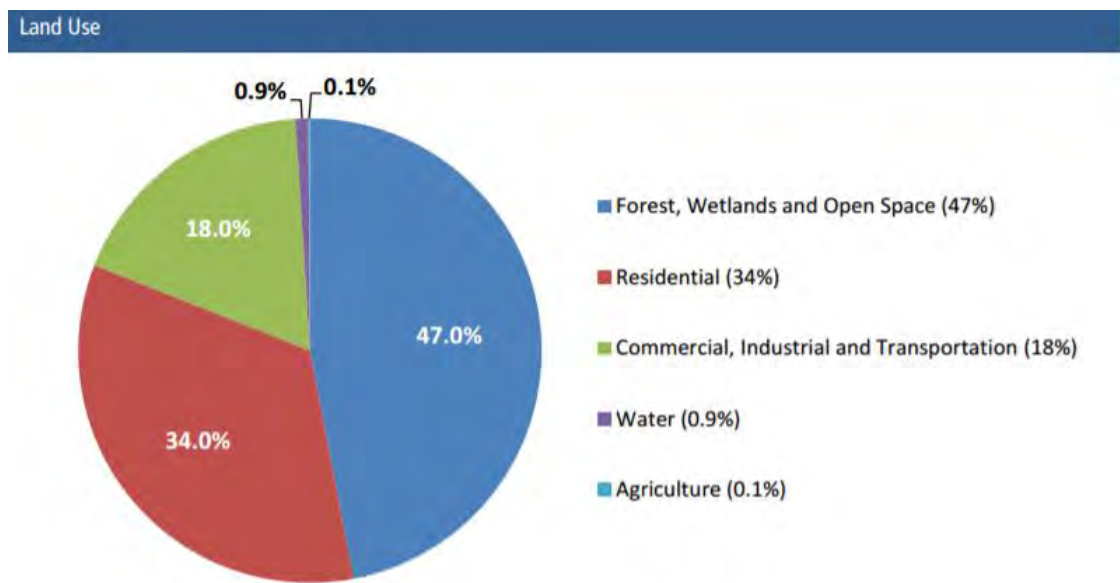
Geography

New Bedford has a total area of 20.2 square miles with a waterfront area of 10.3 miles of linear footage. As seen in Figure 6, forest, wetlands and open space makes up 47% while residential makes up 34% and commercial, industrial and transportation make up 18% of land use. Commercial land is 5.7%, industrial land is 6.3% and transportation is 5.2%. Of the 20.2 square miles, only 219 acres is buildable land thus development in New Bedford must focus on the already developed land. Because forty-seven percent of the city is comprised of forest, wetlands and open space, the city has opportunities to capitalize on nature and the assets of the environment already present in the city. The city has 26 acres of beaches, 12 miles of trails and bikeways and six major parks which are important assets for promoting urban beauty.⁶⁷ These assets must be preserved and expanded upon to attract both the citizens of the city and tourists to take advantage of these opportunities. The location of New Bedford helps differentiate the city from others of similar size because of its proximity to the water along with the Acushnet Cedar Swamp State Reservation and other forested areas. Figure 7 is the Zoning Map of New Bedford. From it one can see that due to the fishing industry, large sections of the waterfront, especially in New Bedford harbor, are lined with industrial zones seen on the zoning map below. These zones are crucial for the success of the fishing industry but

⁶⁷ Vanasse Hangen Brustlin, Inc., "A City Master Plan New Bedford 2020," EPA, 2010, 8-1, <https://www3.epa.gov/region1/superfund/sites/newbedford/507969.pdf>.

capitalizing on the opportunity to highlight the waterfront area for recreational opportunities would be a development that would help the city significantly.

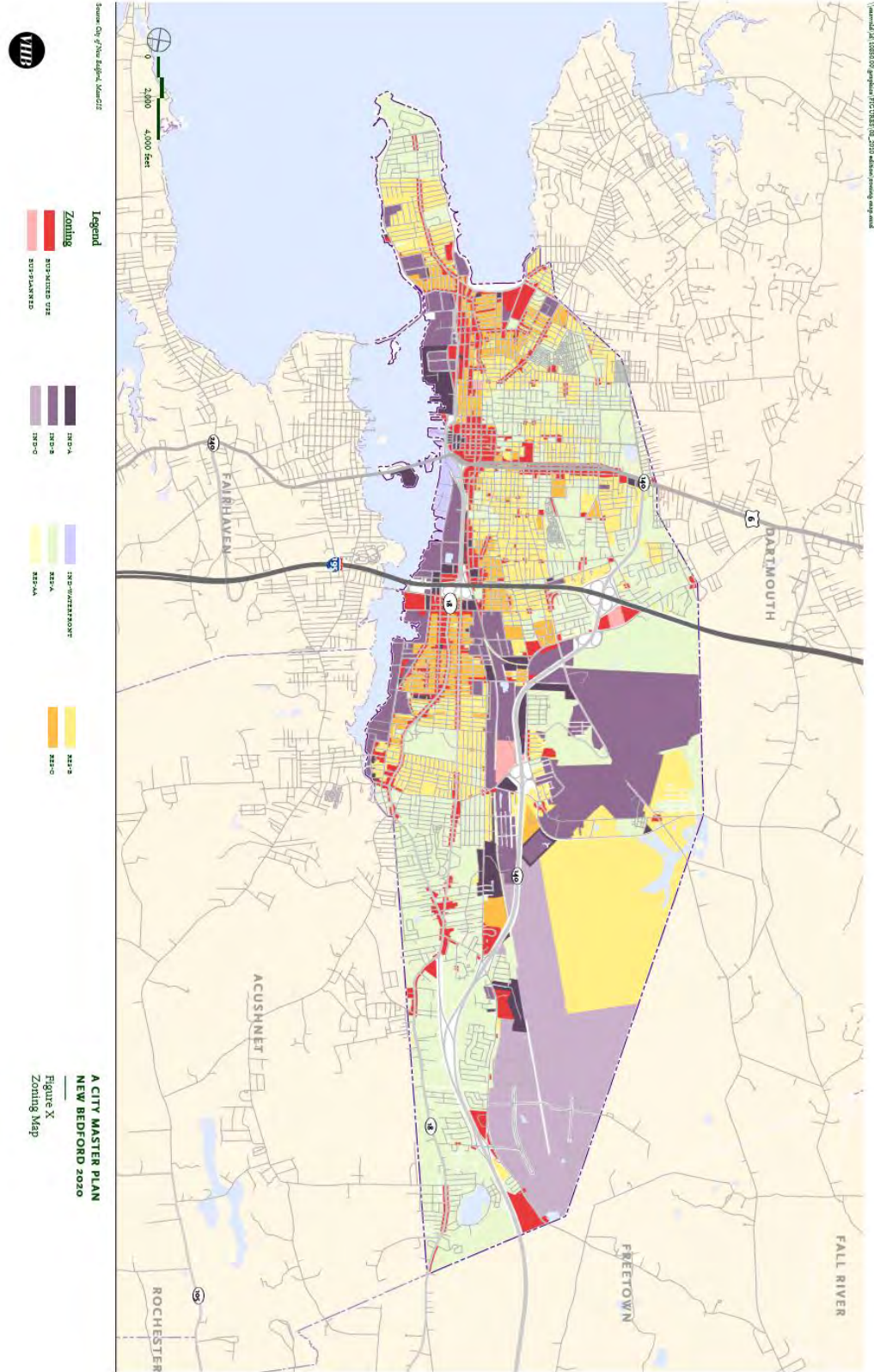
Figure 6: New Bedford Existing Land Use Percentages (2005)



68

⁶⁸ MassGIS 2000 and 2005 Data, "New Bedford Existing Land Use Percentages (2005)," from Vanasse Hangen Brustlin, Inc., "A City Master Plan New Bedford 2020," EPA, 2010, 4-1, <https://www3.epa.gov/region1/superfund/sites/newbedford/507969.pdf>.

