MassWorks: Measuring the Effectiveness of Unlocking Private Capital to Facilitate Economic Growth in Distressed Areas

Jacqueline Furtado

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Advisor: Justin Holland, PhD

Abstract

This paper is a qualitative exploratory study designed to test the effectiveness of the MassWorks Infrastructure Program as an economic tool to facilitate growth and the overall fiscal health of distressed communities. Using data retrieved from the Commonwealth of Massachusetts' Municipal Finance Trend Dashboard to analyze trends in average single family tax bills, new growth, and assessed values; this paper will attempt to measure economic performance for 10 gateway cities. The main goal of this paper is to assess the effectiveness of the MassWorks Infrastructure Program in distressed areas and to better understand if supported projects successfully increased economic growth as proposed.

My project was designed as a preliminary step in measuring the effectiveness of the MassWorks Infrastructure Program with respect to the composite picture of what distressed areas need in order to attract investment into their communities. Findings show that gateway cities that received a MassWorks award experienced upward trends across the fiscal-related variables used for measurement. However, there were also unexpected upward trends for gateway cities that did not receive an award.

Acknowledgements

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decide on a feasible project in which to pursue. Also his gentle, yet consistent support sustained my interest throughout the year-long process.

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Introduction

The MassWorks Infrastructure Program was created in 2010 as a legislative statute (MGL Chapter 23A, Section 63) intended to provide funds for municipalities and other eligible public entities in an effort to support and accelerate housing and job growth within the Commonwealth[1]. MassWorks is administered by the Executive Office of Housing and Economic Development (EOHED) and represents a consolidation of six capital budget programs, giving communities a single entry point and one set of requirements for the state's public infrastructure grants. The consolidation created efficiencies and streamlined the decision-making process, increasing access for municipalities and enhancing partnerships around economic development and housing.

[1] https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter23A/Section63

MassWorks prepares communities for long-term strength and sustainability, with particular emphasis on projects that support multi-family housing in walkable mixed-use districts, or that support economic development in weak or distressed areas[2]. The MassWorks Program encourages municipalities to apply with infrastructure projects that have been well planned, exhibit prompt and predictable permitting, and have implemented zoning that supports future growth.

In 2016, the MassWorks Infrastructure Program awarded 34 infrastructure grants totaling $84.8 million to support housing, economic development, and road safety in communities across the state. In 2015, the MassWorks Infrastructure Program awarded 46 infrastructure grants totaling $85.6 million to support a range of infrastructure investments intended to drive economic development and job creation, including downtown revitalization and the creation of more than 1200 units of multi-family housing across the state. Economic activity is facilitated with an infrastructure grant for work including, but not limited to, sewers, utility extensions, streets, roads, curb-cuts, parking facilities, site preparation and improvements on publicly owned land, demolition, pedestrian walkways, and water treatment systems, designed to address safety and to attract private investment into a community. To ensure funds are geographically dispersed and advance the State's Sustainable Development Principles, EOHED developed spending targets for proportions set aside for Gateway communities, transit-oriented developments, housing, adaptive re-uses of previously developed sites, mixed-use projects, and regionally-significant projects. However, while the MassWorks Infrastructure Program has been instrumental in supporting how communities mitigate barriers to economic growth, this paper will explore the effectiveness of the program in reaching distressed areas.

Background/Review of Literature

[2] https://www.mass.gov/service-details/massworks

A review of the literature establishes the importance of infrastructure as a key driver of growth, competitiveness and social well-being. Moreover, the quality of a community's infrastructure has a profound effect on its ability to attract development and the success of companies that choose to locate there. Across Massachusetts, there are many infrastructure needs from roads and bridge repairs to affordable housing across Massachusetts. “The condition of roads, bridges, schools, water treatment plants, and other physical assets greatly influences the economy’s ability to function and grow ((McNichol, 2017).” Infrastructure projects including, highways and water and sewage systems provide a solid foundation for economic vitality. Infrastructure projects can facilitate transportation, provide energy and water and overall boost well-being of communities by while helping economies to flourish. Thus, addressing infrastructure can play a vital role in helping to transform a community’s economic viability by attracting the much-needed investment to improve the quality of life and support sustainable options. This is especially so in struggling, distressed communities which have experienced long-term disinvestment.

As population growth occurs, pressure is further placed on aging infrastructure (Wagner, 2012). Additionally, private investors “seeking expansion, relocation, or consolidation generally place review of infrastructure assets at the top of their [decision-making] list of site selection priorities as potential sites are being evaluated (Wagner, 2012).” Concerns range from having ample water and electricity that support company growth and operations to reliable multi-modal transportation options (McNichol, 2017). States need infrastructure improvements that have potential to pay off economically in private-sector investment and increase the quality of life for its residents. States are therefore challenged with preserving, maintaining, and investing in infrastructure to address sustainable economic development options.

While Gateway cities have struggled economically having lost crucial manufacturing jobs over the years, they have retained key assets with unrealized potential such as existing

infrastructure and strong connections to transportation networks. With a newfound demand for walkable neighborhoods on the rise, Gateway cities are seeing new opportunities to leverage untapped assets (MassInc).

As previously mentioned, the MassWorks Infrastructure Program is the Commonwealth of Massachusetts' economic development tool designed to prepare communities for long-term strength and sustainability by supporting economically viable infrastructure investments. The key outcome construct of interest in this study is whether the MassWorks Infrastructure Program supported projects that successfully increased economic growth in distressed areas as proposed—what are the measurable effects of that "success"?

Methodology

Sampling

The population of interest for this study is gateway cities[3] as defined by Massachusetts General Legislature. Gateway cities are "midsize urban centers that anchor regional economies around the state, and face "stubborn social and economic challenges" and thus have been "slow to draw new economy investment" while retaining "many assets with unrealized potential (MassInc)." These communities, which all had a legacy of economic success, have struggled as manufacturing jobs disappeared and the state's economy shifted toward skills-centered knowledge sectors (MassInc). The population that is accessible to this study consists of 5 selected gateway cities which have received a MassWorks infrastructure grant award between 2015 and 2016 to test whether or not the grant funding helped them in achieving economic development activity as proposed in their original applications. The sampling frame

[3] "The Legislature defines 26 Gateway Cities in the Commonwealth, which are Attleboro, Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Peabody, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield and Worcester." https://massinc.org/our-work/policy-center/gateway-cities/about-the-gateway-cities/

was obtained from records of the agency (EOHED). Because of the large number of communities that have been awarded MassWorks infrastructure grants, the focus remained on this small sampling of gateway communities purposely chosen for the purpose of this paper. This resulted in a sample size of 5 communities as follows: Brockton, Fall River, Fitchburg, Leominster and Lynn.

While the study sample cannot be considered representative of the entire MassWorks Program, the major purpose of this study was to determine whether and how the MassWorks Program benefitted distressed areas in favorably increasing it the economic viability of awarded communities. Any effects of the program evident in this study can be generalized to other economic development tools intended for spurring economic development in distressed areas.

Measures

A qualitative exploratory design was used in this study where economic development activity for 5 selected Massachusetts gateway communities was analyzed for comparison focusing on both on a two-year period before and a two-year period after receiving a MassWorks Infrastructure grant award. To assess the effectiveness of the MassWorks award within each of the selected communities, this study will compare variables proposed in a municipality's grant application by looking for increased contributions of private development projects. These variables include the assessed value of all major properties by class: residential, commercial, industrial and personal property per annum two years before and two years after receipt of a MassWorks grant; the rate of new growth tax rates for major properties by class: residential, commercial, industrial and personal property per annum two years before and two years after receipt of a MassWorks grant; and the assessed value of single-family parcels per annum two years before and two years after receipt of a MassWorks grant. To test what might have happened if the selected communities did not receive a MassWorks grant, this study will also look at the performance of five additional Gateway cities that applied but did not receive a

MassWorks award during the same periods of analysis. These communities include: Chelsea, Leominster, New Bedford, Salem and Westfield.

This paper uses data retrieved from the Municipal Finance Trend Dashboard[4] to measure the economic performance of the 5 Gateway cities selected for analysis. Detailed descriptions of the variables assessed are as follows:

Assessed Value by Class

The *Assessed Value by Class* variable is the total value of all properties in a municipality by major property class type; residential, open space, commercial, industrial and personal property. For the purposes of this paper, only residential, commercial, industrial and personal property class types will be analyzed.

New Growth Tax Value by Class

The *New Growth Tax Value by Class* variable is additional revenue generated by new construction, renovations and other increases in the property tax base in a calendar year. New growth is calculated by multiplying the assessed value associated with new construction, renovations and other increases by the prior year tax rate.

Average Single Family Tax Bill

The *Average Single Family Tax Bill* variable is calculated by using the assessed value of all single-family parcels in a community then dividing that total by the number of single-family parcels. The result is an average single-family property value which is used to calculate a single-family tax bill, average value divided by $1,000 and multiplied by the community's residential tax rate.

[4] "Dashboard data is compiled from required municipal submissions to DLS, annual financial statements, state agency databases, and the US Census." https://www.mass.gov/service-details/municipal-finance-trend-dashboard

Procedure

The next section includes case studies of the 10 gateway communities selected for analysis. Between 2015 and 2016, 5 of the sample communities received a MassWorks Infrastructure grant award intended to leverage private investments in which to spur increased economic development within each community. An overview is provided of the proposed public infrastructure project, which describes the work MassWorks supported, and private development project(s), which includes the private investment MassWorks leveraged.

For comparison, an overview of the scope for both the proposed infrastructure and development project is provided for each the remaining 5 communities that applied for but did not receive a MassWorks award between 2015 and 2016.

Case Studies

Gateway Cities Awarded a MassWorks Infrastructure Grant: 2015-2016

Brockton (2015) – Dowtown Streetscape and Infrastructure Improvements – $1,276,000

In 2015, a $1,276,000 MassWorks grant was awarded to the City of Brockton for streetscape improvements in the downtown. The infrastructure project continued the City's previous redevelopment efforts by incorporating Complete Streets[5] principles to increase connectivity in the downtown and support new and planned housing and commercial developments. MassWorks funding leveraged $194,000 contributed by the City. The award recognized the City's Downtown designation as a Transformative Development Initiative (TDI)[6] District by MassDevelopment. The public infrastructure project is seen as critical infrastructure

[5] By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists. https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/what-are-complete-streets/

[6] MassDevelopment's Transformative Development Initiative (TDI) is a place-based development program for Gateway Cities designed to enhance local public-private engagement and community identity; stimulate an improved quality of life for local residents; and spur increased investment and economic activity. https://www.massdevelopment.com/what-we-offer/key-initiatives/gateway-cities/

for a mixed-use, transit-oriented redevelopment of downtown Brockton. It supports compact residential development, the reuse of existing utility infrastructure, and job creation adjacent to a MBTA commuter rail station.

To assist with analysis, it is important to note the City's $10,000,000 MassWorks Infrastructure grant received in 2016. The purpose of including the 2016 grant is to inform the explanation of findings in how the success of one award has carryover effects in the City's eligibility of additional awards. The 2016 grant was awarded to the City for the construction of a new 474-space municipal garage that will immediately allow for Trinity Financial to begin construction on Phase 2 of Enterprise Block, a transit-oriented development (TOD)[7] site located adjacent to the MBTA Commuter Rail and BAT Transportation Center. This phase proposed to leverage $11M in MassWorks funds previously awarded for phase 1[8] and over $2.5M from the City and Trinity Financial that will spearhead circulation improvements and create a new street that supports the proposed housing development as the newly created street will mitigate traffic created by the phase 1 and phase 2 developments and ease entry into the garage.

Additionally, the new street is needed to support other existing and future commercial uses in and around the City's downtown. The proposed private development to be spurred from the infrastructure project consists of 111 new rental housing units, 46 of which will be 60% below the AMI. Construction of the parking garage was a requirement under the City's comprehensive 40R[9] permit. The permit required that the second phase of Trinity's development begin within two years of the initial certificate of occupancy of phase 1 or the phase 2 risks losing its permit approvals.

Fall River (2016) - City Pier Improvements - $1,600, 000

[7] Transit-oriented development, or TOD, is an approach to development that focuses land uses around a transit station or within a transit corridor. https://www.mass.gov/service-details/smart-growth-smart-energy-toolkit-modules-transit-oriented-development-tod

[8] Phase 1 of Enterprise Block has been completed and received an $11 million MassWorks award in 2013. The first phase of Trinity Financial's development consists of 113 new housing units and 52,000 square feet of commercial space.

[9] Chapter 40R seeks to substantially increase the supply of housing and decrease its cost, by increasing the amount of land zoned for dense housing. https://www.mass.gov/service-details/chapter-40r

In 2016, the City of Fall River was awarded a $1,600,000 MassWorks grant to revive the blighted and previously contaminated City Pier. Fall River's waterfront has experienced significant private reinvestment in recent years, and City Pier is the last developable parcel on Fall River's waterfront. MassWorks-funded improvements to water and electric utilities will compliment over $2.5 million in public funds already invested in the pier, and enable the private development of a pre-permitted marina and restaurant to move forward.