Figure 7: Zoning Map New Bedford



Tourism

The downtown district is bounded on the east by Route 18 and encompasses the State Pier, the National Historical Park, the city's government offices and a variety of other offices and a retail district. The core of the district and the waterfront are interrupted by Route 18 due to the objectives completed during Urban Renewal in the 1970s. During Urban Renewal, the goal of Route 18 was to provide improved access for transportation of goods from the port to surrounding areas including Providence and Boston. At the time the project was a success; however, years later the road is an eyesore and inhibits the city from capitalizing on the waterfront's proximity to the downtown. "The other thing is the downtown which is the cultural center of the region. Which means that it is the urban core it is a place of common experience and the assets are: it is very physical structure, very walkable, it has interesting architecture. And then there are the cultural assets that are themselves drivers of economic development. The whaling museum, ziterian, so forth."⁷⁰ For the downtown to be a place for the region it must take advantage of the assets that exist such as the waterfront and the historical district as Mayor Mitchell points out. The key point he makes is that it is the cultural center of the region not just New Bedford. Crucial to improving the economy is attracting public involvement from the surrounding towns and attracting tourism from regions further away.

Tourism has been one emphasis of the downtown district because of the assets that already exist. WHALE forming during the time of urban renewal preserved the

⁷⁰ Jonathan F. Mitchell, Personal Interview, Jan. 26, 2017.

physical assets of the city, preserving buildings that urban planners wanted to demolish and keeping alive the culture of the city. At the heart of the historic center is the New Bedford Whaling Museum which captures the rich history of New Bedford. Anne Brengle, executive director from 1994 to 2007, interestingly became director over other candidates who had much more experience but came from other places. “I think that people saw what you can do with the enthusiasm in celebrating the strength of who you are with what I was doing with the Rotch-Jones-Duff House”⁷¹ which was Brengle’s previous position working at the house in historic awareness of the city. The museum saw a major renovation including, “the new Jacobs Family Gallery and its signature KOBØ blue whale skeleton, bought the closing Kendall Museum collection and opened a research library with it, and is undergoing a major \$23 million expansion.”⁷² The projects allowed the museum to tell more stories and become more accessible to the public, rather than being a ‘private club’. The museum differentiates New Bedford from other cities who either do not have a rich background either because they do not have a harbor or have not been able to capture the history in a way to attract tourism.

“Based on preliminary figures so far, she estimates tourism in 2016 rose 13% over the previous year, with most of the visitors coming from Massachusetts and other northeast states.”⁷³ The Fairfield Inn and Suites is the only hotel located in the downtown, waterfront district but with the continued success of tourism the Boston-based Columbus Group acquired 218-226 Union Street and have begun financing and design on

⁷¹ Anne Brengle, Personal Interview, Jan. 27, 2017

⁷² “Whaling Museum Captain Setting Sail.” *South Coast Today*, Nov. 16, 2007, <http://www.southcoasttoday.com/article/20071116/NEWS/711160334>.

⁷³ Jim Phillips, “Tourism Up in New Bedford in 2016,” *1420 WBSM*, Dec. 29, 2016, <http://wbsm.com/tourism-up-in-new-bedford-in-2016/>.

converting the office building into a boutique hotel. There are a multitude of positive aspects coming from this project. First, the Columbus Group has committed to hiring New Bedford residents for the majority of jobs helping to decrease unemployment. Second, the hotel will be a quarter mile walk from the Whaling Museum which will boost pedestrian traffic ultimately helping local stores. Finally, this is the second building downtown the Columbus Group is responsible for redeveloping which bodes well for the city that private investment from outside the city is putting their time and money into improving the city. For them to take on another project means they have seen returns and see New Bedford as a city with potential and other investors will see the success the Columbus Group is having and become interested in the city.

The rise in tourism is a positive sign for New Bedford, but more can still be done to continue to increase the tourism numbers and to provide more amenities for their visits. Planning for reconstruction of Route 18 began in the late 1990s and is currently in phase two. The highway was originally designed for transporting goods imported to the city but with the rise of tourism, the road was an eyesore and hindered tourism because it split the downtown and the waterfront. Construction of phase I began in 2011 and included all of Route 18 from Pine Street to Elm Street. The goal was to facilitate pedestrian access especially at Union Street and State Pier and, “the aesthetic quality of the roadway will be improved through the new Bedford Historic District and the new Bedford Whaling National Historic Park while at the same time improving roadway vehicular and pedestrian safety.”⁷⁴ Phase II of construction continues similar roadwork

⁷⁴ MassDOT, “NEW BEDFORD- RECONSTRUCTION OF ROUTE 18 (JFK HIGHWAY), FROM PINE STREET TO ELM STREET, INCLUDES CONSTRUCTION OF NEW N-06-042 & CONNECTION TO F-01-002=N-06-001,” Project 602857

south of downtown from Cove Street to Griffin Court. State Pier is home to the ferry terminal of New Bedford with passenger service to Martha's Vineyard, Cuttyhunk and Nantucket along with various cruise ships and opportunities for recreational boating. Ronald Labelle, the longtime Commissioner of Public Infrastructure, was excited to see the long process finally complete turning a state highway into a boulevard.⁷⁵ The process of traffic-calming's main objective is to slow traffic for improved safety of both motorists and pedestrians. The benefits in New Bedford have the potential to be very successful for tourism. Tourists who use the ferry system to travel to Nantucket and Martha's Vineyard for years have dealt with traffic to Cape Cod where they take ferries from Hyannis, MA or Falmouth, MA. New Bedford can offer competitive prices and travel time without the hassle of the traffic of Cape Cod. This has been an option for quite some time but with the connection of the waterfront with downtown will make the city more than just a place to park for the ferry. While driving to the ferry, there is a view of the downtown and the historic district and the proximity of what it has to offer with the ferry. The view of what the downtown has to offer will hopefully spark the interest of the tourists either to explore on their trip or plan another trip back to New Bedford for an extended stay. Walking from State Pier to the Whaling Museum is about a quarter of a mile which with the reconstruction of route 18 allows for pedestrians to walk right from the pier to downtown where there is the historic district along with art galleries, shops and restaurants.

https://hwy.massdot.state.ma.us/ProjectInfo/Main.asp?ACTION=ViewProject&PROJECT_NO=602857.

⁷⁵ "New Bedford Connections," *CoastalMags.com*, May 9, 2013, <http://www.coastalmags.com/The-South-Coast-Insider/new-bedford-connections/>.

New Bedford already has a variety of events established that highlight the arts and culture of the city. The city is home to the world's largest Portuguese Feast, The Feast of the Blessed Sacrament, which is a four day long celebration each summer that is currently on its 103rd year. The fair is the largest ethnic festival in New England and attracted over 100,000 visitors free of charge.⁷⁶ An event with such history draws a crowd of diverse background to the city to appreciate the entertainment and cuisine of the Portuguese who make up a large percentage of the population. Few cities have an event with the history and prestige of the Portuguese Festival but capitalizing on the tourists it attracts can help the tourism industry. It is a perfect opportunity to highlight the historic district of the city and the Whaling Museum. In addition, the city can highlight the ferry access to the Cape, Nantucket and Martha's Vineyard. Tourists come from throughout Massachusetts and from around the country and this event is a perfect opportunity to market the ease of travel from New Bedford along with opportunities the city has to offer.

Other events take place more often but not at the same scale that similarly can attract tourism. AHA! (Art, History, Architecture) began in 1999 and takes place on the second Thursday of every month. Currently over 60 downtown museums, galleries, arts organizations, merchants, restaurants and more are involved with events that vary from live music to theater skits and lectures.⁷⁷ The history of artists coming from New Bedford goes far back in history. "I would argue that the tradition of artists and art community

⁷⁶ Feast of the Blessed Sacrament, "Feast History," <http://portuguese Feast .com/page/feast-history>.

⁷⁷ "About AHA!," *Arts History Architecture*, accessed March 10, 2017, <http://www.ahanewbedford.org/about.php>.

here made this a much more artist friendly area from the get go. And Swain was attracting artists and art students and Umass Dartmouth was for years and years and years. And when you have that combined with a beautiful living, quality of life, plus low low cost of living it really goes hand in hand.”⁷⁸ An event that has gone on for almost 20 years helps provide the community with a recurring event that can attract visitors from the surrounding region. It is an opportunity for members of the arts to share their talents with others and sell pieces of art to the public. Artists can sell their artwork on the internet today making it less crucial to have a gallery or have artwork in a gallery for the public. AHA! gives aspiring artists a time to share their art. By having over 60 groups involved, visitors can experience a wide variety of activities during their night out that are all participating rather than attempting to find activities in the downtown on their own. Having events monthly that have the success AHA! does helps the local economy including eateries, boutique shops and artists who rely on a regular flow of costumers for their businesses to thrive.

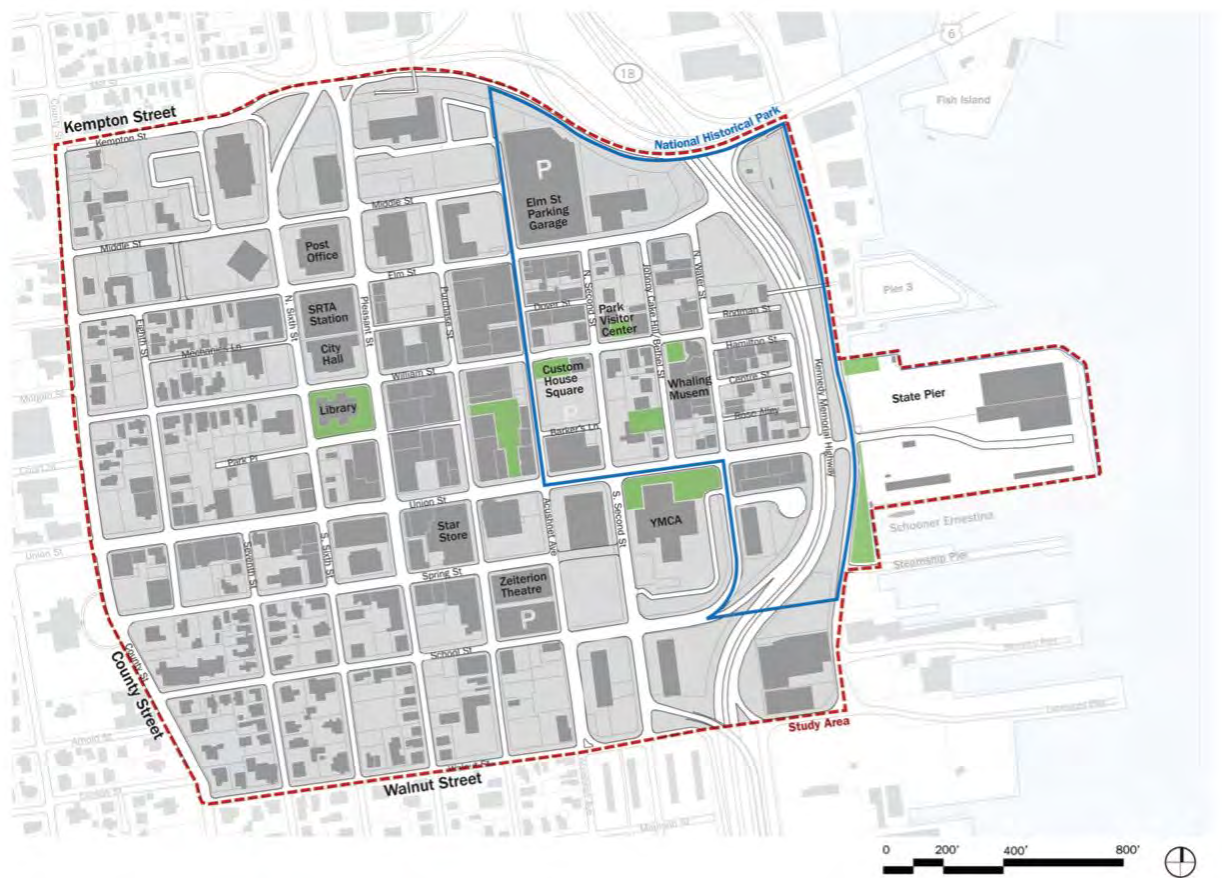
New Bedford has a long economic history, a large waterfront and a highway going through the city and they have had the opportunity to capitalize on all three of these. As Anne Brengle compares New Bedford to New London, CT, she explains New London has two things it has never been able to pull together: “One is the history of the town which involves whaling and the coast guard and its architecture which is every bit as good as new Bedford. And the convergence of transportation. You have rail and water, ferries to Fishers Island, Long Island, Block Island and you have I-95 which is right there

⁷⁸ Brengle, Personal Interview.

as opposed to being at the end of route 18 and yet they have never been able to get it together.”⁷⁹ Thanks to the work of the investors and employees of organizations such as WHALE, the historic society and city officials, New Bedford was able to preserve the history of the city and share it with others through the architecture and museums. New London has a similar history but did not have the people invested in keeping the history as a major part of the city. While I-95 cannot be altered by the city or state to slow traffic and show people the opportunities that exist in New London, they can learn from New Bedford’s strategies of targeting tourists using the city for transportation to an island and show them what the city has to offer. Due to lack of preservation in the past, New London may not be able to provide historic attractions as New Bedford can; however, by targeting what is special about the city, officials may be able to expand tourism in a different unique way.