Fitchburg (2015) - Improvements to the Intersection of Main and River Streets - $3,050,000

In 2015, the City of Fitchburg was awarded a $3,050,000 MassWorks grant to improve and reconfigure the intersection of Main and River streets. Infrastructure improvements will include new sidewalks, lighting, bicycle lanes, and street trees, and will support the conversion of a 127-year old mill, Fitchburg Yarn, into 96 units of mixed-income rental housing. The redevelopment project is estimated at $37 million and in addition to MassWorks funds, is supported by $200,000 in city and private funding.

Leominster (2016) - The Downtown Leominster Revitalization Project, $2,500,000

In 2016, the City of Leominster was awarded a $2,500,000 MassWorks grant to address the City's downtown infrastructure, including water/sewer upgrades and sidewalk and roadway improvements. The Project will advance the City's downtown revitalization initiatives and enable the redevelopment of a former mill building into 36 units of market rate housing. The City is contributing $300K towards the project and with MassWorks funds will unlock $11.5M in private investment. The private component includes investments in four downtown developments.

Lynn (2016) - Waterfront Infrastructure Improvements - $1,200,000

In 2016, the City of Lynn was awarded a $1,200,000 MassWorks grant to make intersection and roadway improvements, and install a new water line connection, in support of new housing development along the City's North Harbor district. The public infrastructure will allow Lynn to transform its waterfront into a vibrant, livable, and accessible mixed-use district, and unlock a 348-unit residential development on the City's former Beacon Chevrolet site.

Gateway Cities Denied a MassWorks Infrastructure Grant: 2015-2016

Chelsea (2015) - Gateway Center Infrastructure Improvements Phase V - $2,500,000

In 2015, the City of Chelsea applied for a $2,500,000 MassWorks Infrastructure grant to continue work on a multi-phase urban renewal project to support on-going and future redevelopment, bolster economic development, and aid in the creation of new jobs. The City's application proposed a fifth phase to rehabilitate a primary entryway to the City which would also support existing and future growth. The scope of the phase V public infrastructure project scope proposed to rehabilitate deteriorated infrastructure in a manner that fosters continued economic development. Specifically, the project would support the redevelopment of numerous blighted parcels, transforming dormant land into a productive mixed-use development. Replacement of outdated and inadequate water, sewer, and drainage lines would precede surface work. Separate sanitary sewer and drain utilities would supplant a Combined Sewer Overflow system that is inefficient and degrading to the surrounding environment. With damaged pavement and fractured sidewalks, roadway and sidewalk reconstruction is warranted. Moreover, ornamental lighting and street trees would ensure that this area can be traversed safely by vehicles, pedestrians, and bicyclists while enhancing the streetscape's aesthetic.

While the City's MassWork 2015 application was not selected for an award, it should be noted for analysis purposes that the City received previous MassWorks awards as follows: $6,000,000 in 2014 to support continued long-term redevelopment efforts in the City's Everett

Avenue Urban Renewal District and to support Phase IV of the Chelsea Gateway Center Infrastructure Improvement Plan; $3,000,000 in 2013 and $1,500,000 in 2012 to further the City's long-term redevelopment efforts in its Everett Avenue Urban Renewal District to support new and existing development; and $1,000,000 in 2011 for the Reconstruction of Everett Avenue.

Lawrence (2016) - Merrimack Street West Roadway Improvement - $ 5,950,000

In 2016, the City of Lawrence applied for a $5,950,000 MassWorks Infrastructure grant to further the redevelopment efforts of the Merrimack Street Corridor, a busy commercial and industrial corridor that connects Interstate 495 and Route 28. The grant would fund proposed improvements from South Union Street to Broadway, which the City deemed as phase two of the Merrimack Street Corridor revitalization. Phase two construction from South Union Street to Broadway would be consistent with the phase one improvements and adhere to the City's recently enacted Complete Streets Policy and would include: road reconstruction to improve capacity at each intersection and bike lanes along the corridor, new sidewalks with ADA compliance, two (2) new traffic signals to improve operations and safety, a new bridge to unlock development potential at Merrimack Paper Mill, lighting to create a safer walking environment and other streetscape features.

The City would also bury the existing overhead utilities (from Parker Street to Broadway) to further improve safety, accessibility and aesthetics. These upgrades would promote multi-modal activity that would significantly revitalize the Merrimack Street corridor by advancing housing and economic development. The City's 2015 MassWorks application was not selected for an award. However, for analysis purposes, it should be noted that previously in 2014, the City received a MassWorks Infrastructure grant in the amount of $3,925,000 for the Merrimack Street Corridor Improvement Project. The 2014 grant served as phase I for the Merrimack Street Corridor revitalization.

Leominster (2015) - Merriam West Revitalization - $3,194,867

In 2015, the City of Leominster applied for a MassWorks Infrastructure grant in the amount of $3,194,867 to provide for sidewalks on both sides of Merriam Avenue, and Hall, Blossom and West Streets. The City cited two reasons of importance for this project: (1) Leominster High School, with 2000 students, sits .3 miles from the project location and would create a more walkable neighborhood for students along with upgraded designated school bus stops for other schools within the borders of this project; (2) sidewalks would create a direct connection between downtown and the West Side.

The grant would also fund water line replacement on Merriam Avenue and West Street. Additionally, the proposed public infrastructure project would complete the City's inflow and infiltration work to eliminate ground water infiltration into the wastewater system. On Merriam Avenue and West Street, proposed stormwater treatment installation would improve Rockwell Pond and meet water quality regulations, and close the loop on work the City started in previous years. The City's 2015 MassWorks application was not selected for an award.

New Bedford (2015) – Gateway Streetscape Project - $2,620,00

In 2015, the City of New Bedford applied for a MassWorks Infrastructure grant in the amount of $2,620,000 for its Gateway Streetscape Project. The proposed public infrastructure project was a four phase, multi-year plan to enhance multi-modal access and upgrade infrastructure in the City's Downtown district area. The project would serve as a catalyst for several multi-use housing initiatives poised to stimulate growth and investment within the City's Downtown and targets the first phase of the overall project, addressing improvements along 2,230 feet of Pleasant Street and Sixth Street. These streets were prioritized based on their position as access routes within the Downtown. The City of New Bedford's 2015 MassWorks application was not selected for an award.

Westfield (2015) – Springfield Road Traffic Signal - $1,253,000

In 2015, the City of Westfield applied for a $1,253,000 MassWorks Infrastructure grant to support its Springfield Road Traffic Signal Project. Citing traffic safety concerns, the road proposed to install a traffic signal on Route 20 which is necessary to further the redevelopment of a 10 acre parcel at the City's gateway, identified as a Priority Development Area[10] by the Pioneer Valley Planning Commission. The public infrastructure would also support additional development plans with the potential to yield further private investment that creates 50 to 150 permanent jobs. The City's 2015 MassWorks application was not selected for an award.

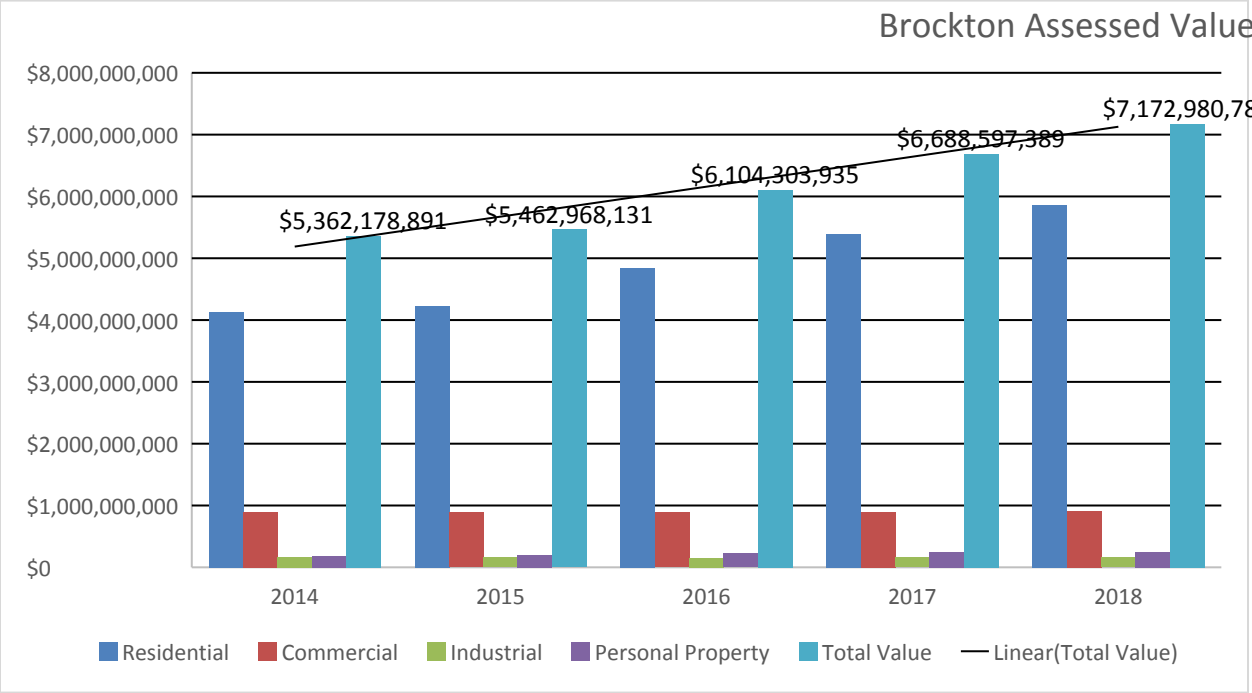
Findings

City of Brockton - Awarded 2015

Per the *Assessed Value by Class* variable (see Figure 1), the City of Brockton's residential properties experienced a steady increase in assessed values beginning in 2016 until 2018. However, the City's commercial, industrial and personal properties unexpectedly experienced fluctuating increases and decreases between 2014 and 2018. What is most notable is that although commercial and personal property values fluctuated from year to year within the 4-year period of analysis, both major property categories leveled out at a higher rate in 2018 than their starting rate in 2014. This trend varied from the City's industrial properties which decreased from the starting point of $162,872,640 in 2014 to the ending point of $158,974,035 in 2018. Given the fluctuations, the City expectedly experienced an overall increase in the total values of its major property values from the starting point of $5,362,178,891 in 2014 and ending at $7,172,980,786 in 2018.

[10] **Priority Development Areas** are locations that are appropriate for commercial, office, retail and/or residential growth. They may involve new construction, redevelopment, or adaptive reuse of existing buildings. https://www.massaudubon.org/our-conservation-work/advocacy/shaping-the-future-of-your-community/publications-community-resources/preservation-development-toolkit/development

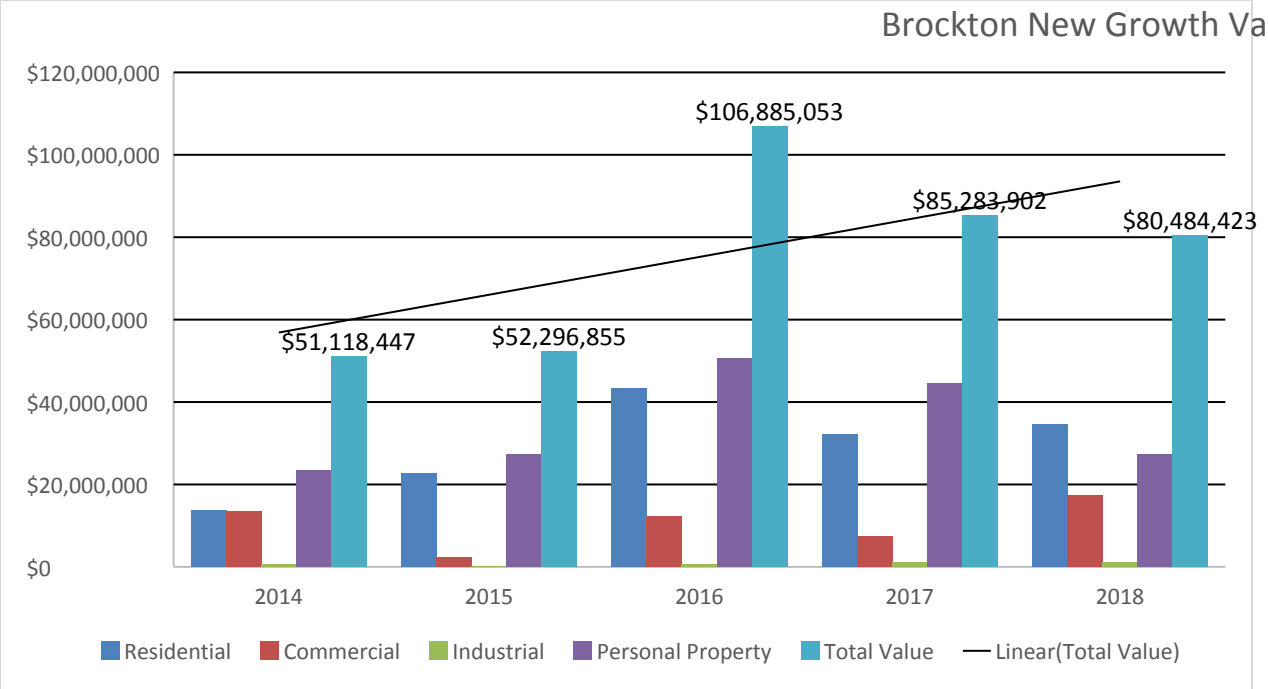
Figure 1: Brockton > Assessed Values by Class



Per the data for the *New Growth Values* variable (see Figure 2), the City of Brockton has experienced a significant increase in additional tax revenue as generated by new construction, renovations and other increases in the property tax base during each year within the 4-year period of analysis. Data shows that the City experienced significant increases in growth from 2014 to 2018 across residential, commercial, industrial, and personal property values. In 2014, the City of Brockton's major properties were assessed a tax value totaling $51,118,447 with only a slight increase in 2015. In 2016, the assessed tax value nearly doubled for major properties with a total of $106,885,053. The year 2017 saw a decrease in assessed tax values of the City's major properties with a total value of $85, 283,902. And in 2018, the assessed tax values declined further with a total value of $80,484,423.