⁷⁹ Brengle, Personal Interview.

Figure 8: Map of Downtown New Bedford



80

⁸⁰ New Bedford Planning Department, "2009 Downtown Study Introduction," 2009, http://3t848o30ike211t7x11n2gxi.wpengine.netdna-cdn.com/planning/wp-content/uploads/sites/46/downtown_study_2009_introduction.pdf.

Commercial Fishing

History has taught us, that it is difficult for a city or region to prosper long term when it specializes in one industry. New Bedford saw a shift from whaling to textiles to fishing and with each shift the city was successful because of the city's location.

Important to New Bedford industry is capitalizing on what sets the city apart from other cities also working to redevelop. To avoid the economic issues faced when one major industry vacates the region, New Bedford must diversify and expand on a variety of industries that can help set New Bedford apart from other mid size cities.

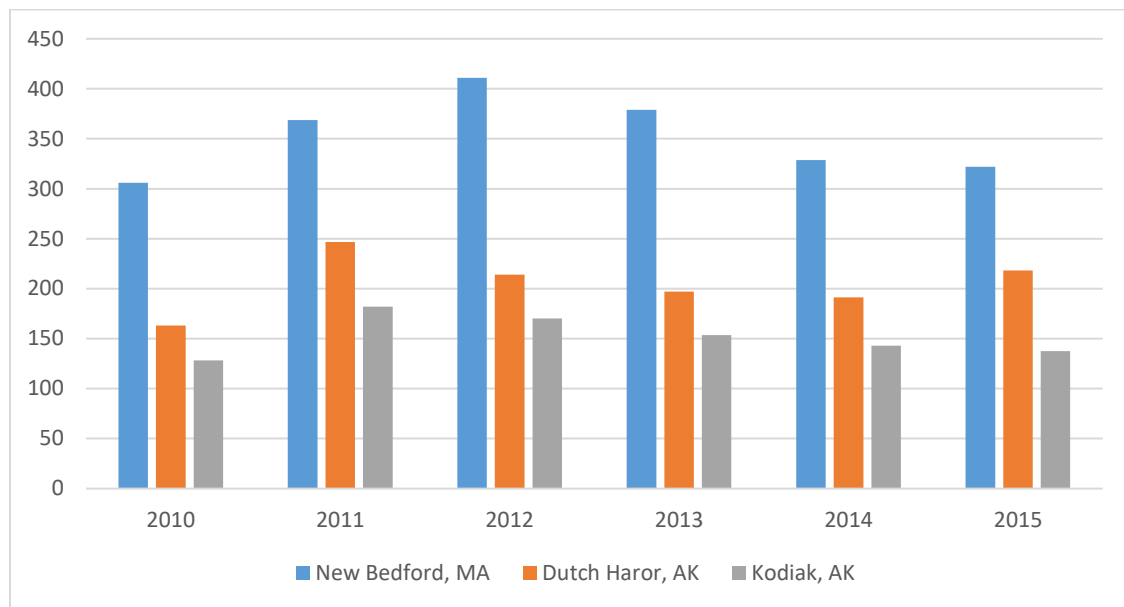
New Bedford has been the most profitable commercial fishing port in the United States since the early 2000s due to easy access to the Nantucket Shoals, Georges Bank and the Great South Channel. Legislation in 1996 put restrictions on fishing to prevent overfishing because of high risks of extinctions among the fish. The fishing industry had hit a breaking point at which it could not continue increasing the amount of fish caught. The commercial fishing industry has consolidated allowing a select few to prosper from the success commercial fishing has brought to New Bedford. It made it difficult for small family-owned fishing enterprises to stay afloat but with the limitations due to overfishing it was believed the industry could not sustain the number of vessels it had without consolidating. Commercial fishing employment has been on the rise as New Bedford is welcoming fishermen who have relocated from other eastern ports.

Just as New Bedford was on the forefront of innovation when it came to whaling and early commercial fishing, it has the ability to do the same today. University of Massachusetts Dartmouth has their national and internationally acclaimed research institution, the School for Marine Science & Technology (SMAST), located in New

Bedford. The National Oceanic and Atmospheric Administration's (NOAA) Northeast Fisheries Science Center is located in Woods Hole, MA which is 45 miles from New Bedford. There is also a ferry that provides transportation between the two locations which provides potential for collaboration between the organizations of both Woods Hole and New Bedford. These larger institutions bring an employment base to the region that can become a catalyst for further business and job growth. In 2012 the National Marine Fisheries Service decided to begin using a new technology developed by the Woods Hole Oceanographic Institution to conduct the surveys regarding the abundance of scallop stocks.⁸¹ Each of the methods has certain benefits in its impact on the environment and the data they are able to collect regarding scallops. This is just one of many potentials for both competition and collaboration among marine science organizations. Because of the emphasis on the infrastructure on the waterfront for commercial fishing, there are prime facilities still for the collection and distribution of seafood. With an increase in technology, the types of fish and region ships from New Bedford are able to travel can increase providing more traffic through New Bedford which will require more jobs for the manufacturing and distribution of seafood. Staying on the forefront of the commercial fishing industry gives New Bedford an area of their economy that is distinct to the city and can be a staple of the economy for the foreseeable future.

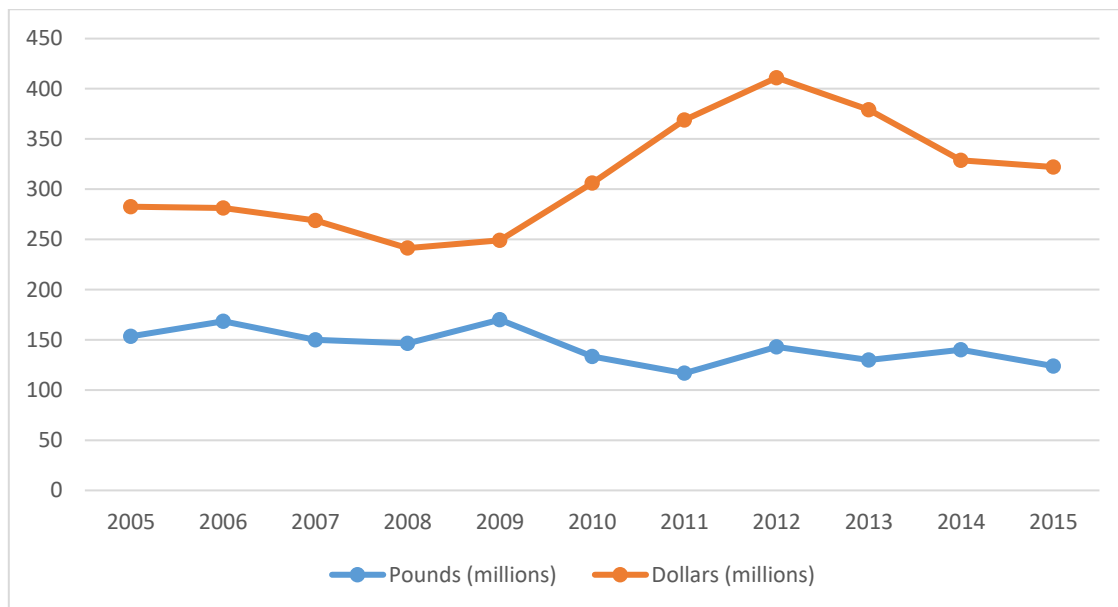
⁸¹ Don Cuddy, "New Scallop Survey Technology to Displace SCAST," *South Coast Today*, Aug. 29, 2012, <http://www.southcoasttoday.com/article/20120829/NEWS/208290460>.

Figure 9: Commercial Fishing Landings Top Three Ports (millions of dollars)



82

Figure 10: New Bedford Landing and Dollar Value Comparison



83

⁸² NOAA "Total Commercial Fishery Landings at Major U.S. Ports Summarized by Year and Ranked by Dollar Value," *Fisheries Statistics Division*, 2010-2015, <https://www.st.nmfs.noaa.gov/commercial-fisheries/commercial-landings/other-specialized-programs/total-commercial-fishery-landings-at-major-u-s-ports-summarized-by-year-and-ranked-by-dollar-value/index>.

⁸³ NOAA "Total Commercial Fishery Landings at Major U.S. Ports Summarized by Year and Ranked by Dollar Value".

Renewable Energy

Renewable energy research and development across the world and the United States has grown to new levels due efforts to preserve the environment and to move away from fossils fuels because of the CO₂ emissions. Wind, water and solar are the primary resources being utilized for renewable energy projects and New Bedford has easy access to all of them.

Offshore wind is already growing as development by Cape Wind is underway for a wind farm in Nantucket Sound. New Bedford's proximity to this wind farm and others that have been proposed off the Northeast along with the low cost of land and present infrastructure make New Bedford a possible hub for manufacturing of windmills. The plethora of unemployed in the city who also have minimal education, would be provided jobs but also education opportunities in the field of renewable energy. Manufacturing and assembly of turbines requires a lot of capital due to the size and intricacies of the product making it a lot easier said than done to produce the turbines in the city. Cape Wind signed an agreement with German based Siemens to manufacture the turbines for their project in Nantucket Sound.⁸⁴ Siemens Industries opened a downtown office in 2015 that is part of the Energy Management Division which is working with the city to reduce energy consumption among city-owned buildings showing their investment to the region

⁸⁴ "Cape Wind Project Status and Timeline," Cape Wind, accessed March 5, 2017, <https://www.capewind.org/when>.

and New Bedford.⁸⁵ With Cape Wind, America's first offshore wind farm, approved Siemens may find it worthwhile to manufacture turbines in the United States rather than build them overseas and transport them here. The current economic initiatives of bringing jobs and manufacturing back to the U.S. could entice Siemens to open up a production center in the United States if deemed to be cost effective to have fewer transportation costs but higher initial investment in capital. In 2007, "New Bedford was recently one of two finalists in a bid to host a \$20M wind turbine blade testing facility, losing out to Charlestown, MA" but the city has been identified federally as a center for renewable energy.⁸⁶ Success of Cape Wind can be the catalyst to off shore wind growth in the Northeast, which New Bedford could be at the center of with manufacturing and research and development. The New Bedford Wind Energy Center is a collaboration of over 50 partners that was formed to focus on business development, workforce development, policy and advocacy and land-use planning.⁸⁷ For center is a partnership of public, private and non-profit sectors ranging from state representatives to the City Council and small businesses in the city. While it is still a growing industry, it is a positive sign that so many organizations can join and work for a common cause.

⁸⁵ "Siemens Announces Office Opening in Downtown New Bedford," NewBedfordguide.com, <https://www.newbedfordguide.com/siemens-announces-office-opening-in-downtown-new-bedford/2015/10/10>.

⁸⁶ HR&A Advisors, Inc., "New Bedford Harbor Study," May 1, 2009, <http://www.portofnewbedford.org/documents/New%20Bedford%20Harbor%20Study%20-%20Analysis%20of%20Growth%20Potential%20for%20ExistingPotential%20Port%20Industries.pdf>.

⁸⁷ *New Bedford is... Open for Business*, New Bedford Economic Development Council, March, 2017 <http://www.nbedc.org/who-we-are/>.

Along with the possibilities in wind energy lay a variety of other way New Bedford can exploit the renewable energy industry. New Bedford holds a competitive advantage over many other places in harnessing energy from the water because it is in close proximity to the Acushnet River, the Cape Cod Canal, Buzzards Bay, New Bedford Harbor and Nantucket Sound. In 2009 Nature Currents New England announced they planned to install a turbine in the Cape Cod Canal which is a major step for hydrokinetic projects as the turbine could provide enough electricity to power hundreds if not thousands of homes.⁸⁸ More recently, Littoral Power Systems moved operation from New Jersey to New Bedford working to harness energy from tidal patterns. David Duquette, founder and CEO, explained that, “New Bedford has a strong maritime industry needed to support a tidal energy company” and that the company could find new uses for underutilized fishing resources.⁸⁹ Small start-ups, such as Littoral Power Systems, develop a cluster of employers to the region that attract more businesses to the city and region. David Duquette saw something special in New Bedford due to the resources available and has capitalized on public and private resources of the region as the company received \$1.4 million from the U.S. Department of Energy and \$250,000 from the Massachusetts Department of Energy Resources as well as working with institutions that already have facilities such as University of New Hampshire's Jere A. Chase Ocean Engineering Laboratory in Durham, N.H. which saves the business money

⁸⁸ George Brennan, “New Bedford Energy Company Looks to harnesss Canal’s Current”, NBEDC, Feb. 24, 2009, <http://www.nbedc.org/news/new-bedford-energy-company-looks-to-harness-canal-current/>.

⁸⁹ Mike Lawrence, “Tidal Energy Startup Hopes to Make Waves in New Bedford,” *South Coast Today*, Updated April 10, 2016, <http://www.southcoasttoday.com/news/20160409/tidal-energy-startup-hopes-to-make-waves-in-new-bedford>.

by not having to invest large amount of initial capital on research equipment. The South Coast Rail project, which will connect New Bedford with Boston, has begun but still is far from complete. The rail project exemplifies the connection New Bedford has with Boston and the suburbs of the city which are popular “think tank centers”. New Bedford’s natural resources are perfect for the businesses located in Boston or the suburbs of Boston and the low cost of real estate make it feasible for them have a branch in New Bedford or travel there for research and testing of products.