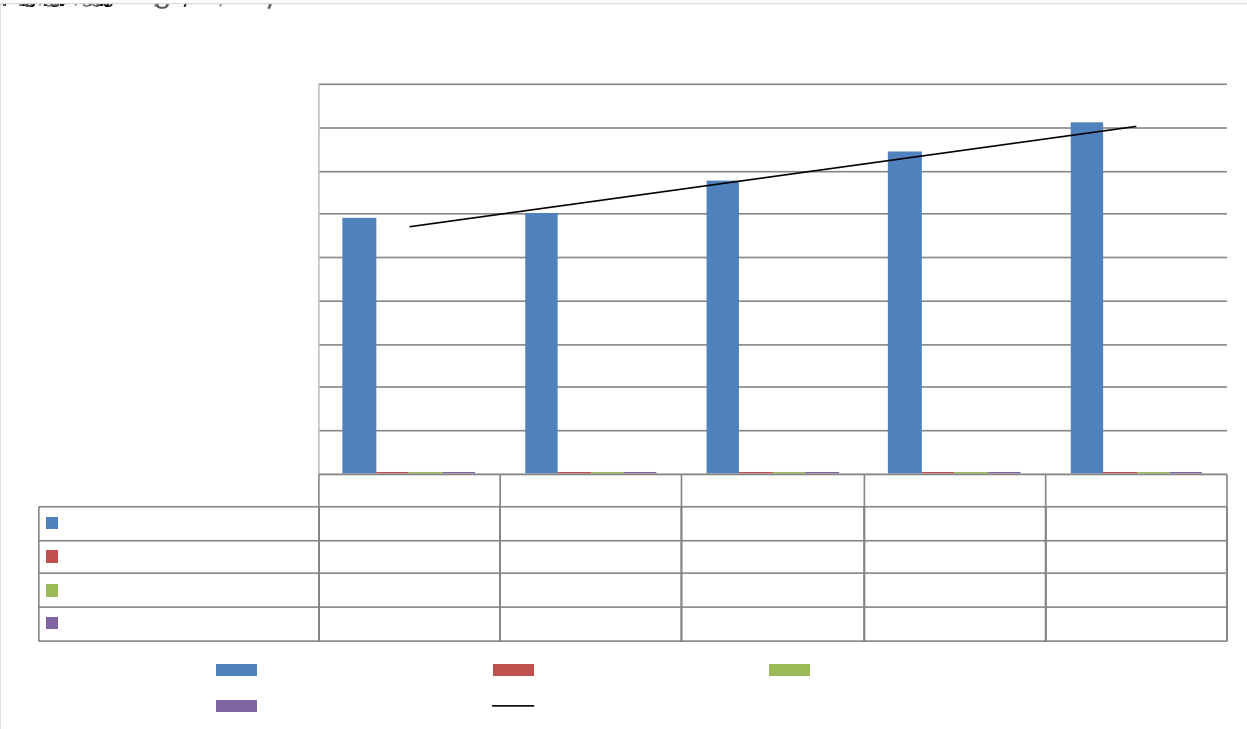
What is most notable is that although there were fluctuating increases and decreases in the rate of growth across the City's major properties, there was a significant increase in the City's residential properties which experienced an annual trend of nearly doubling from $13,660,503 in 2014 and reaching $32,151,625 in 2017. Both the City's commercial and industrial properties on the other hand, experienced a fluctuating trend of minor increases and decreases between 2014 and 2017. When assessed individually, each major property class shows a similar increase and decrease as seen with overall total values. Although the City experienced an overall increase from the starting point of $51,118,447 in 2014 and ending at $80,172,980,786 in 2018, the fluctuating increases and decreases beginning in 2016 were unexpected.

Figure 2: Brockton > New Growth Values



Per the *Single Family Assessed Values* variable (see Figure 3), the City of Brockton's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $2,961,024,570 in 2014 rose to $4,060,768,500 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

Figure 3: Brockton > Single Family Assessed Values

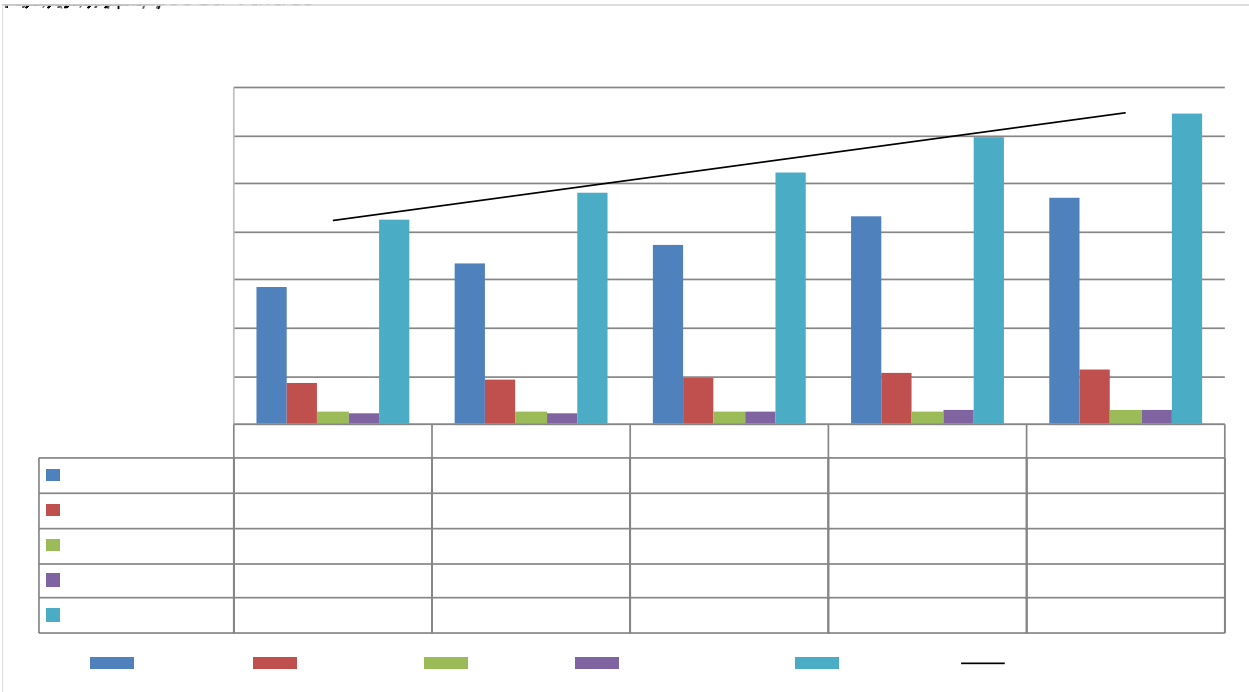


City of Chelsea – Denied 2015

Per the City of Chelsea's *Assessed Values by Class* variable (see Figure 4), the City experienced a steady increase in its overall assessed property values across its major properties

beginning from the starting year of analysis in 2014 until the ending year of analysis in 2018. Since the City was denied a MassWorks grant in 2015, the upward trend in increases was unexpected.

Figure 4: Chelsea > Assessed Values

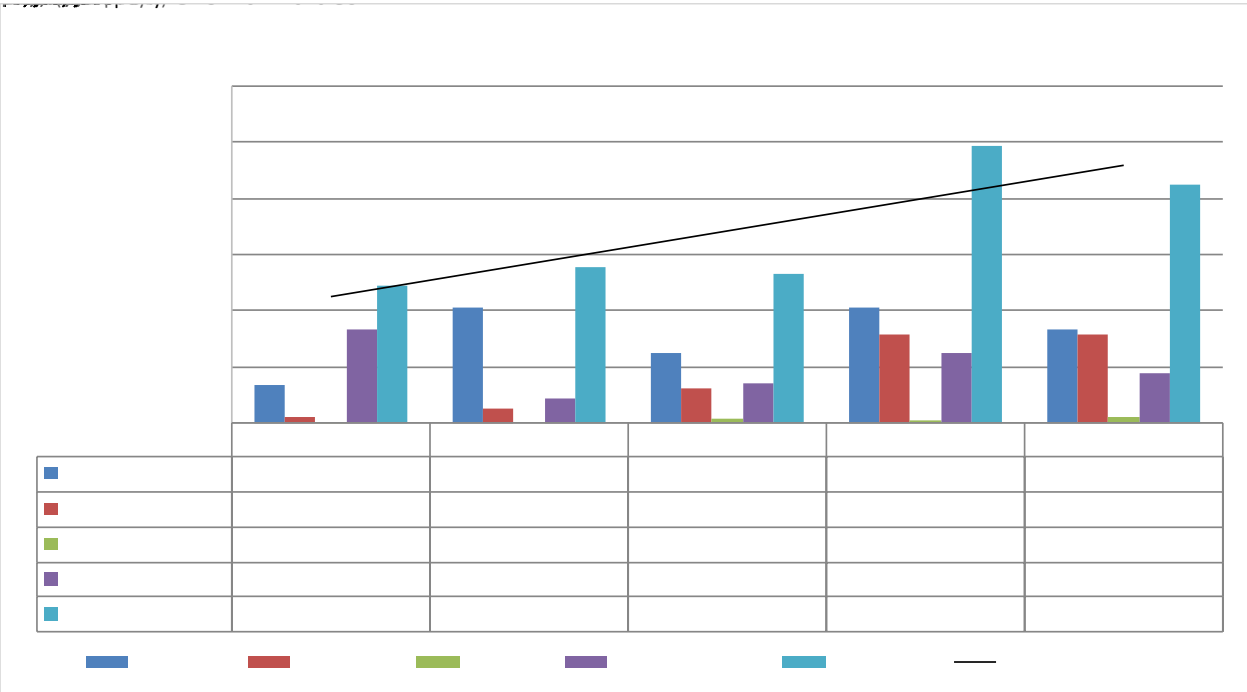


Per the data for the *New Growth Values* variable (see Figure 5), the City of Chelsea has experienced a significant increase in additional tax revenue as generated by new construction, renovations and other increases in the property tax base during each year within the 4-year period of analysis. Data shows that the City experienced significant increases in growth from 2014 to 2018 across residential, commercial, industrial, and personal property values.

What is most notable is that although there were fluctuating increases and decreases in the rate of growth across the City's major properties, there was a significant increase in the City's overall major property values which nearly doubling from $49,023,480 in 2014 and

reaching $98,907,408 in 2017. Although the City's major property values then decreased in 2018, however, the figures remained nearly doubled from the starting year of analysis in 2014.

Figure 5: Chelsea > New Growth Values



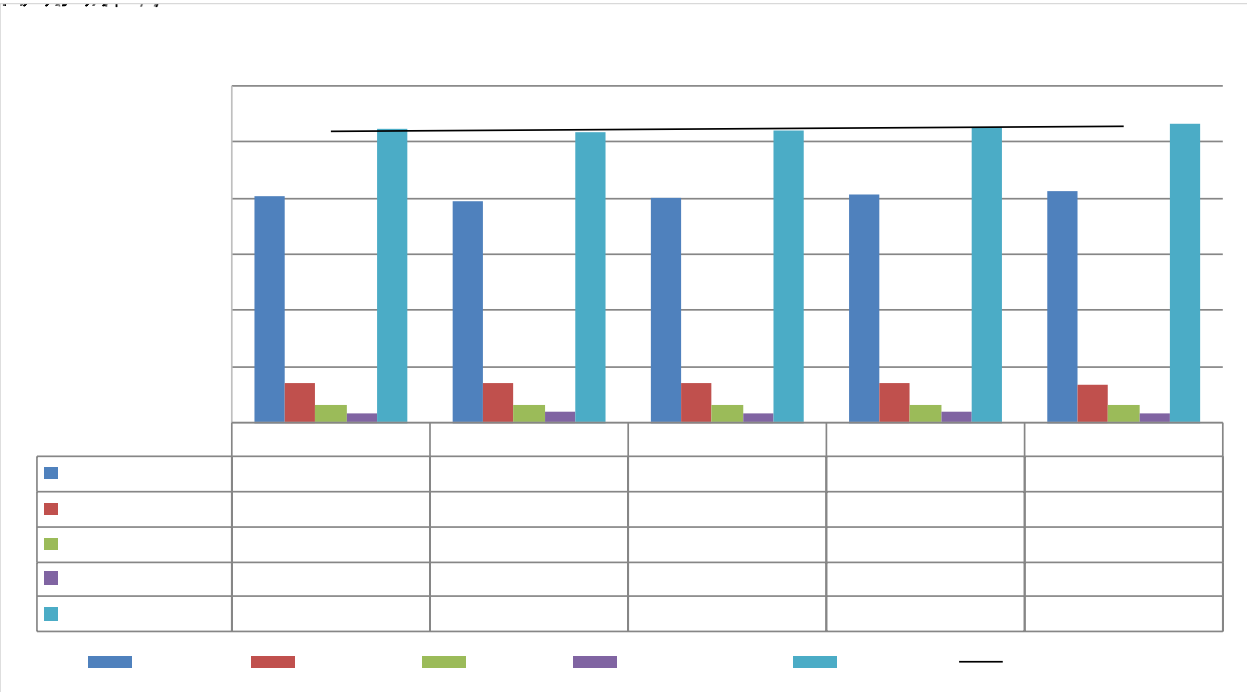
The City of Chelsea did not have data reported in which to analyze the *Single Family Assessed Values* variable. While conclusions cannot be fully made for this area, Chelsea's fiscal health will be assessed by the assessed values of its major properties as well as the average single family values.

City of Fall River – Awarded 2016

Per the City of Fall River's *Assessed Values by Class* variable (see Figure 6), the City experienced a decrease in its assessed property values across its major properties between the

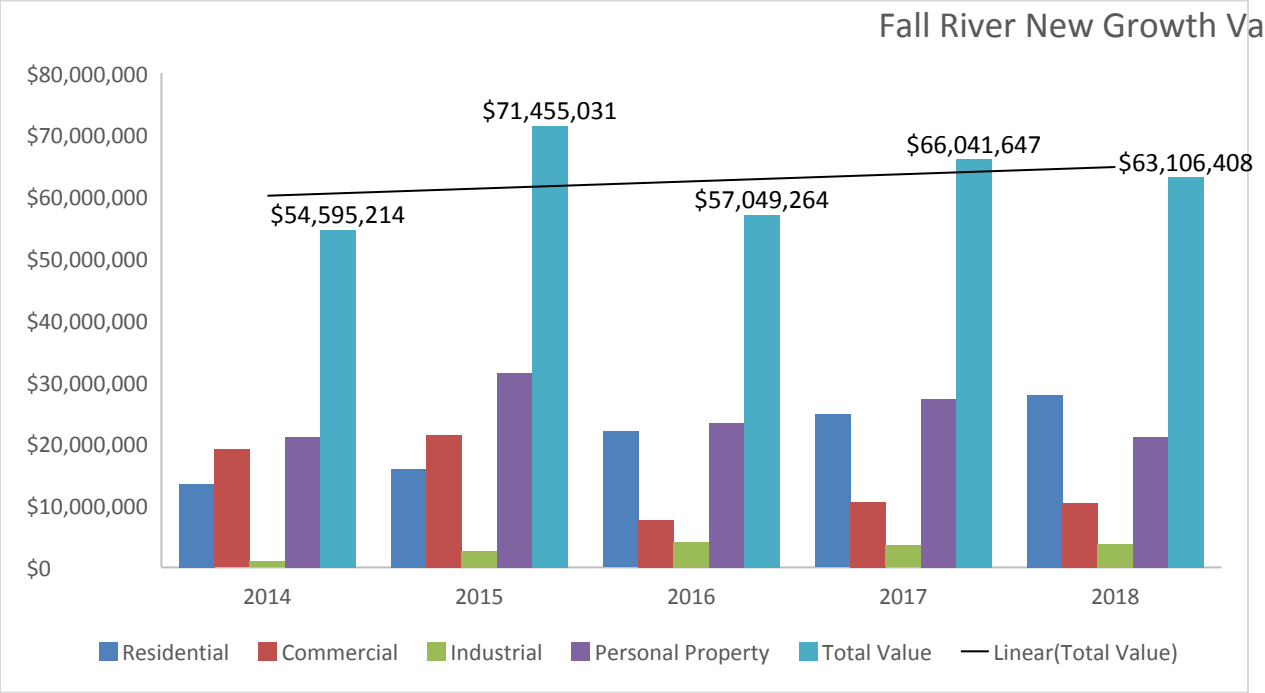
starting year of analysis in 2014 to the next year in 2015. However, overall values began to increase in 2016 until the ending year of analysis in 2018.

Figure 6: Fall River > Assessed Values by Class



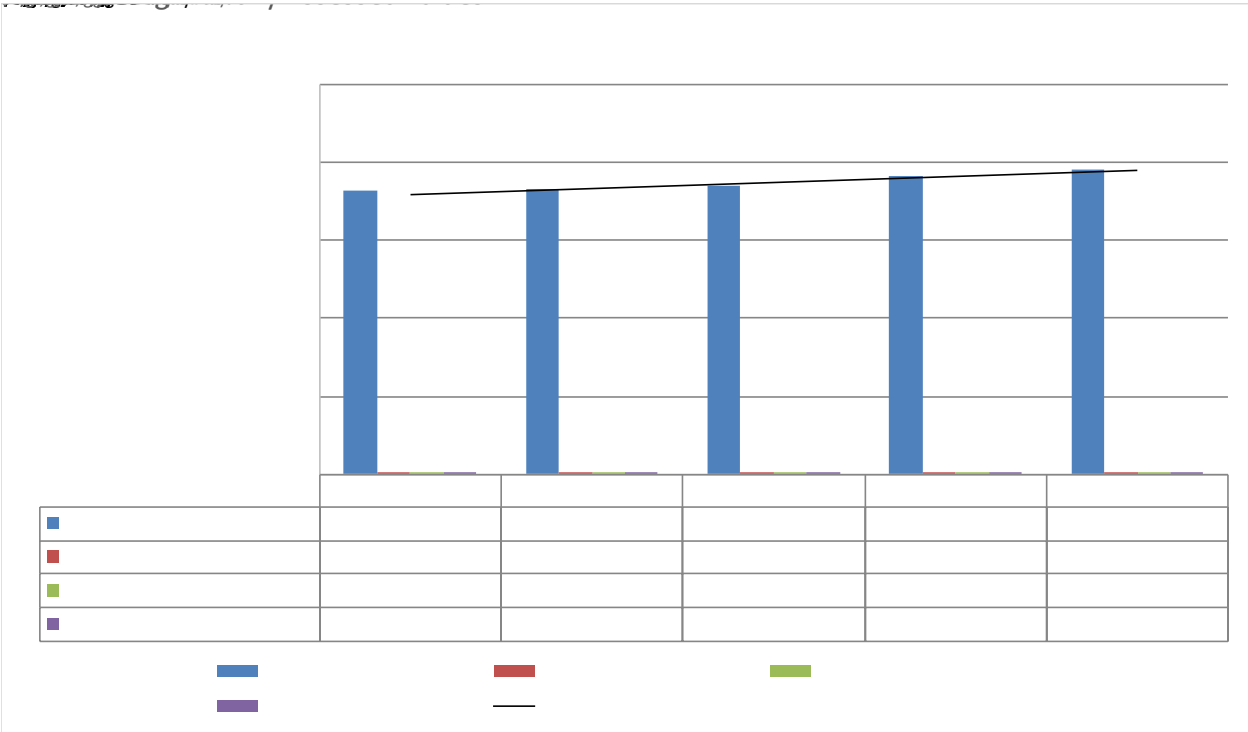
Per the City of Fall River's *New Growth Values* variable (see Figure 7), the City experienced an overall increase in additional tax revenue as generated by new construction, renovations and other increases in the property tax base during each year within the 4-year period of analysis. However, the City experienced fluctuating increases and decreases in growth between 2014 and 2016, with a steady increase beginning in 2017 into 2018.

Figure 7: Fall River > New Growth Values



Per the City of Fall River's *Single Family Assessed Values* variable (see Figure 8), data shows that the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $1,817,294,300 in 2014 rose to $1,959,346,900 in 2018. Based on the formula used for calculating the City's single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

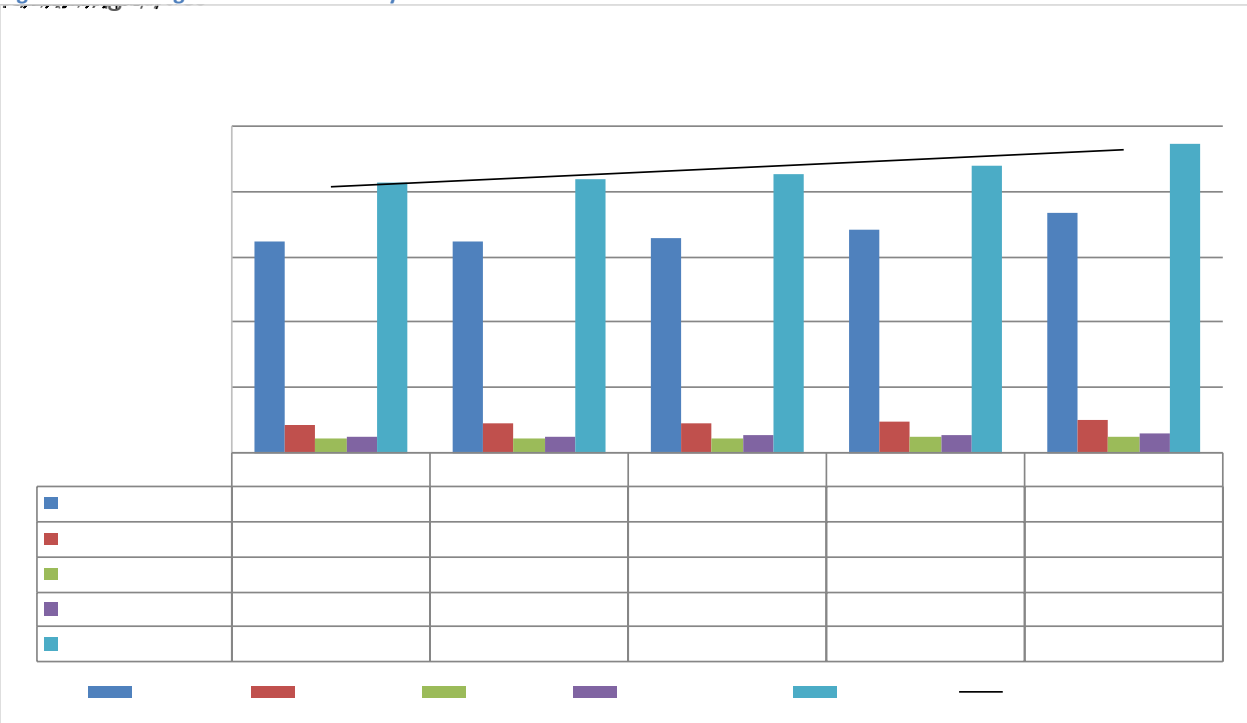
Figure 8: Fall River > Single Family Assessed Values



City of Fitchburg-Awarded 2015

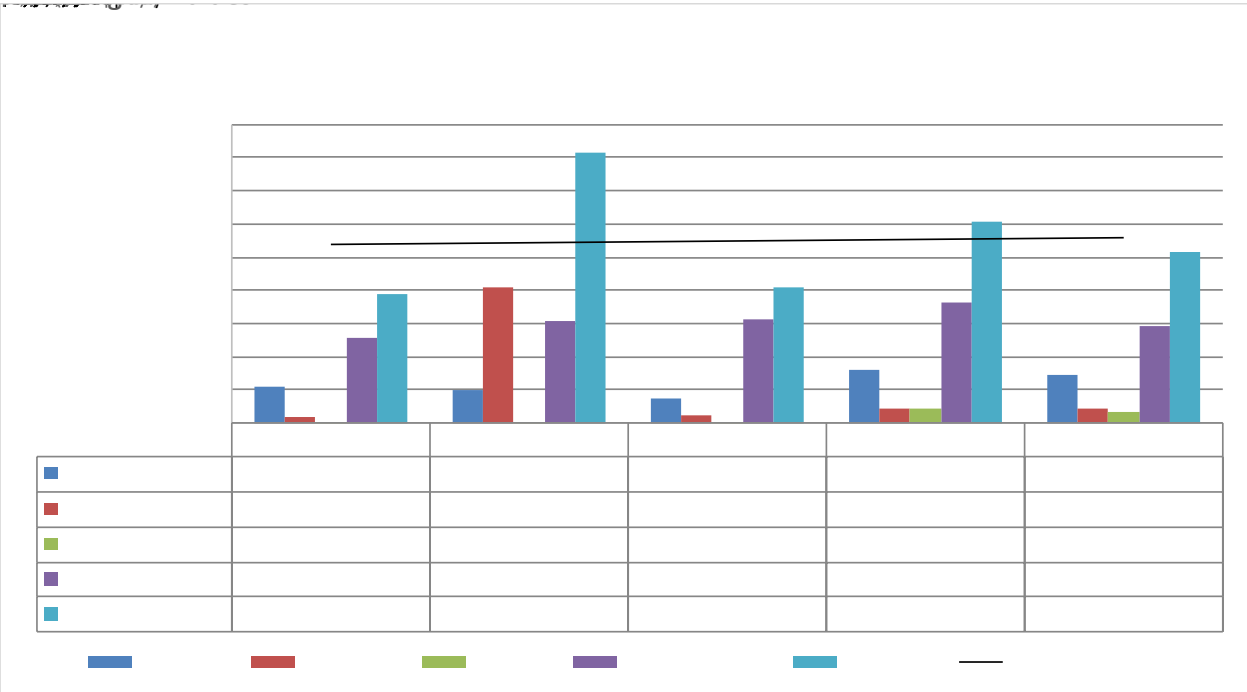
Per the City of Fitchburg's *Assessed Values by Class* variable (see Figure 9), the City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. This upward trend is evident by the trendline provided in the Figure 9.