Renewable energy in the United States is still an up and coming industry that has the potential to take off to preserve the environment. Because of New Bedford’s assets of location and already established businesses, the city can expand the number of research and development businesses which will increase the “creative class” population of the city Richard Florida believes is critical. “This industry may not be a large employer in New Bedford in the initial years, as regional start up firms are quite small, averaging less than 10 employees”.⁹⁰ As time goes on and the renewable energy workforce cluster expands, growth of the industry can also expand exponentially. Larger companies that are invested in renewable energy may see the cluster that exists and open a facility in the city which would provide more capital and jobs. The unemployed of New Bedford who have little education can take advantage of manufacturing jobs that will come as new products begin to go to market and become produced in larger numbers. It is critical that those in the manufacturing industry are provided opportunities for further education and training in the field because even without a college education the additional training makes them

⁹⁰ HR&A Advisors, Inc., “New Bedford Harbor Study”.

more marketable in other industries that require advanced manufacturing. The cluster of educated employees in the renewable energy field can be a catalyst for the city and region as success builds upon success and the city can become seen even more nationally as one of the top renewable energy centers.

Healthcare

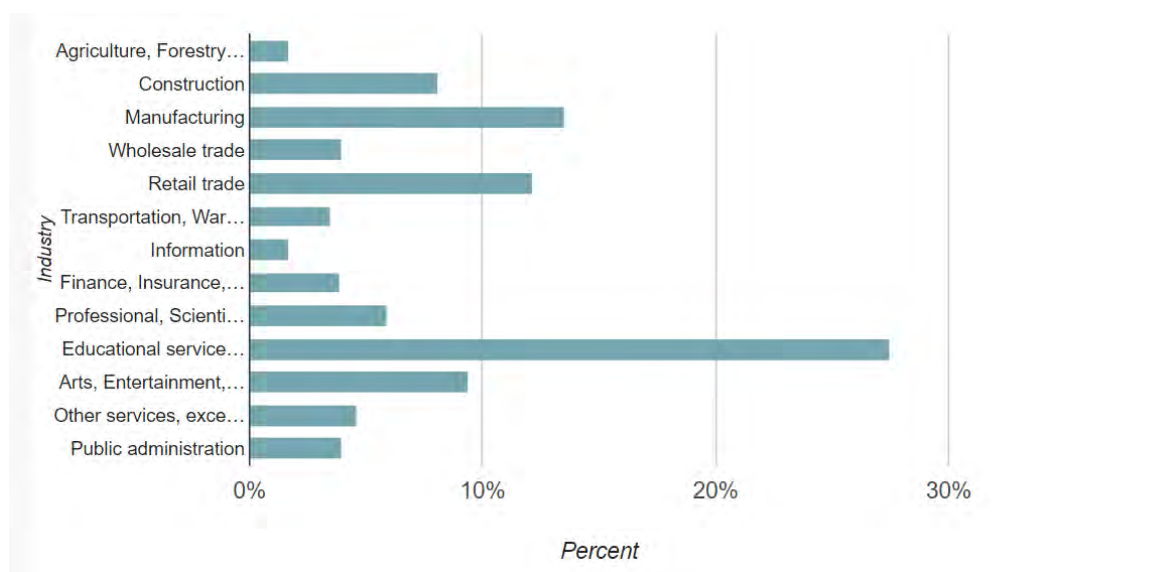
Educational services and health care services currently make up the largest percentage of employment in New Bedford at 27% seen in Figure 11. Figure 13 maps total employment, which has grown from 12,000 employees in 2006 to over 16,000 in 2015 due largely to the demographics of the region. New Bedford's demographics are quite similar to those of Massachusetts and the United States where the number of people over 50 is approximately 30%. Looking at the region however, the percent of the population over 50 years old is much higher. The sample areas surrounding New Bedford included in Figure 12 has a population of 46,000 and is representative of the region surrounding New Bedford. Fairhaven and Mattapoisett together have a population over 20,000 and out of those nearly half are above the age of 50. The region is a popular retirement area which means older people make up more of the population. Southcoast Health System is the largest employer in New Bedford due to St. Luke's Hospital. Southcoast Health System is made up of Charlton Memorial Hospital in Fall River, St. Luke's Hospital in New Bedford, and Tobey Hospital in Wareham, along with over 450 other providers across the region.⁹¹ While healthcare is the largest sector in New

⁹¹ Southcoast Health, "About Southcoast health," <https://www.southcoast.org/about-southcoast-health/> (accessed March 1, 2017).

Bedford, it is also the largest in Massachusetts seen in the 2016 ranking of the 50 biggest companies. Of the 410,000 employed by the top 50 companies 172,366 are employed by the 13 healthcare companies with Partners HealthCare employing over 67,000.⁹²

Hospitals and medical centers are necessary for patient care and proximity is important. St. Luke's Hospital and the surrounding care centers are necessary to care for the people of the region but this is not a central area of growth. Being on the forefront of R&D of new products, surgery techniques and research, this makes hospitals reputable and successfully grow.

Figure 11: Percent of New Bedford Employment by Industry

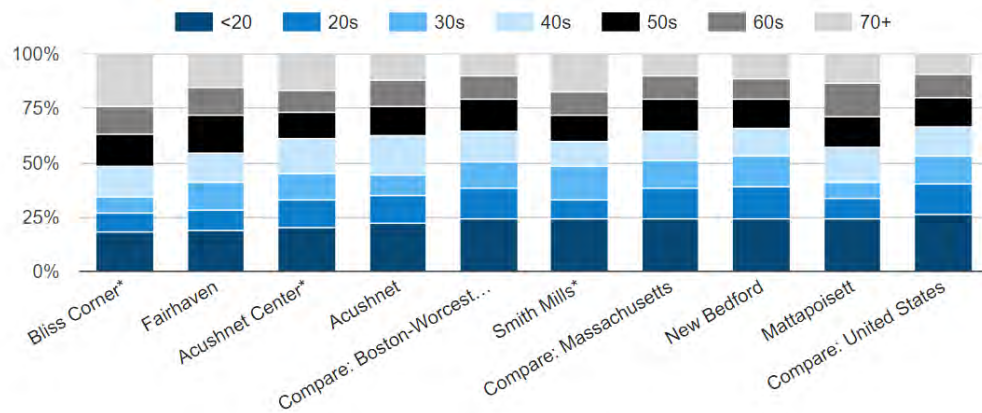


93

⁹² Justine Hofherr, "These are the Biggest Employers in Massachusetts," Boston.com, July 8, 2016, <https://www.boston.com/jobs/jobs-news/2016/07/08/biggest-employers-massachusetts>.