Figure 9: Fitchburg > Assessed Values by Class



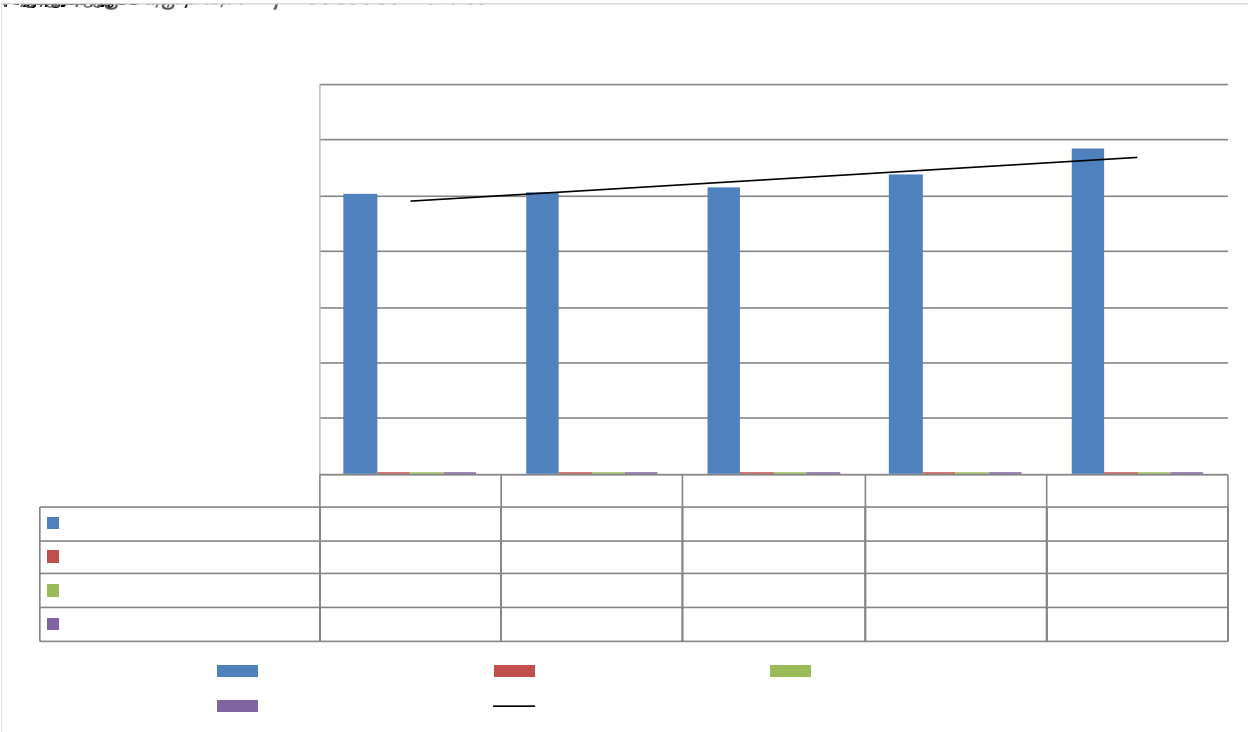
Per the data for the *New Growth Values* variable (see Figure 10), the City of Fitchburg has experienced a significant increase in additional tax revenue as generated by new construction, renovations and other increases across its major property tax base beginning in 2014, where the value nearly doubled. Then in 2016, the total values trended downward losing half of the overall value from 2015. Although the total values began to trend up again in 2017, the fluctuating increases and decreases were not expected.

Figure 10: Fitchburg > New Growth Values



Per the City of Fitchburg's *Single Family Assessed Values* variable (see Figure 11), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $1,007,511,200 in 2014 rose to $1,170,542,000 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

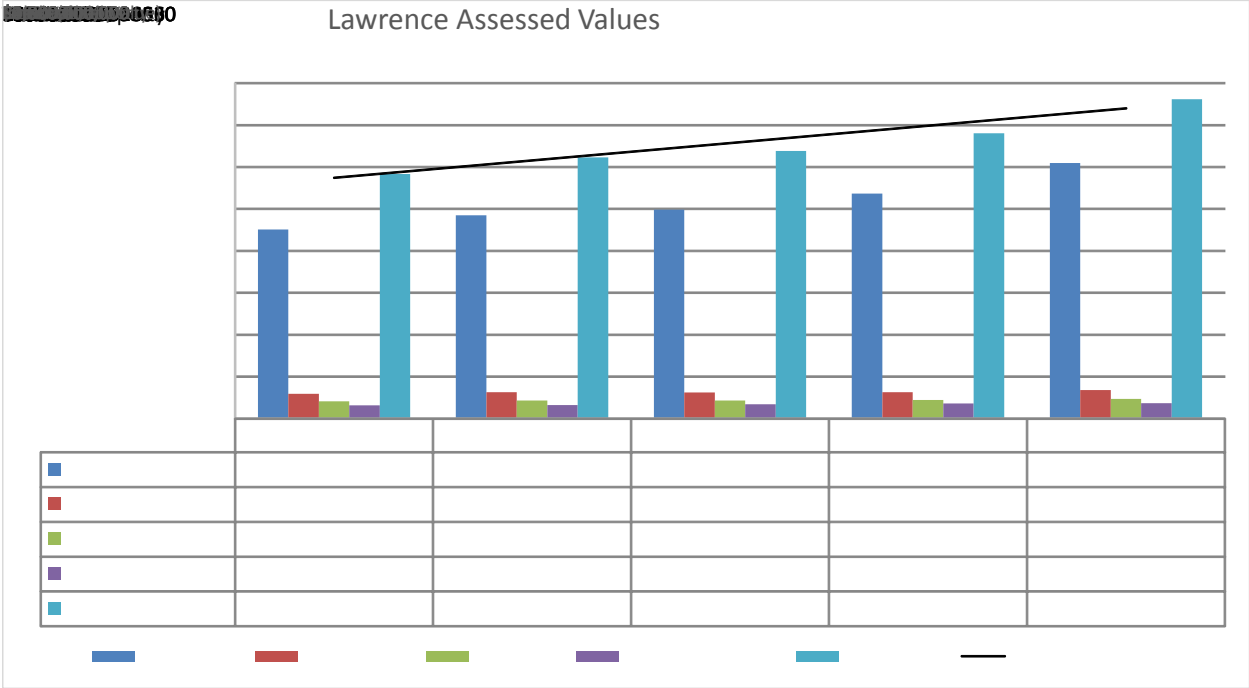
Figure 11: Fitchburg > Single Family Assessed Values



City of Lawrence-Denied 2016

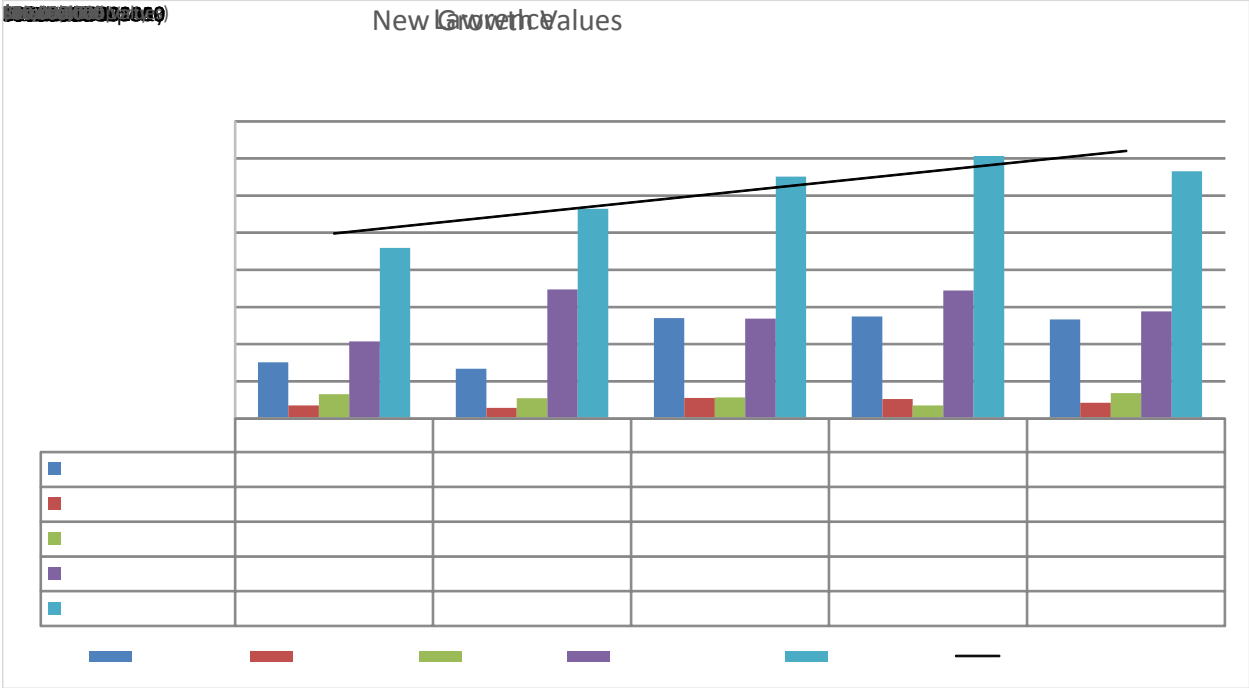
Per the City of Lawrence's *Assessed Values by Class* variable (see Figure 12), the City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. This upward trend is evident by the trendline provided in the Figure 12.

Figure 12: Lawrence > Assessed Values



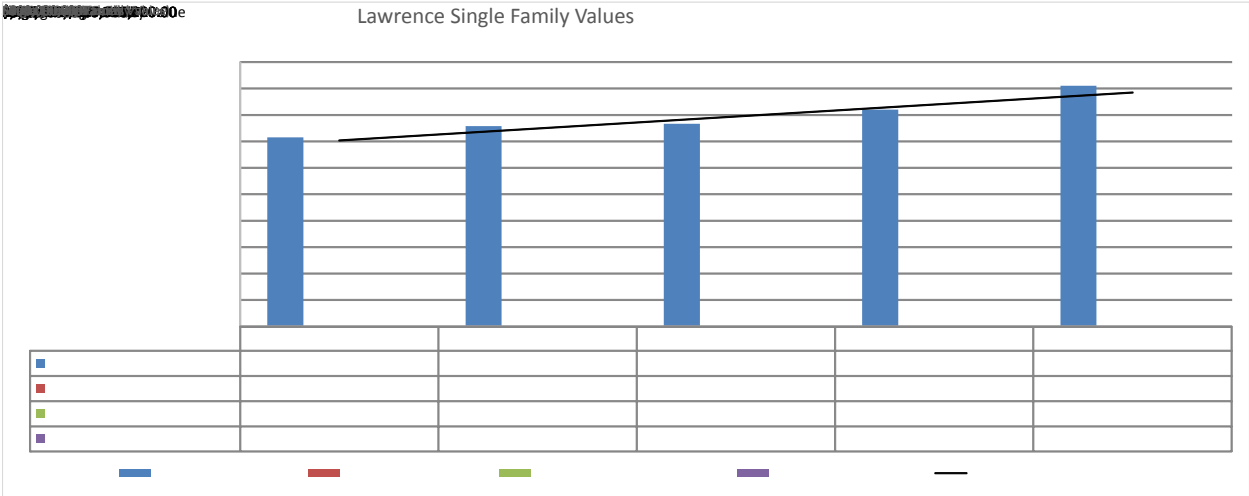
Per the data for the *New Growth Values* variable (see Figure 13), the City of Lawrence has experienced a significant increase in additional tax revenue as generated by new construction, renovations and other increases across its major property tax base beginning in 2014 until 2017. Then in 2018, the total values trended downward, which was not expected.