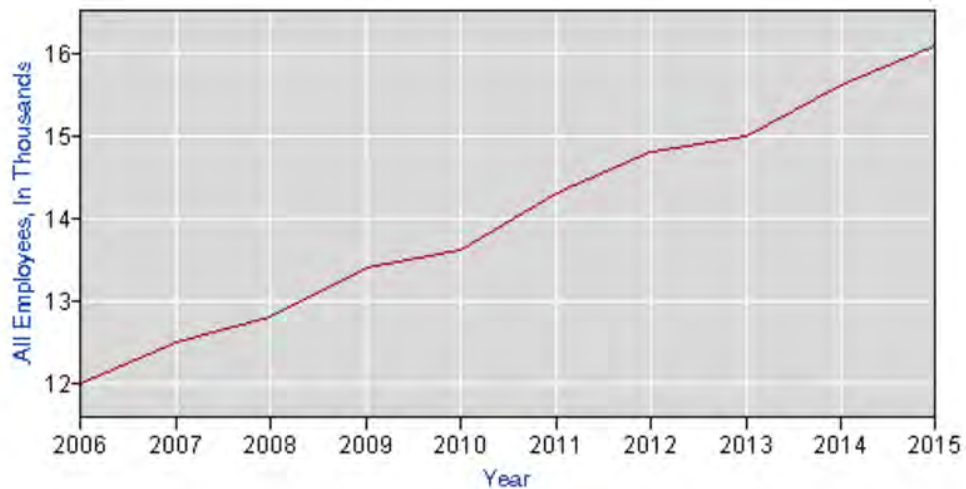
⁹³ US Census Bureau, "American Fact Finder; 2011-2015 American Community Survey 5-year Estimates." <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

Figure 12: New Bedford, MA and Area age by Generation



94

Figure 13: Education and Health Services Industry Employment (2006-2015)



95

⁹⁴ 2016 American Community Survey, "New Bedford, Massachusetts Demographics Data," TownCharts, <http://www.towncharts.com/Massachusetts/Demographics/New-Bedford-city-MA-Demographics-data.html#Figure8>.

⁹⁵ Bureau of Labor Statistics, "Education and Health Services Employment," <https://data.bls.gov/pdq/SurveyOutputServlet>.

Finding a niche to further the healthcare industry can provide Southcoast Health and New Bedford's St. Luke's Hospital continued growth for the future. Partners HealthCare and Steward Health Care, Massachusetts' largest two healthcare organizations, are primarily located in the greater Boston area with smaller facilities in other areas of Massachusetts. These institutions can tap into the medical schools of the greater Boston region to collaborate on medical research. In 2015 the Alpert Medical School of Brown University announced it would collaborate with Southcoast Health for medical students to participate in clinical rotations.⁹⁶ Brown, located in Rhode Island, is a prestigious academic institution with close proximity to New Bedford and the other hospitals in the system. "Southcoast Health, with its forward thinking focus on patient-centered, integrated care and its emphasis on Population Health, offers unique educational opportunities for medical education in the New England region," said Dr. Victor Pricolo, Chair of the Department of Surgery at Southcoast, who has been appointed Director of Brown University medical education at Southcoast."⁹⁷ The success of Southcoast Health System as a whole will improve St. Luke's Hospital. Charlton Memorial Hospital is the region's only hospital to offer open heart surgery and Tobey Hospital is internationally recognized by a World Health Organization program as a top baby-friendly birth facility.⁹⁸ St. Luke's Emergency Department is one of the busiest in Massachusetts and the hospital provides expertise in neurosurgery, cardiology and

⁹⁶ Southcoast Health, "Southcoast Health collaborating with the Alpert Medical School of Brown University in training students," July 31, 2015, <https://www.southcoast.org/southcoast-health-collaborating-with-the-alpert-medical-school-of-brown-university-in-training-students/>.

⁹⁷ ⁹⁷ Southcoast Health, "Southcoast Health collaborating with the Alpert Medical School of Brown University in training students".

⁹⁸ Peter Cohenno, "Tobey Hospital Receives Prestigious International Award," Southcoast.org Jan. 23, 2017, <https://www.southcoast.org/tobey-hospital-receives-prestigious-international-award/>.

children's health services.⁹⁹ Children's Hospital Boston began collaboration with Southcoast Health System in 2012 to open a pediatric services facility at St. Luke's Hospital.¹⁰⁰ Through collaboration with other organizations such as Brown University and Children's Hospital Boston, Southcoast Health System can continue to provide top of the line medical care and to further their involvement in medical research. St. Luke's already leads the region in neurosurgery, cardiology and children's health services, thus working with the other hospitals and institutions in the greater Boston area could be beneficial for all. Specialized services for patients could be provided closer to home while increased collaboration can lead to higher quality research. New Bedford can also benefit from medical manufacturing and distribution of medical equipment.

New Bedford's industrial park has numerous medical manufacturing companies including Aerovox, Five Star Companies, Morgan Advanced Materials and Tecomet to name a few of the largest companies.¹⁰¹ The industrial park and vacant mills dispersed through the city are locations that more medical research companies can possibly utilize. Massachusetts medical-device industry is the second largest cluster in the United States behind California and continues to, "add companies, attract venture capital funding, and increase exports."¹⁰² Even as the second largest, Massachusetts saw a 5% fall in

⁹⁹ Southcoast Health, "A Team of Specialists at St. Luke's Hospital in New Bedford, MA," <https://www.southcoast.org/locations/st-lukes-hospital/> (accessed March 2, 2017).

¹⁰⁰ Globe Staff, "Children's Hospital Boston reaches collaboration deal with Southcoast Health System," March 1, 2012, <https://www.bostonglobe.com/business/2012/03/01/children-hospital-boston-reaches-collaboration-deal-with-southcoast-health-system/RmUwMVfRyGcfTdh4ntRnpO/story.html>.

¹⁰¹ "Directory," New Bedford Business Park, <http://www.gnbif.com/directory.htm> (Accessed February 25, 2017).

¹⁰² Priyanka Dayal McCluskey, "State Remains Strong in Medical-Gear Field," Boston Globe, May 6, 2015, <https://www.bostonglobe.com/business/2015/05/05/mass-medical-device-industry-remains-strong-study-says/8cdT1MEyD6EFmdTPYxzrcL/story.html>.

workforce likely due to mergers, acquisitions and outsourcing.¹⁰³ New Bedford could use the availability of land and infrastructure to entice businesses to move manufacturing to the city rather than overseas especially with the current economic initiatives of the United States. The proximity to a large port, available workforce and tax incentives it makes New Bedford a prime location that is close to the already established medical-device industry of Massachusetts. Employment expansion would be possible in not only R&D but manufacturing and distribution both nationally and internationally which would attract medical workers with high levels of education and employ the immobile population of New Bedford in fields that require little training but pay relatively high wages for manufacturing.¹⁰⁴

The advantage New Bedford has in the health care industry relies heavily on its connection to greater New Bedford's demographics and the greater Boston medical manufacturing industry. Growth in the health care industry has been consistent since 2006 and progress is being made but there is a possibility the industry will hit its upper limits. St. Luke's hospital and the other medical offices in the city are likely to stay which will retain employees but to prosper for a longer period New Bedford should attract the people and businesses from the health care sector that can make it a leader in health science.

¹⁰³ Priyanka Dayal McCluskey.