Figure 13: Lawrence > New Growth Values



Per the City of Lawrence's *Single Family Assessed Values* variable (see Figure 14), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $715,598,200 in 2014 rose to $910,805,720 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

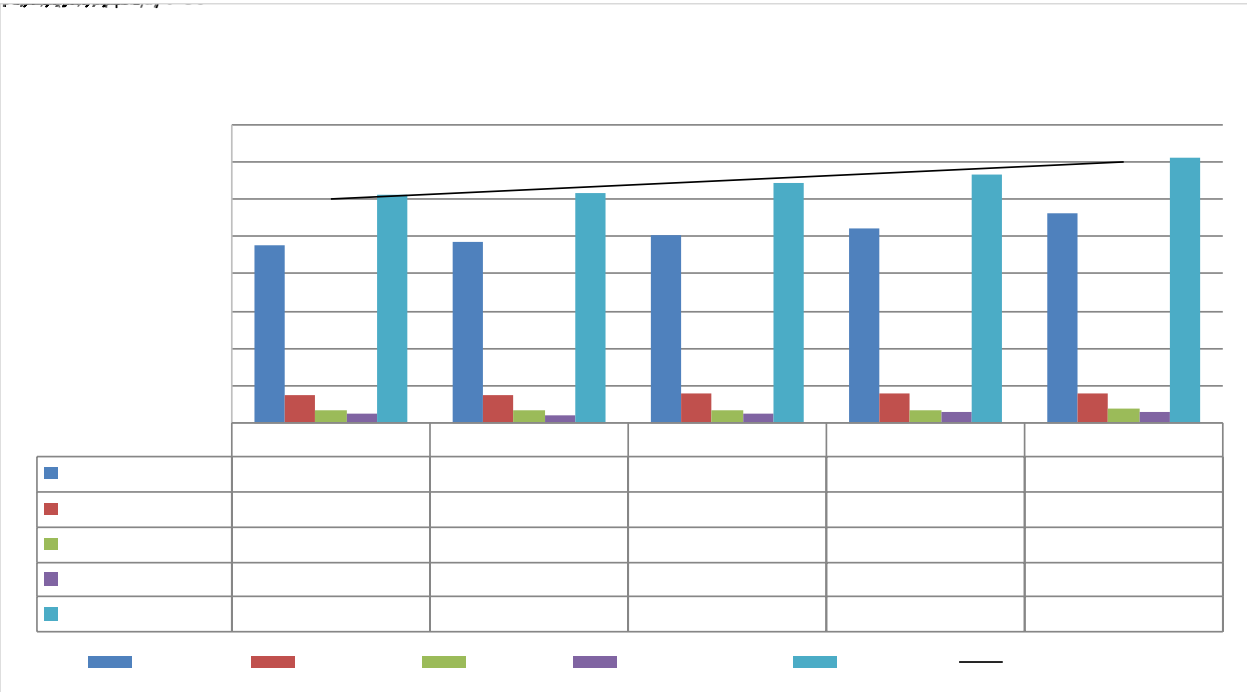
Figure 14: Lawrence > Single Family Values



City of Leominster-Awarded 2016; Denied 2015

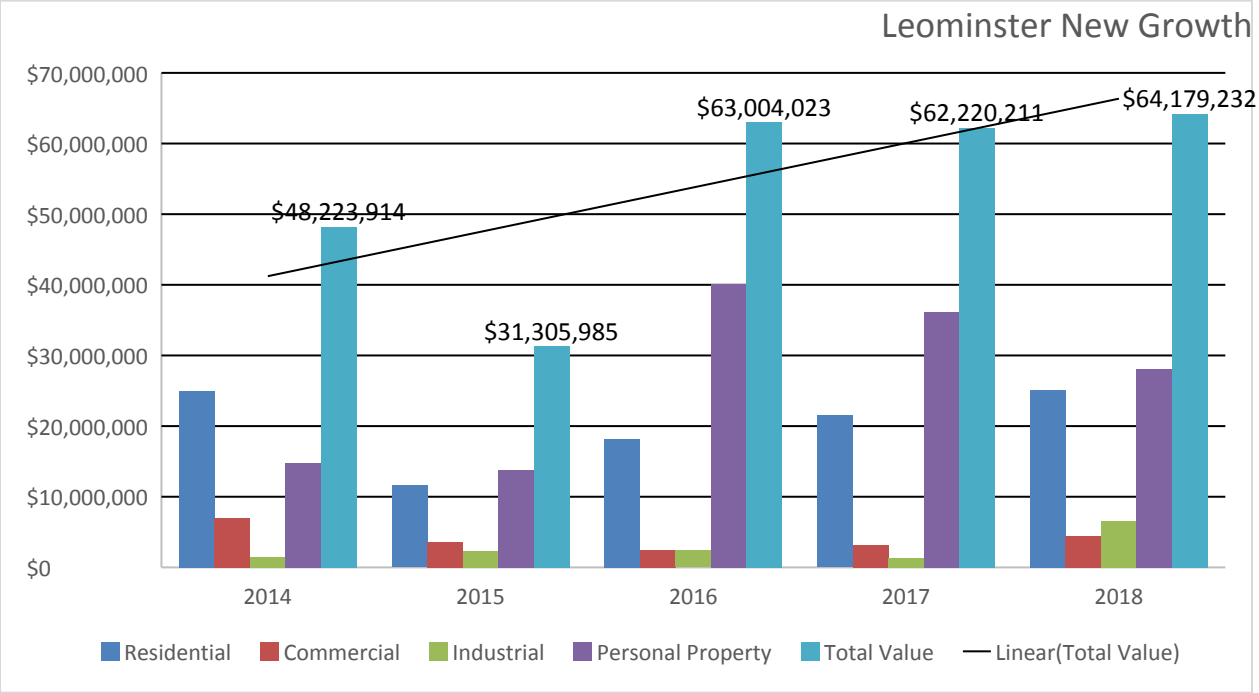
Per the City of Leominster's *Assessed Values by Class* variable (see Figure 15), the City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. This upward trend is evident by the trendline provided in the Figure 15.

Figure 15: Leominster > Assessed Values by Class



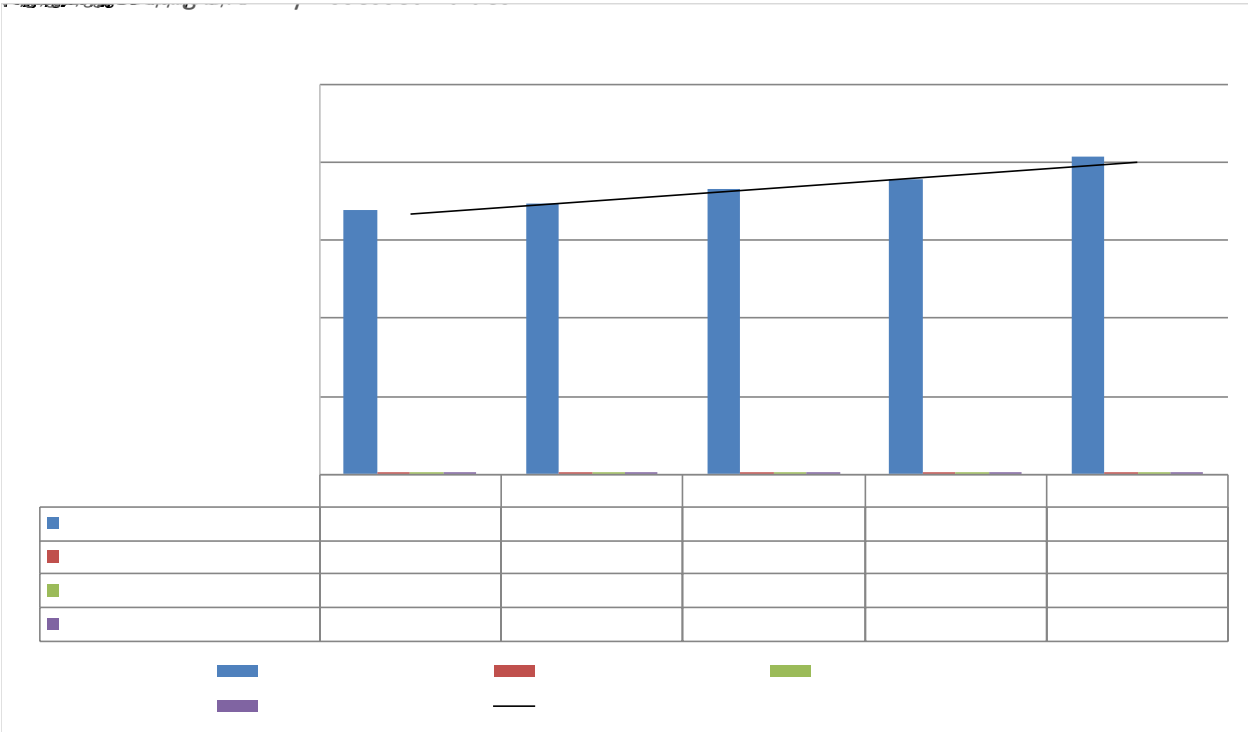
Per the data for the *New Growth Values* variable (see Figure 16), the City of Leominster has experienced a fluctuating increases and decreases in additional tax revenue as generated by new construction, renovations and other increases across its major property tax base within the 4-year period of analysis. However, by 2018, the total values had noticeably trended upward from their starting point in 2014.

Figure 16: Leominster > New Growth Values



Per the City of Leominster's *Single Family Assessed Values* variable (see Figure 17), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $1,696,961,500 in 2014 rose to $2,037,517,100 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

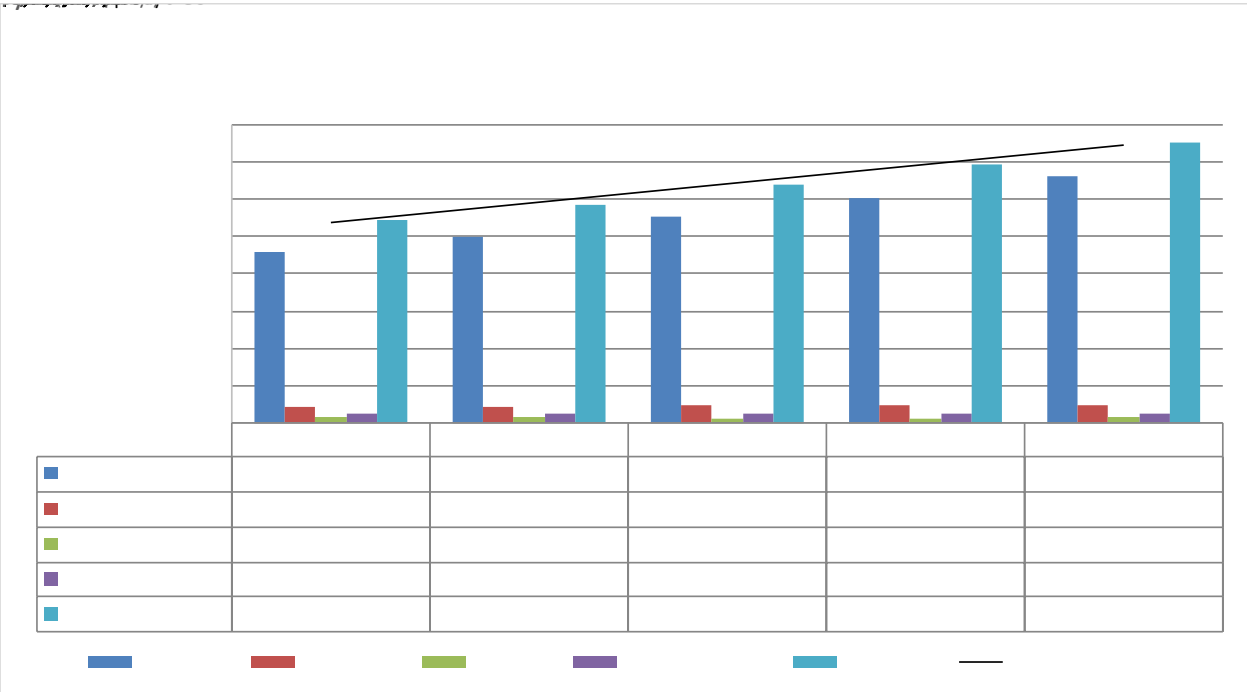
Figure 17: Leominster > Single Family Assessed Values



City of Lynn-Awarded 2016

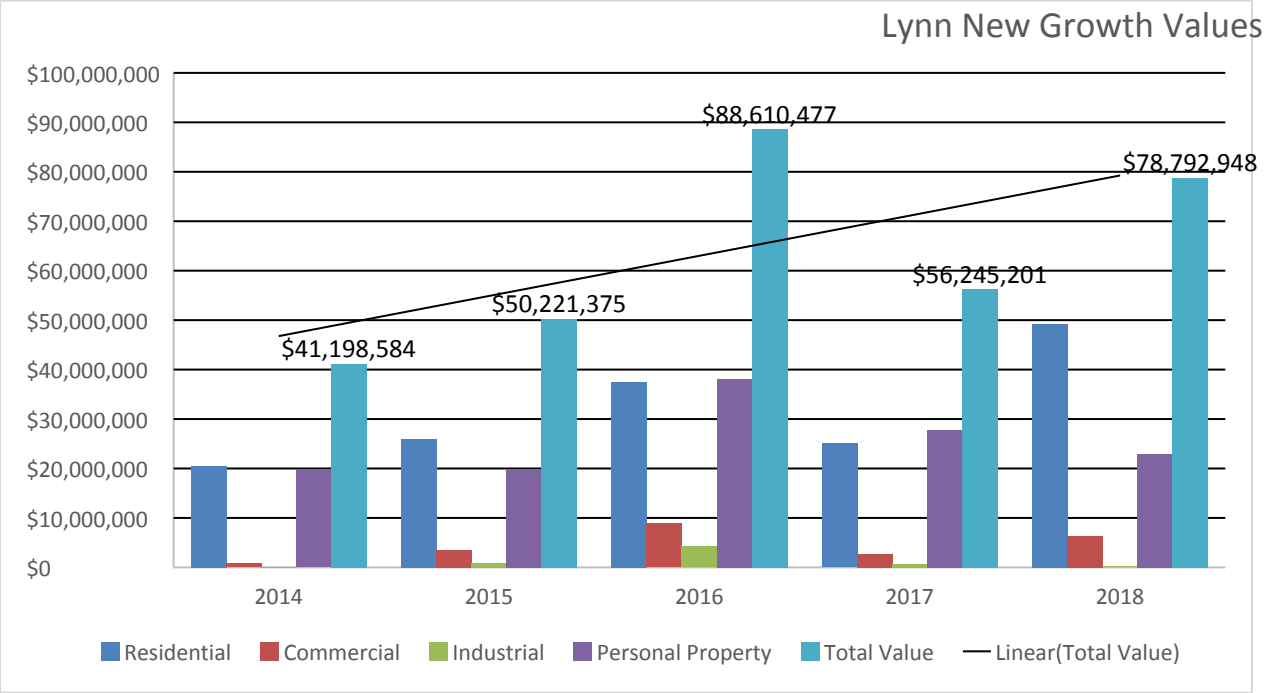
Per the City of Lynn's *Assessed Values by Class* variable (see Figure 18), the City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. This upward trend is evident by the trendline provided in the Figure 18.