¹⁰⁴ Priyanka Dayal McCluskey

Chapter Five: Conclusion

Impact of history

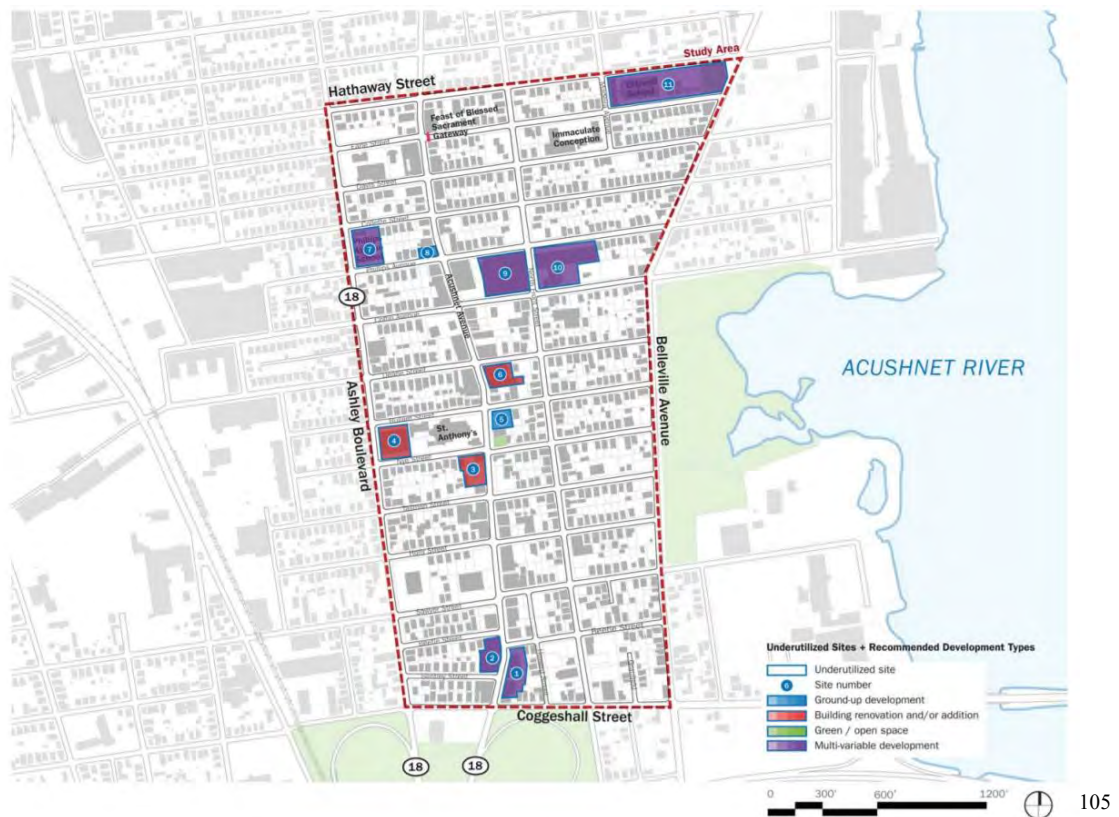
New Bedford's history has impacted the city in a handful of positive and negative ways. Through the years, the city focused on one primary industry on which to base the economy and with the implementation of fishing regulations in 1996 it became evident that the best strategy would be to diversify the economy. This was difficult for those entrenched in the fishing industry as they felt the loss of their livelihood. Urban Renewal projects shaped the city putting a highway, Route 18, between the downtown and waterfront. It hurt the success of downtown; however, it was beneficial to the commercial fishing industry and the transportation of goods. New Bedford had a small group within the city dedicated to preserving the history of the city and the architecture of the downtown. Factories from the textile industry still stand today providing infrastructure for opportunistic businesses from a variety of industries. New Bedford's assets include location, which is set, and not changing as well as these which have it has developed throughout the city's history. With a place-based approach to urban redevelopment, it is important to understand the assets and hindrances of the city.

Creative Class and Clusters

The industries prevalent in New Bedford already include those considered in Richard Florida's creative class including scientists, engineers, university professors, artists and healthcare care professionals but still exists a large group of the population that is unemployed and has very little education. Within the fields of tourism, commercial fishing, renewable energy and healthcare, there are ways in which New

Bedford can continue to grow the cluster of professionals in Florida's super-creative core. Creative professionals can be encouraged to provide jobs and education opportunities for those in New Bedford who do not currently have the necessary skills. Clusters of intellectuals and increased employment can spark further growth and revitalization. As the population increases, the parallel development of residential units and neighborhood amenities must also be present. The distinctive downtown and waterfront have been the primary focus of industry development and as the success of this area continues, those within the city can prosper from the amenities required to serve the community. Mass Smart Growth Alliance and the Working Cities Challenge are two groups working to provide opportunities to New Bedford residents who have economic and social disadvantages. The Acushnet Avenue district has a variety of underutilized sites that are opportunities for entrepreneurs in the city to develop to provide amenities to incoming residents. Figure 14 shows eleven underutilized sites which Utile, Inc. studied and proposed development strategies for investors to take advantage of. With help from public and private investment, successes of the city can use the momentum of others to bolster the opportunities for newcomers to the city as well as those who have been there.

Figure 14: Acushnet Avenue District



Further Study and Research

New Bedford is currently drawing interest from numerous companies that aim to work with the city in continued development. Having public and private sector funding is the only way for the goals of the city to be achieved. Other cities can learn from New Bedford's commitment to taking in the needs of the people and listening to the public's ideas for the future of the city. All the organizations working to redevelop the city must work together to maximize their efforts. Mayor Jonathan Mitchell has spearheaded efforts by bringing together the Regeneration Committee, working with the New Bedford

¹⁰⁵ Utile, Inc. Architecture + Planning, "Acushnet Avenue Opportunity Parcels Catalog," Upper Acushnet Avenue Planning Study, 2010, <http://3t848o30ike211t7x11nzgxi.wpengine.netdna-cdn.com/planning/wp-content/uploads/sites/46/Upper-Acushnet-Development-Sites-Catalogue.pdf>.

Economic Development Council and attracting outside companies such as MassDevelopment and MassInc to work with the city. The city's efforts must be united and its best interest must be the primary focus, not the outside investors. New Bedford must be proactive in marketing the opportunities available in the city. Because redevelopment is a long process and the city cannot become stagnant this is just brief research on an ever-changing economy. New industries may develop in New Bedford that can improve the economy of the city but the most important lesson is that for long term success, the city must diversify and expand the economy through numerous industries instead of focusing on only one industry. New Bedford has made significant progress but still has more work. Educational opportunities need to be offered for the older uneducated population and marketed to them so community involvement is high. The infrastructure of the city needs investment to improve the facilities. Into the future, the city must recognize vacant structures early and consider alternate uses for them before they become run down and obsolete. While new jobs come to the greater New Bedford region, other areas of the city such as education and housing need to be improved to attract people to move to New Bedford not the surrounding towns. As New Bedford continues efforts in urban redevelopment, cities across the United States can study the strategies of New Bedford to succeed in their own efforts. New Bedford has the opportunity to be second-tier city that other cities can learn from as long as they are proactive and willing to commit resources in an effective way to the cause of urban redevelopment.

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