Figure 18: Lynn > Assessed Values by Class



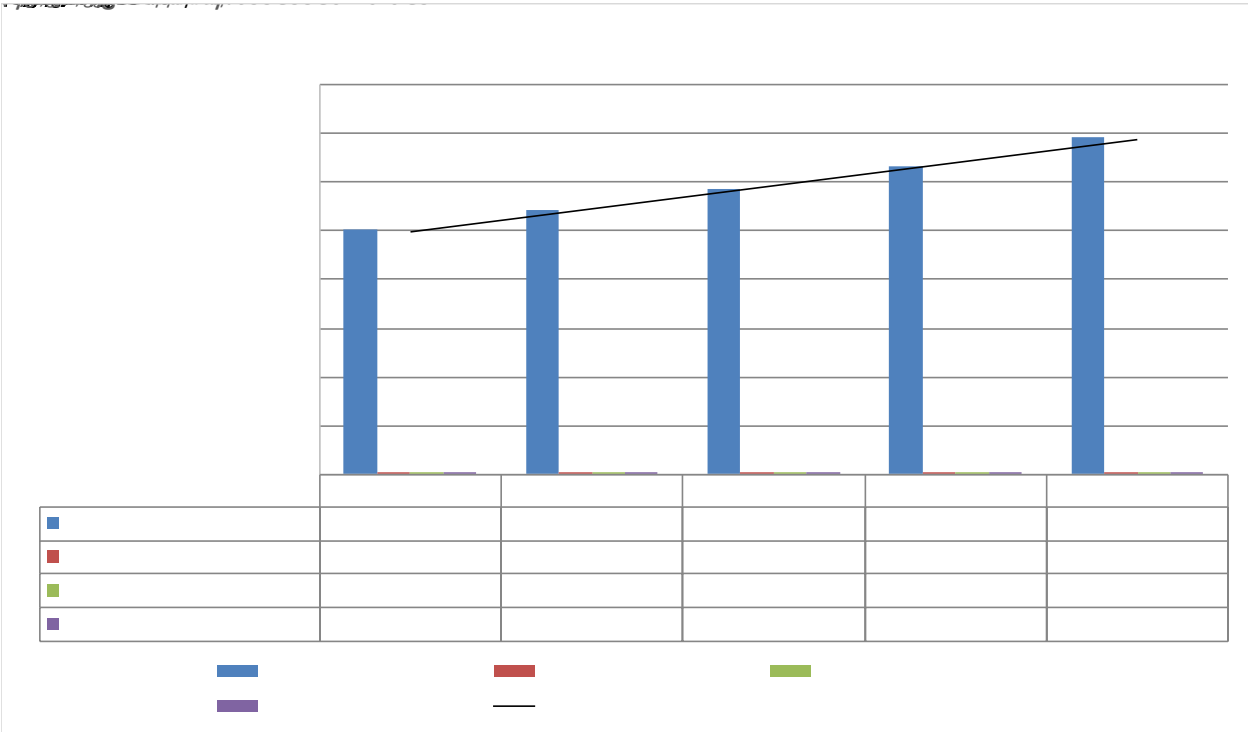
Per the data for the *New Growth Values* variable (see Figure 19), the City of Lynn has experienced a fluctuating increases and decreases in additional tax revenue as generated by new construction, renovations and other increases across its major property tax base within the 4-year period of analysis. What is especially noticeable is the how the total values had doubled to $88,610,477 in 2016 from their starting point of $41,198,584 in 2014. Also, there was significant decrease from 2016 to 2017 which was unexpected. However, by 2018, the total values had noticeably trended upward from their starting point in 2014.

Figure 19: Lynn > New Growth Values



Per the City of Lynn's *Single Family Assessed Values* variable (see Figure 20), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $2,514,540,600 in 2014 rose to $3,467,498,900 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

Figure 20: Lynn > Single Family Assessed Values



City of New Bedford-Denied 2015

Per the City of New Bedford's *Assessed Values by Class* variable (see Figure 21), the City experienced fluctuating increases and decreases in assessed property values across its major properties between the starting year of analysis in 2014 and 2015. The total values began to significantly increase in 2017 before decreasing again in 2018. The increase in 2017 was an unexpected trend.

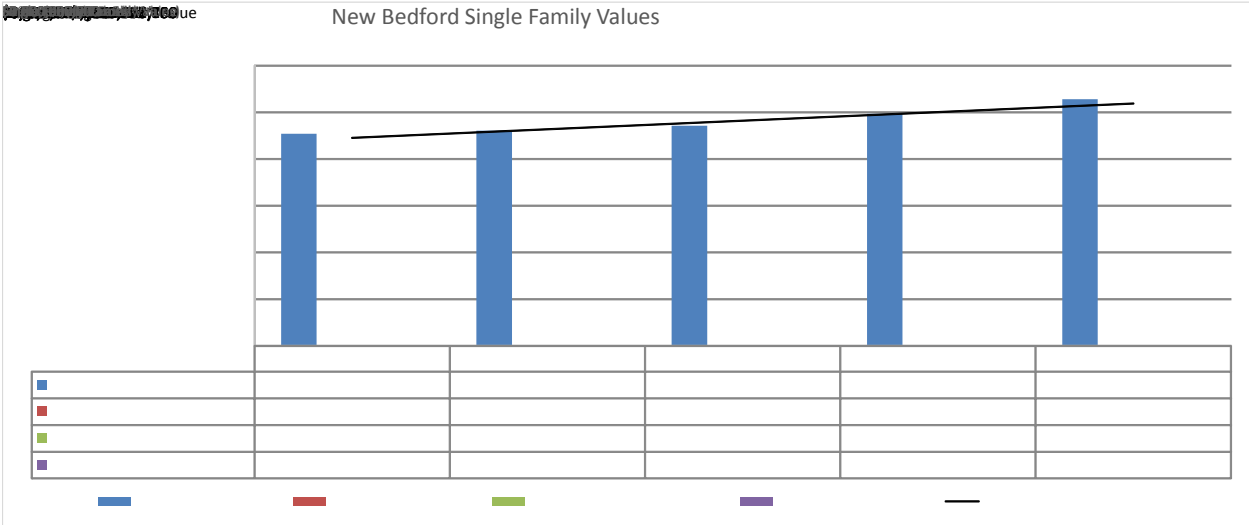
Figure 21: New Bedford > Assessed Values

Per the data for the *New Growth Values* variable (see Figure 22), the City of New Bedford has experienced a fluctuating increases and decreases in additional tax revenue as generated by new construction, renovations and other increases across its major property tax base within the 4-year period of analysis. In 2017, there was a noticeable increase in total values. However, by 2018, the total values had decreased back the same as their starting point in 2014.

Figure 22: New Bedford > New Growth Values

Per the City of New Bedford's *Single Family Assessed Values* variable (see Figure 23), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. This is evident in how the assessed value of $2,272,247,150 in 2014 rose to $2,640,426,800 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

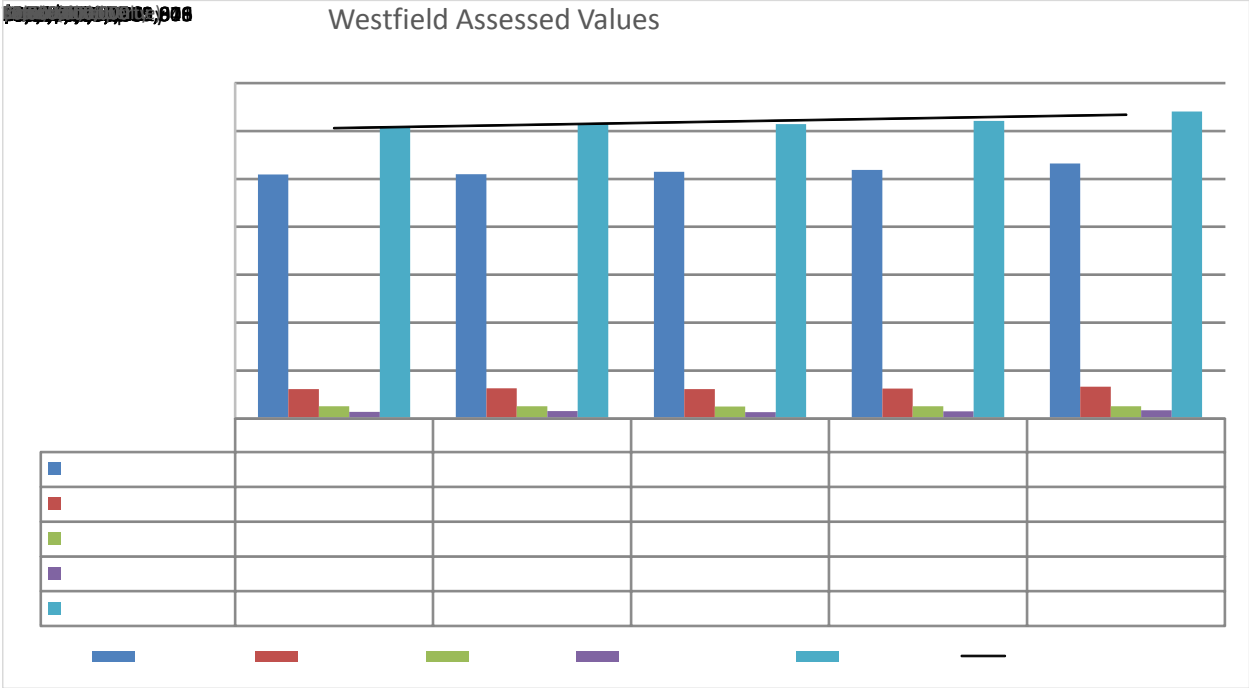
Figure 23: New Bedford > Single Family Values



City of Westfield – Denied 2015

Per the City of Westfield's *Assessed Values by Class* variable (see Figure 24), the City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. This upward trend is evident by the trendline provided in the Figure 24.

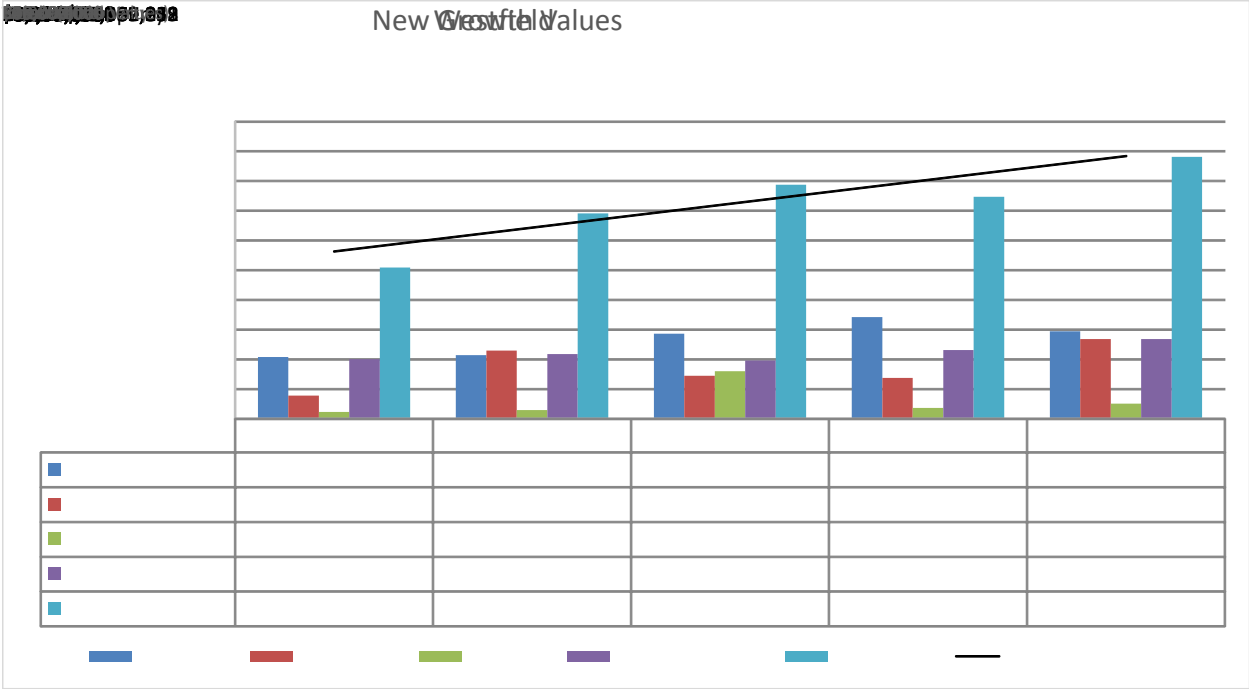
Figure 24: Westfield > Assessed Values



Per the data for the *New Growth Values* variable (see Figure 25), the City of Westfield has experienced a fluctuating increases and decreases in additional tax revenue as generated

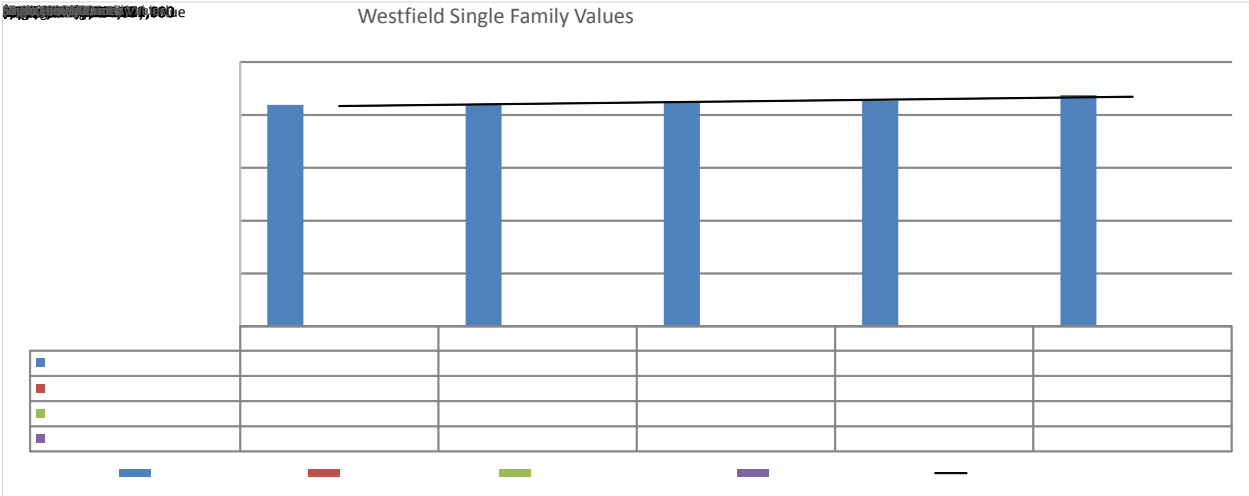
by new construction, renovations and other increases across its major property tax base within the 4-year period of analysis. However, by 2018, the total values had nearly doubled from their starting point in 2014.

Figure 25: Westfield > New Growth Values



Per the City of Westfield's *Single Family Assessed Values* variable (see Figure 26), the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. Although minor in incremental change, this is evident in how the assessed value of $2,094,822,000 in 2014 rose to $2,188,574,000 in 2018. Based on the formula used to assess the single family tax bill, the rate of increase of assessed single family values was consistent with the rate of increases in total single family parcels, average single family values and single family tax bills within the 4-year period of analysis.

Figure 26: Westfield > Single Family Values



Conclusions

Brockton (2015) – Downton Streetscape and Infrastructure Improvements – $1,276,000

The City of Brockton's 2016 MassWorks grant was awarded to support the continuous redevelopment efforts in which the City's 2015 MassWorks Infrastructure grant had helped to achieve. Since the proposed 474-space public parking garage leveraged by the City's 2016 MassWorks award has not yet been constructed, it is not possible to access the value in which the private development would bring to the City. However, the economic activity in which the City's 2015 MassWorks award supported appears to have aided in the increase in the City's overall assessed major property values within the 4-year period of analysis from 2014 to 2018. This is evident by the steady increases in the City's major property assessed values beginning one year later in 2016 until 2018. Additionally, increased values can be contributed to the City's 2013 MassWorks award which is not part of the analysis for this paper.

Chelsea (2015) - Gateway Center Infrastructure Improvements Phase V - $2,500,000

The City of Chelsea applied for a $2,500,000 MassWorks Infrastructure grant to continue work on a multi-phase urban renewal project to support on-going and future redevelopment, bolster economic development, and aid in the creation of new jobs. The City's application proposed a fifth phase to rehabilitate a primary entryway to the City which would also support existing and future growth. The scope of the phase V public infrastructure project scope proposed to rehabilitate deteriorated infrastructure in a manner that fosters continued economic development. While the City's MassWork 2015 application was not selected for an award, the City experienced an upward trend across its major property values which were unexpected. These trends could be attributable to the City's previous MassWorks received in earlier years.

Fall River (2016) - City Pier Improvements - $1,600,000

The City of Fall River's 2016 MassWorks grant was awarded to revive the blighted and previously contaminated City Pier. MassWorks-funded improvements to water and electric utilities were proposed to enable the private development of a pre-permitted marina and restaurant to move forward. Based on the data for the City's new growth values for the 4-year period of analysis, the City experienced an overall increase across all of its major properties beginning in 2016 until 2018. The increases are evident by the additional tax revenue most likely generated by the renovation of the City Pier; and new construction, including the marina and proposed restaurant identified in the City's 2016 MassWorks application.

Fitchburg (2015) - Improvements to the Intersection of Main and River Streets - $3,050,000

The City of Fitchburg was awarded a $3,050,000 MassWorks grant to improve and reconfigure the intersection of Main and River streets. Proposed infrastructure improvements

include new sidewalks, lighting, bicycle lanes, and street trees, and will support the conversion of a 127-year old mill, Fitchburg Yarn, into 96 units of mixed-income rental housing. The City experienced a steady increase in assessed property values across its major properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. The City's single family properties also experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. However, there were fluctuating increases in its new growth values.

Lawrence (2016) - Merrimack Street West Roadway Improvement - $ 5,950,000

The City of Lawrence applied for a $5,950,000 MassWorks Infrastructure grant to further the redevelopment efforts of the Merrimack Street Corridor, a busy commercial and industrial corridor that connects Interstate 495 and Route 28. While the City's 2015 MassWorks application was not selected for an award, the City received a pervious MassWorks Infrastructure grant in the amount of $3,925,000 for the Merrimack Street Corridor Improvement Project. The 2014 grant served as phase I for the Merrimack Street Corridor revitalization. The City's upwards trends in overall assessed values across it major properties, as well as the increases in new growth, can be attributable to the earlier MassWorks award.

Leominster (2015) - Merriam West Revitalization - $3,194,867

The City of Leominster applied for a MassWorks Infrastructure grant in the amount of $3,194,867 to provide for sidewalks on both sides of Merriam Avenue, and Hall, Blossom and West Streets. The City also proposed to a water line replacement on Merriam Avenue and West Street. Additionally, the proposed public infrastructure project would complete the City's inflow and infiltration work to eliminate ground water infiltration into the wastewater system. On Merriam Avenue and West Street, proposed stormwater treatment installation would improve Rockwell Pond and meet water quality regulations, and close the loop on work the City started in previous years.

Although the City's 2015 MassWorks application was not selected for an award, the City's experienced an increase in its overall major property total values which by 2018, had noticeably trended upward from their starting point in 2014. The City also experienced a steady increase in assessed values across its major properties between the starting points of analysis in 2014 to the ending year of analysis in 2018. Further, the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. These trends in increases can be attributable to the work that that City had begun on its own in previous years.

Leominster (2016) - The Downtown Leominster Revitalization Project, $2,500,000

In 2016, the City of Leominster was awarded a $2,500,000 MassWorks grant to address the City's downtown infrastructure, including water/sewer upgrades and sidewalk and roadway improvements. The Project will advance the City's downtown revitalization initiatives and enable the redevelopment of a former mill building into 36 units of market rate housing. As seen with the previous analysis for the City, upwards trends in its assessed values across its major properties and single family properties can be attributable to the work that the City had begun in previous years.

Lynn (2016) - Waterfront Infrastructure Improvements - $1, 200,000

The City of Lynn was awarded a $1,200,000 MassWorks grant to make intersection and roadway improvements, and install a new water line connection, in support of new housing development along the City's North Harbor district. The public infrastructure will allow Lynn to transform its waterfront into a vibrant, livable, and accessible mixed-use district, and unlock a 348-unit residential development on the City's former Beacon Chevrolet site.

The City experienced a steady increase in assessed property values across its major and single family properties between the starting year of analysis in 2014 to the ending year of

analysis in 2018. And although there were fluctuating increases and decreases in new growth values within the 4-year period of analysis, the total values for new growth had noticeably trended upward from their starting point in 2014 by 2018.

New Bedford (2015) – Gateway Streetscape Project - $2,620,00

The City of New Bedford applied for a MassWorks Infrastructure grant in the amount of $2,620,000 for its Gateway Streetscape Project. The proposed public infrastructure project was a four phase, multi-year plan to enhance multi-modal access and upgrade infrastructure in the City's Downtown district area. The project would serve as a catalyst for several multi-use housing initiatives poised to stimulate growth and investment within the City's Downtown and targets the first phase of the overall project, addressing improvements along 2,230 feet of Pleasant Street and Sixth Street. These streets were prioritized based on their position as access routes within the Downtown.

Although the City of New Bedford's 2015 MassWorks application was not selected for an award, the City's major property total values and additional new growth values experienced a significant increase in 2017. Addionally, the City's single family properties experienced a steady increase in assessed value from the starting point within the 4-year period of analysis. These trends in increases can be attributable to the City's 2016 MassWorks award that is not part of the analysis of this paper.

Westfield (2015) – Springfield Road Traffic Signal - $1,253,000

The City of Westfield applied for a $1,253,000 MassWorks Infrastructure grant to support its Springfield Road Traffic Signal Project. Citing traffic safety concerns, the road proposed to install a traffic signal on Route 20 which is necessary to further the redevelopment of a 10 acre parcel at the City's gateway, which is designated as aPriority Development Area by the Pioneer Valley Planning Commission. The public infrastructure would also support

additional development plans with the potential to yield further private investment that creates 50 to 150 permanent jobs.

Although the City's 2015 MassWorks application was not selected for an award, the City experienced a steady increase in assessed property values across its major and single family properties between the starting year of analysis in 2014 to the ending year of analysis in 2018. The City's new growth values experienced fluctuating increases and decreases within the 4-year period of analysis, however, by 2018, the new growth total values had nearly doubled from their starting point in 2014.

Limitations of Study and Recommendations for Further Research

As with most exploratory studies, there were limitations to this paper that I wish to note for future research. For one, findings suggest that there were fluctuating trends across all 10 gateway cities analyzed—whether receiving a MassWorks Infrastructure award or not. My assumption is that this is due to the limited timeframe in which was analyzed. Future research projects should analyze fiscal trends over a longer-term period in order to obtain more stable measures.

Second, in order to better analyze the value of private development projects leveraged by the MassWorks funds, future research should also assess the historical values of parcels prior to renovation or rehabilitation. This is necessary to have more of a handle on trends that are directly correlated with private investments.

Lastly, the 10 selected gateway cities were placed into two groups based on whether they received an award or not. However, what was realized during analysis is that there were more groups that appeared. What was found was as follows: communities that had never received a grant; communities that were denied but had received a grant in prior years, communities with current grants but no immediate impacts and then communities that both

received a prior to and currently that showed cumulative impacts (such as Brockton). Further research should be careful to categorize samples more appropriately for analysis.

Works Cited

MassInc. (n.d.). *MassInc*. Retrieved August 6, 2018, from https://massinc.org/our-work/policy-center/gateway-cities/about-the-gateway-cities/

McNichol, E. C. (2017). *It's Time for States to Invest in Infrastructure.* Washington: Center on Budget and Policy Priorities.

Wagner, L. (2012). *Area Development*. Retrieved August 12, 2018, from Infrastructure Lessons for Economic Growth and Business Success: http://www.areadevelopment.com/logisticsInfrastructure/Summer2012/infrastructure-effects-economic-development-success-27628151.shtml